



# Parental Factors Influencing Expenditure in Preschool Education: Evidence from 2018 China Family Panel Studies (CFPS)

Ruimiao Li<sup>1,†</sup>, Tao Liu<sup>2,\*†</sup>, Xuanwen Liu<sup>3,†</sup>

<sup>1</sup> Early Childhood Education, The Education University of Hong Kong, HK,999077, China

<sup>2</sup> School of Education, The University of Leeds, Leeds, LS2 9JT, UK

<sup>3</sup> Moray House School of Education and Sport, The University of Edinburgh, Edinburgh, EH8 9JU, UK

<sup>1</sup>Email: s1146169@s.eduhk.hk

\*Email: ed21t21@leeds.ac.uk

<sup>3</sup>Email: s2442433@ed.ac.uk

\*Corresponding author.

†These authors contribute equally.

**Abstract.** The disparities in parental investments might affect preschool children's early learning experiences and quality, and result in inequality in children's future development. Based on 282 three-to-five-year-old children and their families from the China Family Panel Studies in 2018, this paper adopted multiple linear regression to examine the relationship between parental factors and education expenditure in preschool education. Independent variables include three domains from parents, which are parental economic background, parental educational attainment, and parental educational attitudes. The findings revealed that parents' educational attainment is positively correlated with household preschool education expenditure. Second, parents who have greater economic background pay more on preschool children's education. Third, parents' educational expectations on children also have a positive effect on education expenditure. However, parents' age and emphasis on children's education have negative correlations with education expenditure on preschool children.

**Keywords:** parental educational attainment, parental economic background, parental attitudes, parental investment

## 1 INTRODUCTION

Preschool education can have essential impacts on children's growth in both the short and the long term. With effective curricula, students can develop skills in literacy and numeracy and can benefit from preschool education even long after the preschool stage. Also, it is indicated that investment in preschool education can produce reasonable rewards [1,2].

In China, family plays an important role in preschool education, especially through household finance [2]. Recent studies indicated the interactive influences among

household education costs, household income, amount and educational quality of public kindergartens, regional financial support, and central financial transfer payment [3]. However, in China, the spending on preschool education is uneven, and many families bear financial burden. As the underdeveloped educational stage, preschool education escalates household expenditure more than primary and junior high school education do [2,4,5]. Existing studies endeavored to find out the complicated mechanics of preschool education costs, and many consider it should take efficiency, equality, regional differences, existing international experience, and many other factors into consideration [6]. It is revealed that monthly parental income, types of parental occupation, educational expectations on children from parents, and parental educational attainment are factors that bring more payment on education [4,5,7-9].

However, there is inconsistent research which illustrated that parental educational background has no significant impact on household costs on education in Shanghai [5], and educational attainment of parents significantly influences costs of families on preschool education in China [8]. More importantly, not many researchers attach importance to household expenditure on preschool education but educational payment in other stages and as a whole [4,5,7,8]. Meanwhile, many studies on household cost-sharing in education are conducted based on surveys organized by authors themselves [5,7-8], while not many researchers study data from the China Family Panel Studies (CFPS) [4,9]. Su and Liu's research in 2020 was from 2010-2016 while the newest fully released data of the CFPS is databases in 2018 [9,10].

This research aims to study domestic factors that affect the household costs of early childhood education to provide more information for modification of the cost-sharing of public and household finance on early childhood education in China based on evidence from CFPS in 2018.

## 2 LITERATURE REVIEW

The parental background is a broad concept, including the financial condition, educational attainment, and education perspectives. Household education expenditure means the total investment which parents spend on their children on educational use. Parental spending can provide children with experiences that help them develop human and cultural capital, such as high-quality schooling, living in better areas, and perhaps high-quality child care while their parents are at work [11]. So, there may have various factors in parents' background that would influence the expenditure. According to Chinese scholar Chu, differences in place of residence, household economic income, parental education level, and parental expectations all have an impact on the probability of participation in and level of expenditure on education for primary and secondary school students in China [12]. Hence, this article would plan to consider these dimensions of preschool expenditure.

## **2.1 Parental Educational Attainment and Household Education Expenditure**

According to Huy, households with more educated heads or those who do professional jobs spend more on children's education, and it is noted that households with more primary or secondary school students spend more on education, while those have preschool or university stage students spend less [13]. This study covers children and youth at different ages from preschool to university, with strong longitudinal comparability. However, most of the parents involved were only educated at junior and senior high school levels, and the overall education level was low, mainly reflecting the comparison of investment in re-education between parents with and without education experience.

In the study on preschool children's household education expenditures, Su and Liu found that family income level and parents' educational level are positively associated with kindergarten and out-of-kindergarten education expenditures [9]. However, Tu and Lin have different results. They test the effect of parental educational level on household education expenditure and find no significant relationship between the two, but propose that the households with high levels of educational background mothers invest more in their children's educational expenditure than those with education levels of junior high school and below [5]. Jenkins et al. also witness that parents with post-secondary school education levels are more likely to invest more on children [14]. Also, female households prefer to spend more on children's education than male's [14,15]. The consideration of gender differences makes parental attainment more detailed.

## **2.2 Parental Economic Background and Household Education Expenditure**

The urban-rural difference influences the expenditure, as the differences in economic development, usually there are more and better educational resources in cities than in rural areas in China [16]. Luo and Zhong prove that urban households spend 2-6 times more per capita on education than rural households at the same level [16]. Zeng et al. conduct a survey on junior high school students' extracurricular tuition in Chinese three provinces with different levels of economic development. They find that junior high school students' extracurricular tuition expenditure in urban areas far exceeded that in rural areas, and the tuition expenditure of urban students in secondary schools located in the provincial capital is also higher than that of students from rural [17].

Tu and Lin argue that the survey of household education expenditure and burden across education levels in Shanghai found that households in central Shanghai spend more than twice as much on their children's education as those in rural areas [5]. Besides, household income has a significant impact on education expenditure, and they mentioned that for children at the kindergarten level, household education expenditure is mainly on school fees [5]. Moreover, Lindemann and Gangl point out that the employment status of parents also may affect the expenditure of students, and this is greatly affected by policies, but they mainly talk about the context of tertiary education

systems [18]. On the relationship between housing wealth, family income, and education expenditure, Wang et al. point out that the influence of family income is larger than the housing wealth on education expenditure. Besides, these two factors play a more obvious role in off-school expenditure than schooling expenditure [19]. This provides a new dimension for this article - family housing. This demonstrates the impact of different family economic backgrounds, more specifically, household registration, income, and work.

What is more, Jenkins et al. consider the parental age in their study, and generally speaking, financial condition is linked with age. Their research on Nigeria's educational expenditure finds that household income, age, education, gender of household heads, and urban or rural residency all have a substantial influence on the decision to spend on education. The age group 41-50 and 51-60 are the two highest groups on spending money on children's education, which far exceeds the age group 30 [14]. However, Taiwan scholars Chen and Li have different results on the factor of parental age. They prove that parents with higher educational attainment, higher income, and younger age would invest more [20].

### **2.3 Parental Education Attitudes and Household Education Expenditure**

Duong's survey of a district in Vietnam in Vietnam finds that parental education and parent-child interactions have a significant and positive effect on children's school attendance [21], and to some extent, this may add the education expenditure. Hao and Yeung point out that parental expectation is critical in deciding whether parents prioritize child development in their expenditure and how they prioritize different types of spending. They mention that parental expectation is an unobservable factor which affects parental spending, and parental educational attainment is the most influential determinant among education income and occupation of parents [22].

From the domestic and international literature, it reveals that although the relationship between parental background as an important factor influencing expenditure of students' education has been studied by a number of scholars, it is still lacking in terms of expenditure on preschool children. This article, therefore, emphasizes the relationship between the three dimensions (parental economic background, educational attainment, and educational attitude) and preschool household education expenditure in the context of China.

## **3 RESEARCH DESIGN**

### **3.1 Data Source**

This study is based on data from CFPS in 2018. CFPS is a survey project conducted nationwide to acquire information on economic details, health situation, individual attitudes, and social relationships of members of families in China [10]. There are five databases in this survey circle and data from three of them are adopted in this research. There are 8,735 samples in total who were 0-16-year-old whose figures are provided by

grown-ups in the family. After samples of no valid values in analyzed variables are deleted, the number of children who were 3-5 years old and not enrolled in primary school is 282. Additionally, statistics on per student general public budget (PSGPB) on educational operating expenses to kindergartens are from China Social Statistical Yearbook in 2019, while figures of regional gross domestic product (RGDP) are provided by the Finance Yearbook of China in the same year.

Children of this research were from 25 provinces/cities, which covered the northern, southern, eastern, and western parts of China, and most of them were from Gansu Province (44), Henan Province (33), Hebei Province (24), Liaoning Province (22) and Guangdong Province (22). Further, these provinces/cities contain regions (Beijing and Shanghai) with the highest RGDP and parts (Gansu, Yunnan, and Guizhou Province) of the lowest figures. Therefore, these samples can represent the overall information of 3-5 children in China to some extent.

### 3.2 Variables

#### **Dependent variable.**

The dependent variable is household expenditure on preschool education, which includes costs paid to educational institutions including preschools, kindergartens, and nurseries, extracurricular tutoring fees, and other fees related to preschool education from household finance. School education expenditure includes money paid for daily teaching, caring, activities, equipment, transportation, and many other fees received by schools except for charge of choosing schools. Extracurricular tutoring contains courses provided by schools and other institutions towards children/parents to promote grades and cultivate certain skills during the period other than formal schooling time. Lastly, other education costs on preschool education are charges for equipment, software, educational activities and many other fees that are not paid to educational institutions/off-campus tutoring agencies/tutors and are spent for preschool educational purposes.

All these costs are collected through inquiry on different types of expenditure on education and these figures are added together to acquire the total household expenditure in the last 12 months. To assure reliability, the sum is shown to interviewees for agreement or correction. Confirmed household expenditures on preschool education range from RMB 0-34,000.

#### **Independent variable.**

Independent variables compose of three dimensions.

Economic background is the first aspect and includes age, nature of residence, employment of the father and the mother respectively, and residence ownership. Among them, age is a continuous variable, and others are processed to be binary variables. Educational attainment of the father and the mother are considered. Figures of these two variables are classified into two categories according to whether their highest degree is undergraduate and above.

Parental attitudes towards children's education, which contains expectant educational attainment on children from parents and parental emphasis on children's educa-

tion, and the latter is assessment with Likert five-point scale made by the interviewer based on observation of inner environment of residence.

### Control variable.

Control variables consist of three levels. At individual, children's age and gender are controlled. At family level, household net income per capita and household costs on healthcare represent controlled. On a macro level, two variables of provinces/cities are taken into consideration: PSGPB and RGDP in 2018.

### 3.3 Analytic Approaches

**Table 1.** Results of continuous/classified variables (self-produced)

Continuous/ classified variables (Correlation coefficient/ Sig.)	Household pre-school education expenditure
Household net income per capita	0.311**
Parental emphasis on education to children	0.106
Expectant educational attainment on children from parents	0.122*
Maternal age	0.074
Paternal age	-0.007
Children's age	0.415**
RGDP	0.250**
PSGPB	0.173**
Household costs on healthcare	0.021

\*\*P<0.01, \*p<0.05

First, descriptive statistics are applied in this research to analyze basic information of participants. Second, all independent variables and controlled variables are tested for the correlation with the dependent variable respectively. Third, variables of significant correlation with the dependent variable is identified to be analyzed in multiple linear regression (MLR).

As illustrated in Table 1 and 2, there are 10 variables that have a significant correlation with household expenditure on preschool education and these variables are listed as controlled and independent variables in MLR. Therefore, final control variables include household net income per capita, children's age, RGDP, and PSGPB, while expectant educational attainment on children from parents, maternal/paternal nature of residence, maternal employment, and maternal/paternal educational attainment are analyzed independent variables eventually.

**Table 2.** Results of T-test (self-produced)

Dichotomous variables (Sig.)	Household preschool education expenditure
Children's gender	0.497
Maternal nature of residence	0.000

Paternal nature of residence	0.000
Maternal employment	0.020
Paternal employment	0.445
Ownership of household residence	0.908
Maternal educational attainment	0.000
Paternal educational attainment	0.000

## 4 ANALYSIS

**Table 3.** Children's basis information (self-produced)

Continuous variables (Means/Std. Dev.)	
Age	3.9 (0.816)
Household preschool education expenditure	3766.40 (5538.455)
Household expenditure on healthcare	6053.76 (18022.492)
Maternal age	31.02 (5.426)
Paternal age	32.93 (5.601)
Classified variables (Frequency/%)	
Gender (Female)	51.1
Enrolled in a preschool educational institution	58.5
Maternal educational attainment (Undergraduate degree and above)	12.8
Paternal educational attainment (Undergraduate degree and above)	12.4
Maternal employment (Employed)	75.2
Paternal employment (Employed)	97.5
Maternal nature of residence (Non-agricultural)	25.9
Paternal nature of residence (Non-agricultural)	28.7
The ownership of household residence (Completely or partially owned by family members)	88.3

### 4.1 Descriptive Statistics

As indicated by Table 3, most of children were approximately 4-year-old and female. Meanwhile, over half of them received preschool education from institutions. Though their fathers and mothers showed similar figures on educational background, fathers enjoyed significantly higher employment rate than mothers. Noticeably, it was not popular that parents of 3-5-year-old children were in their 20s and over four-fifths fully or partially owned household residence. Based on the data in Table 4, it presents all variables including controlled variables, independent variables and dependent variable. The standard deviation of paternal employment is the lowest among all variables, which means it has a noticeable difference from investigated fathers. However, two variables of parents' age are relatively stable. The standard deviation of maternal age is

5.43, and the standard deviation of paternal age is 5.60. Among these variables, the largest mean is RGDP, which accounts for 58058.5 yuan. The second largest mean is PSGPB, which accounts for 7170.44 yuan. Furthermore, household healthcare is also a big cost for families who have preschool children, which is 6053.76 yuan. The mean of HPEE is 3766.40 yuan in 2018, which is lower than household healthcare expenditure.

**Table 4.** Results of descriptive statistics (self-produced)

	Variables	Correlation Co-efficient	
CV	Children's age	0.415***	
	Children's gender	-0.680	
	Household net income per capita	0.311***	
	Household expenditure on healthcare	0.021	
	PSGPB	0.173**	
	RGDP	0.250***	
Parental educational attainment	Paternal educational attainment	-3.934***	
	Maternal educational attainment	-5.129***	
IV	Paternal nature of residence	-5.750***	
	Maternal nature of residence	-5.479***	
	Parental economic background	Paternal employment	-0.808
		Maternal employment	-2.818***
	Paternal age	-0.007	
	Maternal age	0.074	
The ownership of household residence	-0.116		
Parental attitudes	Expectant educational attainment on children from parents	0.122*	
	Parental emphasis on education to children	0.106	

**Table 5.** Correlations among HPEE and other variables (self-produced)

	Variables	Correlation Co-efficient
C V	Children's age	0.415***
	Children's gender	-0.680
	Household net income per capita	0.311***
	Household expenditure on healthcare	0.021
	PSGPB	0.173**
	RGDP	0.250***
Parental educational attainment	Paternal educational attainment	-3.934***
	Maternal educational attainment	-5.129***
IV	Paternal nature of residence	-5.750***
	Maternal nature of residence	-5.479***
	Paternal employment	-0.808



	Maternal employment	-2.818***
	Paternal age	-0.007
	Maternal age	0.074
	The ownership of household residence	-0.116
Parental attitudes	Expectant educational attainment on children from parents	0.122*
	Parental emphasis on education to children	0.106

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Table 6.** The result of regression (self-produced)

	Variable	Standardized coefficients	t	VIF	
CV	Children's age	0.345***	6.844	1.137	
	Children's gender	-0.018	-0.364	1.099	
	Household net income per capita	0.077	1.314	1.522	
	Household expenditure on healthcare	-0.025	-0.500	1.079	
	PSGPB	-0.047	-0.741	1.799	
	RGDP	0.129	1.882	2.089	
IV	Parental educational attainment	Paternal educational attainment	0.008	0.128	1.752
		Maternal educational attainment	0.200**	3.180	1.777
	Parental economic background	Paternal nature of residence	0.213***	3.556	1.605
		Maternal nature of residence	0.098	1.593	1.694
		Paternal employment	0.033	0.681	1.056
		Maternal employment	0.098	1.593	1.694
		Paternal age	-0.040	-0.433	3.900
		Maternal age	-0.019	-0.204	3.900
	Parental attitudes	The ownership of household residence	0.055	1.121	1.063
		Expectant educational attainment on children from parents	0.053	1.083	1.069
		Parental emphasis on education to children	-0.009	-0.169	1.136
	Adjusted R Square		0.373		
	F		10.815***		
	N		282		
Dependent variable		Household preschool education expenditure			

## 4.2 Correlations

As can be seen from the Table 5, among the controlled variables, four variables have a significant positive correlation with HPEE, including children's age, household net

income per capita, PSGPB, and RGDP. The significance of correlation coefficients was all more than 0.01, and the correlation coefficients were all greater than 0. Among the independent variables, parents' educational attainment, parents' nature of residence, maternal employment, and expectant educational attainment on children from parents all have significant negative correlations with HPEE. The significance of correlation coefficients was all less than 0.05, and the correlation coefficients were all less than 0. Moreover, the parent's age has different effects on HPEE. The correlation coefficient of maternal age is 0.074, while the correlation coefficient of paternal age is -0.007. It means that maternal age has a positive correlation with HPEE. Furthermore, the correlation coefficient of maternal employment is -2.818 ( $p < 0.001$ ), which means it has a significantly negative impact on HPEE, while the correlation coefficient of paternal employment is -0.808 and has no significant negative impact.

### 4.3 Regression

The table 6 shows the results of regression analysis of household expenses on preschool education. From the regression equation, the value of F is 10.815,  $p = 0.000$ , the significance has passed the test. The Adjusted R<sup>2</sup> is 0.373, indicating that the independent variables in the regression equation explained 37.3% of the variation in household spending on preschool education overall. On the aspect of the independent variables, all the independent variables had positive effects on preschool education expenditure except for the negative regression coefficients of parents' age and parental emphasis on their children's education, the variables with significant positive effects were the paternal nature of residence and maternal educational attainment. It means that the higher the mother's educational attainment, the higher the family's expenditure on children's preschool education. The father's nature of residence also positively influences preschool children's education expenses. The two factors had the strongest effects on preschool education expenditure, with regression coefficients of 0.213 and 0.200, respectively. Among the controlled variables, only children's age had a significant positive effect on preschool education expenditure, with a regression coefficient of 0.345. The expenditure on healthcare and PSGPB have the negative influence on preschool children's education expenditure.

## 5 Discussion

### 5.1 The Influence of Parents' Economic Background on Household Preschool Education Expenditure

In the regression analysis, only parents' age had a negatively correlated with HPEE in the parent's economic background dimension, while the rest were positively correlated. The data shows that the older parents were, the less they spent on education. This result consists with Chen and Li's conclusion on the preschool period [20]. This may be related to the fact that the family is not only raising the children, but also taking care of the parents. Older parents will have aged grandparents in their family, and a portion of the family's expenses will go to grandparents to support them. In addition, older parents

are also more likely to have a second child, which may have a negative impact on children's preschool spending. When the number of children in home grows, education costs per capita fall in households with the same income level and household head of the same age [23].

The paternal nature of residence has a significantly positive effect on HPEE compared with the maternal nature of residence, which is where the difference between parents occurs. This may be because the paternal nature of the residence will affect the location of children's kindergarten. Usually, in China, fathers need to support the family and provide financial resources [24]. When fathers need to migrate or change city to work and live, usually the core family would follow him, so children may change kindergartens. The employment of parents and the ownership of household residence are positively related to HPEE. Parents' job is an important factor in supporting children's preschool education. Having a home does not create pressure to rent, and it gives families more opportunities to spend money on preschool period. According to Wang et al., for householders with high education levels and stable jobs, the impact of family housing wealth on children's education expenditure is greater [19].

## **5.2 The Influence of Parents' Educational Background on Household Preschool Education Expenditure**

The paternal educational attainment and maternal educational attainment have a positive effect on the education expenditure of preschool children. This suggests that parents with higher levels of education attach more importance to preschool education for young children and are more willing to invest more to support the good development of preschool children. Besides, it is worth mentioning that maternal education has a significant impact. This is corresponding with Jenkins et al. and Ogundari and Abdulai's results [14,15]. In the family with preschool children, as children are young, the majority of mothers have main responsibilities with children's education and development, and spend much time company children. Compared with the character of father, mother tends to pay more attention on preschool children's education. Therefore, mothers who have greater educational attainment are more likely to pay more on their children's education. This can be supported by our data that maternal educational attainment had a more significant impact on educational spending than paternal educational attainment.

## **5.3 The Influence of Parents' Educational Attitudes on Household Preschool Education Expenditure**

In the dimension of parents' educational attitudes towards their children, it can be divided into two parts including expectant educational attainment on children from parents and parental emphasis on education to children. Parents have more expectant educational attainment on children pay more on HPEE. The expectation of children's educational attainment represents parents' emphasis on education. This can lead to the family striving for giving children a better education and learning environment. This may be due to the fact that parents would find and provide better educational resources

for children like high-end kindergartens and bring them to many extra-class interest courses. And parents may be very forward-looking and planning on children's development. However, there exists a reverse on parental emphasis. Parents' emphasis on children's education has a negative correlation with HPEE. This is not consistent with the authors' expected results. Maybe it is because the emphasis is more related to the mental field and environment, and not directly reflected in the investment in children's education. For instance, parents may spend more time on their children's education and development, and focus on their psychology and performance, and communicate more with their children.

## 6 CONCLUSION

This article took the stage of preschool education in China as the background, explored the relationship between parental background and household education expenditure, and found the factors that affect the expenditure. This article used SPSS Statistics to test the correlation between each independent variable and each controlled variable and evaluate the dependent variable, then it used multiple linear regression analysis to analyze the factors which have a strong association with the dependent variable. There has been found that parental attainment (especially mother's), parental nature of residence (especially father's), parental employment, ownership of household residence, and expectant educational attainment on children from parents all have a positive correlation with HPEE, except the parental age and parental emphasis on education to children.

In addition, there are some limitations to this article. Firstly, our sample size is not large enough (only 282) to ensure that the findings of the study are applicable to the whole country. Secondly, this paper does not consider the effect of the number of children in the household which is also an important influencing factor on expenditure. In particular, with the implementation of China's comprehensive two-child policy in 2016, it is increasingly common to have two children in the household. Therefore, this dimension can be added to the inquiry in future studies. Thirdly, due to the limitations of the CFPS data, we do not have more precise data on variables such as parental income and parental job type on the dimension of parental economy, and therefore chose to use employment situation and ownership of household residence as a replacement. The inclusion of the income variable would have provided a more comprehensive consideration of parental economic status. Fourthly, although the CFPS made the new 2020 survey data publicly available, the information was incomplete for use in this study. So, data for the year 2018 was chosen, and there may be some lag in the findings.

## 7 REFERENCES

1. H. Yoshikawa, C. Weiland, J. Brooks-Gunn, M. R. Burchinal, L.M. Espinosa, W.T. Gormley, J. Ludwig, K.A. Magnuson, D. Phillips, M.J. Zaslow, The Evidence Base on Pre-

- school Education, in: Society for Research in Child Development. Society for Research in Child Development, 2013.
2. The state council The people's republic of China, Central Committee of the Communist Party of China State Council on Several Opinions on the Deepening Reform and Standardized Development of Pre-school Education, [EB/OL], 2018, [2022-08-06], [http://www.gov.cn/zhengce/2018-11/15/content\\_5340776.htm](http://www.gov.cn/zhengce/2018-11/15/content_5340776.htm)
  3. J. Zhao, Z. Tian, L. Yuan, On the differences and causes of the cost sharing level of family preschool education in China, in: *Journal of Beijing Normal University (Social Sciences)*, (03), 2022, pp.128-139.
  4. Q. Wu, A study on the influence of income and characteristic of family education expenditure, in: *Journal of Central China Normal University (Humanities and Social Sciences)*, 59(05), 2020, pp.175-186.
  5. R. Tu, R. Lin, An Empirical Study of Educational Expenditure and Financial Burden on Resident Households in Shanghai, in: *Research in Educational Development*, (21), 2009, pp.21-25.
  6. H. Zhao, Cost-sharing in pre-school education: a literature analysis perspective. In: *Research in Educational Development*, 33(24), 2011, pp.14-18. DOI: 10.14121/j.cnki.1008-3855.2011.24.013.
  7. X. Fan, R. Lin, Study on the Impact of Family Cultural Capital and Economic Capital on Family Education Expenditure: The Cases of 10 Poverty-Stricken Counties in Eastern, Central and Western China. *Fudan Education Forum*, 19(05), 2021, pp. 81-88. DOI: 10.13397/j.cnki.fef.2021.05.012.
  8. H. Gu, Q. Yang, Income, Expectations and Education Expenditure: An Empirical Analysis of the Current Education Investment Behaviour of Chinese Households, in: *Macroeconomics*, (03), 2013, pp.68-74+88. DOI: 10.16304/j.cnki.11-3952/f.2013.03.004.
  9. Y. Su, L. Liu, Relationship between family's socioeconomic status and parental investment in early learning: Evidence from the China Family Panel Studies, in: *Peking University Education Review*, 18(03), 2020, pp.86-103+189. DOI: 10.12088/pku671-9468.202003004
  10. Institute of social science survey Peking University (ISSS), China Family Panel Studies (CFPS) [DB/OL]. [2022-06-24]. [www.issss.pku.edu.cn/cfps/](http://www.issss.pku.edu.cn/cfps/)
  11. S. Kornrich, F. Furstenberg, Investing in Children: Changes in Parental Spending on Children, 1972—2007, in: *Demography*, 50(1), Springer, 2013, pp. 1–23. DOI:10.1007/s13524-012-0146-4
  12. H. Chu, Family background characteristics and individual factors of extra-curriculum tutoring of China's students in primary and middle schools, in: *Education Research Monthly*, (12),2009, pp.22-27. DOI: 10.16477/j.cnki.issn1674-2311.2009.12.016
  13. V. Q. Huy, Determinants of educational expenditure in Vietnam, in: *International Journal of Applied Economic*, 9(1), 2012, pp.59-72.
  14. G. P. Jenkins, H. A. Anyabolu, P. Bahramian, Family decision-making for educational expenditure: new evidence from survey data for Nigeria, *Applied Economics*, 51(52), 2019, pp.5663-5673. DOI: 10.1080/00036846.2019.1616075
  15. K. Ogundari, A. Abdulai. Determinants of Household's Education and Healthcare Spending in Nigeria: Evidence from Survey Data, in: *African Development Review*, 26 (1), 2014, pp.1–14. DOI: 10.1111/1467-8268.12060
  16. G. Luo, D. Zhong, On impact of income and living expenditure gap on household educational expenditure—Based on the 2015-2013 years data of Jiangxi Province, in: *Journal of Yichun University, Jiangxi, Yichun*, 38(11), 2016, pp.62-66.

17. M. Zeng, X. Ding, H. Shen, Urban-Rural Disparities in Private Tutoring of Lower-Secondary Students, in: *Education & Economy*, (02), 2010, pp.7-11. DOI: 10.3969/j.issn.1003-4870.2010.02.002
18. K. Lindemann, M. Gangl, Parental Unemployment and the Transition into Tertiary Education: Can Institutions Moderate the Adverse Effects? in: *Social Forces*, 99(2), Oxford University Press, 2020, pp. 616–47. DOI:10.1093/sf/soz155
19. L. Wang, Y. Ji, Y. Wang, Housing Wealth, Family Income and Educational Expenditure: A Case Study of Tianjin, in: *Urban development studies*, 26(5), 2019, pp.116-124. DOI: 10.3969/j.issn.1006-3862.2019.05.024
20. J. Chen, H. Li, Industrial upgrading education expansion and educational expenditure on children among Taiwanese households, in: *Academia Economic Papers*, 49(4), 2021, pp.609-649.
21. T.V. Duong, Family, community-based social capital and educational attainment during the doi moi process in Vietnam, Ph.D. thesis, University of Massachusetts Amherst, 2004. <https://scholarworks.umass.edu/dissertations/AAI3118293>
22. L. Hao, W.J. Yeung, Parental Spending on School-Age Children: Structural Stratification and Parental Expectation, in: *Demography*, 52(3), Springer, 2015, pp. 835–860. DOI: 10.1007/s13524-015-0386-1.
23. N. TSUTSUMI, The Effect That the Number of Children Has on the Expenditure Behavior of Expenses for Education, in: *Nihon Kasei Gakkaishi*, 47(4), 1996, pp.313–319. DOI: <https://doi.org/10.11428/jhej1987.47.313>
24. W.S. David, N. Jun, Y. Toshiya, H. Jung-Hwan, Fathering in Japan, China, and Korea-Changing Contexts, Images, and Roles. In: Lamb, M. E. ed. *The role of the father in child development*. John Wiley & Sons, Inc.

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