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# Teacher Salaries and the Shortage of High-Quality Teachers in China's Rural Primary and Secondary Schools

An Xuehui

*Abstract:* Teacher salary level and structure are not only important factors affecting the supply of primary and secondary school teachers, but they are also crucial to attracting, training, and retaining high-quality teachers, thereby impacting the overall quality of education and teaching in schools. The reform of China's basic education management system has ensured the fiscal security and steady increase of rural primary and secondary school teacher salaries and has effectively improved the supply and quality of rural teachers. The objective gap between urban and rural teacher salaries and benefits has, however, led to the one-way mobility of rural teachers, resulting in the loss of quality teachers and giving rise to a structural shortage in rural schools. To improve the supply and quality of teachers in rural areas, it is necessary to effectively and systemically increase rural teachers' basic salaries and subsidies according to the law. There is the necessity through various channels to raise primary and secondary school teachers' salaries and benefits, especially subsidy and allowance standards, to eliminate actual variances in teacher salaries.

**Keywords:** quality teacher, rural school, teacher mobility, teacher salary, teacher supply

Teaching is a highly professional occupation. The wage income level of teachers not only affects whether outstanding professionals seeking employment will be attracted to teaching positions, but also whether current teachers will remain in the profession or transfer to schools offering relatively higher income levels. This has a direct impact on the supply and stability of primary and secondary school teachers and is a key factor in attracting and retaining quality teachers. For China, with its high proportion of rural schools, the problem of rural school teacher salaries and benefits has always been a focus and key issue in discussions of teacher income, and a hot-button issue for the public.

In recent years, the hardware and facilities in rural schools have continuously improved following the reform and development of rural education, and educational opportunities have essentially been guaranteed for all students. This situation increasingly highlights the importance of teacher quality as a factor in school education development and quality improvement. At the same time, rural students and parents have higher demands in terms of quality of

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Color versions of one or more of the figures in the article can be found online at [www.tandfonline.com/mced](http://www.tandfonline.com/mced).

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education. They are dissatisfied with the quality of rural school education, and have begun to vote with their feet and choose urban schools and schools that have high-quality teachers on staff. Rural students have begun to migrate to urban schools, and rural schools are becoming smaller. This poses certain challenges to the reform and development of rural education in China. According to the rules of the labor market, teachers also prefer to work in urban schools, where salaries and working conditions are better (An 2012). In this way, quality teachers are increasingly becoming scarce resources in rural school education, in terms of not only the teaching quality and proficiency of teachers, but also the academic discipline structure of teachers.

Based on data from the *China Labor Statistical Yearbook*, *China Education Statistical Yearbook*, and research group surveys from past years, I analyze changes in the salary levels of rural primary and secondary school teachers and salary differences between urban and rural areas since the 1990s. I also examine their impact on rural teacher supply, as well as the loss and shortage of quality teachers in rural schools.<sup>1</sup>

## TEACHER SALARIES AND THE SUPPLY OF TEACHERS

### Steady Increase in Rural Primary and Secondary Teacher Salaries Ensured by Management System Reforms

Since the founding of the new China, along with several wage systems reforms, a series of reforms has also been carried out in terms of primary and secondary school teacher salaries. The improvement and structural readjustment of teacher salaries has attracted a large number of outstanding talents to become primary and secondary school teachers, ensuring a steady teaching workforce and giving rise to enthusiasm and creativity in teachers' work. Generally speaking, before the wage reform in 1993, there were no significant wage differences among staff, professional and technical personnel, management personnel, and workers in Chinese public entities; it was a uniform wage structure. The wage reform in 1993 was the programmatic institution giving rise to the current wage system in China. Four types of employees are engaged under different salary systems. Teachers are included under professional and technical personnel; their wages include professional and technical occupation salaries and allowances. The allowances reflect the actual workload and quality of professional and technical personnel, but the proportion of the allowances is low, and the job salaries are still the main wages. Although the Compulsory Education Law, Education Law, and Teacher's Law explicitly protect the legitimate rights and interests of teachers, improve teachers' working and living conditions, and raise their social status, primary and secondary school teacher salaries were difficult to increase under the framework of the original wage system. Before 2001, in terms of average salary level, there was not a great difference between average teacher salaries and those of other public institutions. The difference between urban and rural teacher salaries was also small. There was a real wage gap, however, caused by rural primary and secondary school teacher salary arrears (Sun 2002). This seriously affected the stability of rural teachers and caused a shortage of teachers in rural schools. Faced with a teacher shortage, one of the most widely adopted methods was to use substitute teachers to maintain normal education and teaching

activities. There was a certain gap between these teachers and teachers trained in normal schools in terms of academic education, on-the-job training, and teaching skills.

In 2001, with the implementation of the “county-based” basic education management system, the salaries of primary and secondary school teachers in rural areas gradually shifted from township treasuries and even the village level to county-level fiscal systems, which largely guaranteed that rural primary and secondary school teachers were paid on time and in full. The problem of salary arrears has effectively been alleviated and gradually resolved, raising the wages of primary and secondary school teachers in one sense. In addition, in the same year, the government adjusted the salary standards for the staff of agencies and public institutions, including various types of schools at all levels, which led to a significant improvement for primary and secondary school teachers. After a wage system reform for government agencies and public institutions in 2006, the virtuous operating mechanism for paying primary and middle school teacher salaries in full and on time was further strengthened (Ministry of Personnel 2006). From the perspective of growth rate, primary and secondary teacher salaries improved greatly due to several major wage reforms and, in other years, the wage growth rate has been higher than the gross domestic product growth rate (see Figure 1). In 2009, China began to implement a performance pay policy for teachers in compulsory education schools. The performance pay is tilted toward noncombined primary schools, teaching sites, and compulsory education schools, and toward rural schools and county and town schools. The gap between teacher salaries at the county level has shrunk somewhat (An 2015).

### Gradual Improvement in Supply of Rural Teachers

The increase in primary and secondary school teacher salaries has made the primary and secondary teaching profession more attractive and has also improved the supply of rural teachers. The data indicate that, during the 2000–2014 period, the student-teacher ratio of

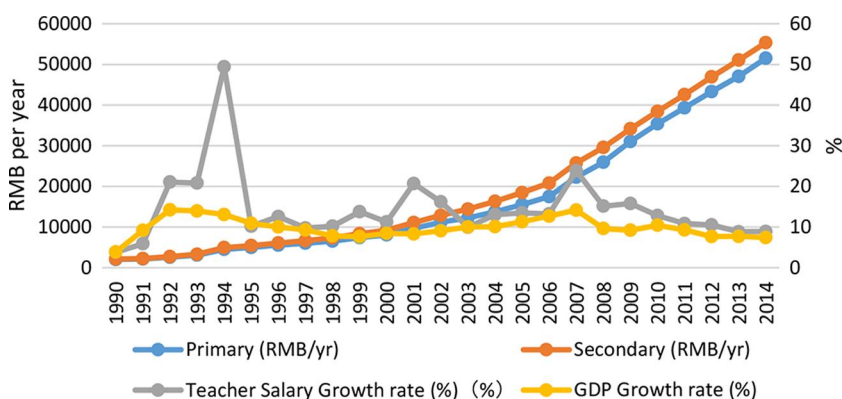


FIGURE 1 Primary and secondary teacher average salary and growth rate. *Note:* Average primary and secondary teacher salaries are taken from average employee salaries listed in the China Labor Statistical Yearbook (National Bureau of Statistics of China 2015) over a number of years. The teaching staff and workers therefore include both teachers and education workers other than full-time teachers.

primary and secondary teachers in all regions of China has been on a downward trend. The supply of teachers has tended to gradually increase toward being ample in quantity. The absolute differences between regions and between urban and rural areas have been gradually reduced. After a short-term shortage in the number of junior high school teachers, they have also gradually come into full supply (see Figure 2).<sup>2</sup> As the number of official permanent teachers has increased, the number of substitute teachers has gradually decreased, which is particularly evident in primary schools (see Figure 3). These facts demonstrate that the supply of primary and secondary school teachers has not only gradually become ample in quantity, but also greatly improved in quality. The quantity and quality of primary and secondary school teachers in rural areas have therefore greatly improved.

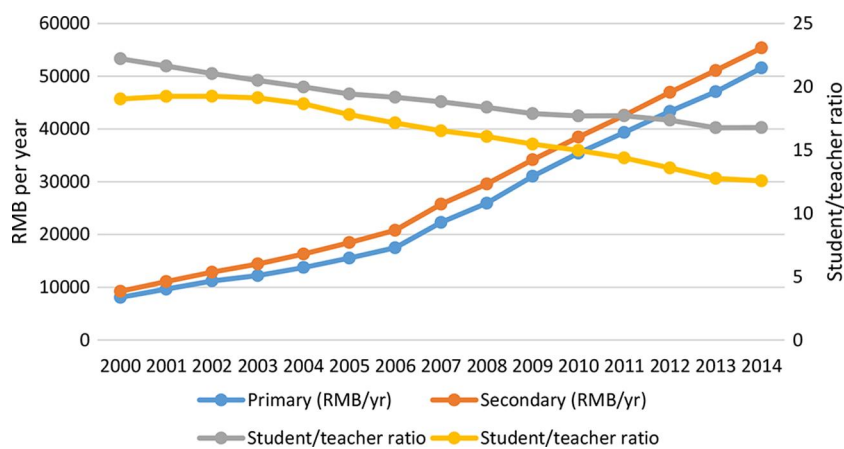


FIGURE 2 Primary and secondary teacher average salaries & student/teacher ratios (2000–2014). Sources: China Labor Statistical Yearbook, 2000–2014 (National Bureau of Statistics of China 2015); China Education Statistical Yearbook, 2000–2014 (Department of Development & Planning, Ministry of Education of China 2015).

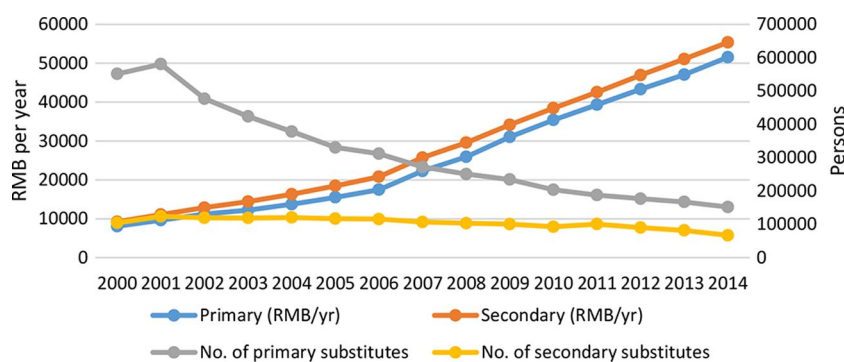


FIGURE 3 Primary and secondary teacher average salaries and number of substitute teachers (2000–2014). Sources: China Labor Statistical Yearbook, 2000–2014 (National Bureau of Statistics of China 2015); China Education Statistical Yearbook, 2000–2014 (Department of Development & Planning, Ministry of Education of China 2015).

## FEATURES OF THE URBAN-RURAL TEACHER SALARY GAP AND ITS IMPACT

The salary gap between urban and rural teachers is reflected mainly in regional salary differences, salary differences between urban and rural schools in the same region, and salary differences among different types of teachers in the same school. These affect teacher mobility not only between regions, but also between different positions within a school, as well as transfers between teaching disciplines. The teacher supply ultimately indicates a sufficient total amount of teachers, but a structural shortage has also arisen between regions, urban and rural areas, schools, and disciplines.

### Regional and Urban-Rural Teacher Salary Gap

Since 2006, primary and secondary school teacher salaries have consisted of four parts: position salary, pay scale wage, performance pay, and allowances and subsidies. The position salary and pay scale wage are the basic wage. The performance pay mainly reflects the performance contribution of the teacher and exerts an incentive function. The allowances and subsidies are divided into an allowance for hardship and remote areas and a special post subsidy. However, due to the large differences in economic development levels across the country, some local subsidies have been implemented at high levels, whereas they are low in other places. There are even cases in which there are no post subsidies or they cannot be paid on time. In terms of the wage structure, the position salary and pay scale wage are fixed, whereas the performance pay and allowances and subsidies are largely dependent on the ability to pay of local and school treasuries. The latter two are important income sources that give rise to the teacher salary gap between regions, urban and rural areas, and schools. According to a sample survey of schools in hardship areas in the National Education Monitoring Group 2008, nearly 50% of rural village teachers and county and town teachers report that allowances and subsidies are not received on time or in full. Rural school teachers had additional income of only 13%, while urban school teachers had 82% in additional income, and key school teachers had a proportion of additional income as high as 100% (National Education Monitoring Group 2008).

In terms of regions, the salaries of teachers in developed regions are significantly higher than those in less developed regions; most less developed regions are rural areas with high proportions of rural schools. According to national statistics, areas with average annual primary and secondary school teacher salaries higher than the nationwide average in 2014 included Beijing, Tianjin, Inner Mongolia, Shanghai, Jiangsu, Zhejiang, Fujian, Guangdong, Hainan, Chongqing, Tibet, Qinghai, and Xinjiang. If the national allowances and subsidies granted to teachers in ethnic minority and remote areas such as Inner Mongolia, Tibet, and Xinjiang are not counted, the average salaries of teachers in the other regions are significantly lower than the national average and than other regions (see Figures 4 and 5).<sup>3</sup>

Looking at urban and rural areas, the survey data also show that although the salary levels of teachers in urban and rural schools have both increased, the wage gap between urban and rural teachers still exists, not only in terms of the base wage as determined by the position salary and pay scale wage, but also in terms of performance pay and cash income (see Figure 6). In addition, there is a relatively large gap between urban and rural teachers in terms of medical and other social security benefits.

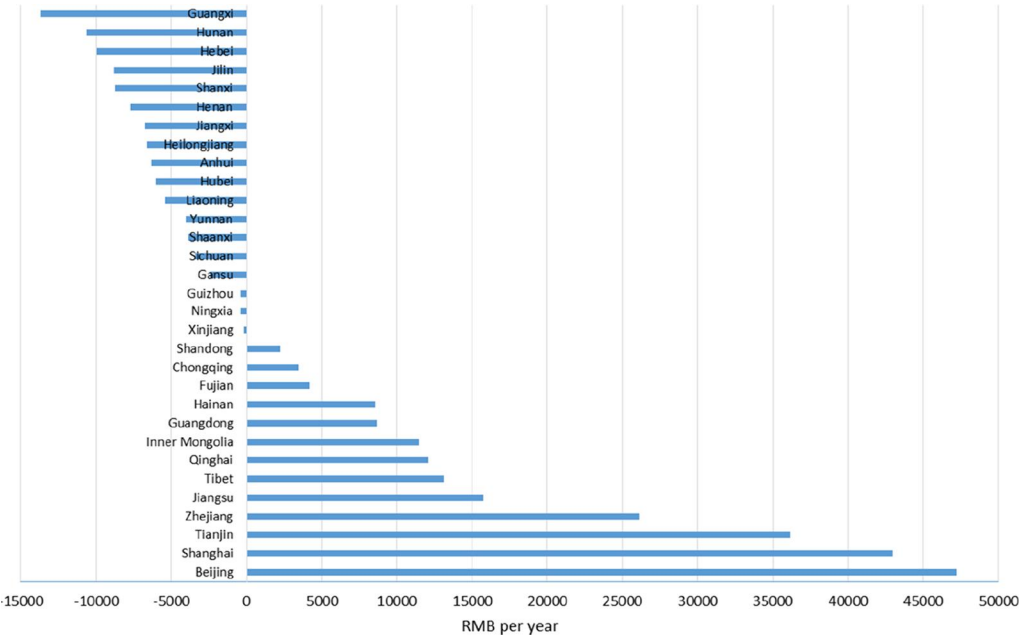


FIGURE 4 Local primary teacher salary differential from national average (2014, RMB). *Source:* China Labor Statistical Yearbook, 2000–2014 (National Bureau of Statistics of China 2015).

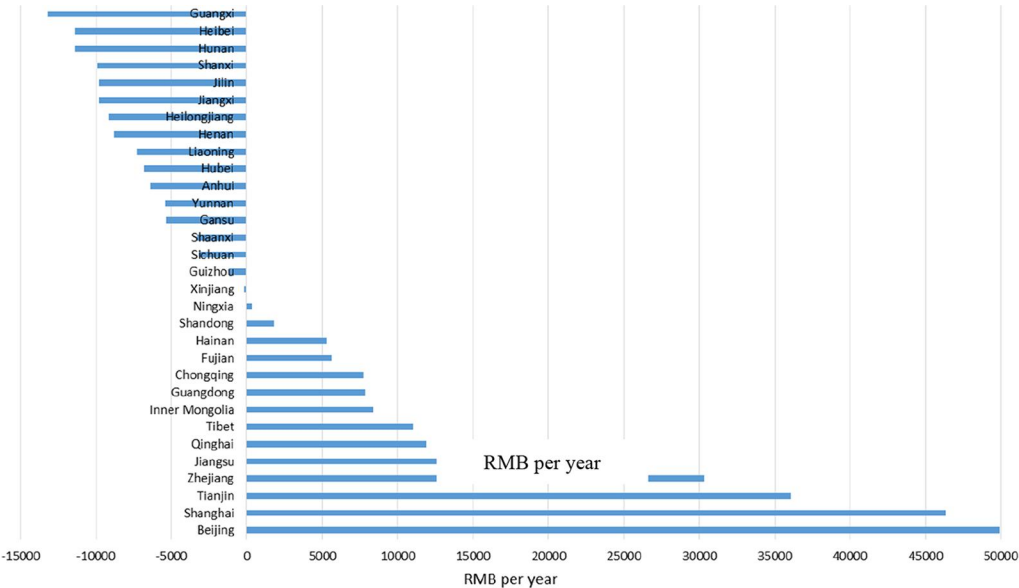


FIGURE 5 Local secondary teacher salary differential from national average (2014, RMB). *Source:* China Labor Statistical Yearbook, 2000–2014 (National Bureau of Statistics of China 2015).

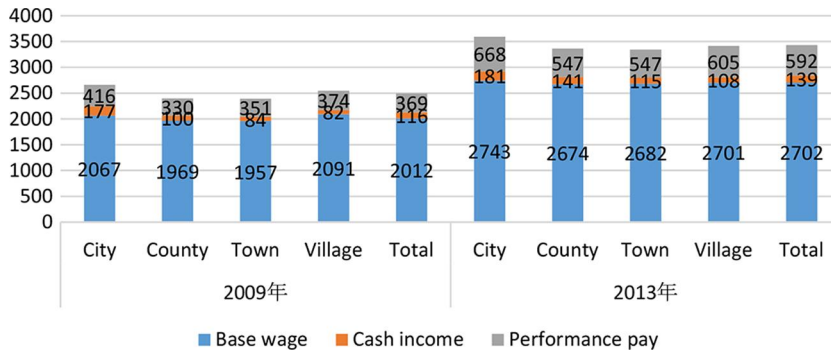


FIGURE 6 Urban-rural teacher wage gap (RMB/month). *Source:* research group survey data.

Other survey data also indicate that urban teachers' remuneration and post allowances, including average salary income, classroom hours allowances, and annual holiday bonuses, are significantly higher than those of rural teachers (Li 2007). One study used the level of education funding spent on teacher salaries to compare the wage levels of teachers in general primary schools and rural general primary schools in each province in 2005, and found that the highest, in Shanghai, was RMB 62,300 yuan per year while the lowest, in Henan Province, was only RMB 12,800 yuan per year, a difference of nearly RMB 50,000. For general primary school teachers in rural areas, the average wage was 7–41% lower than the average for their provinces (Yang et al. 2008).

Nevertheless, in terms of the teaching duties of urban and rural teachers and actual teaching practice, rural teachers often bear a heavier teaching load than urban teachers. A survey indicated that, in directly county-controlled primary schools, the proportion of teachers teaching one class was 20.3% and the proportion of those teaching four or more classes was 15.3%. Meanwhile, only 7.9% of teachers in village and township schools taught one class, and the proportion of those teaching four or more classes was as high as 35.3%. In the meantime, the number of weekly classroom hours of rural teachers was also significantly higher than that of teachers in urban areas, especially in primary schools. The percentages of teachers with 14 classroom hours or less per week were 32.2% in city-controlled primary schools, 58.3% in county-controlled primary schools, and only 14.2% in village and township primary schools. The proportions of teachers with 20 classroom hours or more per week were 3.4% in city-controlled primary schools, 0% in county-controlled primary schools, and 14.2% in village and township primary schools (Xu 2007). This has led to the fact that rural teachers not only have a lower salary level than those in developed areas and urban areas, but also undertake more teaching duties, which inevitably leads to the mobility of the teacher workforce.

### One-Way Mobility Structure of Urban and Rural Teacher Resources

The discrepancy in teacher salaries and workloads between regions and between urban and rural areas has, to some extent, led to a one-way mobility of teachers flowing from less-developed areas and rural areas to developed cities. Regional mobility among teachers can be examined



in many ways. Here we use a new group of teachers in a developed region to illustrate that many new substitute teachers with high academic qualifications, a senior professional grade, high quality, and teaching effectiveness still are not considered permanent teachers. They are high-quality, high-level substitute teachers mostly from less developed areas and rural schools. In the past two years, under constraints on including more permanent teachers in urban developed regions and pressure to improve the quality of teachers, well-developed urban areas have attracted outstanding teachers from less developed areas to teach in developed areas, but they have taught as substitute teachers (Lei and Xie 2010; Peng and He 2011). Looking at the characteristics of the teacher turnover rate in China, we can see that the turnover rate of rural teachers is high, either to urban schools or to other industries. Even more teachers move to local governments to be civil servants, and rural areas have become places lacking teachers, especially quality teachers. In terms of statistics, from 2008 to 2014, the percentage of teachers transferring out of village schools remained at 7.6% or more of the total number of teachers at the beginning of the school year. The proportion in township area schools came in second, while the proportion of teachers transferring out of urban schools was the lowest and remained relatively stable. Encouraged by various national and local incentive policies such as the Rural Teacher Counterpart Support Program, the Urban-Rural Teacher Exchange System, the Special Post Program for Rural Teachers, and the Rural Teacher Living Allowance Program, the turnover rate in rural schools has been eased somewhat. Nevertheless, the teacher labor market follows its own economic laws. In 2014, the proportion of teachers transferring out of rural schools was still 1.98% higher than that of teachers recruited in. A loss of teachers was still occurring in rural schools (see Figures 7 and 8). Although the turnover rate of rural junior high school teachers was lower than that of primary school teachers, the turnover characteristics were still present in rural junior high schools.

The one-way rural-urban mobility of teachers has ultimately resulted in great differences in the configuration of teachers in urban and rural areas, an irrational distribution of high-quality teachers, and a structural teacher shortage in rural schools. In recent years, although the proportion of teachers with higher education levels and senior professional grades has risen

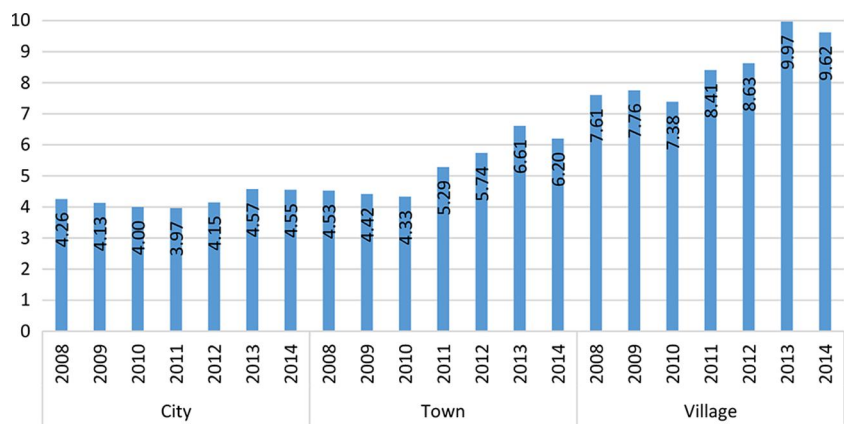


FIGURE 7 Urban and rural ratios of outgoing primary teachers to number at starting of school year (%). *Source:* China Education Statistical Yearbook, 2000–2014 (Department of Development & Planning, Ministry of Education of China 2015).

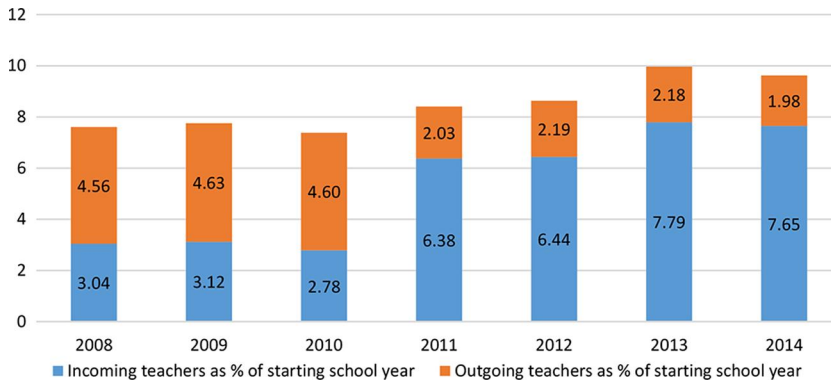


FIGURE 8 Differential between incoming and outgoing rural primary school teachers. *Source:* China Education Statistical Yearbook, 2000–2014 (Department of Development & Planning, Ministry of Education of China 2015).

sharply in rural compulsory education schools, and the gap between urban and rural areas has significantly narrowed, that gap remains significant. In 2014, 87.3% of China's rural primary school teachers had a junior college education or above, while that proportion was 96.5% in urban areas, with an urban-rural gap of 9.2%. Among junior high school teachers nationwide, 73.3% in rural areas had a bachelor's degree or above; the proportion increased to 87.8% in urban areas, indicating a 14.5% urban-rural gap. In regional terms, the education-level gap between urban and rural primary school teachers in China's eastern, central, and western regions was 8.0%, 10.4%, and 8.7%, respectively. The urban-rural education gap for junior high school teachers was 11.2%, 15.4%, and 13.6%, respectively. The proportion of primary school teachers at a midlevel and above professional grade in rural primary schools nationwide was 52.8% and the proportion in urban primary schools was 56.9%. The proportion decreased to 43.7% in rural primary schools in the western region, which was 8.6% lower than the region's urban areas. The proportion of junior high school teachers nationwide at a senior professional grade was 16.8%. The proportion among junior high school teachers in rural areas was only 12.3%, 9.7 percentage points lower than in the cities. In regional terms, the same proportion at junior high schools in western rural areas was the lowest at only 10%, and 10.1% lower than that of the region's cities (*China Education Statistical Yearbook*; Department of Development & Planning, Ministry of Education of China 2015). In some places, there are many examples of excellent teachers in primary and secondary schools trying hard to obtain positions as civil servants (Yuan 2010). Under such conditions of teacher mobility, relatively speaking, full-time teachers in county, town, and city schools are capable of teaching well and can meet various teaching needs. Rural schools, however, experience a shortage of teachers and the loss of qualified teachers.

In terms of academic discipline structure, there is a shortage of English teachers in primary schools. In junior high schools, courses in English as well as biology, physics, chemistry, and information technology are lacking. Shortages of music, physical education, and art teachers are more common in primary and secondary schools in rural areas (Yang et al. 2008). In 2006, an average of five primary schools in each of 508 counties nationwide county lacked one foreign language teacher; an average of only one music teacher was employed in 10 rural primary schools in western mountainous areas; rural junior high schools in poverty-stricken areas and

ethnic minority areas in the central and western regions averaged less than one teacher per school in music, art, and information technology; some schools were unable to formally offer required classes (National Education Monitoring Group 2008). Of course, there are many reasons for the shortage of teachers in certain disciplines in primary and secondary schools. This is only one of the factors.

## CONCLUSION AND DISCUSSION

The present analysis indicates that the steady increase in rural teacher salaries over the past 10 years has to a certain degree ensured an ample overall supply of teachers, but there is still a turnover of rural teachers, and high-quality teachers remain in short supply. One of the key factors is that rural teacher salary and benefit levels remain low. To improve the teacher salaries in rural areas, we must begin at the institutional source by allowing rural teachers to obtain sufficient salary and benefits, and by providing incentives through a variety of channels to enhance the attractiveness of the rural school teaching profession. The disparity in salaries and benefits affects the mobility of teachers between schools, as well as mobility and transfers between different positions within the school and among teaching disciplines. Ultimately, there is a sufficient total number of teachers in the teacher supply, but structural shortages exist among regions, urban and rural areas, schools, and disciplines. In recent years, various levels of government in China have undertaken a series of measures to enhance social security benefits for rural teachers. The government implemented the Policy on Living Allowances for Rural Teachers in Contiguous Destitute Areas in 2013 and the Rural Teacher Support Plan (2015–2020) in 2015. Recently, information released by the Ministry of Education indicates that the implementation of the rural teacher living allowance achieved significant results and enhanced the attractiveness of the teaching profession. Some places experienced the gratifying situation of urban teachers competing to teach in rural schools. The allowance standard is continually increasing, and the scope of coverage is gradually expanding (General Office of the Ministry of Education 2017). However, we must also realize that the structural shortage and quality improvement of rural teachers will remain core issues in the reform and development of rural education in the near term. In the future, rural teacher salary and benefit guarantees will need to be promoted more intensively as a part of reform efforts.

### Increase the Standards for Rural Teacher Base Salaries, Allowances, and Subsidies at the Institutional Source, According to Law

By law, compulsory education teacher salaries are required to be no less than the average wage of local civil servants. Primary and secondary school teachers' base salaries are essentially nearly the same as those of civil servants. However, there are still gaps in the initial standards, especially the subsidy and allowance standards (see the Compulsory Education Law). Comparing the position pay and pay scale wage standards of the teacher post and performance pay system, implemented in 2006, with the post salary and rank salary standards of the civil service post and rank salary system, we found that the salary of a senior primary school teacher is still generally lower than the basic salary of a township official at the section chief

level. In 2013, the state began to implement a living allowance policy for rural teachers in contiguous destitute areas, which is a subsidy and allowance policy for primary and secondary school teachers implemented by local governments nationwide. The implementation of this policy has increased the subsidy and allowance standard for rural school teachers. Since 2015, when the Chinese government promulgated and implemented the *Notice on Adjusting the Basic Wage Standards for Employees in Institutional Units and Increasing the Retirement Fees for Retired Employees at Agencies and Institutions*, the base salary of primary and secondary school teachers has been somewhat improved. However, the minimum wage of senior teachers at primary schools is still below the minimum wage of civil servants at the section chief level. Field research also found that subsidy and allowance policies and standards at the provincial, prefecture, and county levels around the country are tilted toward civil servants, and subsidies and allowances at the county level tend to tilt strongly toward civil servants. According to the relevant laws and regulations, we must therefore realistically improve primary and secondary school teacher salary and subsidy standards based on industry wage standards, and tilt local subsidies toward rural teachers at the provincial, prefecture, and county level, to narrow the gap at the institutional source. We must also clarify that new subsidies do not mean the cancellation of the original subsidies, but are rather a cumulative increase. In other words, not only do the new subsidies need to be added, but the original subsidies must also be fully paid.

### Increase Primary and Secondary School Teacher Subsidies through Various Channels

The “county-based” basic education management system has resulted in teacher salaries falling under the purview of county-level treasuries. In some places, there has been a contradiction between this responsibility and fiscal capacity. After guaranteeing basic teacher salaries, some local governments are unable to support the allowances and subsidies stipulated by the relevant government requirements, or lack the responsibility and awareness that they must pay teacher subsidies and allowances on time and in full. In terms of the source structure for teacher subsidies and allowances, there are five levels of subsidies and allowances from the central treasury, provincial treasuries, prefectural treasuries, county treasuries, and schools. Generally speaking, those subsidized by the central government tend to be rural teachers, but they are a low proportion of the subsidies and allowances, and the policy tilt has less impact on closing the gap. At the same time, provincial, prefecture-level, and county-level subsidies either fail to tilt toward rural teachers or the teacher subsidy funding is not in place, leaving rural teachers with lower actual subsidies than urban teachers and local civil servants. In some financially weak counties, especially “education financing” counties, there is even more pressure on the new subsidies. Even with state transfer payments, there are still fiscal shortfalls and teachers’ subsidies cannot be distributed on time. It is therefore necessary to set up a fiscal sharing mechanism in which the central and local governments share in proportion and by region. It is necessary to increase the central government’s input and support, but also to increase overall fiscal strength at the provincial level. The proportion of central and local funding should be determined on a regional and project-by-project basis to truly supplement teacher subsidies and allowances and ensure that the gap in teacher salary levels is actually being narrowed. Supervision and inspection work must be enhanced in places that lack responsibility and awareness.

To narrow the subsidy and allowance portion of the primary and secondary teacher wage gap, we must begin with subsidies at all levels and not only raise the level of central government subsidies, but also tilt provincial, prefectural, and county level subsidies toward primary and secondary school teachers. They must also be paid in full and on time, especially in rural primary and secondary schools. The national living allowance policy for rural teachers in contiguous destitute areas is the first special subsidy tilted toward rural teachers. The specific subsidy standards and funding sources are determined according to actual conditions in each locality. The required funding is borne by the local governments, and the central government awards the subsidies. In terms of funding sources, local governments have invested RMB 998 million yuan in funding for rural teacher living allowances, the burden of which is shared by local governments at all levels, including 26% independently borne by county-level governments, 2% independently borne by municipal governments, 26% independently borne by provincial governments, and 46% proportionally shared by local governments at all levels (General Office of the Ministry of Education 2014).

We can see that the subsidy standards are closely related to the efforts of local governments and the level of economic development. The central government allocated RMB 915 million yuan in comprehensive award funds; most provinces will use the subsidy funds for rural teacher living allowances. Some provinces will also use them for other rural compulsory education funding mechanism reform projects. Governments at all levels therefore need to raise the standards and quotas for primary and secondary school teacher subsidy and allowance funding sources. In terms of international experience, many countries have teacher subsidy programs at the national level for schools in remote areas. The majority of Organization for Economic Cooperation and Development (2010) member countries and partner countries have established teacher subsidies for poor and remote areas. The average teacher salary in schools in remote areas of the United Kingdom is higher than in other regions as a result of a special salary subsidy for teachers in remote areas (Department of Education 2013).

From the perspective of economic theory, the characteristic wage theory proposes that jobs that are difficult and repetitive, involve frequent on-the-job injuries, require the long-accumulation of expertise, or have poor working conditions should be given corresponding compensation to ensure adequate labor supply. Educational economics research also shows that special allowances are effective tools for regulating the direct supply of teachers among different schools and regions (Zhang and Yuan 1986). It is therefore even more important to provide compensatory wages to school teachers in remote areas, especially for compulsory education schools with public attributes.

Rural primary and secondary school teacher salary reform involves many problems and must be undertaken in many aspects and at various levels. Although the effect of a salary increase is difficult to highlight in the short term, its long-term impact on the quality of primary and secondary school teachers is far reaching. It not only attracts talented people to become primary and secondary school teachers, but also retains high-quality teachers. Not only does it resolve the issue of overall teacher supply, it also effectively alleviates structural teacher shortages. It not only effectively improves the quality of teachers, but also is an effective way to promote the balanced development of compulsory education for a certain period into the future. At the same time, increasing salaries is only one aspect of improving the attractiveness of the rural teaching profession; it is also necessary to carry out overall reforms in many areas such as teacher professional development and social security.

## NOTES

1. The survey data are national sampling survey data collected by the research team from September to November 2013. The sample selection was based on an overall consideration of factors such as economic development level, and was conducted using the stratified cluster sampling and randomized sampling methods. Specifically, 9,183 compulsory education school teachers were sampled from 40 cities and districts in 16 provinces and municipalities in the three regions of eastern, central, and western China, including Shanghai, Fujian, Zhejiang, Tianjin, Shandong, Hebei, Liaoning, Jiangxi, Jilin, Hunan, Henan, Chongqing, Xinjiang, Sichuan, Guizhou, and Guangxi. Among them were 2,973 (32.4%) in urban area schools, 1,994 (21.7%) in county seat schools, and 4,216 (45.9%) in rural village schools.
2. Here we do not deny the impact of other factors on the supply of teachers, such as the government's emphasis on faculty development and adequate labor market supply.
3. From the perspective of the teacher labor market, quality teachers are willing to work in schools with better working conditions or in schools with a better community environment, including higher teacher salaries and bonuses, better teaching facilities, the community social and economic environment, and student characteristics and academic background. Therefore, although teacher salaries are higher in ethnic minority areas, the high quality of the teachers cannot be fully guaranteed.

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