

RESEARCH

Open Access

# “Purchasing hope”: the consumption of children’s education in urban China



Xiaoshan Lin

Correspondence: [linxs@zjnu.edu.cn](mailto:linxs@zjnu.edu.cn)  
Department of Social Work, College  
of Law and Political Science,  
Zhejiang Normal University, No.688,  
Yingbin Av., Jinhua City, Zhejiang  
Province, China

## Abstract

Children’s education has become an important part of urban family consumption, and the rapid expansion of private tutoring schools and supplemental lessons has constituted a big part of the children’s education market. Taking the perspective of family studies and using China Education Panel Survey (2013–2014) data, this paper explores the relationship between family structure, parenthood, and the consumption of children’s education. This research shows that family investment in children’s education exhibits dual characteristics of instrumental rationality and emotional expression; children from one-child families, living with both parents and receiving more attention and affection from their parents, have more educational opportunities outside of school; girls receive more advantage over boys. Meanwhile, social class differences in the consumption of children’s education are significant. Middle-class families have greater education expectation and will invest more in children’s education, displaying a significantly stratified preference in supplemental lessons. These findings illustrate the need to take a new look at family studies and consumption research regarding the issue of child education consumption in the future.

**Keywords:** Family structure, Parenthood, Consumption of children’s education, Supplemental lessons, Middle-class

## Introduction

Since the 1980s, when the process of market transition began, China has been going through two drastic transforms: a family revolution and a consumption revolution. The family revolution has resulted in significant changes in family structure with the nuclear family, consisted of one couple and their single child, becoming the primary family structure in China,<sup>1</sup> a change that has consequently altered the status and social value of children in the family. The consumption revolution has promoted the autonomy of consumers (Davis and Lu 2003), changed consumer demand and the consumption structure of the family, and cultivated various new consumer markets and consumer groups. The emergence of child consumers exemplifies the interaction between family revolution and consumption revolution. In the process of this dual revolution, the consumption of children’s education, which is closely related to children’s growth and intergenerational mobility, has become the primary expense of urban families.

Education is a vital channel for intergenerational mobility and the primary means by which social status is reproduced (Blau and Duncan 1967; Bourdieu and Passeron 2002); education also has a leading role in determining individual lives (Treiman 1970). Besides having general characteristics of consumption, the consumption of education has a particular value, that is, it is a type of “consumption-as-investment”. Therefore, not only is the consumption of children’s education a kind of general family consumption, but it has also become an important family investment strategy for coping with fierce social competition. Due to the imbalanced distribution of educational resources and opportunities in urban China, families from different social classes compete restlessly by investing in children’s education consumption. From early childhood education, preschool education, school choice, and school district housing to overseas study tours and summer camps, families are inevitably involved in education consumption, no matter whether they belong to the wealthy class or the wage-earning class. Education services provided by the school system can no longer meet their demands. They are thus attracted to services provided by lucrative education companies, such as tutoring classes offered by “Xue Er Si” or “Xin Dong Fang.” The market-oriented expansion of education services has fostered a large-scale child education industry and shaped the intensified commercial consumer culture of children’s education.

Parents in contemporary China, especially middle-class parents, however, are still ambivalent in the consumption of children’s education. On the one hand, they are alert to the present consumer culture of children’s education and feel anxious about the impact of commercial interests on their children’s growth; however, they have no choice but to give in to the existing consumer culture, even looking for models of good parenting in it. The mass media is full of stories about Chinese parents who are anxious and yearn to improve the lives of their children. Especially, families of the middle class share a collective anxiety regarding their children’s education, reflecting the entire society’s concern about class mobility and class solidification. The epitome of “the status panic” of the middle class has swiftly changed from the redemptive consumption of itself to investive consumption in children’s education.

Children’s education, therefore, is a hot consumption issue that involves both the private and the public spheres, and which not only symbolizes the emergence of children as education consumers, but also bears parents’ hopes, affecting class mobility and influencing public policies at the macro level. We can neither deny the negative impact of consumer culture nor simply comment on parents’ irrationality, rivalry, or vanity to explain the sustained growth of consumption in children’s education (Wærdahl 2010: 190). The academic community has always criticized the erosion of childhood by the consumer culture, but “if consumer culture is the ‘enemy’ of good parenting, why do so many parents invite the enemy into their homes?” (Pugh 2009: x) In fact, the consumer culture of children’s consumption is not just about children, but also helps to draw the cultural boundary of how adults should act in order to be “good parents” and thus of how to define parental identity. Parents consider children’s consumption as a kind of approach to purchase happiness or social capital for their children (Fong 2004:83). For many parents, fulfillment of children’s consumption demand is an affectionate parent-child tie, an expression of “parental love,” and a representation of family affinity and happiness (Pugh 2009; Fong 2004; Ying 2003; Zhao 2006). Hence children’s education consumption is not a one-dimensional relationship between children and the market,

but a multidimensional relationship among children, family, and market. The manner in which parents help their children have opportunities in education consumption, as a part of family financial resources, reflects a characteristic of family structure, parental relationship, and the family's social status. Meanwhile, to better comprehend the anxiety that is deeply rooted in the hearts of middle-class parents, it is necessary to locate children's education consumption, as a part of the child-as-consumer culture, within the holistic view of consumer culture and to scrutinize its dual characteristics of family instrumental rationality and parental emotional expression. It is thus worthwhile to re-examine the relationship among children, family, and the education consumer market against the background of market reform and family transformation.

### **Literature review and analytical framework**

Unlike previous studies that primarily utilize institutional changes or a structural perspective to explore inequality in children's basic education and education stratification, this paper uses the internal lens of family to examine supplemental educational opportunities. Therefore, based on existing literature, this paper will review the development of consumption of children's supplemental education in the process of market transformation. This paper will also locate education consumption in the context of the development of children's consumption culture to clarify the relationship among children, family, and education consumption market. Starting from the dimensions of instrumental rationality and emotional expression in children's education consumption, a new analytical framework will be built to describe children's education consumption in contemporary urban families.

### **Children consumer in the market transformation**

In the context of the family revolution and consumption revolution experienced by urban Chinese families, the only-child generation, born in the 1980s in cities, is the first cohort of child consumers in the market economy. Over the last 40 years, the child consumption market has undergone drastic expansion, and the only-child generation has come of age. Meanwhile, strict family planning policies have made it unlikely that this generation of children have siblings. As a result, these children were pampered by their families and considerable consumption resources were at their disposal, surpassing any past generation. As others have described, this generation of children "growing in the era of China's transition to the market economy, enjoyed abundant life in the aspect of material goods and indulged in the new consumer culture" (Jing 2017: i). Based on his research on families in Tianjin with an only child, Bian suggests that family expenses show that the only child is the major driver and focus of family consumption on one hand; the consumption level of children is equal to or higher than the average consumption level of other family members. This reveals the "children-oriented" consumption pattern (Bian 1986: 97).

The second generation of only children, born in the 1990s, has faced a more complicated market environment than the first generation of only children. Means implied in children's consumption culture has become more diversified. The market had already responded to all sorts of children consumption demand and desire, which may be neglected or marginalized in the past. Commercialization has penetrated almost every

dimension of children's lives and every stage of their growth. Almost all child-related consumption demands can be fulfilled by the market. This group of children, growing up in the transition to the market economy, substantially constitutes one of the cores of consumer culture in China. Not only does the child continue being the focus of family expense, but they also influence decision-making on family consumption.

Today, most of the first and the second "only child" generations have already become parents, and their consumption beliefs and consumption behaviors will affect their own children. These children, born in the twenty-first century, are duplicating their parent's stories and surpassing those first two generations of only children in many ways in terms of consumption. The commercial environment in China in the new century, which these children faced, is comparable to or even more commercialization than that in the West. The erosion of childhood by commercialization, a concern voiced by many Western scholars (Schor 2005; Cook 2004), prevails in urban China. Childhood has already become an expensive life period in contemporary society (Wærdahl 2010:186). The scope of children's consumption market is no longer confined to food, toys, and clothing, but keeps expanding. Education consumption, a concern of numerous urban parents, is besieged by the market and touted as a critical facet of a decent lifestyle. Supplemental classes in art, including music, painting, and dance, and tutoring schools to prepare for the Mathematical Olympiad, as well as English and parent-child reading, have already become the arena of children's education consumption.

As a result of the stimulated competition in the education market, governments are no longer the sole provider of educational products and ancillary services. Education resources, distributed by market entities, have gradually come to occupy the core sphere of out-of-school education, accompanied by a large number of tutoring schools and special-interest classes provided by companies or private tutors. Those supplemental and fee-based forms of education, which may imitate or replicate the mainstream school curriculum, are known as "shadow education" (Stevenson and Baker 1992; Bray 2006; Xue 2015), with common types including home and for-profit education entities. An inexorable outcome of the expansion of "shadow education" and the marketization of children's education consumption is that families are burdened with a heavy education expense. The difference in family backgrounds thus leads to the inequality of children's education consumption between different families, further widening the class gap in obtaining education resources.

#### **"The only hope": China's low birth rate and children's education consumption**

Family structure is one of the primary mechanisms of status attainment and intergenerational social mobility (Hout 2015). Since families with different structural forms are differentiated in family resources, social capital, nurturing roles, and functions, family structure significantly affects children's intellectual development and social psychological development (Wu et al. 2018). During the transition from tradition to modernity, the nuclear family has become the primary form of family structure. Over the past 30 years, following the successful implementation of the one-child policy, the "core" of the nuclear family has new connotations, in which the structural form consists of "a small family" (parents, unmarried child), and additionally the trend of decreasing number of children and a low birth rate in general.<sup>2</sup> One significant consequence of the low

birth rate is that children have become the substantial “core” of the family. These changes will have a vital impact on the resource distribution and consumption structure within the family. As “the only hope” (Fong 2004), the only child has been the focus of the whole family’s attention and the holder of the family future since their birth. Family life has begun to pivot towards the only child, which is especially noticeable in terms of children’s education consumption. Studies have demonstrated that the decreasing birth rate strongly impacts how families prioritize children’s education investment (Ye and Wu 2011). Unlike other family investments, children’s education consumption is a kind of reproduction investment in the human capital of the family (Perrotta 2004:3). Parents consider their investment in their children as a strategy to help their children achieve educational success and ultimately obtain social upward mobility through the accumulation of social capital. This explanatory perspective focuses on the family’s intergenerational mobility, emphasizing the instrumental and rational calculation of cost and return over the child’s education and sees the child’s education consumption as a type of family investment strategy and the basis for the family’s future.

Becker’s model of child quantity-quality and Schultz’s theory of human capital investment are helpful in understanding children’s education consumption in the context of low birth rate. Becker was the first researcher to apply consumer behavior theories to the analysis of fertility rate, examining reproduction behavior and family investment strategy and establishing the child quantity-quality model from the micro perspective of family choice. The model assumes that family utility maximization is the major principle of family behavior and argues that a continuous increase in family income will not result in a simultaneously increasing demand for offsprings. On the contrary, after an increase in family income, the optimized choice of parents is to decrease the number and improve the quality of children (Becker 1960). In China, the decrease in the number of children was not due to an increase in family income in the beginning, but instead because of the one-child policy. Since the decrease in the number of children is an inevitable result of government policy, families have focused on ways to improve the quality of their only children. Becker regards children’s education expense as a component of the cost of children’s quality and believes that increasing inputs to children’s education input will lead to improvements in the quality of children (Becker 1960). Similar to Becker’s argument, Schultz coined the term “human capital investment” in 1960, suggesting that we should consider the process of raising children as a process of capital accumulation and the educational investment as an improvement in human capital (Schultz 1990). Chinese parents’ enthusiasm for investing in children’s education supports Schultz’s human capital theory, demonstrating that investment in education and training is the most important and basic investment in human capital. This kind of investment will increase the stock of knowledge and ultimately alter individual fates.

There are multiple forms of children’s education investments from which families can choose, such as purchasing a “school district house” to provide school education resources with high quality. Yet given the fierce competition, the education service provided by mainstream schools can no longer fulfill urban parents’ demand and many parents have shifted their investment to education service entities in the market. They are attracted by tutoring schools and afterschool classes provided by “Xue Er Si” and “Xin Dong Fang”, expecting high-quality education resources from these supplemental

classes to help children “win at the starting line” and occupy advantaged positions in education stratification. “Shadow education” has already become “the second front” of education market competition. The expense of “shadow education” is an important part of family education expenses in many countries, including China, imposing an extensive influence on family, school, and society. Other extracurricular activities,<sup>3</sup> such as painting, music, dance, and sports, also cost the earth and cause a heavy economic burden for the family. But parents are willing to pay for these goods and services because they believe that education consumption is a necessary investment and, without these goods and services, children will lag behind in the competitions for school records, social status, occupation, or even a good partner (Fong 2004:85). Education consumption of extracurricular tutoring is controversial in academic discussions. Scholars continuously debate about whether such consumption will help improve students’ school records, whether it widens social inequality, and whether it is conducive to school education (Tsang 2002; Bray and Qing 2012; Xue 2015). Yet there is no doubt that extracurricular tutoring is unremittingly expanding and diversifying.

Much empirical research has found that “shadow education” for students who are also enrolled in compulsory education reproduces the social inequality of the mainstream education system, widens gap results between rural and urban areas and among different social classes in obtaining education resources and opportunities, and thus forms a critical channel for maintaining and transmitting rural-urban inequality and class inequality from generation to generation (Xue 2015; Hu et al. 2015). The gap in children’s education investment between urban middle-class families and lower-class families also generates class stratification in the family education pattern (Hong and Zhao 2014). Western scholars have proposed the “Effectively Maintained Inequality” theory in education stratification studies and suggest that education inequality among different social classes does not necessarily decrease when educational opportunities increase and that education inequality is maintained by various “effective” methods (Lucas 2001). This point is supported by empirical data collected in China as in many other countries (Wu 2013). Therefore, urban parents cannot relax even though cities offer many choices of education companies and entities. On the contrary, urban parents are undergoing an unparalleled outbreak in their sense of crisis and anxiety in the context of the nationwide “false start” in children’s education and deeply rooted inequality of education resources and opportunities. Forced by the scare of “lagging behind,” nobody is willing to withdraw from the competition for education consumption, although many people know that tutoring schools and extracurricular classes merely replicate existing problems. The whole society thus falls into a typical dilemma of collective action (Xiong 2016).

#### **“It is all about love”: parenthood and children’s education consumption**

In modern families, “the sanctification of childhood” is an irreversible fact. Although children are economically “useless” to the family, they are emotionally “priceless” (Zelizer 1994). Children can bring joy and happiness to the family, bear parents’ hopes as spiritual pillars, and make parents’ life meaningful (Hoffman and Hoffman 1973). It is a global phenomenon that the emotional value of children is generally promoted. Yet in China, children’s central position in the family emotional life is increasingly

unshakeable, and the parent-child relationship becomes the principle axis among family relationships, due to the increasingly prominent trend of low birth rate.<sup>4</sup> Since consumption is not only a kind of purchasing behavior in the market, but also a “relational work” functioning as an emotional expression in the family, people can create, maintain, and negotiate critical interpersonal relationships through economic behaviors, such as consumption (Zelizer 2005). Hence, children’s education consumption not only is an important part of family consumption due to its substantial cost but also of family affection, especially in establishing and constructing the parent-child relationship. Many studies equate increasing children’s education consumption of the family to parental expressions of love and psychological compensation, representing an approach by which parents maintain family affection and build a sense of belongingness (Pugh 2009; Fong 2004; Ying 2003; Zhao 2006). In this sense, children’s education consumption is not a type of consumption merely involving the children themselves, but a vivid expression of intense parental emotion and love, which costs parents tremendous amount of time and energy.

In China, even otherwise frugal parents cannot resist paying for their children’s education consumption. Although some families are not wealthy, parents will still fulfill children’s education expenses by reducing other types of consumption, in order to build a childhood with abundant educational opportunities for their children. Many parents wish for their offspring to enjoy a kind of life that was not available when they were young and own those things that were out of reach in the parents’ own childhoods (Ying 2003:376).

Some other research, however, suggests that “parental love” is constructed by consumer culture in the discourse of mass consumption society, especially built by the ubiquitous hype of education consumption culture in the process of the commercialization of childhood. Scholars point out that consumer culture manipulates the consumption trends of children and their parents (Barber 2007; Thomas 2007). One central tenet of contemporary consumer culture is that children and teenagers have become a new channel linking the consumption market, the family, and the group of “brand bound” people (Quart 2003). The academic community is increasing its criticism against “the commercialization of childhood” (Cook 2004; Schor 2005; Barber 2007). In fact, most parents recognize that over-commercialization will jeopardize the physical and psychological well-being of their children. But no matter how strong the criticism and boycotts are, the giant wheel of children’s consumption culture can no longer be stopped because commercial exploitation is not the only reason for the commercialization of childhood. It is surprising that consumer culture has already penetrated the internal sphere of the family; this transformation of the family structure has led to parenthood being reestablished to follow the principles constructed by consumer culture. The mass media, including magazines, advertisements, television, children’s films, computer games, and the Internet, is influential in the process of construction of these principles, all of which work as new tools to build warmth, affection, and love; to please children through the affectionate link and emotional appeals; to rebuild the image of healthy, happy, and successful children; and thus to overthrow traditional ideas of parenting. Only irresponsible parents will not send their children to tutoring school or extracurricular classes. “If you love your kids, send them to the supplemental class” is the belief of many parents. These facts remind us that we cannot neglect the

internal connection of the expansion of children's education consumption and the transformation of the parental relationship, even though "parental love" is a construct. In fact, the connection has significant influence over parental consumption choice. It is fair to say that all tutoring schools or extracurricular classes are provided in the name of "parental love" and every kind of "parental love" is associated with a type of tutoring school or extracurricular class. "Parental love" is the emotional code that can unscramble the expansion of children's education consumption.

Moreover, "parental love" reflects differences in parenting style, parent-child time, and the amount of affection to children, which is a vital approach to class reproduction. In *Unequal Childhoods* (Lareau 2010), Lareau compares different parenting styles between middle-class and working-class families. She finds that middle-class parents generally adopt the parenting model of "concerted cultivation," arranging various extracurricular activities for children, accompanying children for a long time, and having positive emotional communication; meanwhile, working-class parents generally adopt the parenting model of "accomplishment of natural growth" with far fewer extracurricular activities and more emphasis on an authoritarian parenting style. "When children and parents move outside the home into the world of social institutions, they find that these cultural practices are not given equal value." (Lareau 2010:237). The direct consequence is that middle-class children are more advantaged in social life than working-class children. It is also not difficult to discover that parental relationships of different social classes have a critical impact on children's education consumption, further affecting the reproduction of social classes. Middle-class parents' anxiety around the children's education issue and the investment of time, emotion, and money on educating no matter the cost are much likely derived from their deep understanding of pre-existing causalities.

### **Analytical framework**

The literature review has clarified the background and logic of changes that have emerged in children's education consumption in China: the process of market transition is accompanied by family revolution and consumption revolution such that the family revolution brings changes in family structure and parent-child relationship and the consumption revolution leads to a large education consumption market and the development of children consumption culture. These two revolutions, intertwined, construct child-as-consumer. The low birth rate of Chinese families encourages families to concentrate resources on its offspring; as consequences, parents pour resources on children's education consumption, and the parent-child relationship becomes the principal axis in the family. As the parent-child relationship becomes the core of the family and childhood is commercialized, purchasing services from the education market becomes the primary expression of parental love and family hope.

From the perspective of family life, children's education consumption is characterized by instrumental rationality and functions as emotional expression. The former connects children's education consumption to child development and the intergenerational mobility of the family. When parents provide education consumption opportunities for their children, they also place family hope and mission on the shoulders of the child. The latter believes that children's education consumption cannot be divided from the



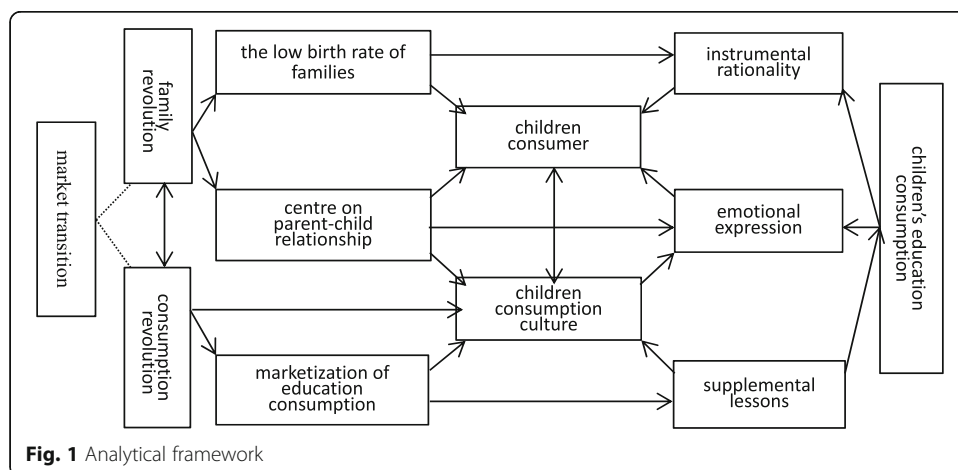
building of the parent-child relationship. Children’s education consumption is the embodiment of intensive parental love and devotion. These two types of consumption demonstrate the parenthood style of families and form two perspectives by which to understand children’s education consumption. Therefore, we cannot discuss children’s education consumption without considering the family itself. It is necessary to locate children’s education consumption in the dual discourse contexts of the family revolution and the consumption revolution, so as to comprehend its connotation. Previous related literature of the Western academic community explores the theoretical scope of studies of children’s consumption behaviors. Studies focusing on children’s consumption in China portray the Chinese prospect of children’s education consumption. Both contribute to establishing a referential analytical framework for this paper (see Fig. 1).

**Research design**

**Data source**

This paper uses baseline survey data from the 2013–2014 China Education Panel Survey (CEPS) to analyze children’s education consumption. The CEPS, conducted by the China Survey and Data Center of Renmin University, is a national longitudinal survey. The survey project targets cohorts of the first-year junior high school (grade 7) and the third-year junior high school (grade 9) as the starting point, adopts the average education level of the population and the percentage of migrant population as stratification variables, and randomly draws 28 county units (county, district, municipality) as survey locations. A school-based random drawing has obtained 438 classes in 112 schools, and students of these classes are all sampled and surveyed. There are more than 190,000 students, aged from eleven to fourteen, in the baseline survey.

The data used in this paper is a new dataset compiled from the student data, parent data, and school data in the CEPS baseline survey. Respondents to the parent questionnaire include birth parents of children, step-parents, grandparents, and other relatives. To accurately reflect the parental influence on children’s education consumption, this paper only draws from parent questionnaires provided by birth parents or step-parents. Meanwhile, since a great amount of research demonstrates the rural-urban inequality in education, this paper chooses to focus on children’s education consumption in urban



**Fig. 1** Analytical framework

areas to ensure the data analysis is targeted and comparable. This paper only includes samples in which students are studying in schools in cities and towns and families are living in cities or town communities. In other words, city and town are spatial concepts rather than defined by the house registration system (*hukou*). Since the movement of the population between rural and urban areas is frequent in China, many children with rural *hukou* actually study in schools in cities and towns and encounter pressure from education competition in urban areas; these conditions have to be taken in to account. After dropping some missing values, this research includes 9272 valid samples for analysis.

### **Major variables**

#### ***Dependent variables***

Children's education consumption is primarily constituted by education consumption on campus and supplemental education consumption outside of school. Because students in schools in cities and towns nationwide have been exempt from tuition and miscellaneous fees for compulsory education since the autumn semester of 2008, and since school fees for activity, meal, and accommodation are generally collected according to a uniform standard, the gap in education consumption on campus is not significant. In fact, supplemental education consumption is a major part of children's education consumption during the compulsory education period. The arena of competition between families is outside of the campus. Therefore, the analysis of supplemental education consumption is of great importance.

This paper explores the supplemental education consumption of children in urban families. This paper chooses variables of "expense of supplemental education" and "do you attend any supplemental lessons?" as the dependent variables to analyze the expense and opportunity for the child to participate in supplemental education consumption. The parent questionnaire includes the question, asking "the expense for your child/children to attend supplemental lessons in this semester", which is a continuous variable. There is one question in the student questionnaire, asking "which supplemental lessons have you taken?" and providing answers of "None, Mathematics Olympiad, Mathematics, Chinese/Writing, English, Painting, Calligraphy, Music/Instrument, Dancing, Chess, and Sports" as multiple choice options. Based on the above information, this paper at first constructs a dichotomous variable of whether a student attends supplemental lessons or not. Second, to elaborate and further analyze supplemental education consumption, this paper divides the types of supplemental lessons into "curricular tutoring class" and "art/sports interest class." The curricular tutoring class provides instruction for primary subjects taught in compulsory education after class, including Chinese, mathematics, and English. It will have a positive effect on children's academic records and upward mobility. The art/sports interest class offers training of painting, calligraphy, music/instrument, dancing, chess, and sports, which emphasizes the cultivation of stratified tastes and habitus.<sup>5</sup>

#### ***Independent variables***

**Family structure** This paper uses "composition of children" and "structure of residence" as two aspects of family structure. Firstly, the structure of children includes number, sex, birth sequence, and birth intervals of children (Steelman et al. 2002). This

paper focuses on the quantitative structure and the sex structure of children. Since the only-child policy is strictly implemented in urban areas, most urban families have only one child and the nuclear single-child family is the typical family structure in cities and towns. However, due to some particular reason, some families have two or more children, which allows for a comparative analysis of the number of offspring. In order to compare children's education consumption among different families, this paper divides sample families into single-child families and multiple-child families according to the number of children in the family. The analysis of the sex structure of children can further explore gendered differences in children's education consumption. Secondly, the analysis of the structure of residence divides families into "living with parents families" and "living with one parent/no parent families" according to family makeup (Wu et al. 2017).

**Parent-child relationship** This paper uses two dimensions of "parent-child companionship time" and "parent-child affectionate interaction" to measure the parent-child relationship. Firstly, "parent-child companionship" is defined as the condition when parents and the child are co-present, which is the foundation to generate and cultivate close affection. In the CEPS parent questionnaire, parent respondents are asked "how much time is directly spent with children every day on average." This continuous variable reflects how much time parents invest in being with their children. Secondly, a good parenting relationship requires positive and active affectionate interaction and communication during the companionship time. Therefore, this paper constructs a variable of "parental affectionate interaction" through a factor analysis based on data collected with the question, "do you take the initiative to discuss with children the things listed below", in the parent questionnaire. The variable indicates the emotional investment of parents and the emotional communication between parents and their children. "The things" for discussion include five topics of "things that happened on campus, the relationship between children and their friends, the relationship between children and their teachers, children's mood, and children's worries or frustrations." The answers offered are "1, Never; 2, Once in a while; and 3, Often." The KMO (Kaiser-Meyer-Olkin) value of these five variables is 0.8254, which demonstrates the applicability of factor analysis. Through principal component analysis and varimax rotation, this paper achieves a factor with a characteristic root larger than 1—the factor of "parent-child affectionate interaction." The greater the value of the factor, the closer parent-child affectionate communication is, in other words, the more emotion and energy parents invest in their children.

#### ***Control variables***

**Family's socioeconomic status** This paper uses parents' education level, occupation, and family economic status in the parent questionnaire as three aspects to measure family's socioeconomic status, and these are also the three primary indices of class stratification. Parents' education level is divided into two categories—college educated and non-college educated. College education includes junior college, undergraduate college, postgraduate college, and above. Parents' occupation is divided into two categories—"white collar" and "non-white collar." "White collar" occupations include

leaders and working personnel of state organs and institutions, senior executives in enterprise/company, teachers, engineers, doctors, lawyers, and so on. “Non-white collar” occupations include skilled workers, general workers in production and manufacturing, general staff in business and service, the self-employed, the unemployed, the laid-off, and so on. Family economic status is categorized into three groups: poor, medium, and wealthy. Generally speaking, people who have a college degree are employed in white-collar occupations and have a medium income level belong to the core middle class (Li and Zhang 2008). The purpose of generating this three-level classification is to compare the differences between an urban middle-class family and an urban non-middle-class family in terms of the investment in children’s education consumption.

Moreover, this paper uses parental education expectations, student’s grade, student’s accommodation (whether they are boarding in school), the type of the schools’ community (in or out of the central city), and the geographic location of the school as control variables. Table 1 shows the basic information for major variables.

## Research hypotheses

### *Hypotheses of family structure*

Since family has an indispensable influence on the life opportunity of children, it is considered to be a vital mechanism of social inequality. Family is always one of the most important variables in studies of educational opportunity, social status, intergenerational mobility, occupation, and income inequality (Li 2003; Li 2006; Zhang 2010; Wu 2013; Hout 2015). It is even more important than school or community in terms of influencing children’s academic achievement. Among many family background factors, family structure is believed to be one of the major causes of opportunity inequality (Grusky 2008). Family structure reflects the living environment and background condition at one’s birth that is preset, structured, and could not be changed easily.

Studies of the children structure of family find that the number of children has a negative impact on educational attainment. In other words, the more siblings a child has, the less educational opportunity he/she can obtain (Steelman et al. 2002; Blake 1981; Ye and Wu 2011; Wang 2017). The explanation for this according to the resource dilution model is that the amount of resources that the family can provide to its children depends on the total amount of family resources and the number of children. The more children born to the family, the higher the resource dilution level and the fewer the resources distributed to each child, which ultimately affects the child’s educational achievement (Blake 1981). In China, the only child in a family often receives more family resources than his or her peers who have siblings, due to the low birth rate trend. It has been shown that the time and energy invested by parents of only children often surpass those spent by parents with more than one child in terms of the basic necessities of daily life, children’s education, entertainment, hobbies, and social interaction (Feng 1994: 30). Therefore, this paper proposes the following hypotheses:

*Hypothesis 1.1:* The expense of supplemental education for an only child is more than that of a child with siblings.

*Hypothesis 1.2:* The opportunities of supplemental lessons for an only child are more than that for a child with siblings.

**Table 1** Basic information for major variables  $N = 9272$ 

Categorical variables	Value	Percentage	Variables	Value	Percentage
Supplemental lessons	Attend	61.65	Parents' occupation	White collar	26.88
	Did not attend	38.35		Non-white collar	73.12
Curricular tutoring class	Attend	46.79	Family economic status	Wealthy	7.81
	Did not attend	53.21		Medium	81.37
Art/sports interest class	Attend	37.97	Grade	Poor	10.81
	Did not attend	62.03		Grade 9	46.00
The structure of residence	Living with both parents	74.48	Boarding in school	Grade 7	54.00
	Living with one parent/no parent	25.52		Yes	11.03
Quantitative structure of children	Single-child family	59.99	Community type of school	No	88.98
	The multiple-child family	40.01		Central city	62.63
Sex structure of children	Male	50.47	Geographic location of school	Non-central city	37.37
	Female	49.53		East	61.45
Parents' education level	College educated	30.59		Central	10.84
	Non-college educated	69.41		West	27.71
Continuous variables	Mean	Standard deviation	Continuous variables	Mean	Standard deviation
Expense of supplemental education (yuan)	1883.039	4809.482	Factor of "parent-child affectionate interaction"	-9.55e-09	1
Parent-child accompany time (hour)	3.224	3.094	Parental education expectation	17.180	2.944

In the context of the mainstream single-child families in cities and towns, the effect of gender equalization becomes obvious. Gendered inequality in education is reduced, especially with China's socioeconomic development. Hannum's study of school admissions and family education expense of Chinese children, aged seven to sixteen, has verified this point (Hannum 2005). Girls benefit more than boys as educational opportunities expand. The underlying mechanism has been found to be the declining birth rate, that is, the decrease in the number of offspring eliminates the need for parents to adopt a "son preference" in their educational investment strategy and it helps narrow the education gap between the sexes (Ye and Wu 2011: 155). Some recent studies have discovered that girls have a greater probability of attending "shadow education" to pursue supplemental educational opportunities than do boys (Xue and Li 2016). Therefore, this paper proposes the following hypotheses:

*Hypothesis 1.3:* The expense of supplemental education consumption for girls is more than that for boys.

*Hypothesis 1.4:* The opportunities of supplemental lessons for girls are more than that for boys.

Another reflection of family structure, the residential structure of the family implicates composition of family members, the influence of which on children's educational

development has drawn much academic attention. Especially, whether the child lives with both parents or not has a distinctive influence on economic resources and time that are invested to the child. Fei has proposed the concept of “dual-tending,” showing that parents are essential to nurturing the child, and that in the system of the gendered division of labor, a complete nurturing group must involve the cooperation of two sexes (Fei 1998: 116–122). The absence of one parent or both parents will affect parental participation in children’s education and interaction with children (Wu et al. 2018). Compared with children in households where there is a single parent or no parent, it is easier for children living with both parents to obtain parental attention and to have a stable life as they grow up. Domestic empirical research has found that compared to children living with one parent or no parent, children living with both parents have better academic achievements and a higher level of social psychological status (Wu et al. 2017, 2018). International research has found that living apart from parents at the age of fourteen has a negative impact on the child’s completion of secondary school (Sandefur et al. 1992). Therefore, this paper proposes the following hypotheses:

*Hypothesis 1.5:* The supplemental education expense of children living with both parents is higher than that of children living with one parent/no parent.

*Hypothesis 1.6:* The opportunities of supplemental lessons for children living with both parents are more than that of children living with one parent/no parent.

#### ***Hypotheses of parent-child relationship***

The revolution of the modern family has not only reformed family structure, but also reestablished the parent-child relationship. The change in the parent-child relationship has had a significant influence on resource distribution within the family. As with the increased focus on the child as the center of the family structure, a child-oriented parent-child relationship will result in child-oriented resource distribution within the family (including emotional resources and time resources), which generates more educational opportunities for the child.

Parental affectionate interaction includes bilateral communication between parents and children. From the perspective of parents, the parent-child relationship is a vital emotional carrier, conveying all love and hope of parents to their only child (Jing 2017). The prevailing psychological expectation of parents is for their children to have a bright future. From the perspective of children, a good parental relationship helps children gain attention and support from parents. The bilateral character of the parental relationship makes parental affectionate interaction influential in the maintenance of the parental relationship, which is both the expression of “parental love” and the foundation for children to obtain more educational resources. Therefore, this paper proposes the following hypotheses:

*Hypothesis 2.1:* The higher the degree of parental affectionate interaction, the greater the resources devoted to children’s supplemental educational consumption.

*Hypothesis 2.2:* The higher the degree of parental affectionate interaction, the more opportunities children will have to participate in supplemental lessons.

Besides the investment of affection, the maintenance of the parent-child relationship requires a time investment. A good parent-child relationship cannot be achieved without parents’ companionship. From the perspective of emotional sociology, companionship

represents care and love, maintains affection among relatives, and creates a sense of belonging and family happiness (Pugh 2009; Fong 2004; Ying 2003; Zhao 2006). Although consumer culture to a great extent constructs and manipulates the idea that companionship symbolizes parental love (Quart 2003; Barber 2007; Thomas 2007), such an idea significantly influences the construction of fatherhood and motherhood. It is even fair to say that companionship has already become the new ethic in parental life in modern mass consumption society. On the Internet, the narration of companionship penetrates family ideology. Many modern parents believe that incompetent parents are those who cannot spend time with their children and as a result are irresponsible about their child's development. No matter how much occupational achievement and wealth growth, the happiness of family may not be able to increase without parental time to accompany the child. It is of great importance that parents can cultivate a learning attitude and habits and consequently help the child achieve academic success through educational participation and behavioral support (Li and Qiu 2016). Therefore, this paper proposes the following hypotheses:

*Hypothesis 2.3:* The longer the parental companionship time per day, the more financial resources will be devoted to children's supplemental education consumption.

*Hypothesis 2.4:* The longer the parental companionship time, the more opportunities children will have to participate in supplemental lessons.

### **Analytical strategy and methods**

To examine the hypotheses proposed in the previous section, the analysis of this paper consists of three parts. The first part is the descriptive analysis of general information about children's supplemental education consumption. The second part is the analysis of the expense of children's supplemental education consumption through the Tobit regression model. The Tobit regression model was first proposed by a Nobel Prize-winning economist James Tobin. To commemorate Tobin's contribution, the group of models with limited-valued dependent variables and selective behaviors is named the Tobit model (Amemiya 1984). In this paper, the value of children's supplemental education consumption is equal to or larger than zero, since some families have no expense for supplemental education, while the expenses of some other families form a continuous distribution. Thus, the dependent variable is a limited-valued variable and typical censored data, which violate the covariance hypothesis if we used the OLS model. If we simply dropped samples with no expense on supplemental education consumption, it would produce biased estimation due to sample lost. This paper thus adopts the Tobit model to gain consistent results from the censored data through maximum likelihood estimation. The third part is the analysis of whether the child attended supplemental lessons (a dichotomous variable) using the Logit regression model. To compare different influences of father and mother on the children's supplemental education consumption, this paper models father samples and mother samples, respectively. Moreover, this paper divides supplemental lessons into curricular tutoring and art/sports interest class for analysis in order to examine the focus of investment strategies for children's supplemental education among different families and differences in class preferences.

## Research findings

### Descriptive statistical analysis

Table 1 shows that the average expense for children’s supplemental education consumption for a family is 1883 RMB in the semester of the survey carried out. But families with different family structures spend these resources differently. Figure 2 shows that the total expenditure of the single-child family is much higher than that of the multiple-child family. Furthermore, the spent on the only girl are the highest, 1.41 times of that for the only boy. In multiple-child families, the spent on girls significantly surpass that on boys, 1.29 times of that on boys. Figure 3 shows that the spent for children living with both parents are higher than that of children living with one parent/no parent.

Most of the expense for supplemental education consumption is spent on various supplemental lessons. Table 1 shows that more than 60% of children have attended supplemental lessons. In fact, many children attend more than one supplemental lesson. English is the most popular subject among all subjects of supplemental lessons, following by mathematics, music/instrument, Chinese/writing, painting, sports, dancing, and calligraphy.

Furthermore, whether children attend supplemental lessons and which lesson they choose varies by family. These differences reflect education beliefs and class preferences of parents. Table 2 shows that nearly 70% of children in single-child families attend supplemental lessons and less than 50% in multi-child families attend supplemental lessons. The percentage of girls attending supplemental lessons is higher than that of boys, regardless of the family structure. The comparison of supplemental tutoring class and art/sports interest class shows that the percentage of children attending curricular

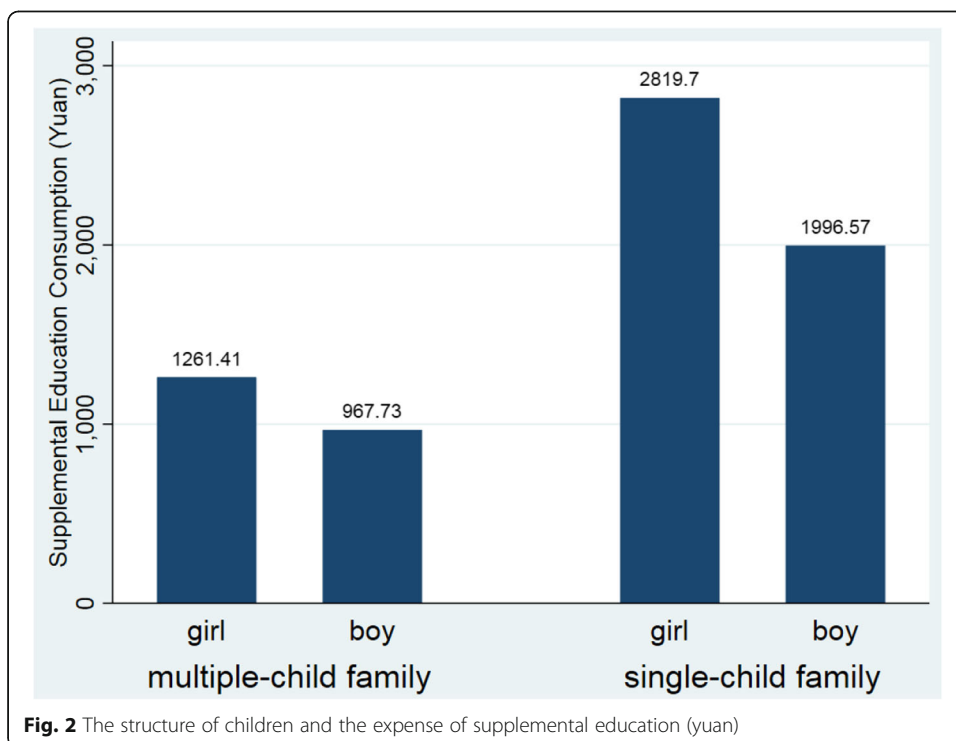
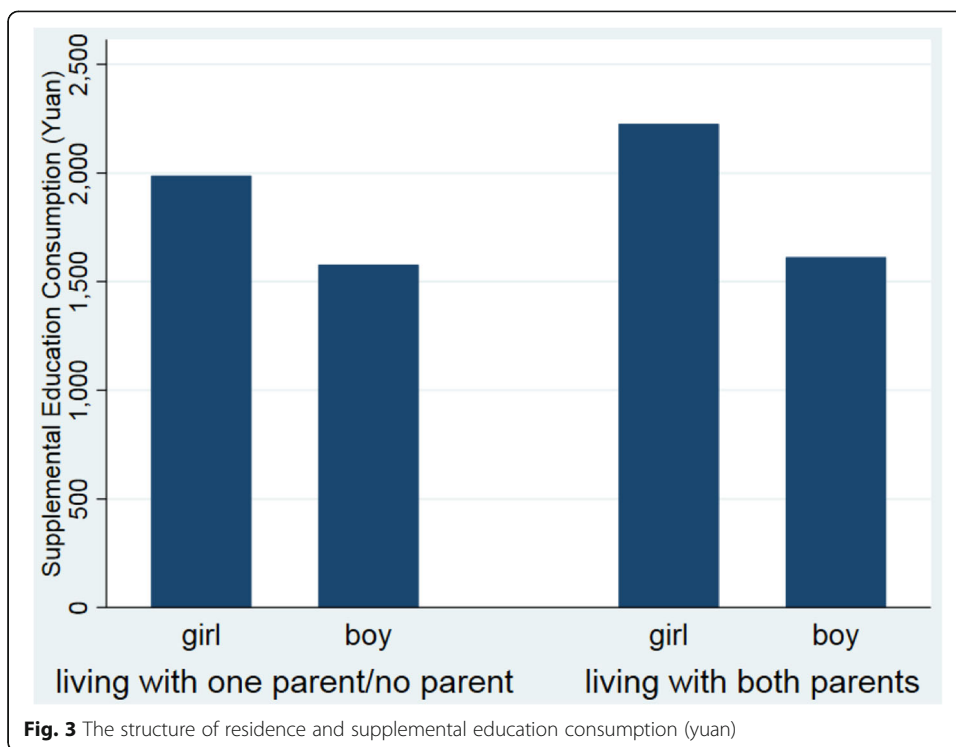


Fig. 2 The structure of children and the expense of supplemental education (yuan)





tutoring class is higher than that of art/sports interest class, regardless of the structure of children. Certainly, the choices of families from different social classes may differ.

**Tobit model analysis of expense of children’s supplemental education consumption**

Table 3 shows four models. Model 1 is the baseline model, including some control variables like family socioeconomic status, children’s characteristics, and school characteristics. Results show that parents’ education level, occupation, and family economic status have significant positive influences on funds spent on children’s supplemental education. Compared with poor families in which parents have neither college degrees nor white-collar occupations, families with medium and above economic status, where parents have college degrees and white-collar occupations, spend more on children’s supplemental education. It indicates that middle-class families are more likely to devote more attention to children’s education.

**Table 2** Child attendance of supplemental lessons (%)

Number of children	Gender	Supplemental lessons		Curricular tutoring class		Art/sports class	
		Attend	Did not attend	Attend	Did not attend	Attend	Did not attend
Single-child families (N = 5562)	Total	69.65	30.35	54.87	45.13	42.90	57.10
	Boys	64.92	35.08	51.56	48.44	36.32	63.68
	Girls	74.76	25.24	58.45	41.55	50.00	50.00
Multi-child families (N = 3710)	Total	49.65	50.35	34.66	65.34	30.59	69.41
	Boys	46.04	53.96	32.03	67.97	27.62	72.38
	Girls	53.02	46.98	37.12	62.88	33.37	66.63

**Table 3** Tobit regression model of supplemental education consumption

Variables	Model 1	Model 2	Model 3	Model 4
College-degree parents (yes = 1)	2162.54*** (256.74)	1684.00*** (260.44)	1998.09*** (258.10)	1603.05*** (261.22)
Parents' occupation (white collar = 1)	779.95** (260.34)	665.90* (259.55)	748.79** (259.89)	653.10* (259.26)
Family economic status (poor = 0)				
Medium	2071.41*** (355.67)	1802.00*** (356.38)	1938.27*** (355.74)	1725.10*** (356.44)
Wealthy	3471.24*** (479.31)	3338.08*** (478.56)	3336.33*** (478.97)	3249.45*** (478.47)
Parents' education expectations	246.75*** (35.61)	208.29*** (35.60)	184.46*** (35.91)	184.85*** (35.89)
Grade (grade 9 = 1)	2051.06*** (195.83)	1966.25*** (195.22)	2119.01*** (195.79)	2024.51*** (195.36)
Boarding in school (yes = 1)	- 3749.20*** (381.94)	- 3416.14*** (383.25)	- 3706.68*** (381.65)	- 3408.99*** (383.11)
School community (central urban area = 1)	2248.15*** (231.19)	2039.14*** (231.24)	2174.47*** (231.05)	1994.78*** (231.17)
Geographic location of school (west = 0)				
East	42.19 (219.82)	69.97 (219.10)	48.33 (219.57)	74.35 (218.98)
Central	- 7126.50*** (468.47)	- 6933.40*** (468.51)	- 7105.59*** (468.26)	- 6947.70*** (468.49)
Quantitative children structure (the single-child family = 1)		1894.04*** (220.22)		1750.22*** (222.35)
Sex structure of children (boy = 1)		- 1286.02*** (194.11)		- 1200.76*** (194.50)
Residential structure of family (living with both parents = 1)		166.39 (227.83)		118.64 (227.88)
Parental companionship time			110.31*** (32.23)	102.65** (32.21)
Affection interaction			566.33*** (104.53)	409.88*** (105.53)
Constant	- 10,573.74*** (747.52)	- 10,563.00*** (769.83)	- 10,200.91*** (761.20)	- 10,320.65*** (785.81)
Sigma	7922.18*** (93.93)	7874.21*** (93.24)	7901.97*** (93.64)	7861.84*** (93.06)
Pseudo $R^2$	.0147	.0160	.0152	.0163
$N$	9272	9272	9272	9272

Standard errors are in brackets. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Model 2 adds three variables of family structure into model 1. Model 2 shows that compared with children in multi-child families, parents of only children spend much more on supplemental education. Compared with girls, parents spend less on boys' supplemental education and the difference is significant. These results support both hypothesis 1.1 and hypothesis 1.3. Moreover, although living with both parents leads to an increase in spending on children's supplemental education, the positive effect is not statistically significant. Hypothesis 1.5 is not verified by this model. We will elaborate the relationship between family structure and the supplemental education in the third part.

Model 3 adds two variables of the parent-child relationship to model 1. Model 3 shows that these two variables both have significant influence. In particular, it shows that the longer the parent accompany their children, the higher they are willing to spend on children's supplemental education; the higher the frequency parent-child

interaction is, the more that they spend on children’s supplemental education. These results support hypothesis 2.1 and hypothesis 2.3. Model 4 also adds several variables of family structure and parental relationship to model 1, and the results show that while the degree of influence of major independent variables has changed, their statistical significance does not change much.

**Logit model analysis of participation in supplemental lessons**

In Table 4, model 5 examines how various factors impact children’s participation in supplemental lessons. From the perspective of family socioeconomic status, parents’ education level, occupation, and family economic status have significant effects on the probability that children participate in supplemental lessons. Compared with children whose parents have neither a college degree nor white-collar occupation and whose family has rather poor economic status, other children, whose parents have a college

**Table 4** Logit regression model of supplemental lessons

Variables	Model 5 (all samples)	Model 6 (father samples)	Model 7 (mother samples)	Model 8 (curricular tutoring class)	Model 9 (art/sports interest class)
College-degree parents (yes = 1)	.63*** (.07)	.51*** (.11)	.70*** (.09)	.45*** (.06)	.52*** (.06)
Parents’ occupation (white collar = 1)	.15* (.07)	.16 (.10)	.21* (.10)	.00 (.06)	.24*** (.06)
Family economic status (poor = 0)					
Medium	.31*** (.07)	.33*** (.10)	.23* (.11)	.31*** (.08)	.20* (.08)
Wealthy	.72*** (.11)	.66*** (.16)	.70*** (.16)	.56*** (.11)	.63*** (.11)
Parents’ education expectations	.05*** (.01)	.06*** (.01)	.04** (.01)	.06*** (.01)	.03** (.01)
Grade (grade 9 = 1)	-.11* (.05)	-.10 (.07)	-.09 (.06)	.10* (.05)	-.14** (.05)
Boarding in school (yes = 1)	-.50*** (.08)	-.45*** (.11)	-.54*** (.11)	-.58*** (.08)	-.18* (.08)
School community (central urban area = 1)	.56*** (.05)	.65*** (.08)	.45*** (.07)	.51*** (.05)	.35*** (.05)
Geographic location of school (west = 0)					
East	-.22*** (.06)	-.25** (.08)	-.22** (.08)	-.35*** (.05)	-.14** (.05)
Central	-1.09*** (.09)	-1.09*** (.13)	-1.11*** (.12)	-1.65*** (.10)	-.42*** (.09)
Quantitative offspring structure (single-child family = 1)	.35*** (.05)	.32*** (.07)	.34*** (.07)	.38*** (.05)	.14** (.05)
Sex structure of offspring (boy = 1)	-.32*** (.05)	-.28*** (.07)	-.30*** (.06)	-.19*** (.05)	-.41*** (.05)
Residence structure of family (living with both parents = 1)	.12* (.05)	.18* (.09)	.14* (.07)	.13* (.05)	.04 (.05)
Parental companionship time	.02** (.01)	.01 (.01)	.03* (.01)	.02** (.01)	.01 (.01)
Affection interaction	.16*** (.02)	.18*** (.04)	.12*** (.03)	.12*** (.02)	.13*** (.02)
Constant	-1.03*** (.17)	-1.41*** (.26)	-.62* (.24)	-1.85*** (.18)	-1.36*** (.17)
Pseudo R <sup>2</sup>	.1243	.1254	.1143	.1160	.0666
N	9272	4043	5229	9272	9272

Standard errors are in brackets. \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001

degree and white-collar occupation and whose family is in medium or wealthy economic status, have a much higher probability of attending supplemental lessons. In other words, middle-class families devote more attention to obtaining opportunities for children's supplemental education than do other families.

From the perspective of the structure of children, the probability that children from single-child families will attend supplemental lessons is 1.42 times of that for children from multi-child families. Hypothesis 1.2 is verified; compared to children from multi-child families, children from single-child families are more likely to attend supplemental education. The impact of sex is significant. Compared to girls, boys are 27% less likely to attend supplemental lessons. Hypothesis 1.4 is verified. From the perspective of residential structure, although the variable of residential structure does not have a significant influence on the supplemental education spending, as seen in Table 4, the impact of this variable becomes quite significant in model 5. Hypothesis 1.6 is verified in which the probability of children living with both parents attending supplemental lessons is 1.13 times of that for children living with one or no parents. This indicates that an intact family with two parents can increase children's access to supplemental education. From the perspective of the parent-child relationship, both parental companionship time and parental affection interaction have positive effects on the probability that children will receive supplemental education. When parental companionship time increases by 1 h, the chance of the child attending supplemental lessons increases by 1.02 times. If the factor of parental emotional communication increases 1 unit, the probability of children attending supplemental lessons increases by 1.18 times. Therefore, both hypothesis 2.2 and hypothesis 2.4 are verified, showing that the parent-child relationship increases the likelihood that a child will receive additional education.

Father and mother may vary in the case of children's education consumption. The comparison of model 6 and model 7 shows that the paternal affection interaction variable is significant in both models. However, variables of paternal companionship time and father's occupation do not have a significant impact on children's participation in supplemental lessons (model 6), while affection interaction and mother's occupation do have a significant impact (model 7). Compared with children without white-collar mothers, children with white-collar mothers are 23% more likely to attend supplemental education. Father's education level and mother's education level both have significant influences. The likelihood of children with college-educated mothers attending supplemental lessons is twice that for children without college-educated mothers. The likelihood of children with college-educated fathers attending supplemental lessons is 1.17 times that of children without college-educated fathers. In this sense, the mother, as an identity character (occupation and education level), significantly influences children's participation in supplemental educational activities. This result echoes findings from other Chinese scholars, who have shown that mothers are highly involved in the education of their children and the mother has recently been characterized as a "professional agent" (Yang 2018).

The type of supplemental lessons attended by children varies according to family background. Model 8 and model 9 explore how different variables impact children's participation in curricular tutoring class and art/sports interest class, respectively. Results show that parents' occupations do not significantly influence curricular tutoring classes but significantly impact the choice of art/sports interest classes. Children with

white-collar parents are 1.28 times more likely to attend art/sports interest classes than their counterpart, children with college-educated parents are 58% more likely to attend curricular tutoring classes than their counterpart, and children with college-educated parents are 68% more likely to attend art/sports interest class than children without college-educated parents. Children from wealthy families are 75% more likely to attend curricular tutoring class than children from poor families, and children from wealthy families are 87% more likely to attend art/sports interest class than children from poor families. By comparisons, we find that while parents from all social classes lay much stress on attending curricular tutoring classes, those families with high occupational status, high education level, and abundant economic resources have a greater interest in children's participation in art/sports interest class than on curricular tutoring class, which demonstrates that middle-class families emphasize children's taste and ability in art and sports, more devoted to accumulating cultural capital and committed to cultivating the taste, in addition to academic achievements.

### **Conclusion and discussion**

Under the dual background of the family revolution and the consumption revolution, this paper tries to explore the relations among family structure, parent-child relationship, and children's education consumption by analyzing CEPS data from the perspective of family. Most hypotheses are supported. In general, this paper reaches the following conclusions through the analysis of the consumption data of children's supplemental education.

First, family structure has a significant influence on children's supplemental education consumption through the provision of resources and opportunities. On one hand, the structure of children changed the family's strategy for education investment. Compared with children in multi-child families, the only-child children, as the only hope of their families, receive more financial support and opportunities for supplemental education. In addition, compared to boys, girls receive more financial support and opportunities for supplemental education. On the other hand, the residential structure of family has a significant impact on whether children attend supplemental lessons, though it does not have a significant impact on financial support. Living with both parents can help children obtain opportunities for supplemental education.

Second, a good parent-child relationship has a positive influence on children's supplemental education consumption. On one hand, the longer time the parent spends with the child each day, the more financial support and opportunities exist for supplemental education. On the other hand, the more frequent the parental emotional interaction and communication, the more parental emotional investment the child receives, and thus, the more financial support exists for supplemental education for the child. Further analysis finds that the paternal relationship and maternal relationship have different influences. Mothers contribute more on children's education than fathers, especially middle-class mothers, who have a positive impact on the opportunity obtaining of children supplemental education, and mother as an educational agent is more evident (Yang 2018). Precisely because of this, middle-class mothers are more anxious than their counterparts in other social classes. Receiving supplemental education is a kind of "shadow education" for children; however, it is a kind of "shadow work" for mothers (Illich 1982).

Third, the class difference in children's supplemental education consumption is a critical issue. This paper finds that middle-class families emphasize more on children's supplemental education. They are not only keen to send their children to tutoring classes, but also to art/sports interest classes to improve the children's cultural and artistic taste. Such a practice of education consumption is imprinted by class characteristics. Becker has pointed out that the improvement of children's quality requires increased financial investment in the child; the so-called high-quality children are those who cost their parents more (Becker 1960:211). Schultz also suggests that "child capital" is a kind of special human capital, accumulated by couples since the birth of their child and increased by child cultivation (Schultz 1990:2). These ideas are well known among Chinese middle-class parents today. They have very high education expectations for their children and do their best to invest in education to raise higher quality children and to accumulate human capital that will allow for the family's upward mobility of the family. But official education resources are deficient and are distributed in an imbalanced way. Many middle-class families thus shift their attention to the consumer market of supplemental education for premium education resources to ensure their children are advantaged in the competition for education. All these factors promote the development of a consumer market for supplemental education.

However, the prevalence of supplemental lessons not only burdens families economically, but also hinders the implementation of the "burden alleviation" policy for students. More and more parents and children are involved in a prolonged competition, resulting in the dilemma in which burdens within the school are alleviated but out of the school, students are more burdened. Why have years of institutional reform of basic education not prevented the drastic expansion of the supplemental education consumption market? While there are institutional and economic reasons, it is necessary to also explore the dimension of sociocultural psychology. The development of the supplemental education consumption market is constructed as an influential culture of children consumption, appealing to most parents' requirements, reinforcing children's dependence on supplemental lessons, and ultimately declaring supplemental education to be a kind of family necessity having both instrumental rationality and emotional value. It is not hard to understand the reason why parents disregard official policies that regulate the supplemental education consumption market and that aim to alleviate students from having a heavy study burden, policies which are repeatedly issued by education administrative departments. Parents wish to provide a relaxed and happy childhood for their children but are derailed by the fierce competition for educational opportunities that emerge during primary and secondary education, and even during kindergarten. For "a better future" for their children, parents do not dare to alleviate the burden of supplemental education; otherwise, they are lagging. Although the only children obtain more financial support and opportunities for supplemental education, this does not mean the financial cost for children's supplemental education in multi-child families will decrease after the implementation of "the universal two-child policy." As a matter of fact, the consumption of children's education, as a cultural phenomenon, penetrates daily family life and affects long-term parental investment on children's education consumption. As long as the anxiety and ambition of class mobility persist in the heart of parents and as long as they try to change individual fates or family futures through education, the expense of children's supplemental education consumption will

not decrease and parental enthusiasm for supplemental education will not fade, regardless of single-child or multi-child families.

This paper has no intention to justify or to criticize supplemental lessons but tries to uncover the functions of instrumental rationality and emotional expression of supplemental education in family life. Children's education consumption is a critical facet of the child consumer culture, which is not just an invasion into innocent and pure children, but also a common repository for children regarding interpersonal communication. While consuming supplemental education, they express a cultural desire shared by classmates and friends and thus form an imagined community (Seiter 1995:32). In the booming "baby economy," children's consumption has already become an important part of family consumption. But it is not appropriate to apply critical consumption theory to explain children's consumption, for it is a meaningful behavior strategy on the part of parents and families. Children consumption may be a kind of psychological compensation for the lack of parental companionship due to parents' busy work (pocket money is another example) or a nostalgic consumption in the name of "for the sake of child," whose purpose is to build a good environment for children through children's education consumption or to conform to the children's consumer culture for integration into a certain social class.

Therefore, supplemental education consumption does not always represent jealousy, showing off, or competition, from the perspective of parents. Given the birth rate trend, it can symbolize love, dignity, hope, or a kind of meaning of life through competition. Pugh believes that modern consumption creates "economies of dignity." Increasing children's consumption is creating a decent lifestyle for children in many families (Pugh 2009). From the perspective of internal family life, children's emotional value has surpassed their economic value and pivoted family affection connections. Increasing children education consumption is an expression of parental love. From the perspective of external competition, the only children, as the future and only hope of the family, are primary forces for the family in social competition and thus the best investment of the family. Purchasing supplemental educational services is the purchase of hope. Parents regard their investment in their children as an approach to help their children to achieve academic success and to elevate the social status of the family, though the investment affects the sense of happiness of parents and children at present.

In this sense, it is necessary to rebuild the internal connection between family studies and consumption studies in the case of children's education consumption. Scholars have pointed out that the family cannot be neglected in the discussion of social problems in China (Wu 2015: 17). Similarly, it is necessary to bring the family back into the discussion of the growing culture of supplemental lessons for children. Therefore, when using the family perspective to analyze consumption issues, we will find that family is not just an analytical unit of consumption behavior and consumption not just an organizational function of family life. Family consumption is a significant facet of family transformation and the arena of consumption revolution, which implies the dual connotation of the family revolution and the consumption revolution, and together they become a microcosm of social transition. Through observation and reflection on children's education consumption, we can portray the influence of family structure and family relationship on family consumption and how this social transition projects into the field of family consumption.

## Endnotes

<sup>1</sup>According to *Report on Family Development in China in 2015*, 64.3% of Chinese families are nuclear families. On average, there are 3.35 people in one household. 70.2% of Chinese families have no more than three family members (The family Department of National Health and Family Planning Commission 2015:3–7).

<sup>2</sup>Since the strict implementation of the one-child policy in the 1980s, the total fertility rate in Mainland China has dropped drastically. By the beginning of the 1990s, the total fertility rate had already dropped below the generation replacement level (2.1). The population census in 2000 showed that the total fertility rate was merely 1.22, among the lowest level in the world. The population census in 2010 showed that the total fertility rate in Mainland China had decreased even further, to 1.18.

<sup>3</sup>According to Bray's definition, "shadow education" refers only to extracurricular tutoring. Interest classes of art, like music, sports, and painting, are not included (Bray 2006).

<sup>4</sup>The academic community is still debating whether the conjugal relationship or parent-child relationship is the principle axis of present family relationships. Some scholars argue that because of downsizing and the nuclearization of the family, internal relationships become more equal than in the past and the conjugal relationship has placed the parent-child relationship as the principle axis of family relationships. But some research challenges this argument by pointing out that the equality of parent-child relationship and the importance of the intimate relationship do not necessarily lead to the replacement of the parent-child relationship by the conjugal relationship. Which relationship surpasses the other to be the principle axis is a practical choice made by every family depending on different contexts (see Ma et al. 2011:190). This paper agrees with the second argument.

<sup>5</sup>I appreciate the anonymous reviewer's comment on this distinction.

## Acknowledgements

The draft of this paper had been submitted to the conferences on "Tradition and Development: Family and Family Study in the perspective of interdisciplinary," "the 13<sup>th</sup> Postdoctoral Forum of Chinese Sociology," and "the 5<sup>th</sup> Youth Forum of Sociology." The author would like to express his gratitude to the anonymous reviewers and all those who commented at the conferences.

## Authors' contributions

This study is an independent composition. The author read and approved the final manuscript.

## Authors' information

The author earned his doctorate in sociology in 2009 from Sun Yat-sen University, and he is currently Professor and Deputy Dean of the College of Law and Political Science, Zhejiang Normal University.

## Funding

This study is funded by the General Project of National Social Science Fund (Project No.: 15BSH015) and Key Project of Philosophy and Social Sciences Fund of Zhejiang Province (Project No.: 15NDJC027Z).

## Availability of data and materials

The datasets used in the current study are conducted by the National Survey Research Center in Renmin University, China, which are available from: <https://ceps.ruc.edu.cn/index.php?r=index/index>

## Competing interests

The author declares that he has no competing interests.

Received: 28 March 2019 Accepted: 5 June 2019

Published online: 18 June 2019

## References

Amemiya, T. 1984. Tobit models: A survey. *Journal of Econometrics* 24: 1–2.



- Barber, B.R. 2007. *Consumed: How markets corrupt children, infantilize adults, and swallow citizens whole*. New York & London: W. W. Norton & Company.
- Becker, G. 1960. An economic analysis of fertility. In *Demographic and economic change in developed countries*, ed. National Bureau of Economic Research. Princeton: Princeton University Press.
- Bian, Yanjie. 1986. Basic characters of the single-child family in China. *Social Sciences in China* (1), 91–106.
- Blake, J. 1981. Family size and the quality of children. *Demography* 18 (4), 421–442.
- Blau, P.M., and O.D. Duncan. 1967. *The American occupational structure*. New York: Free Press.
- Bourdieu, P., and Jean-Claude Passeron. 2002. *La Reproduction, translated by Xing Kechao*. Beijing: The Commercial Press.
- Bray, M. 2006. Private supplementary tutoring: Comparative perspectives on patterns and implications. *Compare: A Journal of Comparative and International Education* 36 (4), 515–530.
- Bray, M. 2012. The global expansion of shadow education: Subverting or enhancing equity, quality and development? translated by Liao Qing. *Comparative education review* (2), 13–17.
- Cook, D.T. 2004. *The commodification of childhood: The children's clothing industry and the rise of the child consumer*. Durham & London: Duke University Press.
- Davis, Deborah, and Hanlong Lu. 2003. *The consumer revolution in urban China*. Shanghai: Shanghai Academy of Social Science Press.
- Fei, Xiaotong. 1998. *Rural China. Fertility system*. Beijing: Peking University Press.
- Feng, Xiaotian. 1994. The single-child family: A new life style. *Social Science Journal* (5), 28–32.
- Fong, V.L. 2004. *Only hope: Coming of age under China's one-child policy*. Stanford: Stanford University Press.
- Grusky, D.B. 2008. *Social stratification: Class, race, and gender in sociological perspective*. Philadelphia: Westview Press.
- Hannum, E. 2005. Market transition, educational disparities, and family strategies in rural China: New evidence on gender stratification and development. *Demography* 42 (2), 275–299.
- Hoffman, L.W., and M.L. Hoffman. 1973. The value of children to parents. In *Psychological perspectives on population*, ed. J.T. Fawcett. New York: Basic Book.
- Hong, Yanbi, and Yandong Zhao. 2014. From capital to habitus: The class differentiation of family educational pattern in urban China. *Sociological Studies* (4), 73–93.
- Hout, M. 2015. A summary of what we know about social mobility. *The Annals of the American Academy of Political and Social Science* 657 (1), 27–36.
- Hu, Yongmei, Wenfeng Fan, and Weili Ding. 2015. Does shadow education aggravate inequality of educational outcomes? An empirical study on PISA 2012 Shanghai data. *Peking University Education Review* (3), 29–36.
- Illich, I. 1982. *Gender*. New York: Pantheon Books.
- Jing, Jun. 2017. In *Feeding China's little emperors: Food, children, and social change*, trans. by, ed. Qian Linliang, Li Sheng, et al. Shanghai: East China Normal University Press.
- Lareau, A. 2010. In *Unequal childhoods*, trans. by, ed. Zhang Xu. Beijing: Peking University Press.
- Li, Chunling. 2003. Social and political changes and inequality in educational opportunities: On the impact of family background and institutional factors on educational attainment (1940–2001). *Social Sciences in China* (3), 86–98.
- Li, Peilin, and Yi Zhang. 2008. The scope, identity, and social attitudes of the middle class in China. *Society* (2), 1–19.
- Li, Yu. 2006. Institutional change and educational inequality: Mechanisms in educational stratification in urban China (1966–2003). *Social Sciences in China* (4), 97–109.
- Li, Zhonglu, and Zeqi Qiu. 2016. Family background and children's academic performance: Evidence from the compulsory education in China. *Sociological Studies* (4), 121–144.
- Lucas, S.R. 2001. Effectively maintained inequality: Education transitions mobility, and social background effects. *American Journal of Sociology* 106 (6), 1642–1690.
- Ma, Chunhua, Jinqun Shi, Yinhe Li, Zhenyu Wang, and Can Tang. 2011. Family change in urban areas of China: Main trends and latest findings. *Sociological Studies* (2), 182–216.
- Perrotta, C. 2004. In *Consumption as an investment: (1), the fear of goods from Hesiod to Adam Smith* Trans. By, ed. John McMullin. London & New York: Routledge.
- Pugh, A.J. 2009. *Longing and belonging: Parent and children and consumer culture*. Berkeley: University of California Press.
- Quart, A. 2003. *Branded: The buying and selling of teenagers*. New York: Perseus Publishing.
- Sandefur, G.D., S. McLanahan, and R.A. Wojtkiewicz. 1992. The effects of parental marital status during adolescence on high school graduation. *Social Forces* 71 (1), 999–1017.
- Schor, J.B. 2005. *Born to buy*. New York: Scribner Press.
- Schultz, Theodore W. 1990. *Human capital investment: The role of education and research*. Beijing: The Commercial Press.
- Seiter, E. 1995. *Sold separately: Children and parents in consumer culture*. New Brunswick: Rutgers University Press.
- Steelman, L.C., B. Powell, R. Werum, and S. Carter. 2002. Reconsidering the effects of sibling configuration: Recent advances and challenges. *Annual Review of Sociology* 28 (1), 243–69.
- Stevenson, D.L., and D.P. Baker. 1992. Shadow education and allocation in formal schooling: Transition to university in Japan. *American Journal of Sociology* 97 (6), 1639–1657.
- The Family Department of National Health and Family Planning Commission. 2015. *Report on family development in China*. Beijing: China Population Press.
- Thomas, S.G. 2007. *Buy, buy, baby: How consumer culture manipulates parents and harms young minds*. Boston and New York: Houghton Mifflin Company.
- Treiman, D.J. 1970. Industrialization and social stratification. In *Social Stratification: Research and Theory for the 1970s*, ed. E.O. Laumann. Indianapolis: Bobbs-Merrill.
- Tsang, M.C. 2002. Comparing the costs of public and private schools in developing countries. In *Yearbook of the American education finance association*, ed. H. Levin and P. McEwan. New York: Eye on Education.
- Wardahl, R. 2010. The Dao of consumer socialization: Raising children in the Chinese consumer revolution. In *Childhood and consumer culture*, ed. D. Buckingham and V. Tingstad. Basingstoke: Palgrave Macmillan.
- Wang, Xiao Lei. 2017. The quality of junior middle school and the inequality of shadow education opportunity——Taking CEPS 2013–2014 data as an example. *Social Sciences of Beijing* (9), 50–60.
- Wu, Xiaoying. 2015. Ideological debates behind the family policy. *Journal of Chinese Women's Studies* (2), 17–25.

- Wu, Yuxiao. 2013. The keypoint school system, tracking, and educational stratification in China. *Sociological Studies* (4), 179–202.
- Wu, Yuxiao, Chao Huang, and Suwen Huang. 2017. The dual cultural reproduction of families and schools: A heterogeneous discussion about the effects of cultural capital. *Journal of Social Development* (3), 1–27.
- Wu, Yuxiao, Peng Wang, and Du Sijia. 2018. The changing Chinese family structure and adolescent development. *Social Sciences in China* (2), 98–120.
- Xiong, Yihan, 2016, The collective anxiety of the middle class behind the heat of “Xue Er Si”, [http://www.thepaper.cn/newsDetail\\_forward\\_1565194](http://www.thepaper.cn/newsDetail_forward_1565194).
- Xue, Haiping. 2015. From school education to shadow education: Education competition and social reproduction. *Peking University Education Review* (3), 47–69.
- Xue, Haiping, and Jing Li. 2016. Family capital, shadow education and social reproduction. *China Economics of Education Review* (4), 60–82.
- Yang, Ke. 2018. Motherhood as educational agent: Changes in motherhood in the context of market-oriented education. *Journal of Chinese Women's Studies* (2), 79–90.
- Ye, Hua, and Xiaogang Wu. 2011. Fertility decline and the trend in educational gender inequality in China. *Sociological Studies* (5), 153–177.
- Ying, G. 2003. Consumption patterns of Chinese children. *Journal of Family and Economic Issues* 24 (4), 373–379.
- Zelizer, V.A. 1994. *Pricing the priceless child: The changing social value of children*. New York: Princeton University Press.
- Zelizer, V.A. 2005. *The purchase of intimacy*. Princeton and Oxford: Princeton University Press.
- Zhang, Yi. 2010. Family background affecting People's access to education and social stratum status. *Journal of Graduate School of Chinese Academy of Social Sciences* (4), 82–92.
- Zhao, X. 2006. Chinese children's consumption. In *Chinese youth in transition*, ed. Jieying Xi, Yunxiao Sun, and Jingjian Xiao. Burlington: Ashgate Publishing Company.

### Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Submit your manuscript to a SpringerOpen<sup>®</sup> journal and benefit from:

- ▶ Convenient online submission
- ▶ Rigorous peer review
- ▶ Open access: articles freely available online
- ▶ High visibility within the field
- ▶ Retaining the copyright to your article

---

Submit your next manuscript at ▶ [springeropen.com](http://springeropen.com)

---