

Quantity and Quality of Primary and Secondary School Teachers in China

—Analysis from an Economic Perspective

There has been quantity and quality problems on primary and secondary school teaching staff for quite a long time in China. According to the statistics on schools of nine western provinces from Educational Supervision Institution of China that, the average teacher per class ratio of village schools and teaching points is lower than the average level of 1:1, the former is only 1:1.3 of more than thirty thousands schools, and the later is 1:1 of more than forty thousands teaching points.¹ To analyse teachers' problems of quantity and quality, economics provides an objective and rational perspective. There is a market inside of teachers. The next sections will be focus on analyzing the admission and retention of teacher market from the quantitative and qualitative aspects of China.

Main Problems Existing in Teacher Market

There are two key problems in teacher market at present. The first one is

¹ National Educational Supervision Report(Draft). Focusing on Compulsory Education Teachers. http://www.gov.cn/zwggk/2008-12/15/content_1178668.htm. 2008-12-15.

how to select sufficient persons with high quality to enter teacher team. The second one is how to keep teacher team stable under the premise of improving their quality.

The former problem is mainly existing in two aspects, those are over-low entry of teachers and the low level of wages.

Teacher's licensing credential in China, as the first threshold of teachers' entry, is much less than teachers should behave. There are a lot of teachers who are lacking teaching ability in schools because of low licensing credential since long time ago. Although teachers are requested to reach the basic level of educational degree, mandarin and morality, there are still a mass of teachers whose actual knowledge or instructional ability are below the regulated requirements. And students could not be provided with good educational quality because of the low teaching ability from part of teachers. More over, there are even "teachers" who have not got the teacher's licensing credential teach at school everyday illegally.

Teacher's wage has increasing these years in China. However, the slight increasing could not satisfy teachers. Luo's research about teachers' satisfaction on salary from 510 schools in seven provinces in China shows, that 24% among teachers from those schools said " I live in poor life since the salary is too low". And 49.2% told that "My salary could maintain the most basic living expenses". Moreover, salary of teachers is relatively low compare to other vocations. It is worth noting that the dissatisfaction rate of teacher's salary is 87.5% as high. (Luo, 2011) Performance-related pay of teachers in lots of rural compulsory schools exists only in name. It is not only difficult to attract high-quality talents to

become teachers with low-level salary, but also harmful to the stability of teachers.

The latter problem performs on the loss of teachers, especially in some rural areas.

One of the immediate causes of the loss of teachers is the low-level salary. According to the sample survey of Educational Supervision Institution in China, that 38.7% of the school principals said there is phenomenon of teacher's drain within three years, 74.6% of them said the main draining is composed of backbone teachers, and 92.5% of them said that the main loss of teachers are under 35 years old (Educational Supervision Institution in China, 2008). Huanggang High School in Hubei Province that created "a myth of university entrance exam", has no superiority any more since her teachers were largely hunted by brand schools in urban areas. In some village schools, a situation that a few courses without teachers because of teacher losing(Wu, 2013).

The problems mentioned above in teacher market at present are crucial factors impact that whether there will be plenty guarantee of quantity and qualified teaching ability.

Cause of Teacher Market's Problems

There are three prime reasons cause the problems of insufficiently high-quality teachers and instability in teacher market.

Firstly, "Lemon Effect" restricts the transmission of information.

In economic area, "the Market for Lemons" refers to a kind of unhealthy

market, in which good products are gradually pushed out by inferior goods under the situation of imperfect information. And finally the market are filled with inferior products instead of good products. The similar things happens in teacher market when schools select teachers. All schools managers want high-quality and talent teachers. “A high-quality teacher is one who can energize and motivate students in addition to imparting information—qualities that are hard to recognize at the hiring stage.”(Temin, 2003) It is the teacher himself or herself who know best about his or her real ability, which could not be fully grasped by the employers. And that is why school managers on the one hand want talent teachers, and on the other hand do not pay high salary for teachers. It can be said that it is full of risks when school managers select teachers. The more they pay the wage, the more risks they will have if they select low-quality teachers. Therefore, teachers’ salary is often lower than that of high-quality teachers the school managers want. And here comes the problems. Talent teacher candidates would like to become teachers through college study and normal competition if they could get equivalent payment. But if not, they may choose to switch to other schools or to quit from teacher market and switch to other occupations. Gradually, the teacher market will be occupied by inferior teachers instead of high-quality teachers. This is the Lemon Effect in the teacher market, which causes huge loss of teachers.

The main manifestations of the loss of teachers in primary and secondary schools in China are teachers flow from underdeveloped provinces to developed provinces, or from rural schools to urban schools. It is good enough for the sound development and competition of teacher market if people flow among different areas reasonably. However, the only

one-way flow is bound to threaten the educational progress of underdeveloped areas. In the meanwhile, the accompanying problems brought by the loss of teachers should not be neglected, such as deficiency of age and teaching title, injury of study quality, and so on.

Secondly, the selection criteria is too low to hire high-quality teachers.

Teacher licensing credential, which is regulated by the national government, is the basic requirement for the staff who are specialized in education and teaching. And teacher licensing credential system is one of occupational licensing systems implementing on teachers. The licensing credential and licensing credential system stipulate the necessities of being teachers. In other word, one of the crucial roles of teacher licensing credential system is to guarantee the quality of the whole teaching force by excluding unqualified persons and keeping eligible candidates. From an economic point of view, the system is one of solutions to imperfect information during the process of hiring teachers. But the criteria of being primary and secondary school teachers is not hard to meet.

According to “Teacher Certification Regulation ” and “Teachers Law” in China, there are seven basic conditions to meet as a teacher, a) Chinese citizenship; b) Certificate of educational degree; c) Certificate of physical examination; d) Moral identification; e) Interview or trial lectures(for persons do not have teaching professional training); f) Taking pedagogic and psychological courses; g) Certificate of Mandarin test.

Since 1995, the year when “Teacher Certification Regulation” was issued, it has been more than ten years that requirements for teachers stayed unchanged. And checking stages in practice (such as educational attainment, attending courses, length of internship, etc.) are not rigid

enough. Therefore, it is not a difficult task to get the teacher licensing credential for both college students and social persons in China. Teacher licensing credential has a relatively low threshold compare to any other occupations, like medical physician, certified public accountant. I did an informal survey of hundreds of students, including undergraduate students, graduate students and teachers at primary and secondary schools, in my classes in the past a few years. These a few hundreds of students were asked to rank all kinds of certificates(teacher licensing credential, medical physician, tour guide licensing credential, CET Band 4, computer grade examination, etc.) they had got according to the order from hard to easy. 98% of the subjects rank the teacher licensing credential as the last one. Moreover, the admission scores of university entrance exam in most normal universities or colleges or teachers' professional are lower than those in others in China. It is another evidence of proving the loose entrance of teaching force. Without high standard and rigid check for criteria means no guarantees for maintain high-quality candidates and high-quality education and teaching.

Fortunately, “National Plan for Medium and Long-term Education Reform and Development (2010-2020)” was published in 2010. The national plan mentions that “Improve and strictly implement teachers access system. And make the entrance of teachers force be rigid. National government will develop teacher licensing credential standards, which will improve standards of educational attainment, moral character and behavior. And regular registration system of teacher licensing credential will be established.” Zhejiang and Hubei are the first two provinces that started regular registration system of teacher licensing credential as reform pilots in 2011. And the reform, which is positive to advance

quality of the whole teaching force, has been enlarged to include eight provinces till now.

Thirdly, there is not enough motivation in the system of teacher salary.

The decisive factor of attracting high-quality teachers is the levels of absolute wage and relative wage in the aspect of economics. “The so called absolute level of wage refers to the wage that teachers get should meet their basic daily needs. And the so called relative wage refers to the wage of teachers should not be much lower than that of similar industries.”(Tang, 2013) However, the salary structure of teachers in China could not play the attractive role no matter in absolute aspect or in relative aspect.

The provision that the average salary of teachers should not be lower than that of local civil servants was firstly announced in “Teachers Law” in 1994. Nevertheless, there is a “discount” during the implementation process of the provision in some places. Not all local bureaus execute this policy well. That is why this provision repeatedly appears in other policies or regulations, such as “Compulsory Education Law”(2006), “Report of National Education Supervision in 2008”, “Guideline about Executing Performance-related Pay in Compulsory Education Schools” (2008), “Guidance on Strengthening the Construction of Teaching force”(2012). Those policies and regulations are strong demonstrations of the policy of the average salary of teachers should not be lower than that of local civil servants has not been realized already. Jiang and Du’s(2013) study shows that salary of teachers at primary and secondary schools is below the average level of the national economic income ranking. The wage of teachers in primary schools is between 10 and 16 and the salary

of teachers in secondary schools is between 9 and 14. Teachers' salary has no absolutely attractiveness at all.

Performance-related wage reform, whose intention is to inspire teachers be passionate in education and to attract talents to become lifelong teachers, was implemented on January 1, 2009 at compulsory education schools. But its role of inspiration is quite weak. According to China's financial system of compulsory education, county government is the main undertaker of teachers' wage. This system is called county-based financial system, which means it is the county government who should raise fund for teachers' salary. Under the county-based financial system, teachers' salary except for the basic portion, is highly related with the fiscal capacity of county government. Teacher's salary among districts are directly decided by the differences of fiscal capacity of local government. Therefore, it is not difficult to understand the giant gaps of salary between rural and urban areas. Moreover, as it mentioned above, it is hard for the standard of performance-related salary to motivate teachers who are excellent or make outstanding contributions. It is regulated in "Guideline about Executing Performance-related Pay in Compulsory Education Schools"(2008) that, "State-owned assets are managed by schools. And all non-tax governmental revenues should be turned over to fiscal bureau at the same level according to national regulations." And the turned over non-tax revenues will become the fund of performance-related wage. The original intention of the stipulation is to "make up the inadequacy of funds from higher-level government and to prevent the 'hedge' of school 'little coffer' to performance-related salary "(Tang & Hu, 2013). But in fact, the disposable amount of performance-related salary of school is quite limited since the shortage of

funds after the revenues' turning over. So that there is little effects from performance-related salary for teachers. And some backbone teachers could not get equivalent awards after their particular contribution to education. There is an example of negative effect from performance-related salary. Teacher A's salary was composed of 50 yuan of basic salary and 100 yuan of subsidy. After the implementation of performance-related salary, 70 yuan is taken out from the original subsidy(100 yuan) as the basic composition of performance-related salary, which is issued regularly every month as well as the basic salary of 50 yuan. And the rewarding composition of performance-related salary, 30 yuan, is allocated by school's assessment. That means the total amount wage each teacher could get is still 120 yuan every month. The change is that the rewarding composition of 30 yuan might be taken off and become reward as other teachers' if you are not good enough. So teacher A says "It feels like a piece of flesh of myself was taken off. And then I have to redeem it by good performance."(Xu, etc. 2009)

Improving Strategies

According to the reasons mentioned above leading to the quantitative and qualitative disadvantages of teachers, three improving strategies could be taken as a reference.

First of all, it is important to raise teacher's wage hooking with supply and demand in teacher market directly. The level of teachers' salaries can affect both the decisions of qualified individuals to enter the teaching profession and the retention of current teachers. The relative level of teachers' salaries can thus have an important impact on the composition

and quality of the teaching force, affect the ability of education systems to recruit better than average individuals and retain the most skilled teachers.(Siniscalco, 2002)

There is no incentive of teachers' absolute and relative salary in China at present. So to raise the level of teachers' salary is one of the most important tasks. On the one hand, it might attract more and more most skilled teachers with incentive absolute salary. On the other hand, it might keep the talent teachers with salary matching their efforts and workloads. However, it is not possible to drastically advance the absolute salary of teachers within a short period in the reality under the financial ability of the government. But the possibility is to renew the "Teachers Law" by adding minimum wage standard as what "Civil Servants Law" does. It is sensible to list each items of teachers' wage, such as basic salary, allowance, performance-related salary and benefits, etc. one by one. If teachers' legal guarantee of social status, economy and material is regulated in the law and then is implemented according to law, all the teacher salary's functions of guarantee, incentive and hierarchy will become a reality.

From the economic point of view, it is an optimal price when the merchandise's supply and demand come to the point of equilibrium in a fully competitive market. There has not been a teacher market with fully competitive environment, in which teachers' price could not be decided by the correlation between supply and demand. However, it is necessary to make the variances of areas, the quality and quantity of teacher-demand as the criterions of setting teacher salary levels at least. For example, teachers who are teaching in rural and remote areas, or in areas where teachers are urgently needed should be paid more. In other

words, the places where are more poorer, remote, and lacking of teachers, the more salary teachers there should get. Schools should pay more to teachers who take overloading work when schools could not recruit a sufficient number of teachers.

The second strategy is to upwardly change the government who takes the burden of teachers' salary. "The lack of educational funding will result in severely decreased ability of teaching force."(Mao, 2002) Fundamentally speaking, it is the role of government who decides whether or not to drastically raise teachers' wage. The problem of withholding wages prevailed in 1990s has been basically solved by current county-based financial system of compulsory education, which could not solve the problem of low level of teachers' salary. Many researchers regard increasing governmental education input as a working-out method. However, the situation of low level of teachers' salary is together with yearly increasing input of education from the government. This kind of external contradictory results from another one – county government whose financial ability is weak undertakes teachers' salary of the education funding, and central and provincial governments whose financial ability is strong undertake other lower proportion of educational funds, such as textbooks and public funds. As we all know, teachers' salary takes the most proportion of educational expenditure in all countries. What is more, the diversity of all kinds of conditions makes huge financial gaps among areas including counties. Some counties with weak ability of finance even have difficulties to deal with their daily operation. Therefore, the county-burden salary system is a giant obstacle to raise teachers' salary especially for the county governments with weakly financial ability.

It is an effective way to raise the level of teachers' salary upwardly change the government who takes the burden of teachers' salary. Central or provincial governments with their strongly financial ability could provide more space to raise teachers' salary, as well as eliminate the rest situations of withholding teachers' wages. It is also one action of promoting teachers' social status.

The third strategy is to reform the existing teacher licensing credential system and to improve teachers' exit mechanism. The original teacher licensing credential system firstly implemented in 1994 could no longer meet the requirements of social development for teachers. Since 2011, China chose two provinces, Zhejiang and Hubei, as reform pilots. There have been ten provinces taking teacher licensing credential reform which mainly focus on unifying standards and outlines of examination, changing test subjects, improving examination propositions and getting rid of tenure of teacher licensing credential. To ensure the smooth progress of the reform, in September 2013 the Ministry of Education issued the "Interim Measures for the Primary and Secondary School Teacher Licensing credential Examination" and " Interim Measures of Regular Registration of Primary and Secondary School Teacher Licensing credential". From the level of detail and efforts from relative departments of view, the reform has taken a great breakthrough than ever before. But there are still several issues that need further improvements,

a) It is necessary to have a national examination minimum standard as the baseline of the teacher licensing credential exam provincially. It is helpful to raise the examination level of difficulty or to control the pass rate in order to achieve the purpose of choosing high-quality people to enter the teaching force.

b) Although the reform has enriched the forms and contents of the interview, which could last for a short period. So in order to know more about the candidates' true teaching ability, it is better to increase the times of giving lectures. And this would minimize the impact of imperfect information.

c) The reform has increased the requirements for teachers to be trained. The more important things is to strengthen the management and quality of trainings at all levels simultaneously.

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