

Financing Technical and Vocational Education and Training in the People's Republic of China

Abbreviations

ADB	–	Asian Development Bank
GDP	–	gross domestic product
OECD	–	Organisation for Economic Co-operation and Development
PRC	–	People’s Republic of China
TVET	–	technical and vocational education and training

Currency Equivalents

(As of 2 December 2009)

Currency Unit – Yuan (¥)

¥1 = \$0.15

\$1 = ¥6.83

Note

In this report, “\$” refers to US dollars



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Asian Development Bank

Acknowledgments

This policy note draws upon the findings of an ADB technical assistance (TA) project in Guangdong and Hunan provinces to conduct an in-depth study on Technical and Vocational Education and Training.

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Sustained economic growth has improved standards of living of a number of people. Yet many challenges remain. Policies are needed to reduce poverty and increase employment opportunities for young people.

The knowledge and skills that people bring to work are critical factors in economic and social development. Governments around the world implement policies to give people access to education and training. However, technical and vocational education and training (TVET) systems are often burdened by a range of performance issues. Many of these are rooted in problems that countries, including the People's Republic of China (PRC), have in generating and allocating the necessary financial resources, and in spending them effectively. This note will discuss such issues and present policy recommendations based on insights gained in Asian Development Bank (ADB)-sponsored policy reviews of TVET in Guangdong and Hunan provinces¹.

Skills to Sustain Growth and Promote Equity

The development of technical, vocational, and other work-related skills is important to prepare

people for available jobs and to maintain and raise worker productivity. The PRC needs TVET to support the country's high levels of economic growth and to promote equitable social development.

As a result of comprehensive policy reforms initiated in the early 1980s, economic management shifted significantly from central planning toward a market-driven allocation of resources. Trade and investment increasingly integrated the PRC into the global economy. The structure of the country's economy rapidly moved away from agriculture to manufacturing and services, raising the average productivity of labor. Millions of rural workers left homes and poverty behind to find jobs in ever-growing cities in

Competitiveness will be related to product quality, and worker competence will be a decisive factor for national economic growth.

¹ ADB. 2006. Technical and Vocational Education Training Development. Manila. (Technical Assistance 4868-PRC).

ever more enterprises producing for both export and domestic markets. They account for more than 60% of the country's industrial workers.

Sustained high rates of economic growth have dramatically changed the PRC and improved living standards for a large number of people. Per capita income, currently around \$2,000, has risen fivefold since 1980. Yet many challenges remain.

Policies are needed to reduce poverty and increase employment opportunities for young people. Major challenges include regional disparities, growing urban unemployment and persisting rural underemployment, rising income and wealth inequalities, accidents at work, and industry-linked environmental threats.

As a result of the country's rapid integration into the global economy, the PRC's economy and labor market are becoming more vulnerable than before to external developments. Improved working conditions and the rising cost of labor appear in certain sectors to have affected the competitive-

Development of a national economy needs to be supported by workers' effectiveness and higher productivity, and depends on adding more value and delivering better outputs.

ness of firms, making employers choose labor-saving technologies, higher value-added production, and better trained rather than more employees. In other sectors, large numbers of workers, in particular those with limited skills, are losing their jobs due to falling demand in export markets.

Rates of economic growth averaging almost 10% per year over the past 25 years have been associated with an annual net employment growth of only about 1%, the rest being made up of productivity growth. High overall productivity growth, however, has not necessarily been an outcome of investment in human capital. The contribution of past education and training efforts represents a minor factor

Table 1: Students in Secondary Vocational Schools by Field of Study (2007)

Item	New Enrollment	Total Enrollment	Graduates
Total	6,514,754	16,198,590	4,312,433
Agriculture and Forestry	246,993	589,056	175,404
Resources and Environment	51,290	125,508	34,642
Energy	43,858	119,921	34,845
Civil and Hydraulic Engineering	154,996	400,464	101,340
Manufacturing	1,682,908	3,933,142	899,915
Communication and Transportation	220,341	521,174	124,150
Information Technologies	1,638,954	3,931,972	1,108,660
Medicine and Health	477,527	1,371,676	360,584
Trade and Tourism	525,027	1,357,189	380,218
Finance and Economics	379,049	969,843	276,196
Culture, Arts and Physical Education	345,431	897,787	236,846
Public Affairs	164,821	418,863	138,813
Teacher Training	254,321	690,872	212,242
Other	329,238	871,123	228,578

Source: Government of the People's Republic of China, National Bureau of Statistics. 2008. *China Statistical Year Book*. Beijing.

compared with massive layoffs from less productive state-owned enterprises and the shift from agricultural labor to more capital-intensive manufacturing. The widespread use of computers and other new technologies, and improvements in the organization of work have also boosted productivity.

The recent global economic crisis and the collapse of external demand have reduced the role of exports as a driver of economic growth in the PRC. After the crisis, a series of government initiatives that boosted domestic demand, provided funding to encourage individual business start-ups, and strengthened support to vulnerable groups have contributed to employment generation. These initiatives helped create about 7.5 million new jobs in urban areas during the first eight months of 2009. However, it is unlikely that the PRC will experience the double-digit growth rates of previous years. Once the global economy recovers, demand on the export sector in the PRC is likely to increase again. In addition, in the medium and long terms, more sophisticated industries and services are likely to take root. In all these industries, competitiveness will be related to product quality, and worker competence will be a decisive factor for national economic growth.

New entrants to the country's labor force include school graduates and former soldiers. Those who are under skilled include farm workers leaving the land in search of better pay, people at risk of being laid off from losing enterprises, and the unemployed and underemployed. The country needs to find a good balance between a rise in productivity and an increase in jobs for these workers.

An interesting profile of the PRC is that the country moves to an "aging society." The PRC's lower mortality rate than other countries, combined with the one-child policy, has resulted in a dramatic aging of the population. The aged population is growing at its fastest rate since 1949, and would

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Improved working conditions and the rising cost of labor appear in certain sectors to have affected the competitiveness of firms, making employers choose labor-saving technologies, higher value-added production, and better trained—rather than more—employees.

increase by 8 million in 2009, up from a 3.11-million annual increase a decade ago. Development of a national economy needs to be supported by workers' effectiveness and higher productivity, and depends on adding more value and delivering better outputs. TVET development has become an urgent task, its role becoming even more critical for national socioeconomic development in the medium and long terms.

It is the PRC's ultimate goal to promote a "xiao-kang" society, i.e. a society in which everyone enjoys a reasonable share in newly created wealth. This means both efficiency and equity arguments should come into play in boosting employability and competence at work. One way to do this is to increase access to relevant, well-conceived, and well-delivered TVET programs.

Technical and Vocational Education and Training: More of the Same or Systemic Change

The PRC's TVET system has obvious strengths, including a large number of excellent schools that are able to adjust to new demands. Moreover, a large proportion of the country's teachers and trainers have shown themselves to be capable of preparing growing numbers of students for a role in pulling off the "economic miracle" and in keeping it going.

There are also severe weaknesses, raising concerns about the TVET system's ability to produce an increasing number of competent and highly skilled workers year after year. The question is whether to expand the system by continuing to do "more of the same"; or whether the time is ripe for systemic change.

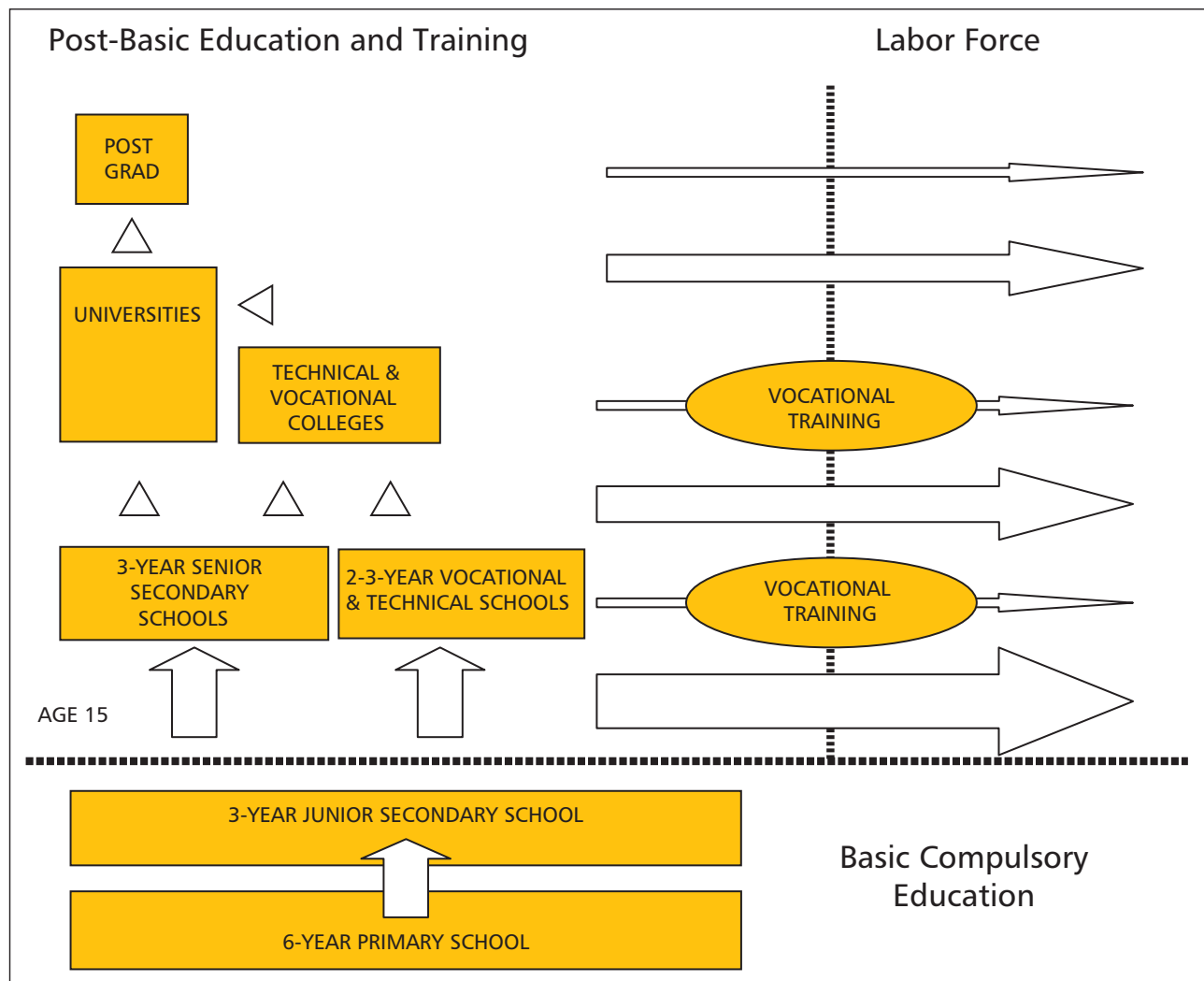
Three major yardsticks are useful in examining the performance of a TVET system: (i) its economic and social relevance, (ii) its effectiveness in delivering on promises and plans, and (iii) its efficiency in terms of making the best use of available resources.

The system's economic relevance is mainly a matter of meeting with some precision the demands of employers who need competent employees. Serious

While TVET systems elsewhere also suffer from fragmentation, much has been gained in some countries from creating umbrella or apex bodies composed of the various partners.

mismatches between labor market supply and demand are costly and undesirable. The social relevance of TVET is to be seen in the light of equity, such as in terms of access to TVET for vulnerable groups of people, or, more broadly, the role of the system in reducing poverty. The effectiveness of a TVET system

Box 1: Structure of the PRC's Education and Training System



Source: Government of the People's Republic of China, Ministry of Education. Beijing. Various references. www.moe.edu.cn/edoas/en/



Fred Fluitman

Development of a national economy needs to be supported by workers' effectiveness and higher productivity, and depends on adding more value and delivering better outputs.

shows in its ability to deliver quantity and quality as needed, which is related to the level of given resources. Internal efficiency is about turning inputs into outputs, in particular about ways and means of organizing, managing, and financing the TVET system, including ensuring the necessary oversight.

Using relevance, effectiveness, and efficiency as yardsticks in a diagnostic process reveals several concerns. But first, it is important to distinguish symptoms from root causes. Solving certain problems may be futile if others underlying them are not addressed first.

Available qualitative data and views based on firsthand experience suggest considerable scope for improvement when it comes to financing TVET.

In the case of the PRC, underlying problems affecting the performance of the country's TVET system include weak labor market links, considerable fragmentation of efforts, and poor management practices. Another fundamental concern is the adequacy of financial means, and a range of inefficiencies and inequities that are evident in spending available resources. Clarity and consensus about levels of investment, as well as sources of funding and funding mechanisms, will go a long way to solving a number of related problems in the medium and long terms.

The PRC's TVET system is considerably fragmented mainly as a result of historical factors, decentralization, and a tendency among public authorities to view private training providers as intruders rather than as potential allies. Although the PRC has recently established the intergovernmental forum of TVET activities, it has not functioned very well. This translates into the coexistence of learning institutions whose mandates, operating practices, train-

Box 2: Spending on Education in OECD countries

Taking into account both public and private sources of funds, OECD countries as a whole spend around 6.0% of their collective GDP on educational institutions. The highest spending on educational institutions is in Denmark, Iceland, the Republic of Korea and the United States, with at least 7.0% of GDP accounted for by public and private spending on educational institutions, followed by Mexico and New Zealand with more than 6.5%. Nine out of 30 countries for which data are available spend less than 5.0% of GDP on educational institutions; in Greece and in the Russian Federation, the figure is 4.2% and 3.8%, respectively.

Source: Organization for Economic Co-operation and Development (OECD). 2005, 2008. *OECD Education at a Glance 2005*, *OECD Factbook 2008*. Paris.

ing methods, and products may look similar, but in fact are not. With little coordination, inefficiencies are believed to be widespread, but hard to demonstrate, as oversight is far from comprehensive.

While TVET systems elsewhere also suffer from fragmentation, much has been gained in some countries from creating umbrella or apex bodies composed of the various partners who are charged with providing policy direction and making sure that the demand for skills is met as much as possible. These councils or agencies, whose terms of reference may vary, often also play an active role in generating and allocating resources, as well as in collecting and analyzing pertinent information, assuring quality, certifying skills, and other tasks as appropriate.

Financing Technical and Vocational Education and Training

How much money goes around in the PRC's education and training system? How well it is spent? These are questions not easily answered. Even if a standard set of national education data is duly collected and presented on a yearly basis, current information on funding and spending needs to greatly improve. The statistics available do not always cover the whole system, they may not be comparable, or they may be out-of-date or contradicted by other statistics. Nevertheless, available qualitative data and views based on firsthand expe-

rience suggest considerable scope for improvement when it comes to financing TVET.

Four sets of issues surround the financing of education, including TVET. The first of these concerns purpose and aims, or social and economic relevance, or the sort of returns one would expect from allocating resources to education and training. Why should the government, or enterprises, or individuals, invest in knowledge and skills rather than in health, housing, or other worthwhile causes? The answer is that the investor will benefit through sufficient workforce employability, high labor productivity, and economic growth. This will enable individuals to move out of poverty, enterprises to meet their production targets, and the country to achieve a range of development objectives including greater competitiveness and a further reduction of poverty.

A second set of issues concerns levels of spending. While it is difficult to say exactly how much money is sufficient, levels of investment need to reflect the value attached to social and economic benefits that certain types and levels of education and training bring, as well as what the country and its people are able and willing to afford. Before spending more in a particular location, or on a particular type of education and training, evidence of returns on earlier investments must be reviewed together with opportunities to improve efficiency and equity in current spending.



The social relevance of TVET is to be seen in the light of equity, such as in terms of access to TVET for vulnerable groups of people, or, more broadly, the role of the system in reducing poverty



Eisuke Tajima, ADB

Investors will benefit from TVET programs through sufficient workforce employability, high labor productivity, and economic growth. This will enable individuals to move out of poverty, enterprises to meet their production targets, and the country to achieve a range of development objectives including greater competitiveness and a further reduction of poverty.

Thirdly, it is important to consider and decide who should pay for education and training, or who should pay more, or less, than they do already. The funding share of government, the level of tuition and other fees that students pay, and the financial contribution of enterprises employing skilled workers, may be reviewed in terms of fairness and affordability.

Finally, for the sake of efficiency and transparency, policy makers need to consider which among multiple channels and mechanisms are most suitable to transfer the necessary funds from the source to the destinations and how financial flows are best managed.

Current Spending on Education

It is surprising that the PRC, a country with impressive economic growth rates year after year, spends significantly less of its national income on education than countries with the highest incomes per head and much lower growth rates. In fact, the PRC has long spent less on education in proportion

to its national product than most other countries in the world. Total education spending from all public and private sources gradually increased from just over 3.00% of gross domestic product (GDP) in the 1990s to around 4.60% of GDP in 2006. Government expenditure, including both budgetary and other appropriations, has for many years been less than 3.00% of GDP, the level that was reached 3.32% in 2007.

As the PRC's GDP has been growing rapidly for many years, overall education expenditure, includ-

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ing public expenditure, has increased continuously and considerably in absolute terms. High growth rates are less impressive, however, once corrected for inflation. Further, major variations in spending exist between and within regions, and between different types and levels of education. As enrollments go up and down, changes in expenditure per student (in real terms) also become relevant. Thus one may find, in some places, that total and/or per-student expenditure on TVET has decreased, while that on university education has increased.

The PRC does not meet the 4% public expenditure target that the central government has set and reset repeatedly since the 1980s, mainly because of institutional factors such as budgetary practices and the devolution of responsibility for most education to the provincial level and below. Funding primary and junior secondary schools is now completely left to local authorities which, if they are not short of money to begin with, may hold opinions of their own on the relative importance of education and training.

The composition of education funding by level and type of education, or by region, or in terms of outlays per student, provides a better picture than the total amount a country spends in relation to its GDP. Data for 2006 suggest that regular higher education institutions received 30% of total education funding and 21% of government appropriations. The PRC's massive investment in higher education means that other levels and types of education get less.

While such shares are not exceptional by international standards, they should be related to numbers of students enrolled. Thus, against the backdrop of an unprecedented growth in the number of university students in recent years, the PRC spent, for every tertiary level student, an amount roughly equal to its per capita national income as compared to an average of some 40% of income per head in countries in the Organisation for Economic Co-operation and Development (OECD). The total outlay of ¥13,800 (\$2,019.91) per student included a government contribution of ¥5,900

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Eisuke Tajima, ADB

A TVET class. There is a need to reexamine government funding on TVET programs.

(\$863.58), pointing at a hefty share of tuition and other contributions from private sources.

Senior secondary vocational schools, the first and largest skills development station in the system, represented 6% in total education funding in 2006, down from 7% in 2003. The amount per student was ¥3,064 (\$448.48) in 2005, including a government contribution of ¥1,651 (\$241.66). Meanwhile, parallel senior secondary *general* education attracted 13% of total funding, or ¥4,325 (\$633.05) per student, including a government contribution of ¥2,213 (\$323.91) per student. The considerable difference in government funding between the two secondary school types is made up by a significantly higher share of student-fee income in the case of vocational schools.

The PRC has recently set as its strategic national objective a major development of human resources, promoting the implementation of the "Knowledge and Skills for All" program. Among various levels and types of education, TVET is not prioritized, and has received inadequate funding.

These findings are worth mentioning because they seem at odds with current policy objectives to give greater priority to TVET and encourage equal numbers of junior secondary graduates moving into general and vocational streams. Moreover the



Bureau of Finance of Hunan Province

The fees that students of public vocational secondary schools pay in the PRC are among the highest in the world.

findings either contradict the conventional wisdom that unit costs in general education are lower than in TVET or, alternatively, suggest the government underfunds the latter.

To allocate funds more effectively for TVET in education, the government urgently needs to establish and implement a legally-supported unit cost per student of TVET. This was stipulated and supported by the *Vocational Education Law of the People's Republic of China* (1996). But, to this date, it has not been agreed, and national discussion still continues with different views from various stakeholders.

While low levels of funding for TVET may have had little effect on the PRC's economic growth so far, shortages of skilled personnel are said to be on the increase and more and more employers face problems in recruiting competent people. At the same time, large and rapidly increasing numbers of recent university graduates are said to join the ranks of the unemployed.

Sources of Funding: Who Pays for Education and Training

Public Funding

The PRC's current Five-Year Plan, covering the 2006–2010 period, includes among its main objectives increasing government funding for education and training to 4% of GDP. The plan sets four goals for education: (i) achieving 9-year compulsory education for all, (ii) increasing progression from junior to senior secondary school to around 80% with equal shares for general and vocational schools, (iii) increasing the postsecondary progression rate to around 25%, and (iv) improving the quality of higher education. However, there is no consolidated budget to show how much the various plans will cost and where the money should come from.

Financial contributions by enterprises are not significant in the PRC.



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Having decentralized authority for education and training, the responsibility for funding and implementing broad intentions appear to be left to provincial and city authorities, if not to school managers.

As part of recent education reforms, the PRC has explicitly embraced the principle of beneficiaries of TVET sharing the financial burden. However, legislation to provide a basis for the diversification of funding sources has so far mainly meant that tuition and other fees have increased sharply. The share of government appropriations in total funding has declined steadily and rapidly in recent years, from well over 80% in 1990 to about 60% today. The contribution of enterprises remains insignificant.

Tuition and Other Fees

In many countries, including most industrialized ones, vocational secondary education is primarily funded by governments; tuition or other fees are uncommon. Moreover, recognized private institutions that play a part in the process may be subsidized by the state. In the PRC, tuition and other fees are an important source of funding for vocational schools together with government contributions. Minor sources are sales of goods produced in schools, and donations. The share of fees increased from 5.1% of total education funds in 1992 to 15.8% in 2006. These are averages; relative shares of government and private funding



Fred Fluitman

A student in one of the TVET schools. Lowering vocational fees across the board encourage more students, especially the poor, to enroll in TVET programs.

Financing TVET in the PRC is very much part of financing education in general.

vary considerably by level and type of education, as well as by region. In many instances, the fees that vocational students pay exceed the amount of government contributions.

The fees that students of public vocational secondary schools pay in the PRC are among the highest in the world. Often over ¥2,000 (\$292.74) per year, they easily add up to half the annual income of many household in the country. The tuition fees for students who choose special subjects, including mechanical engineering and digital arts, reach ¥3,000-¥5,000 (\$439.11-\$731.85) per year. These fees are also higher than those charged by the general secondary schools to which better-off families prefer to send their children; and they often exceed actual recurrent costs per student per year, presumably in order to cover part of capital investment.

A number of student support schemes do exist. One scheme was introduced recently to provide ¥1,500 (\$219.55) a year for board and lodging to all vocational school students with rural residence permits, i.e. from poor families, as well as a limited number of poor students from urban areas. Under another scheme targeting poor families, tuition is waived for some 12,000 Guangdong vocational school students, or about 1% of total enrollments. No comprehensive data are available to show how many vocational students in the PRC benefit from substantive government support.

Lowering vocational school fees across the board, or doing away with them, would encourage more students to choose TVET, which corresponds to current government priorities. It would also be a way of addressing dire and worsening income inequalities. Abolishing or lowering fees considerably for all would also do away with the rather discriminatory dual-track option ("work-study programs") now offered by a good number of schools and involving, for example some 20,000 students in Guangdong Province. This option lets students from poor families follow half the standard program, leaving them sufficient time to work and earn their tuition fees in a nearby factory contracted by the school for what is called a "win-win" arrangement.



Eisuke Tejima, ADB

A TVET teacher demonstrates to a student the proper way of handling equipment. While TVET can be a promising tool in spurring economic growth in the PRC, there are still a lot of things to be done, including policy changes in the program.

Enterprises

Financial contributions by enterprises are not significant in the PRC. The study shows that there is a common view, favored by enterprises and school directors, that employer contributions are not necessary and it is not reasonable to expect them. The *Vocational Education Law of the People's Republic of China* (1996) nonetheless states that enterprises must provide for the training of current and future employees and that the government should formulate concrete measures to ensure this. There is no evidence to suggest that this has happened anywhere so far. While a number of large enterprises attach considerable importance to training their workers, a majority appear comfortable with the idea that the government should ensure a steady supply of skilled workers free of charge.

Funding Channels and Mechanisms

Money to pay for TVET flows from single or multiple sources through a variety of channels and mechanisms to multiple destinations. Schools and training institutions receive direct allocations from various government budgets, as well as tuition and

other fees paid to them by students, payments by enterprises for services rendered, and donations by enterprises.

However, governments may also give grants or loans to students and pay teachers and trainers directly, rather than via the school budget. They may channel resources in the form of vouchers, for example to enhance participation from among disadvantaged groups or to introduce some competition among schools to improve quality. Governments may provide fiscal incentives to enterprises to train their workers, or to private training providers to take in more trainees. Students or their parents may pay the government in the form of taxes, and enterprises in the form of training wages withheld. National, regional, or sectoral training funds may exist as intermediaries, for example, to disburse income from training levies. Public investment banks may help finance capital expenditure.

Improving the quality of education requires financial inputs.

The choice of channels or mechanisms of funding can make a great deal of difference to efficiency, effectiveness, and equity. Efficiency varies between channels in terms of leakage or the time it takes for funds to pass; equity in allocation may depend on who manages the flows of funds; and the willingness of enterprises to pay may relate to transparency and the effectiveness of oversight. Which channel is most appropriate depends on where funds originate, how they flow, what they will pay for, and how flows are best managed between source and destination. Considering all this, resources need to be managed in a more integrated manner than they are at present. Possible funding sources include special funds from the central government, commercial funds, and international assistance.

Financing TVET in the PRC is very much part of financing education in general. The same authorities decide on funds for different types of education and training, which are included in the same overall budgets. They are, in principle, subject to the same administrative rules and procedures and they suffer from similar operational constraints. In the wake of major steps to decentralize government operations, district and city officials in the PRC are largely responsible for running schools. Once budgets have been allocated, school directors appear to have sufficient room to make decisions as they see fit. There are signs that school managers are

interested in minimizing bureaucracy, in reducing slippage, in exploring additional funding opportunities, and in effectively involving enterprises in making decisions.

The study also finds that reputable vocational schools manage to negotiate commercial bank loans, international assistance for school expansion, or the purchase of equipment on the basis of expected future earnings. Such schools use current holdings, including school income and teacher savings funds, as collateral. These schools mobilize external resources to improve school equipment and the quality of education.

Good schools have good capacity to repay the loans, and become better schools. However, less reputable schools are unable to find the funds needed to improve. The disparity in quality of education is growing between these two types of schools. Improving the quality of education requires financial inputs.

The financial market offers some funding opportunity. Discussion in the PRC centers on the possibility of central and provincial governments seeking funds from the bond market for TVET development, for example. Putting the emphasis on education as a public good, the government may like to seek new funding modality for sound TVET development in the country.

Recommendations

Based on the findings of this study, the following actions are recommended to national, provincial, and local policy makers responsible for human resources development.

- (i) **Increase government spending on education and training.** Meet the long-standing, explicit objective of bringing the share of total public expenditure on education to at least 4% of GDP. In doing so, the government needs to more judiciously allocate resources between different institutions at different levels, and between regions, in accordance with economic and social realities and stated development aims.
- (ii) **Develop and standardize a unit cost for TVET students.** Prepare and apply a legally-supported standard unit cost, to be developed from scientific calculation methods, for any TVET student who enrolls in any level, depending on the subject they pursue.
- (iii) **Reduce tuition and other fees.** Eliminate or drastically reduce tuition and other fees, particularly at senior secondary vocational schools. Alternatively, regardless of residence status, students should be given grants or loans as appropriate. This would greatly improve access to good TVET for youth from disadvantaged groups, including rural migrants and demobilized soldiers.
- (iv) **Ensure that enterprises pay for TVET.** Establish provincial training funds, possibly fed by payroll levies, and give enterprises that contribute a substantive say in how the money is spent.
- (v) **Identify and address current inefficiencies.** Before spending more on TVET, explore opportunities to make better use of existing resources. Inefficiencies are associated with current budgetary practices and weaknesses in planning, management, and oversight, at macro and micro levels. Identify these inefficiencies based on reliable data and in the light of strategic directions of TVET development in the PRC.
- (vi) **Review ways of funding capital investment.** To generate and streamline capital investment in a carefully planned, transparent, and fair manner, set up dedicated public investment banks or loan guarantee mechanisms at the provincial level.
- (vii) **Provide incentives to private TVET providers.** The government should provide substantive support, including financial/ fiscal incentives, to private providers who set up or expand TVET institutions, and to both public and private providers who meet agreed quality and output targets in the local context.
- (viii) **Improve information and analysis on TVET and labor markets.** The Public Employment Service System should considerably improve the collection, dissemination, and analysis of pertinent information, including detailed education and training statistics and sufficient labor market information. It needs to review system performance and undertake labor market analyses such as regular labor force surveys and tracer studies of graduates.
- (ix) **Improve overall system management and coordination.** Establish effective provincial apex bodies for TVET, to achieve greater policy coherence, better overall management and oversight, and, consequently, additional efficiency and equity. Such bodies should involve public as well as private providers and other stakeholders to run the system as partners rather than as competitors. Important roles for an apex body include resource allocation, information sharing, and regular monitoring and evaluation of system performance.

Data Sources

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Technical and vocational education and training (TVET) systems are often burdened by a range of performance issues. Many of these are rooted in problems that countries, including the People's Republic of China (PRC), have in generating and allocating the necessary financial resources, and in spending them effectively. This note will discuss such issues and present policy recommendations based on insights gained in Asian Development Bank (ADB)-sponsored policy reviews of TVET in Guangdong and Hunan provinces.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries substantially reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.