



Rural students are being left behind in China

As the education gap between city and countryside widens, young people face an invisible barrier to scientific research, says **Qiang Wang**.

People in China have used education to boost their social standing and economic status for centuries. The belief that the system is fair and meritocratic is enshrined in the long-standing motto: “Knowledge can change fate.”

Yet for many of the 9.4 million Chinese teenagers who completed their high-school graduation exams earlier this month, the situation is not so simple. A damaging divide has opened between the academic performance of young people from urban and rural areas. This is unfair, restricts opportunity and could stop promising talent from heading into science.

About two-thirds of the students who took the school leaving exam were from the countryside in 2010. But in the same year, less than one in five of new students at Tsinghua University in Beijing — a member of China’s elite C9 league of universities — were from rural areas. And the proportion of rural students at another C9 institution, Peking University in Beijing, has decreased from roughly 30% to 10% in the past decade.

Instead, most students from the countryside are shunted into lower-quality colleges. For example, 82% of students in medium-ranking vocational colleges were from rural areas in 2012.

If the highest-quality research universities are so dominated by urbanites, there will be a knock-on effect for science. Just like gender bias in science and engineering careers, rural students will be blocked from postgraduate study and scientific research. And this invisible barrier is amplified by the ‘Matthew effect’: the sociological phenomenon whereby the rich get richer and the poor get poorer.

Indeed, some professors at Chinese universities already talk of post-graduates from rural areas being less creative and worse at foreign languages than urban rivals with identical test scores. As a direct result, opportunities for rural students to engage in science as a career are reducing, along with the national output of Chinese researchers from the countryside.

If the trend we have seen over the past decade continues, education will lose its role as a social leveller and a safety valve that enables talented but poor youths to escape poverty in China. This would be a disaster for a country that can boast perhaps human society’s first attempt to promote upward social mobility and attain social equality through education.

Since AD 607, China has used official examination results to select people to work in the state bureaucracy with no regard for family background or wealth. The *keju* exam provided an open and fair channel for the Chinese populace to fundamentally improve their livelihood and that of their family. This has

long influenced Chinese attitudes to education and can partly explain why the Chinese so emphasize the importance of school work.

The *keju* no longer exists, but its spirit survives in the annual *gaokao* exam, established in 1952. The exam is strictly invigilated, and its scoring process is blind. Chinese universities traditionally select students for admission using only *gaokao* results.

A Chinese proverb vividly describes the process of changing destiny through hard learning as “carp leaping over the dragon’s gate”. Preparing for the ‘jump’ of the *gaokao* defines the early lives of many young people in China, especially in rural areas.

In the past decade, fewer rural students have made that jump. The main culprit is the unequal distribution of educational resources in rural and urban areas, which starts in preschool education. Children in cities begin to learn foreign languages (one of the three mandated

subjects of the *gaokao*) in kindergarten, whereas rural primary schools struggle even to find English teachers.

Public investment in education is much lower in rural areas than in cities. For example, in 2011, urban primary schools received 700 renminbi (US\$112) more public funding per student than did rural primary schools, and the gap was 900 renminbi per student for junior high schools. Even worse, leading Chinese universities have adopted policies to admit more students from their own cities in the name of supporting local development, although most of their funding is from central government and thus their duty is to serve all citizens nationwide.

I propose action in three areas. First, China must accept that the different approaches taken in rural and urban areas are a problem and must be unified. For example, official procedures for evaluating schools and selecting staff should be standardized. Second, China needs to redistribute educational resources. The government should allocate more public money to rural education and allow students from the countryside to take their college entrance examinations in urban areas. Finally, charities and other non-governmental groups could help by encouraging graduates from prestigious Chinese and Western universities to take up teaching positions in rural areas. Most such areas, especially in western China, have a severe shortage of teachers, let alone native English speakers.

So far, the Chinese people seem willing to accept wide inequality in income as the price of economic growth. Inequality in education is less palatable and could trigger social unrest. It should be tackled. ■

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