

## What the “Subtraction Policy” could Generate in China: Discussion about Its Effects and Limitations

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### Abstract

Since the founding of the People’s Republic of China, the overburden of students has been a problem. The effect of the implementation of the “Subtraction Policy” has not been very satisfactory.

The difference between urban and rural areas in China should be the reason for the ineffective implementation of “Subtraction Policy”. Rural people opt for internal migration to cities like Shanghai and Beijing and are unwilling to stay in the countryside to develop. As a result, urban students face more cruel competition, while rural students have to study harder and dare not relax.

**Keywords:** China, academic burden, “Subtraction Policy”, urban and rural

### 1. Introduction

#### 1.1. Background

In 1954, the academic burden in some academic areas and schools became more serious, and new problems appeared in China: Students are busy with homework and exams every day. They must get up early and go to bed late. They don’t rest at noon, and do homework on Sunday. The students are often in a state of nervousness. In some schools, the teaching of certain subjects is beyond the scope of textbooks and syllabuses. The content of teaching materials can be arbitrarily supplemented and the teaching progress can be accelerated, which makes students feel complicated and distressed. There are also some schools that do not follow the teaching plan and increase the number of lessons and hours at will (Hu & Yin, 2015).

The academic burden of students has always been a hot issue of concern to the whole society. The heavy academic burden seriously affects the physical and mental health of students. Solving the problem of the heavy workload of students is of great significance

for ensuring the health of students and promoting all-round development (Chen & Zhang, 2013).

On December 2, 2018, a “2018 Primary and Secondary School Students’ Burden Reduction Survey Report” was released at the China Education 30 Forum. Data sampling involves multiple provinces and cities in China, and the subjects of the survey included students in the six grades of primary school and 16,830 parents of primary school students.

Due to the heavy learning burden, elementary school students cannot have adequate sleep time. According to Figure 1, only 23.99% of students can wake up naturally, while the proportion of students who wake up by alarm clock or other methods is as high as 76.01%. What’s more serious is that there are 29.26% of students who sleep less than 8 hours and are awakened by alarm clock or other methods.

The data in Figure 2 is from “A National Survey on the Study Pressure of Primary and Secondary School Students” in 2015. According to the survey, 49.3% of the students had self-denial thoughts, and they assumed they were stupid. About 23.3% of students feel distressed. Around 12.5% of students

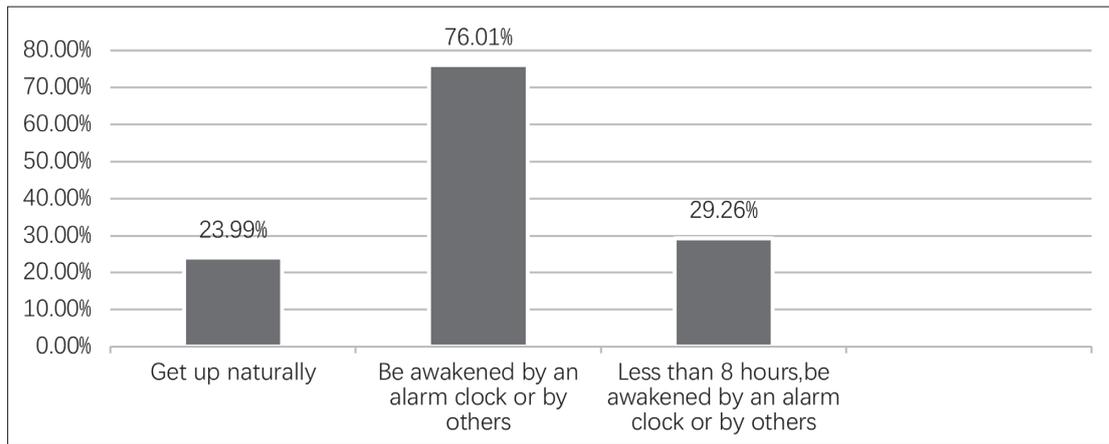


Figure 1. The children’s sleep time and circumstance.

Source: “2018 Primary and Secondary School Students’ Burden Reduction Survey Report” (China Education 30 Forum, 2018)

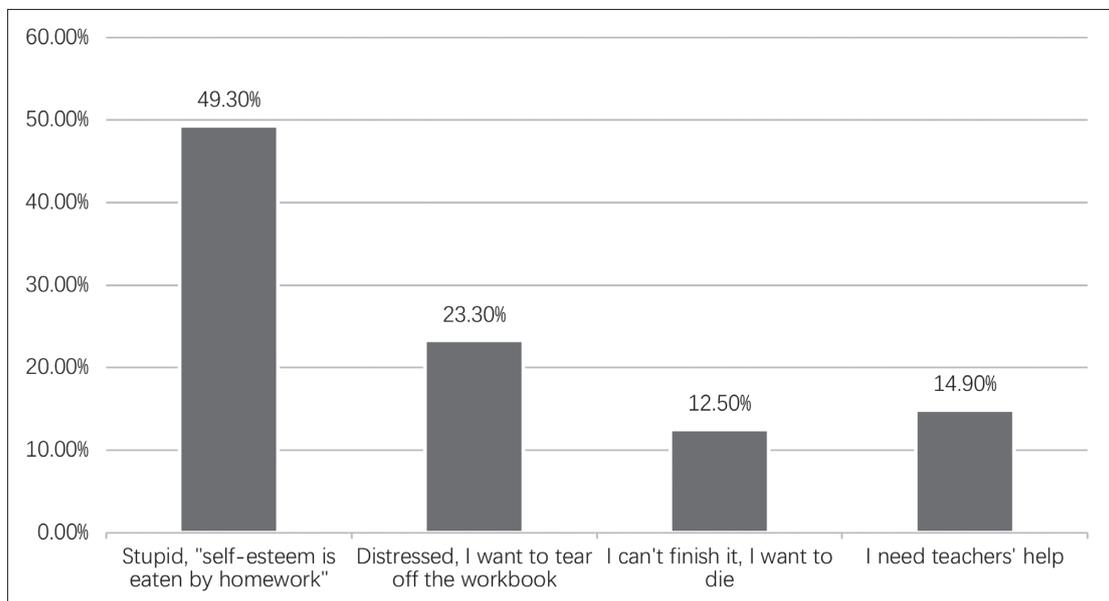


Figure 2. The emotion of students about doing their homework late at night.

Source: “A National Survey on the Study Pressure of Primary and Secondary School Students” (Afanti, 2015).

want to die because they cannot finish their homework. All in all, 85% of students have negative emotions.

### 1.2. What is “Subtraction” in China?

“Subtraction” in this policy means to reduce the excessive burden, not to reduce the entire burden (Li, 2002). “Subtraction” implies to reduce the excessive academic burden of primary and secondary school students. “Subtraction Policy” is to reduce the student’s learning burden and improve quality education so that students have better space for developing. Relieving the burden turns the student’s study into a pleasant thing so that the student will no longer be worried about learning. However, reducing

the burden is not to reduce all the burdens of students. It is to reduce the unfavorable factors that affect students’ physical and mental health (Bai, 2014).

On the whole, it can be seen that reducing students’ overweight, unreasonable and unnecessary burdens include not only objective academic burdens, but also psychological burdens (which can also be understood as a kind of spiritual burden), which is a relatively unified value identity (Yang & Zhang, 2019).

Through Figure 3, student pressure is divided into academic burden and psychological burden. Academic burden can be caused by the length of learning time, the difficulty of learning content, and the amount of homework, and so on. Psychological

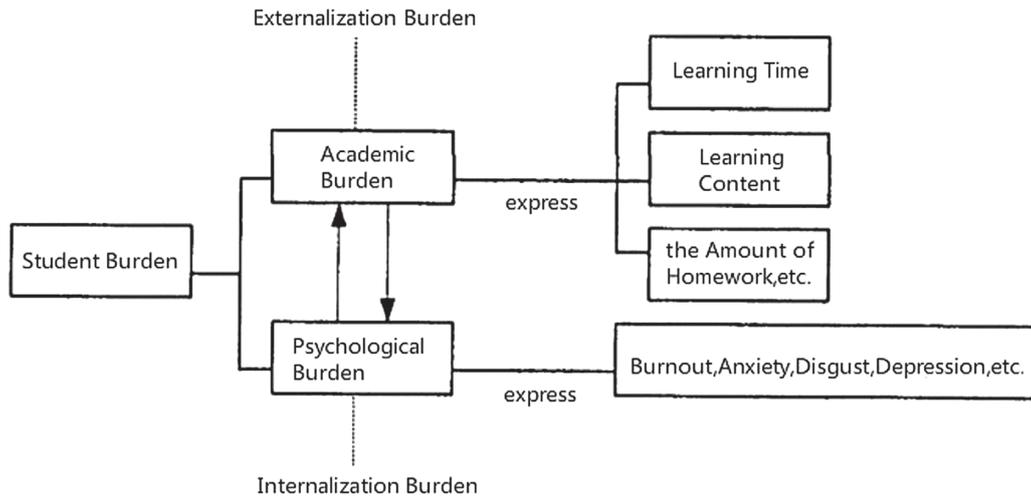


Figure 3. The Structure of Students' burden.

Source: Cultural condition: A deep analysis of the relapse of “lightening students' burden” from Li Xiaojun (2003).

burden is manifested as burnout, anxiety, disgust, depression, and so on. Academic burden and psychological burden will affect each other. Excessive academic burden can make students feel negative. Similarly, when students develop negative emotions, they will feel that their usual schoolwork is an unfinished burden. This forms an endless loop.

### 1.3. History of “Subtraction Policy” in China and its effects

After the founding of China in 1949, the Chinese government committed to reducing the academic burden on primary and secondary schools. Since the state promulgated the first document specifically addressing the overburden of academics in 1955, the state has issued more than a dozen policies specifically addressing academic overburden (Hu & Yin, 2015).

Looking back at the “Subtraction Policy” in each period, it can be found that the purposes of policies are different as follows:

- 1949-1966: Mainly to improve physical health  
The “Subtraction Policy” from 1951 to 1960 tried to ensure students' sleeping time. Recommended daily sleep time was: 8 hours for college students; 9 hours for middle school students; and 10 hours for elementary school students.
- 1967-1977: Mainly political education activities  
There was no “Subtraction Policy” during this period. However, labor education became the main form of education at that time.
- 1978-1992: Mainly to ease the pressure of entering

higher education

After the resumption of the “National Unified Examination for Admissions to the General Universities and Colleges (NUEAGUC)”, one-sided pursuit of enrollment rate objectively led to an increasing burden on students' academic work.

Required amount of homework: No written homework for first grade students, and no more than 30 minutes of homework for second and third grade students. No more than 45 minutes for fourth grade students, and no more than 1 hour for fifth and sixth grade students.

- 1993-2000: To take the promotion of quality education as the leading factor  
The specific scores no longer appear on the student transcripts. Instead, A, B, C, D or in the form of excellent, good, qualified, hard work, etc. Government departments at all levels must establish a supervision and inspection mechanism to reduce the burden on students
- 2001-2009: Relying on the basic education curriculum reform  
Do not select students based on various forms of examinations, assessments and test results. The results of various competitions and the national English test results are not allowed as the basis for admissions.
- 2010-Present: Aiming at all aspects of the burden reduction  
Comprehensive planning to reduce the burden from system, curriculum reform, admissions examination, off-campus training, etc.

Before 2000, the “Subtraction Policy” was mainly aimed at the academic burden in the schools. For example, it was not allowed to arbitrarily increase or decrease the curriculum, teaching hours and teaching content. It was necessary to strictly control the number of exams and competitions, as well as limit the amount of homework.

After 2000, the “Subtraction Policy” issued reiterated the control of examinations, control of the number of competitions, and strict compliance with the syllabus for teaching. For the first time, it was proposed to abolish the 100-point system for primary school students’ academic evaluation<sup>1</sup>.

All of the previous policies were mainly formulated for schools. The current burden reduction policy involves a broader and more comprehensive range.

## 2. Limitations discussed

### 2.1. Limitations raised by scholars

Even though the Chinese government tried to reduce burden from students for more than 70 years, its limitations are indicated and discussed by various scholars and researchers. The author synthesized here some relevant scholars’ ideas as follows:

- Fuzzy definition:  
Chinese scholars have a vague understanding and serious lack of the concept of “schoolwork burden” (Dai, 2016). In terms of the scientific nature of the policy, the “Subtraction Policy” has certain deficiencies. The first one is that the expression of “burden” is not precisely clear. To what extent is the content of education reduced so that it is not a “burden”? So far, the boundaries of this “value” are still blurred (Luo, 2009).  
Each student’s learning ability and understanding ability are different. What kind of pressure can be called academic pressure? How much academic pressure is subtracted to ensure that excellent students can still make progress, while students with insufficient ability will not fall behind?
- Lack of educational resources:  
Since education is an advantageous means and tool for survival and is relatively in short supply, there will inevitably be fierce competition for educational resources (opportunities). It is inevitable for students to compete each other to receive more education (Luo, 2009).  
Due to the differences between urban and rural areas, or in the same city, differences in family economic conditions, educational resources are in short supply. Innate differences cannot be changed. In order to obtain better educational resources, the students can only compete.
- Negative effects of parental expectations:  
Parents expect their children to be excellent, so they not only enroll their children in schools with good educational resources, but also let their children study in various tutoring classes or cram schools (Shi, Xie & Jiang, 2015).  
Parents hope that their children will have a bright future, but they have not considered whether their children are capable of achieving their hopes. Parents blindly follow the mainstream trend, enroll their children in extracurricular tutoring classes and cram schools, and buy a large number of supplementary books and exercise books for their children, which virtually increases the pressure on the children.
- The limitation of “Subtraction Policy”:  
The “Subtraction Policy” can only restrict the educational activities of schools, but not the cram school and families (Luo, 2009).  
In 2018, the most severe “Subtraction Policy” in history was promulgated, and its content was not only for schools, but also for cram schools and parents. The behavior of all these stakeholders has been regulated. However, only schools can be made to follow the regulations. It is difficult to rely on central government to supervise small-scale or individual cram schools. It is impossible to restrict the behavior of parents.
- Incomplete supporting policies:  
The college entrance examination system continues admitting students only by scores, which cancel out effects from the implementation of the burden reduction policy. Besides, in the

<sup>1</sup> The comprehensive quality assessment in the secondary education will be used as a reference for enrollment.

employment policy, the employer’s emphasis on academic qualifications has been causing the students to spend all their time for preparation of themselves toward the examination (Wang, 2009). China still uses scores to determine which school students enter. Students graduating from prestigious universities can get good jobs and get the household registration in big cities more easily than others. These policies or social phenomena are somewhat contradictory to the burden reduction policy.

The above mentioned many scholars’ views on the restrictions on “Subtraction Policy”. These restrictions come from different aspects such as society, family, and policies. The combination of them does make the implementation of the “Subtraction Policy” difficult.

First of all, the problem with the fuzzy definition is “one size fits all.” For example, there are no written homework assignments in the first and second grades of elementary school. This is problematic from two perspectives. One is that there are no written assignments, but there are many other forms of assignments, such as oral assignments, hands-on assignments, etc. Second, this is for all primary and second grade students, regardless of region. The “one size fits all” burden reduction is obviously in serious conflict with some students who have high expectations of themselves or parents who have high expectations of their children. It does not conform to teaching students in accordance with their aptitude. Therefore, the burden of learning has shifted to cram schools on a large scale.

Secondly, there are negative effects of parental expectations and a lack of educational resources. Educational resources in rural areas are lagging behind and even inferior to those in large cities in other respects. Parents, even entire families, hope that their children can avoid the fate of “rural people”. In the absence of sufficient financial capacity, the national examination, the “NUEAGUC” is indeed the fairest, but there is only one chance. The expectations of the whole family and the lack of educational

resources make it impossible for students to be relaxed in their studies.

Finally, there are limitations of “Subtraction Policy” and the incomplete supporting policies. The evaluation of primary school students requires the comprehensive development of moral, intellectual, physical, aesthetic capacities, and labor. However, from junior high school, in order to enter a prestigious school, the standard of talent measurement is based on the admission test scores.

### 3. Discussion about the limitations

Based on the limitations introduced above, parents hope that their children can change their destiny through exams. The various policies are somewhat contrary to the “Subtraction Policy”. To illustrate these circumstances, the author aggregates here more limitations of the “Subtraction Policy”, basically according to the influence of educational policies of local government.

#### 3.1. Rural areas cannot attract people

China is located in East Asia, on the west coast of the Pacific Ocean. The land area is approximately 9.6 million square kilometers, and the provincial administrative divisions are divided into 4 municipalities, 23 provinces, 5 autonomous regions, and 2 special administrative regions. But there are only four cities that can be called first-tier cities: Beijing, Shanghai, Guangzhou, and Shenzhen.

According to the Main Data Bulletin of the Sixth National Census in 2010, the total population of the country is 1,370,536,875. The population living in urban areas is 665,575,306, accounting for 49.68%; the population living in rural areas is 674,149,546, accounting for 50.32%. Compared with the fifth national census in 2000, the urban population increased by 20,713,709, the rural population decreased by 133,237,289. It implies that the proportion of the urban population increased by 13.46% (The Central People’s Government of the People’s Republic of China, 2011).

Among the children of migrant workers studying in the national compulsory education stage, 45.4% of

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The comprehensive quality assessment is generally divided into seven dimensions (there are slight differences in different regions or school structures), which are “moral quality”, “civic literacy”, “learning ability”, “communication, cooperation and practical innovation”, “sports and health”, “aesthetic”, “performance ability”. It is assessed in the form of grade.

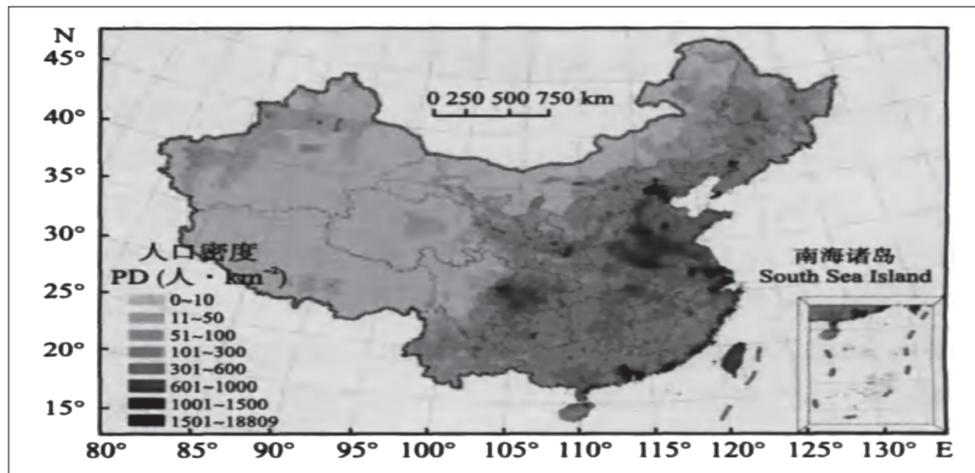


Figure 4. Population distribution pattern at county level in China in 2008.

Source: Natural forming causes of China population distribution from Fang et al. (2012, p.3490).

the migrant children from other provinces and 54.6% of the provinces were mobile. Among the children of migrant workers in primary school, 48.2% were from other provinces and in junior middle school 37.5% were from other provinces.

Figure 4 shows that China's population is mostly concentrated in local areas. The above-mentioned data confirms that more and more rural people are pouring into urban cities and towns in the same province or other provinces. The underdeveloped areas are unattractive, and both the salary of adults and the education of children are not as good as those in big cities. The rural population wants to get urban resources, and this idea is deeply rooted.

On September 23, 2020, the "2020 non-Shanghai fresh graduates of ordinary colleges and universities to apply for employment in Shanghai to apply for the city's household registration scoring measures" was officially released. It stipulates that in addition to Tsinghua University and Peking University, Shanghai Jiaotong University, Fudan University, Tongji University and East China Normal University have been newly added in the document; that is, fresh graduates of these four universities can directly settle down if they meet the basic application requirements. In other words, as long as you can be admitted to these top-ranked schools in China, no matter where you come from, you can stay in Shanghai, get a Shanghai household registration, and enjoy the same treatment as Shanghainese.

As soon as this type of policy appears, students do their best to get into these top colleges. With limited enrollment, millions of students compete. How

is it possible to implement the "Subtraction Policy"? Nobody is willing to give up this opportunity to stay in the big city.

### 3.2. The influence of other policy is unknown

In 2020, although it is not formulated by the State, some provinces, such as Guizhou Provincial Department of Education, have issued the "Notice on standardizing the enrollment of ordinary primary and secondary schools", completely abolishing the enrollment of all kinds of specialty students, and forbidding public high schools to recruit the returnees who choose to study at Grade 3 in senior school again and take the national examination, the "NUEAGUC".

Even if public schools no longer recruit the returnees, students can also choose to go to private schools. But private schools are more expensive. The quality of teaching in private schools is uneven. This provokes people to keep in their mind the concept of "one exam determines one's life", because students' chances of success are limited and parents' financial pressure is increased. It will even lead to a phenomenon that poor families would appear as "test failures".

Relatively speaking, the new regulations ensure the fairness of the examination for senior high school graduates, but it does increase the pressure of students. They cannot fail only thus strive for higher scores.

## 4. Conclusion

As mentioned above, parents have high expectations of their children, which means they hope

they have a good future. From ancient times to the present, as the unbreakable Chinese traditional thought and concept, it is strongly believed that “study can change destiny”. Especially in rural areas, people cannot help believing this thought, since people can hardly see their future in hometown.

As a matter of fact, the development of rural areas is the most important thing. When the countryside is developed, the gap between the rural area and the urban area will no longer be as different as nowadays, and people will no longer yearn for and pursue urban life and resources. As educational resources and educational opportunities are gradually equalized, the pressure on students to compete hopefully may decrease. Only equitable rural development can change the deep-rooted ideas of parents and social structure.

The second issue is the reform of the enrollment system and examination system. This is a long process. As for the effect, it remains to be seen.

While implementing the “Subtraction policy”, other policies somehow may perpetuate a vicious situation that there are various privileges for studying hard. The various new regulations and policies issued by local governments or the State should not try to strengthen the thinking like “urban-rural differences” and “preferential treatment for studying”.

Because of the aging population, cities need to attract a large number of young people, but should treat young people equally. If young people make significant contributions to the city, they can get a city household registration faster. This should not be because of a high degree or a good school graduation. If it is unfair for the returnees to take the exam together with the fresh students, a separate test can be opened for the returnees. Instead of restricting the school that returnees attend, it increases the financial pressure on parents.

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