

# Reform of Vocational Education and Training in China

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**Country Study Summary**

## THE ECONOMY

With a population over 1.1 billion, China is the world's most populous country. It has achieved considerable success in reducing its population growth rate, from an annual rate of 1.8 percent in the 1970s to 0.9 percent. While a majority of the population continues to live in rural areas, urban population growth rates exceed four percent annually and about a third of Chinese now live in urban areas. While still a low income country, China has made great strides in social indicators since the 1970s. Infant mortality rates have more than halved, the average life expectancy has risen to 69 years, adult illiteracy rates have fallen to 27 percent, and net enrollment rates at the primary level are now close to 100 percent.

Economic reforms have been successfully pursued since 1978. Initially they focused on improving incentives in agriculture, and allowing the market to play a greater role in rural areas, but over the past few years authorities have accelerated the reform process and opened up the economy with a much stronger commitment to liberalizing the urban industrial sector. GDP growth has been phenomenal over the last decade. Between 1984 and 1993, GDP grew at 10.5 percent per year, spurred not by agriculture but by the industry and service sectors which grew at more than 12 percent annually. China's stabilization policies of 1994 and 1995 have proved successful in reducing inflation, and in 1995 the economy grew at over 10 percent. Labor market liberalization started relatively late in the reform process, and, although progress has been made, labor markets still retain some of their pre-reform features.

## THE LABOR MARKET

China's labor force is predominantly rural (see table 1). In urban areas, state-owned enterprises (SOEs) and collectives (COEs) account for about 85 percent of employment. Unemployment is low by international standards—only

2.9 percent of urban labor force in 1994—and has remained low since 1980. There have been, however, significant shifts in the composition of labor demand. In rural areas, liberalization of non-agricultural activities has led to rapid growth in off-farm employment in enterprises. In urban areas, a more permissive stance towards the private sector encouraged a shift in the composition of employment away from SOEs and COEs towards privately-owned enterprises and self-employment.

*Table 1. Labor Market Indicators, 1980-1994*  
(In millions, unless otherwise specified)

Indicator	1980	1985	1990	1994
Labor supply	429.0	501.3	571.2	619.5
<i>Labor demand</i>				
Total	423.6	498.7	567.4	614.5
Urban	105.3	128.1	147.3	168.0
% State-owned	76.2	70.2	70.3	66.7
% Collectives	23.1	25.9	24.1	19.2
% Private	0.0	0.3	1.1	6.5
% Selfemployed	0.7	3.5	4.5	7.3
Rural	318.4	370.7	420.1	441.5
% Agriculture	89.0	81.9	79.4	67.5
% Other	11.0	18.1	20.6	32.5
Unemployed (urban*)	5.4	2.5	3.8	5.0
% of labor supply	4.9	1.9	2.5	2.9

Note: \* Zero unemployment is assumed for rural areas.

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Aggregate trends hide the imbalances in the Chinese labor market. There is a substantial degree of underemployment reflected in large numbers of redundant workers in SOEs and COEs in urban areas and a large and growing labor surplus in agriculture and collectives. Authorities calculate that about 15 percent of the workforce in SOEs and 30 percent of agricultural labor is surplus. If the number of surplus workers in SOEs alone were added to official estimates of urban unemployment, the measured unemployment rate would rise to about 12 percent. But, there are also shortages of skilled workers in the cities, which have emerged following rapid economic growth. Vocational education and training (VET) has an important role to play in addressing these labor market imbalances.

*Table 2. Educational Enrollments  
(Millions)*

<i>Level and Type</i>	<i>1980</i>	<i>1990</i>	<i>1994</i>
Primary	146.3	122.4	128.2
Junior secondary	45.4	39.2	43.8
<i>Senior secondary</i>			
General	9.7	7.2	6.6
Specialized	1.2	2.2	3.2
SWS	0.7	1.3	1.9
SVS	0.3	2.5	3.4
Higher	1.1	2.1	2.8

## THE VOCATIONAL EDUCATION AND TRAINING SYSTEM

Primary education gross enrollment ratio reached 98 percent in 1994. Secondary education is divided into junior and senior levels. Junior secondary enrollment ratios have risen from about 60 percent in 1980 to 75 percent in 1994. Senior secondary schools can be general or "vocational". The latter includes secondary specialist or technical schools (STS), skilled worker school (SWS), and secondary vocational schools (SVS). Since 1980, general senior secondary enrollments have dropped at over two percent annually as these schools have been converted into vocational schools. General senior secondary schools now enroll less than 50 percent of senior secondary students, down from 80 percent in 1980. Enrollment in higher education institutions has more than doubled since 1980 to almost 3 million (see table 2).

### Vocational education

Overall responsibility for the STS and SVS, and for coordination of SWS, rests with the State Education Commission (SEdC). Much of VET is provided by the education system at the senior secondary level, by labor bureaus in states and municipalities, and by SOEs. STSs and teacher training schools are run by central technical ministries, SOEs or provincial and local education bureaus, SWSs are under the Ministry of Labor and are administered by central industrial ministries, local labor bureaus, and enterprises. SVSs are administered by local education bureaus. Since 1980, enrollments in specialized secondary schools and SWSs have grown at an annual average of 10 percent, and in SVSs at 17 percent. Education levels in SVSs, which originally enrolled primary school graduates but since 1979 have enrolled lower secondary graduates, are rising. But education levels in STSs have been falling: in 1994, only 20 percent of the intake were senior general secondary school graduates compared to 30 percent in 1990. Vocational education is also provided to adults outside the regular school system. Since 1985, STSs and SVSs have been encouraged to develop and expand enrollment in part time and short courses for workers to upgrade skills or be re-trained. About 50 million adults—out of a total of 60 million undergoing vocational education—were enrolled in these schools in 1994 of which 95 percent were in technical training schools.

### Vocational training

In addition to the SWS, local labor departments also operate Employment Training Centers (ETCs) which provide short-term training courses (less than 6 months long) for unemployed youth and workers. Enrollment in these was 3 million in 1993, of which about 75 percent were first-time jobseekers. Only one million were reported to be employed

after completing training. The Ministry of Labor issues regulations governing the ETCs, but it appears that they remain relatively uncontrolled in terms of the content and quality of their training. All operations are financed through tuition fees and other earnings, capital grants from the labor bureau and subsidies from the unemployment insurance fund.

### **Enterprise based training**

Most large and some medium SOEs also operate Enterprise Training Centers (ENTCs), to meet their own training needs. Many ENTCs do not have workshops so practical training aspects are normally carried out in the factory. While no nationwide data is available, municipality level evidence indicates that such training is widespread and short. For example, in 1992, the municipality of Dalian was reported to have about 2,500 enterprises with about 1,500 ENTCs. In Wuhan, more than 70 percent of trainees attended programs shorter than three months. 70 percent of the training is provided for workers normally employed by the enterprise owning the ENTC. The regulations governing ENTCs are determined by technical ministries to which the parent enterprises are responsible. There is no national standard for courses, other than those provided for general education.

## **MAJOR VET ISSUES**

The broad policy of the Government is to move to a market system, but the major issue is whether an effective and efficient market system can be achieved through a process of small changes while maintaining the existing structures.

### **Management**

There is some overlap due to unresolved issues related to the management of the VET system. SVSs and SWSs both have three year training programs catering to junior secondary leavers; while the ENTCs provide general education as well as secondary technical and vocational school programs. STSs and SVSs increasingly offer short specialist courses for worker upgrading and retraining, as do ENTCs. Although responsibility is being decentralized to provincial and local governments and enterprises, some central placement is continuing. A more thorough reform of the organization and management of vocational education and training would devolve responsibilities to the training institutions in a clearly defined manner.

### **Costs**

SEdC has proposed that 2,000 new vocational schools be established by the year 2000. This represents an increase in the capacity of the vocational and technical schools by about 15 percent. The investment required over the five year period to establish these schools will be about 8 billion RMB per year, which is about eight times the annual capital expenditure on primary and secondary education. This does not account for the needs of the other 14,000 vocational and technical schools, which are sorely in need of rehabilitation because of inadequate financing. Widespread conversion of secondary general schools into vocational schools is partly responsible for this problem: average unit recurrent costs in 1994 were 2,500 RMB per year in STSs, and 1,600 RMB per year in SWSs and SVSs, which are higher than those in general upper secondary education.

### **Financing**

Analysis of the source of financing for a sample of schools revealed that about 53 percent of revenue for recurrent expenditure came from the government. But there were wide variations, as the share of government finance ranged from 37 percent to 64 percent, while that of tuition fees ranged from 2 percent to 38 percent. About 6 percent of the sample's operating revenue was obtained from income derived from school owned enterprises. But, some school-owned factory workshops derived profit from special benefits, including low interest loans for investment, freedom from taxation and other controls, and monopoly rights for supply of services.

### Relevance and responsiveness

Enrollments in SVSs and STSs reflect the changing sectoral pattern of employment. Enrollment in SWSs reflects the predominantly industrial orientation of the enterprises to which they belong. These institutions graduate about 2 million students per year which is 17 percent of the total net annual increase in employment. While employment guarantees have been removed, graduates sponsored by enterprises and provincial and local governments are absorbed in these organizations on completion.

### NOTABLE REFORMS AND OBSTACLES

A framework for reform of VET was established between 1985 and 1993 with proposals to increase the proportion of students entering senior vocational education to 60 percent of entrants; generalize curriculum in vocational schools; and encourage enterprises, government departments, individuals and communities to set up training institutions.

#### Obstacles

One major obstacle to these reforms is the cost of improving or expanding training facilities. Just to expand the formal vocational education by 10 percent would require an annual expenditure of 10 percent of total (recurrent and capital) education budget, which is unrealistic given that education already has more than 15 percent of the government budget. The other obstacle is institutional capacity at the center. Given the vast size of the system, and regional variations in the demand for skilled workers, a centralized planning approach is infeasible. Under these circumstances, China has followed a pragmatic strategy relying on decentralization, greater cost sharing, and encouraging private provision.

#### Decentralization

Management has been devolved to provincial, county and city levels. While the State Planning Council and SEdC continue to set targets for vocational and technical school intake, in practice school managers have a good deal of freedom and power.

#### Greater cost-sharing and private provision

Trainees and enterprises have voluntarily borne the burden of training in high growth regions, because schools have successfully adjusted programs to meet local demands. Nongovernment budget spending for vocational education has grown rapidly and now accounts for half of total recurrent expenditure in some of the provinces. Private higher and secondary level education and training have been officially encouraged since 1993. By 1994, about 2.5 percent of SVS enrollment was private, and private training centers provided more than 5 percent of all training.

#### Improve coordination through local funding mechanisms

The government is experimenting with the establishment of funds for in-service training. Under a pilot project, each of five municipalities will set up coordinating committees which will manage a Vocational Training Fund (VTF), which will become the channel for all municipal financing for provision of in-service training. The vocational training coordination committee will include representatives from government, enterprises, vocational schools and other training organizations. The VTF will make grants on a competitive basis for the delivery of training, to both public and private training providers, against criteria of quality, demonstration of market demand, and cost and outcome benefits. VTF revenues will come from the unemployment insurance fund, education tax and general budget for training.

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