

# Research on the Evolving Mechanism of Shadow Education Based on the Law of Supply and Demand

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**Abstract.** Since the implementation of the "double reduction policy", the governance of off-campus training for students in the compulsory education stage has achieved remarkable results, but there are still many problems that cannot be effectively solved through special treatment. In this paper, we make a thorough analysis of the mechanism and process of the cause and evolution of shadow education by using the "Law of Supply and Demand" of economic management, and systematically clarify the key factors of supply and demand, which is the "excessive demand" of parents and students for shadow education leads to the natural increase of the supply of shadow education institutions. We propose countermeasures focusing on the "demand-side management" to gradually reduce parents' demand for shadow education, to achieve a significant effect of inaction.

**Keywords:** shadow education; extracurricular tutoring; education governance; educational theory.

## 1. Introduction

Mark Bray defines shadow education as "an organization or institution that exists outside the mainstream education system in primary and secondary schools, but follow the pace and offer the same or similar subjects as the mainstream education system to improve student performance for profit"[1].

The Outline of the 14th Five-Year Plan and Vision 2035 of the People's Republic of China proposed to build a high-quality education system and regulate off-campus training. On July 24, 2021, the General Office of the CPC Central Committee and the General Office of the State Council issued the Opinions on Further Easing the Burden of Homework and Off-campus Training on Students in Compulsory Education Stage All regions and departments were required to implement it conscientiously combined with the actual situation. In August of the same year, the Office of Educational Supervision of the State Council issued a special notice clarifying that the progress of implementation progress of the "Double Reduction" work in various provinces((autonomous regions and municipalities) will be notified every two weeks. In October 2021, the National People's Congress (NPC) said: "Double reduction" is proposed to explicitly enter into the law to avoid increasing the burden of students in compulsory education. On November 3, the State Administration for Market Regulation and other eight departments have jointly issued the Notice on the Control of Advertisements for Off-campus Training. It resolutely prohibited the publication of advertisements for off-campus training on billboards and advertising spaces belonging to the subway and bus stations. The introduction of these aforementioned policies has indeed achieved some success in the governance of off-campus training. However, there are still some hidden unresolved issues which mean the demand side - parents' excessive anxiety about their children's learning. This paper conducts an in-depth study of the mechanism of the cause and evolution of shadow education by using the market law of supply and demand, and accordingly proposes countermeasures from the demand side, providing additional policy references for regulating the healthy development of shadow education.

## 2. Dynamic Evolving Mechanism of Shadow Education

Parents require more on their children's education against the background of globalization of education. Spurred on by the macroeconomic development and education environment, parents demand more on the educational level of mainstream educational institutions, and when they fail to

meet the demand for educational resources for their children, they turn to out-school educational resources, like shadow educational institutions. As the entry threshold of shadow educational institutions is not high, the growing demand for “training” from parents and students has led to the rapid development of shadow education.

## 2.1 Analysis of “Demand-side” Factors of Shadow Education

The social stratification mechanism is “specializing in education only”. Max Weber's “trinity” social stratification theory establishes a multiple stratification system, which divides the social structure into three dimensions: wealth, prestige, and power[2]. At present, the easy way to obtain wealth, prestige, and power is through education, and under the guidance of “exam-oriented education”, every parent wants to provide the best educational conditions for their children.

The evaluation system for higher education is “only scores matter”. China's examination-centered education system (namely “exam-oriented education”) provides fertile ground for the rise and development of shadow education. Examinations with functions of education and social selection have brought enormous pressure on both students and parents[3].

The employment selection mechanism is based on “only academic credentials”. The education system guided by “exam-oriented education” has formed a value that emphasizes test scores and selection, which has led to the unchecked spreading of off-campus training due to “huge profits”. The academic diploma is regarded as an important factor to value one person in the employment selection mechanism, which has made education a “stepping stone” to find a job, and the ultimate purpose of receiving an education is to enter society, the “big market” and find a position in it to earn a living. When the selection mechanism is only based on “academic qualifications and prestigious universities”, it is bound to lead to the utilitarianism of people involved in education who will make every effort to make up for the shortcomings of formal education through various out-school education modes. Thus parents are willing to invest a lot of time, energy, and money into off-campus training, and the more pressure on employment, the stronger the demand for early preparation for higher education enrollment.

The educational resources in mainstream schools are inadequate. In education values, both students and teachers have lost their status as subjects of education, and “knowledge-based” has become the main mode of education. Teachers of mainstream education schools are afraid of “being responsible” due to parents' “overstepping”, which results in their frustrated motivation, insufficient innovation in educational methods and means, and rigid teaching models, thus quality mainstream education resources have become “shocking scarce”. This has also caused a “real loss” of quality educational resources which means as the government's regulator of education fairness, mainstream schools temporarily have no help, unable to meet the diverse needs of students.

Families don't have an appropriate view of education. Driven by the external environment, it is bound to form a situation in which the relationship between the parents as the main protagonists, and the off-campus training institutions and the mainstream schools is “kidnapped” and “kidnapping”. Parents who don't have an appropriate view of education often tend to follow the crowd, and participate in off-campus training blindly, which seemingly is to meet their children's educational needs, but in fact, is seeking inner security themselves. Collective angst formed due to parents' “anxiety heart” and misleading training institutions. The survey shows that at least half of parents have a strong subjective will to enroll their children in extracurricular tutoring. Anxious parents often overstep in mainstream education, resulting in the mainstream education giving way to them or off-campus training institutions, thus they themselves cannot fully play the important leading role in education.

## 2.2 Analysis of the “Supply-side” Factors of Shadow Education

Before the introduction of the “double reduction policy”, off-campus training institutions have low barriers to entry. As a result, the quality of shadow education institutions in the market varies greatly, which can easily lead to violations of laws and regulations and seriously damage the

interests of parents and students. Driven by economic interests, shadow education institutions are prone to “place profits above the responsibility”, neglecting management of follow-up training, and lacking social responsibility.

Off-campus training institutions have a strong brand effect. Huge profits drive an increase in the number of shadow educational institutions, which to achieve their own interests, hire famous teachers or create their own famous teachers at all costs, using the slogan of quickly improving students' scores, which gives parents and society the illusion that they can provide high-quality tutoring to realize their brand effect.

After the “double reduction policy” was introduced, the supply-side factors of shadow education has been cut off. However, there are still hidden problems on the demand side.

### **2.3 The dynamic evolving mechanism of supply and demand of shadow education**

Demand-side factors cause the change in parents' awareness and behavior. With the combination of “external” and “internal” driving factors in the education environment, parents will involuntarily think about how to arrange their children's education, during which they may compare with others, evaluate and be worried about their children and feel anxious. First, we can solve the problem from the perspective of school choice. When the weight of “school choice” has become a foregone conclusion, they will turn to outside, the shadow education institutions. In the process of research and interviews, we found that parents all want to let their children participate in off-campus training, whether their children are in famous school or ordinary school, whether they are top students or ordinary children. Thus the role of off-campus Training courses has been divided, in addition to helping some children in their studies, they also help relieve parents' anxiety about the educational environment. When parents are influenced by the environmental factors in which they live, they automatically generate a self-defense mechanism, then how to improve their children's academic performance? How to solve the problem of self-anxiety? Our survey shows that more than 90% of parents solve the problem by enrolling their children in off-campus training, through which they find their own inner balance. Though parents need to spend money on their children's after-school tutoring, they can get temporary “peace of mind” from it. Some parents even give up their work and accompany their children full-time, as though the sacrifice in this way will solve their children's education problems.

On the other hand, supply-side factors promote the large-scale growth of shadow education institutions. Due to the increasing demand of parents for shadow education institutions, shadow education institutions in the current market is still not enough. From the interview of parents and training institutions, we learned that there may be no places available to attend holiday training if they do not register in advance. Because shadow education institutions have low barriers to entry, and the teachers working in them are familiar with the market demand, so they can easily leave their “original working institutions” and suddenly become the boss of another new training institution. This can be called the fission increase model of “shadow education institution”. Such a large-scale growth of the shadow education institutions created a reverse herding effect in parents' cognition, which is, it seems that all children are participating in out-of-school training, which at this time has become an alternative to “mainstream education”. Some children even participate in multiple training institutions at the same time, and according to the survey, 53.7% of the children attended 2-3 off-campus training institutions and 29.63% attended 4-5.

Even though the “double reduction policy” has been effectively implemented to cut off the “supply factor” of shadow education, the supply side will still exist in another mode if the demand-side factors are not yet resolved.

### **3. Long-term Countermeasures for the Demand-side Factors of Shadow Education**

The “double reduction policy” has effectively addressed the problem of out-of-school training from the “supply-side”. However, there are still many hidden issues on the “demand-side” of shadow education that has not yet been solved, so we propose countermeasures in the following five aspects.

#### **3.1 Reform the macro environment of primary education to solve the problems of the primary education ecosystem**

The first is to implement the all-in-one education group model for primary, middle, and high school. Reduce the main factors of cross-regional school choice, formulate policies and measures to restrict students' school choice of different regional education groups, form an effective competition mechanism between different regional primary education groups, and effectively build a regional “shared high-quality education community”, thus improving the overall level of school running and solving the problem of school choice. Meanwhile, education groups running schools is also an effective way to solve the contradiction between the people's growing demand for education and the insufficient supply of high-quality education and has become an important way for all localities to promote their balanced development of high-quality education [6]. The second is to improve the provincial average enrollment rate of high schools and implement differentiation standards. According to the latest statistics of the Ministry of education, in 2020 was 59.7%, and the top three were Heilongjiang Province, Beijing, and Jilin Province, while Yunnan Province, Zhejiang Province, and Henan Province ranked the last three. The average enrollment rate of ordinary high schools in Zhejiang Province was 53.3%, which was 6.4% lower than the national average. Therefore, the differentiated average enrollment rate of ordinary high schools is required, and based on the reality of general high schools and vocational high schools in Zhejiang Province, the lower limit of enrollment rate of general high schools should be raised. Third, a diversified mode of education supply should be built. Broaden the diversion path of non-ordinary high school education, moderately improve the enrollment scale and teaching quality of regional “integrated training of secondary vocational and applied undergraduate” and “five-year preschool education”, establish a benchmark for vocational higher education, improve the overall teaching quality of the vocational high school, and build a flexible and convenient lifelong learning system with abundant resources.

#### **3.2 Reform the syllabus and textbook content to help students develop independent learning ability**

Firstly, reform the syllabus of the course according to the “requirements of the examination syllabus”. According to the survey data, 38.89% of the students enrolled in the training courses aim to acquire knowledge beyond the textbook. When the content of entrance examinations for middle and high school and universities is in large quantity and difficult, which is contrary to the reform of “simplifying” the curriculum and shortening the class hours. When the content of the entrance exam exceeds the syllabus, parents find formal school education is difficult to meet their needs, so they turn to off-campus training. The second is to reform the content of teaching materials to cultivate students' “independent learning ability”. The content design of the current textbook is slightly mismatched with current students' physical and mental growth and learning ability, which is not conducive to the natural enhancement of independent learning and logical thinking.

#### **3.3 Optimize the employment selection mechanism to solve parents' anxiety about future employment**

One is to build a salary equality mechanism for different occupations and break the link between social status and occupation. All occupations should be respected, and all occupations are products of the social division of labor, and society cannot develop without various occupations, which

should be treated equally by society. Second, guide the recruitment departments at all levels and enterprises and institutions to establish the appropriate talent selection mechanism. As to all levels of public recruitment and enterprise selection of talent, break the talent selection guidance of “only prestigious schools, only academic qualifications, and only diplomas”.

### **3.4 Improve the management level in mainstream schools to help education back to its right position**

First, continue to reduce teacher workload. Find the root cause of the problem, identify and list the “load reduction list” and implement it. Focus on the main responsibility of teachers to establish moral education, teaching and educating, let teachers return to their original position, and education returns to its essence. The second is to improve the management level of homeroom teachers. In principle, homeroom teachers graduate from formal teacher training colleges or with similar teaching abilities. Implement a regular training and learning system for young homeroom teachers. The third is to improve methods and means of education and teaching. Combining the characteristics of students' growth and development at different ages, focusing on school classroom teaching reform, implementing flexible teaching methods and means, encouraging teachers to teach according to their abilities, and effectively improving the quality of education and teaching and the ability to educate people; third, strictly defining the responsibilities and obligations of home and school. The role of teachers and parents is clearly defined, teachers take the responsibility of teaching and educating people, give full play to their educational functions, parents actively fulfill their responsibilities and obligations, not overstep, and practically solve the problem of the home-school communication mechanism.

### **3.5 To build a multi-dimensional, intelligent, and digital support platform in home, school, and community to help parents learn**

First, mainstream educational institutions build public welfare platforms “digital intelligent learning” for family education. Through the platform, parents can learn an appropriate understanding of the philosophy and essence of education and values to help them educate their children with the right method. Secondly, parents' living communities build a family education platform “digital intelligent discussion and learning”. Each community selects a teacher to answer questions and solve problems related to education through voluntary registration, and provide solutions to parents' educational problems in time. Third, improve the deep communication between schools and parents. Through multi-channel communication like offline and intelligent digital platforms, we can improve the communication between teachers and parents, and form an appropriate multi-channel communication mechanism for home schools focusing on “children's” problems.

## **4. Summary**

To sum up, against the background of the effective implementation of the “double reduction policy”, the above countermeasures should be launched mainly around the “demand-side” factors of shadow education, so that parents' demand for shadow education will gradually decrease, achieving the remarkable effect of inaction from inside to outside.

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