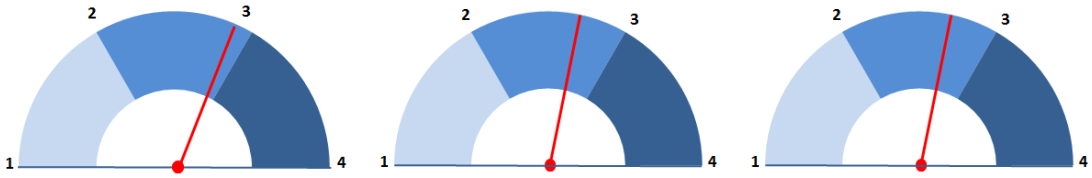
Technical Vocational Education and Training in Xinjiang

SABER- Workforce Development

Diagnostic Report | **Xinjiang, China, 2013**



Strategy **Oversight** **Delivery**

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Technical Vocational Education and Training in Xinjiang

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I. Introduction

Background and Objective

The Department of Education of Xinjiang Uygur Autonomous Region (Xinjiang), together with the Xinjiang Department of Finance and the Ministry of Finance, requested support from the World Bank (WB) to assess the status of the technical and vocational education and training (TVET) sector in the Province in December 2011. A WB team visited Xinjiang on February 2012 and an agreement was reached to use a new diagnostic tool, known as SABER-WfD and developed by the WB, as the principal analytical tool to do the assessment. This report documents progress, analyzes strengths and weaknesses of the Xinjiang TVET system, and proposes recommendations that can be used to enrich policy dialogue and open opportunities for future cooperation between Xinjiang and the World Bank.

Diagnostic Tool and Methodology

The diagnostic tool is a product of the World Bank's initiative on Systems Approach for Better Education Results (SABER), which focuses on several policy domains, including workforce development (WfD) (WfD is equivalent to TVET). SABER-WfD serves to assess how well a given country's policies and institutions are performing in light of global best practices. It focuses on three dimensions, including strategic framework, system oversight and service delivery. Each dimension is further divided into three policy goals of governance, finance and information, as well as nine more detailed policy actions. The analytical framework is described in Annex 1. (Readers unfamiliar with the SABER-WfD tool are strongly urged to consult Annex 1 in order to be better prepared to fully understand the following report and analyses).

The World Bank team discussed and agreed with the Foreign Capital Project Management Office of the Xinjiang Education Department, the main counterpart for this study, on the selection criteria for the principal investigator (PI) responsible for data collection and the desk review of available documentation and interviews with key informants, including officials from related departments and representatives of training institutes and enterprises. Then the local PI was selected to work on data collection under the Bank team's guidance. The scoring and reporting was produced by the Bank teams[1].

[1] Ms. Lei Shen, Associate Professor of Xinjiang Urumqi Vocational University and PhD student of Urumqi University, was competitively selected as principal investigator (PI). Ms. Shen and her team collected data using the SABER-WfD instrument from April 6 to June 1, 2012. The World Bank SABER-WfD Research Group was led by Jee-Peng Tan with Ryan Flynn a key member, under the Human Development Network based in HQ working on the data processing and scoring from July to September, 2012. During the same time, the Xinjiang TVET task team was led by Liping Xiao and Jin Song, a key member, worked on the reporting. Dr. Kenneth Ashworth provided comments and edition to the English version of the report.

Structure of the Report

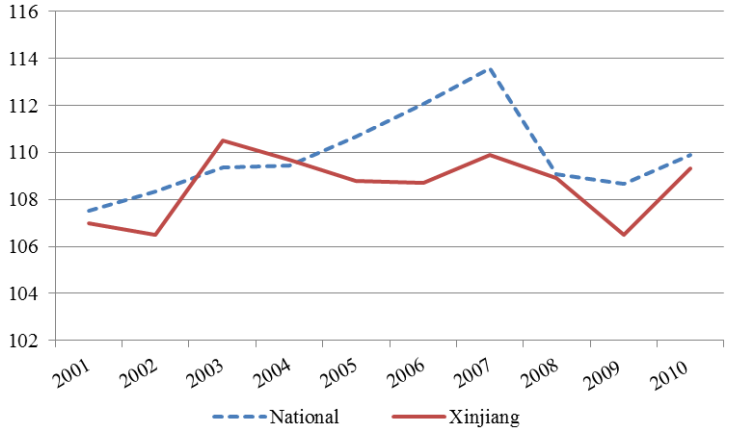
This report is composed of three sections. The first section provides a brief overview and analysis of the Xinjiang setting, including economic trends, status of the workforce and TVET system. This is followed by a summary of the SABER-WfD results including 3 dimensions, 9 policy goals and 27 policy actions. Lastly, a brief policy analysis along with recommendations reflect upon the results of the SABER-WfD study by addressing key challenges and weaknesses of the Xinjiang TVET system in the context of Xinjiang's Medium to Long-Term Education and Talent Development Plans.

II. Xinjiang Context

1. Economic Trends

The Xinjiang Uyghur Autonomous Region has vast areas with sparse population but with abundant natural resources. It is an important province in China's Northwest region. In the past 10 years, Xinjiang has achieved rapid economic development. In the year 2010, Xinjiang's GDP reached 543.75 billion Yuan, and per capita GDP reached 25,034 Yuan**, yet still behind the national average**. First, Xinjiang's economic development scale makes up only 1.36% of the national GDP, and its per capita GDP is about 5,000 Yuan below the national average[2]. Second, economic development is slower than the national average during the same period of time. During the period 2001-2010, the average per capita GDP growth rate in Xinjiang was only 8.6%, whereas the national average was 9.8%. **This economic feature is related to the existing sector structure and industrial distribution in Xinjiang, and it is also related to the current workforce status in Xinjiang.**

Figure 1 GDP Per Capita Growth Rate (% per annum) [3]



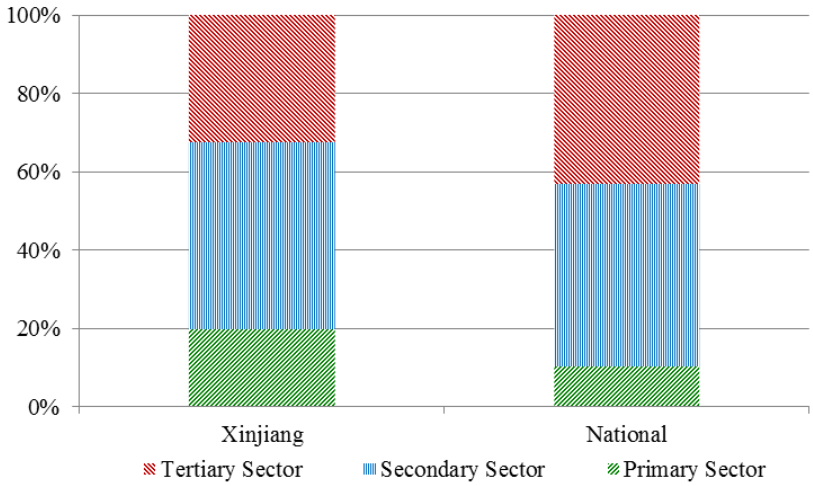
Source: Chinese Statistical Yearbook 2002 to 2011.

[2] The national per capita GDP in 2010 was 29,992 Yuan.

[3] The slower per capita GDP growth in 2009 in China was a result of the global economic crisis. The impact on Xinjiang's industry and foreign trade was even greater, as the global economic crisis had a direct impact on the price of international petroleum, yet the petro industry made up about 61% of the incremental value of all Xinjiang's industry. In addition, the "Seven Five" event brought seriously adverse effects to Xinjiang's economic development. (The "Seven Five" event is a series of violent riots over several days that broke out on 5 July 2009 in Urumqi, the capital city of Xinjiang.)

Compared with the national sector structure, the ratio of the primary sector in Xinjiang GDP is greater than that of the national average, while the ratio of the secondary sector is almost the same as the national average[4], and the share of the tertiary sector is comparatively smaller[5]. Production of cash crops makes up 61% of the total production of major agro products in Xinjiang. The share of agriculture has remained at all times at 20% of Xinjiang's total GDP, which is far above the national average of 10%[6]. The proportion of the secondary sector in Xinjiang's GDP has been growing every year, from 42.4% in 2001 to 47.7% in 2012, which is at the same level of growth as the national average. Compared with the primary and secondary sectors, the tertiary sector development in Xinjiang is lagging behind the national average. It decreased from 38.2% of GDP in 2001 to 32.5% in 2012, which was 10.6 percentage points lower than that of the national average. This is in sharp contrast with the national trend of steady growth of the tertiary sector during the same period.

Figure 2 Composition of GDP by Sectors (%), 2010



Source: China's Statistical Yearbook, 2011.

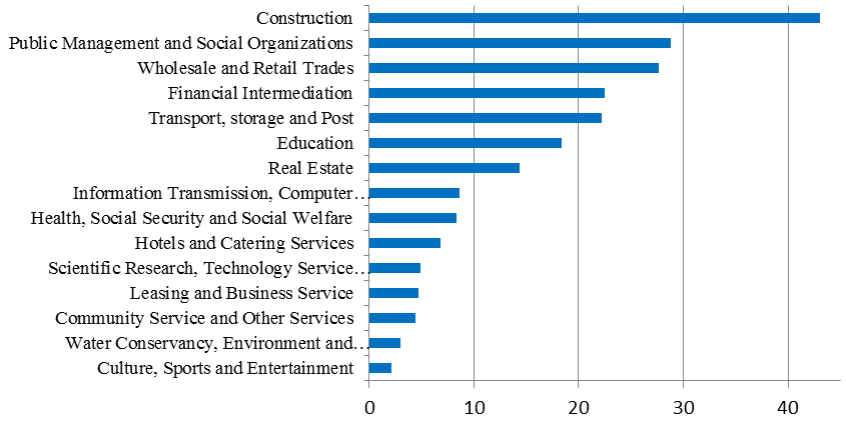
The industry distribution of the tertiary sector has shown that the comparatively developed industries include construction, public administration and social organizations, wholesale and retail, finance, traffic and transportation, storage and post, education, and real estates, etc. By adding them up together, their GDP constitutes 32.5% of the total GDP in Xinjiang. Most of these industries are labor and capital intensive, rather than technology intensive industries.

[4] The Secondary Sector is composed of Industry (which includes mining, manufacturing, production and supply of electricity, gas and water) and Construction..

[5] Cash crops include cotton, oil crops, hemp, sugar cane, sugar beet, tobacco, silkworm cocoon, tea, and fruits.

[6] In 2010, per capital production value of the primary industry in Xinjiang was 24,700 Yuan, whereas the national average was only 14,500 Yuan; per capital production of major agro products was 796.99kg, ranking fourth for the whole country, following Heilongjiang, Inner Mongolia and Jilin.

Figure 3 GDP by Industries in Xinjiang, 2010 (billion Yuan)



Source: Xinjiang Statistical Yearbook, 2011.

2. Workforce Status

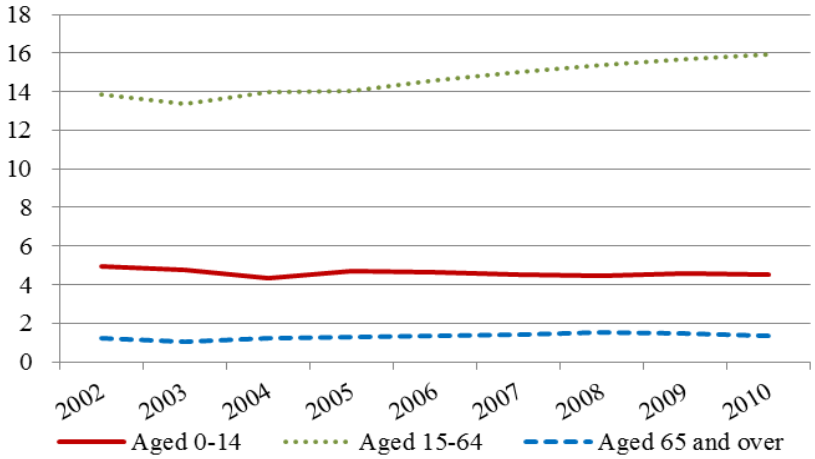
(1) Supply of Workforce[7]

Xinjiang's growth in its workforce population is faster than the national average, ageing is slower than the national average, and decreasing school-age population is slower than the national average. Therefore Xinjiang has a comparative advantage in terms of the quantity of its workforce. In 2010 population in Xinjiang reached 21.85 million, among which, 59.9% were ethnic minorities. As a result of the preferential flexible family planning policy offered to ethnic minorities[8], population growth in Xinjiang has always been at the top for the whole country. In 2010, the natural population growth rate in Xinjiang reached 10.56‰, far higher than the national average of 4.79‰. Meanwhile, the workforce population increased steadily, from 13.85 million in 2002 to 15.93 million in 2010, averaging 1.8% in annual growth, whereas the national population growth during the same period of time was only 1.3%. The population of 0-14 year olds decreased from 4.97 million in 2002 to 4.53 million in 2010, averaging annual reduction of 1.1%, whereas the national average reduction during the same period was 3.2%. In this sense, Xinjiang is expected to enjoy a longer period of demographic dividend. Consequently Xinjiang faces greater pressure in providing better public education services.

[7] The statistics about workforce population and resident population has already included migrants from other provinces. According to Census 2010, migrants from other provinces accounts for 8.2% of total Xinjiang population. Compared to local residents, these migrants have a comparatively higher education level. For migrants, the share of population with primary and below education is 23.5%, the share of population with senior secondary and higher education is 44.8%. Compared to this, for local residents, the shares are 37.7% and 21.6% respectively.

[8] According to the One-Child Policy in China, each couple is encouraged to have only one child. However, in some special cases, a couple may apply to have a second child. Policies are defined by provincial governments. The ethnic minorities are also encouraged to use birth control. But the policies applied to them are looser than for Han residents. In Xinjiang, the Population and Family Planning Regulations announced that a couple of Han Urban residents are entitled to have only one child and their minority counterpart are entitled to have two; while a couple of Han rural residents are entitled to have two children, their minority counterpart are entitled to have three. The Xinjiang policy is comparatively looser than other provinces. Taking Yunnan province as an example, the Population and Family Planning Regulations there announced that a couple of Han Rural residents are entitled to have one child; the couples with certain difficulties could have their second after being approved. Based on this, for the minority couples, if both persons in the couple are minority living in the border or at least one in the couple belongs to the Drung, De'ang, Jino, Achang, Nu, Pumi, Blang nationalities out of the other 48 nationalities, the couple could apply for an additional child. Comparing the two provinces, Xinjiang has adopted looser birth control policies for the minority and rural families. Besides, considering Xinjiang has a higher minority percentage in population composition, the looser birth control policies for minorities have more significant impact on disparate growth compared to the Han concentrated provinces.

Figure 4 Age Group Scale Pattern in Xinjiang (million), Xinjiang, 2002-2010



Data source: China Statistical Yearbook 2003-2011

The quality of workforce in Xinjiang has improved gradually in recent years, but the average educational attainment remains lower than the national average. In 2009, the average educational attainment of the Xinjiang workforce was 9 years of schooling, whereas the national average was 9.5 years. The new entrant labor received on average 10 years of education, whereas that of the national average was 12.4 years; about 30% of the new entrant labor received education at the senior secondary level and above, which was far behind the national average of 67%. The Xinjiang government aims at reducing these gaps by 2020, especially for the group with senior secondary education and above, according to the Xinjiang Medium and Long-Term Education Reform and Development Plan (see Table 1). Hence, from now on, Xinjiang's general education and TVET in particular have to develop at a faster and better pace than in other provinces. Otherwise the province would not achieve its objectives by 2020.

Table 1 Major Goals of Education Development during 2010-2020

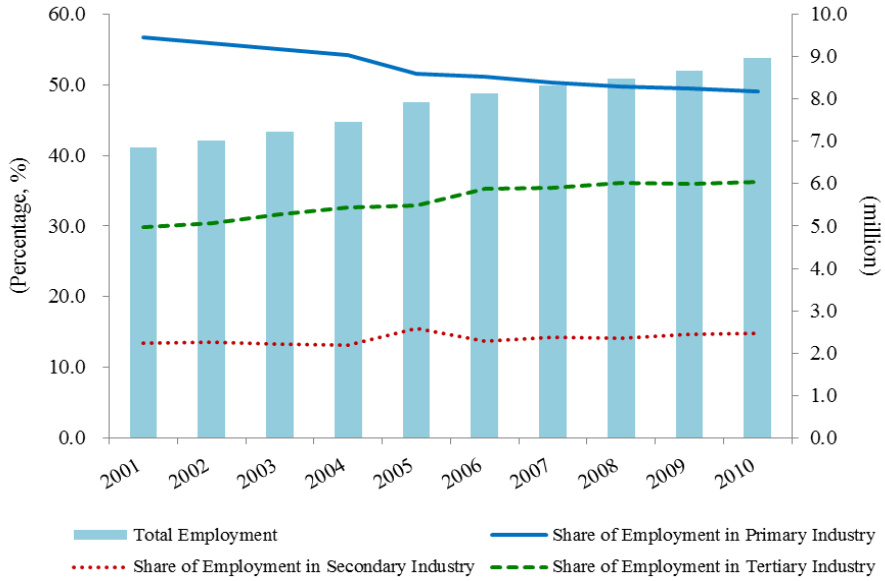
Indicators	2009		2015		2020	
	Xinjiang	National	Xinjiang	National	Xinjiang	National
Average years of education received by major workforce(year)	9.0	9.5	10.0	10.5	11.0	11.2
Average years of education received by new entrant labor (year)	10.0	12.4	12.0	13.3	13.0	13.5
Among which, people receiving education at senior middle school level and above（%）	30.0	67.0	50.0	87.0	78.0	90.0

Data sources: Outline of National Medium and Long-Term Education Reform and Development Plan (2010-2020) ; Outline of Medium and Long-Term Education Reform and Development Plan of Xinjiang Uygur Autonomous Region (2010-2020).

(2) Demand for Workforce

The tertiary sector has provided more new jobs in Xinjiang in the past ten years. The total employed population in Xinjiang increased from 6.85 million in 2001 to 8.95 million in 2010, representing a 30.5% increase. The share of workers in primary sector jobs decreased from 56.6% to 49.0%, while employment in the secondary and tertiary sectors went up from 13.5% to 14.8% and from 29.9% to 36.2% respectively.

Figure 5 Xinjiang Employment Scale and Structure by Strata of Industry



Data sources: Xinjiang Statistical Yearbook, 2001-2011.

In terms of the occupational structure of the workforce, the proportion of public service is up and traditional service is down; the proportion of managers and technicians in some key sectors like coal industry will be increased. In the past five years in the tertiary sector, services for household, health, social security and welfare increased rapidly with average annual increase of over 3%. Meanwhile, occupations of traditional services, like hotel and catering, as well as wholesale and retail industries, were shrinking. Looking forward to the next five years, the coal industry will provide 300,000 new posts by 2015, most of which will be technicians and managers[9].

Table 2 Changes of Employment Scale by Sectors in Tertiary Industry- Xinjiang, 2006-2010[10]

Sectors With Most Rapid Growth of Employment	Annual Growth Rate (%)	Sectors With Most Rapid Shrinking of Employment	Annual Shrinking Rate (%)
Services to Households and Other Services[11]	14.36	Hotels and Catering Services	-3.58
Health, Social Security and Social Welfare	5.02	Wholesale and Retail Trades	-3.32
Financial Intermediation	4.29	Information Transmission, Computer Services and Software	-3.19
Leasing and Business Services	3.72	Traffic, Transport, Storage and Post	-0.95
Management of Water Conservancy, Environment	3.64	Real Estate	-0.32

Data sources: Xinjiang Statistical Yearbook, 2007-2011

[9] The incremental workforce includes: 80,000 for major industries, 120,000 for support staff related to the coal industry, including coal wash, selection and processing, loading & unloading and transportation, fire control in coalfields, emergency relief, and project supervision as well. 20,000 for coal power installation, and 50,000 for coal chemical industry. Details are provided in the Talent Development Plan for Coal Mines, Coal Power and Coal Chemical Industry During the Period of 2006-2010 in Xinjiang.

[10] Other sectors include public administration and social organizations, with average annual increase of 3.15%; scientific research, technical services and geological survey industries, with average annual increase of 1.73%; culture, sports and recreational industries, with average annual increase of 1.61%; and education, with average annual increase of 1.15%.

[11] Services to Households and Other Services include resident services (such as daycare services), motor vehicles, electronic products and commodity repair services (such as bicycle repair) and other services (such as building-cleaning services).

3. Challenges on Workforce Development

The achievement of Xinjiang strategic objectives needs leapfrog development，especially leapfrog development of education. Xinjiang is a major province rich in land, energy and mining resources, and it also has comparative advantage in the quantity of its workforce. However, it faces some constraints regarding its economic development, industrial structure and the quality of its workforce. In the past ten years, Xinjiang's economy grew rapidly. However, the current Xinjiang GDP per capita is still below the national average by a gap of 5,000 Yuan. Xinjiang's 12th Five Year Development Plan has set the development goal of "catching up with the national average level in terms of per capita regional total production value, and reaching the Western region's average level in terms of urban and rural residents' income and public services". Leapfrog development will be needed to achieve this target. Channeling of industrial sectors will need to be adjusted through new industrialization, agricultural modernization and new urbanization. Agriculture needs to transfer surplus labor through the use of innovative technology, secondary industry needs to form technological-intensive pillar sectors, and tertiary industry needs to turn to modern service sectors. The fundamental step to achieve these transformations is to produce a high quality workforce. Only through providing highly skilled workers can the comparative advantage of the quantity of workforce be brought into play and natural resources be fully utilized. This is the answer to ultimately achieving Xinjiang's leapfrog development.

The mismatch between labor supply and demand for higher workforce skills provision has constrained Xinjiang's economic development. So skill development and TVET policies are at the center of the response required to promote continuing development. There is a shortage of skilled workers and inadequate reserve of skilled talent. A labor market survey in Xinjiang in 2011 shows that 71.8% of enterprises consider it is hard to find laborers; 69.0% of the enterprises experience difficulties in recruitment; and 30.1% of enterprises find difficulties in recruiting professional technicians[12]. Taking the coal industry as an example, the current ratio of professional technicians and managers is far below the national average in the larger coal mines. This is the main constraint for further developing the coal industry in the Province[13]. To provide a workforce that fits economic development demands better workforce development through TVET. This is highlighted as the most efficient and forceful means for a Xinjiang development strategy. The Xinjiang 12th Five Year Education Development Plan has set the goals of promoting secondary vocational education, making TVET more attractive, and narrowing the gap between TVET provision and industrial demands.

4. Status of TVET System

(1) TVET System

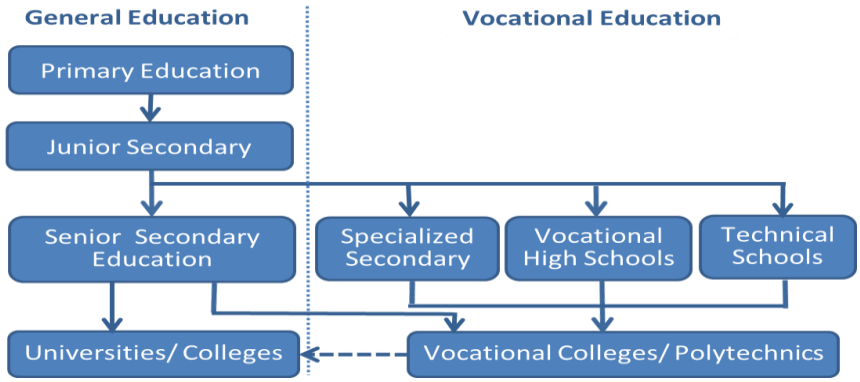
The formal educational system in Xinjiang is the same as for other parts of the country: after the pre-school education (3-6 years old), nine years of compulsory education is followed (6 years of

[12] Research on workforce demand and supply of enterprises in Xinjiang conducted in 2011 by Wang Guirong, JiangYueheng, Pang Yan and Huang Tao, etc.

[13] See Talent Development Plan for Coal Mines, Coal Power and Coal Chemical Industry During the Period of 2006-2010 in Xinjiang..

primary school, and 3 years of junior secondary school). General education includes 3 years of senior secondary and 3 to 4 (college or university level) years of higher education. The technical or vocational track includes secondary vocational education (covering vocational high school, technical school, and skilled worker school) and 3-year vocational colleges and professional institutions (polytechnics). All the technical and vocational schools are mainly administered by the departments of education, and human resources & social security. Table 3 provides details of general and vocational educations in Xinjiang in 2010. Vocational schools and colleges also offer short-term training programs. Most of short-term training programs are provided by training institutes outside the formal education system. There are limited data for these training except the number of training institutes and trainees.

Figure 6 Xinjiang TVET System



Source: Author's construction.

TVET system in Xinjiang was resumed during the 1980's after the Reform and Opening up in China. In the 1990's two important acts defined the legal framework for workforce development in China and in Xinjiang. They are the Vocational Education Law (1996), and the Higher Education Law (1998). Guided by the national policies, a series of policy documents have been promulgated by Xinjiang's Government giving TVET a priority in education and workforce development. Then TVET, especially tertiary vocational education, begin to expand rapidly. Key documents describing the definition and implementation of the policies at this level of education include: Decisions on Accelerating Vocational Training to Enhance Workforce Qualification (2001); Implementation of the State Council Decision on Forcefully Promoting Reform and Development of Vocational Education (2003); Notice on Developing Vocational Education and Skill Training (2005). TVET reform and development has also been included into the Xinjiang Medium and Long-term Talent Development Plan (2010-2020); in the Xinjiang Medium and Long-term Educational Reform and Development Plan (2010-2020); and in the Xinjiang 12th Five Year Education Development Plan.

Xinjiang TVET expanded rapidly in the past 10 years. Total enrollment in secondary vocational schools increased from 160,000 in 2001 to 261,600 in 2010, and enrollment in the tertiary vocational schools increased to 111,800. However TVET remains a weak segment in terms of both size and quality compared with general education. In 2010, the number of TVET schools, admissions, school students, and graduates were all less than general education at the same level.

In terms of enrollment, ratios of students in general education against vocational education were 62:38 and 55:45 at secondary and tertiary levels respectively. In terms of school administration, TVET teachers' qualifications have lower standards than general education; however TVET teachers have heavier teaching loads, since the student/teacher ratio is a bit higher than general education. With respect to investment, the ratio of budgetary finance for the total educational investment in vocational education is much lower than that of general education. In terms of per student budgetary finance, both vocational high schools and vocational colleges have lower expenditures per student than general senior schools and universities.

Table 3 Xinjiang Education System in 2010

Education Level	Number of Schools	New Enrollment (1,000)	Total Enrollment (1,000)	Graduates (1,000)	Teacher with Qualified Education Background (%)	Pupil-Teacher Ratio (teacher=1)	Share of Government Education Appropriation to Total Educational Fund (%)	Public Financial Budget for Educational Expenditure Per Student (Yuan)
Primary Schools	3598	311.9	1935.8	334.4	99.8	14.5	98.5	6084.4
Junior Secondary Schools	1160	336.1	1003.3	337.5	99.5	12.0	97.7	8457.8
Senior Secondary Schools	385	153.2	419.1	135.7	90.7	13.9	79.1	7907.2
Vocational Secondary Education	227	108.3	261.6	74.1		17.9	75.1	8488.7
Specialized Secondary Schools	81	60.4	152.2	44.5		17.6	74.1	8808.2
Vocational High Schools	83	28.8	59.6	14.4		22.7	88.8	6129.3
Technical Schools	63	19.1	49.8	15.2		8.7	63.0	10891.0
Undergraduates and College Students	32	73.1	247.0	62.0		15.0	70.5	14112.6
Universities and Colleges		34.3	139.4	28.9	56.6	16.2	74.1	16263.6
Vocational Colleges and Polytechnics		39.3	111.8	34.6	21.8	17.4	61.6	10722.8

Source: Chinese Statistical Yearbook, 2011; Chinese Educational Funds Statistical Yearbook, 2011

(2) Mismatch between TVET Supply and Demand

TVET Supply in Xinjiang does not meet the demand of students completing compulsory education. The nine years compulsory education is basically universalized, and the net enrollment rates of primary and junior secondary school are 99.73% and 97.26% respectively. However the capacity of senior secondary schools, colleges and universities is far from satisfying the demand according to graduates. The progression rate into higher level education - number of enrollment at the higher level education divided by number of graduates at current education level- gives the story. In 2010, the progression rate of junior secondary graduates was 84.5%, which was lower than the national average of 90.9%; the progression rate of senior secondary graduates was 54.2%, which was far below the national average of 83.3% (Table 4). All these have shown that about 15.5% junior secondary graduates and 46.1% of senior secondary graduates enter into the labor market without receiving formal vocational education (exclusive of students entering into senior secondary vocational schools). These graduates could be employed, self-employed or unemployed temporarily. One major reason for the low percentage is the insufficient number of schools and vacancies to enroll the students. General education in China focuses on preparing students for the next higher level of education (Yang, 2007)[14], so vocational education and training can serve as a bridge in equipping graduates with work-oriented training which is obviously in favor of productivity enhancement.

[14] YANG Aling, The Reflection on Reasons for the Imperfection in the Curriculum Reform of Basic Education, Journal Of Educational Studies, Vol 3. No.1, Feb 2007

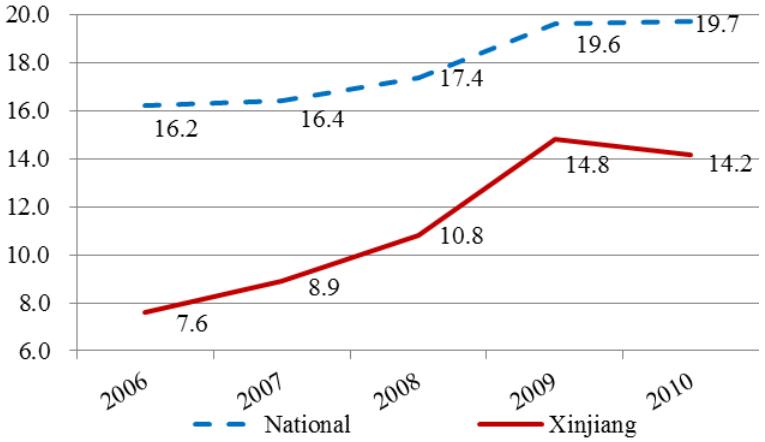
Table 4 Progression rate into next higher level education, By Education Levels- Xinjiang vs. National,2010

Education Level	Percentage of Enrollment into Higher Schools （%）	
	Xinjiang	National
Primary Schools	100.5	98.6
Junior Secondary Schools	84.5	90.9
Including: Enrolled in Senior Secondary Schools	52.4	47.8
Enrolled in Vocational Secondary Education	32.1	43.1
in which: Specialized Secondary Schools	17.9	18.1
Vocational High Schools	8.5	15.9
Technical Schools	5.7	9.1
Senior Secondary Schools	54.2	83.3
Including: Enrolled in Universities/ Colleges	25.3	44.2
Enrolled in Vocational Colleges/ Polytechnics	28.9	39.1

Source: Chinese Statistical Yearbook, 2011. The progression rate is calculated with the definition defined in the text.

The supply of skilled workforce by TVET has not yet played an important role compared to the national average. The National Bureau of Statistics and Ministry of Human Resources and Social Security divide the source of total new entrant labor in urban areas of each province each year into "recruited from countryside", "recruited from cities and towns", "recruited demobilized and transferred army men", "recruited TVET graduates", "transferred into" and "others".[15] Figure 7 shows the percentage of TVET graduates in the new entrant workforce. Percentage of employed TVET graduates against total urban incremental employment in Xinjiang increased rapidly from 7.6% in 2006 to 14.2% in 2011. However it is still lagging behind the national average which shows that compared with other provinces, TVET in Xinjiang does not serve as a strong contributor in providing qualified workers. The TVET system needs to expand its technical and vocational education and training provision for a large portion of the school-age population.

Figure 7 Share of TVET Graduates in Total New Entrant Labor in Urban Areas (%)



Source: Chinese Labor Statistical Yearbook, 2011.

Xinjiang TVET system, especially vocational colleges, expanded rapidly in the past ten years, but it has yet to meet the demand for providing a more skilled workforce. It is not able to provide

[15] In incremental workforce each year, the recruitments from countryside or cities and towns are mainly comprised of general education graduates.

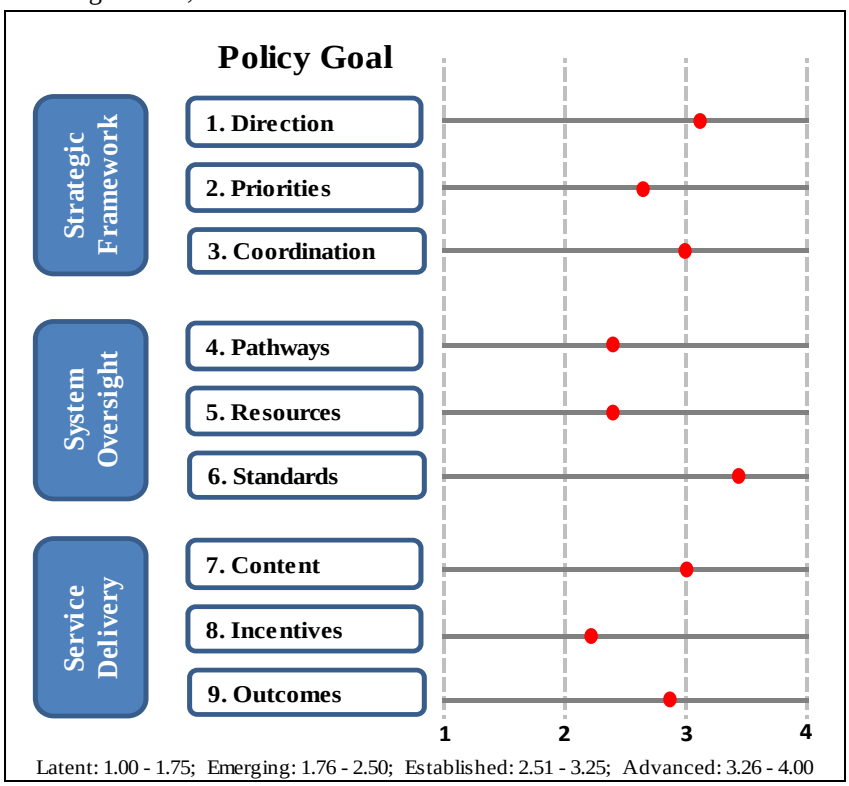
adequate workforce for Xinjiang's economic and social development. The Xinjiang government has thus defined TVET development objectives in various plans. It intends to reach a 50:50 balance between general and vocational tracks in 2015 and catch up with the national average level and the advanced level in the western region in 2020 in terms of quality. To achieve such objectives, it is necessary to diagnose the Xinjiang TVET system, to identify its strengths and weaknesses in the context of global best practices, and then to work out relevant and effective measures.

III. Benchmarking Result

1. Results of 3 Dimensions and 9 Policy Goals

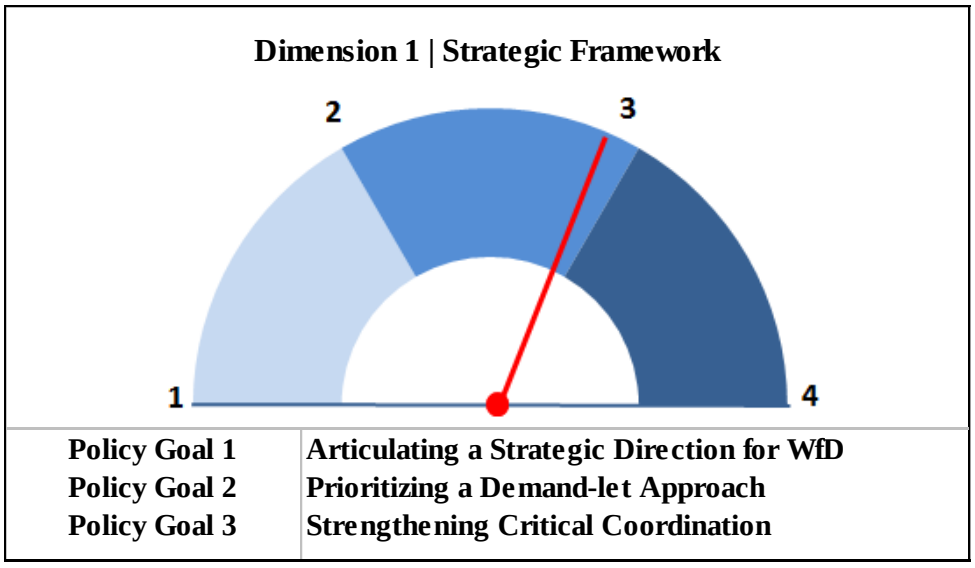
The SABER-WfD benchmarking results have been divided into four stages of maturity in policy and institutional development for WfD based on the final scores as follows: latent scoring from 1.00-1.75, emerging scoring from 1.76-2.50, established scoring from 2.51-3.25, and advanced scoring from 3.26-4.00. The results reveal that **Xinjiang TVET system as a whole locates at the Established level. The Strategy Framework is approaching the middle stage of the Established while the Service Delivery and the System Oversight are entering into the level.** The final scores of the three dimensions are: Strategic Framework-2.9, System Oversight-2.7 and Service Delivery-2.7. Among the 9 policy goals, the strongest findings are found in the following policy goals: standards and quality assurance, followed by strategic directions, and coordination to achieve TVET objectives. In contrast, the weakest policy actions are incentivizing excellence, resources for the sector, and pathways for skills acquisition. Figure 8 shows the results of the three dimensions and 9 policy goals. The results of 27 policy actions and detailed analysis are presented next.

Figure 8 Benchmarking Results, 2012

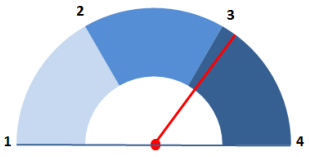


Note: The red dots show the rankings for each policy goal.

2. Results of 27 Policy Actions



Dimension 1: Strategic Framework



Policy goal 1: Articulating a Strategic Direction for WfD

The result of SABER-WfD shows that Xinjiang's TVET system is strong with respect to Policy Goal 1 and its score is located at the Established level. This policy goal is evaluated from three policy actions: advocating for WfD as priority for economic development; evaluating economic prospects and implications for skills; and developing policies to align skills demand and supply. Xinjiang has advocated WfD as a priority already and a series of policies have been formulated accordingly. Nevertheless, these policies still lack systematic assessment of economic development prospects and future skill needs. There is no monitoring and evaluation of policy implementation.

▣ Advocating for WfD as priority for economic development

This action receives high a score and has reached the **Advanced** level. Xinjiang has clearly set WfD as a priority through a series of policy decisions. However, these policies have neither implementation plans with clear budgets, nor annual evaluation reports on implementation.

The leaders of Xinjiang authorities attach great importance to WfD development. The Strategy of Revitalizing Xinjiang through Science, Education and Talent has been established since the 9th Five Year Plan for Xinjiang Economic and Social Development (1996), in which it advocated educational development as a priority. The 12th Five Year Educational Development Plan lay stress on the importance of vocational education and the necessity of TVET serving to improve social and economic development (2011). The Xinjiang Medium to Long-term Education Development Outline set the goals of improving the quality and attraction of TVET over the next 10 years. The Xinjiang Medium to Long-term Talent Development Outline provides 12 projects. However, these policies have not included detailed implementation plans with clear budgets, and there are no requirements for annual evaluation reports to monitor the progress of implementation.

▣ Evaluating economic prospects and implication for skills

This action is scored at the **Established** level. The Xinjiang government has produced development plans for some sectors based on studies and assessment of skills needs. Such assessments have provided useful information to the design of skill training programs. However, such work is carried out only in limited and key sectors.

Xinjiang had conducted official assessments of economic prospects, present status of skills supply and the future skills needs for coal, coal power and coal chemicals, a major industry to be developed in the next few years. These studies had been mainly carried out by the HR departments of relevant government agencies, public institutions, as well as large and medium sized enterprises. Following the new policy of promoting some key specialties serving for key industries and urgently needed talents since 2008, the government has defined priority specialties on an annual basis through studies of the enterprises. The government has also made special appropriations to the education and training institutes responsible for training of urgently needed talents. Performance evaluation has been conducted as well.

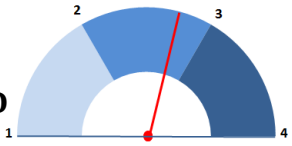
▣ Developing policies to align skills demand and supply

This action is scored at the **Established** level. Regular studies of the status of workforce skills supply and demand are conducted by Xinjiang's government, and some policy measures are worked out based on the study results. However, the content and quality of such studies require improvement in order to understand problems with skills demand and supply on a timely basis. There is also a lack of monitoring and evaluation of relevant policy actions.

An analytical and reporting system on the status of demand and supply in the workforce market has been established by the Xinjiang Department of Human Resources and Social Security since 2002. Such information is disclosed publicly on a quarterly basis. Some universities and research institutions have either conducted academic and policy analysis on human resources conditions in Xinjiang, or entrusted Think Tanks to prepare reports on social demand and training quality. The existing studies have shown that major problems causing imbalance of workforce demand and supply in Xinjiang include low salaries, lack of interest of students in vocational education, insufficient attention on training quality by vocational schools/colleges, and lack of instructors with practical experience.

To solve these problems, the government has put more investment into infrastructure construction, opened up employment opportunities of a public welfare nature, organized on a regular basis employment exchange and recruitment fairs, and promulgated a series of policy documents on training subsidies, qualifications for access to training, and improvement in the environment for investment, among others. Meanwhile, a series of targeted training programs have been implemented, including re-employment training for redundant urban workers, training for preparation for employment of rural workforce, employment training for rural migrants, on-the-job skills improvement training for enterprise employees, and undertaking start-up training. "Special Subsidy for Employment" has been established, which has subsidized employment intermediations, vocational training, social insurance, public welfare posts, and vocational skills identification. At the same time, efforts have been made to speed up basic capacity building for vocational education. Eight practical training bases and four TVET parks have been set up for the key industries and sectors in the province. A vocational training mechanism has been set up which served for junior and middle school graduates.

Policy goal 2: Prioritizing a Demand Driven Approach to WfD



Three aspects of the demand driven approach to WfD are assessed: involving sectors and industries in policy formulation and implementation; establishing incentive mechanisms and service systems for enhancing productivity; and strengthening demand of majority enterprises for skills to improve productivity. This action in Xinjiang is scored at the **Established** level**,** which is the sixth score among the 9 policy goals. This shows that Xinjiang needs to strengthen its study of

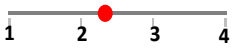
skill demands for the sector enterprises, and involve them in policy formulation and implementation.

▣ Promoting a Demand-drive approach to WfD

This action is scored at the **Established** level. Comments of enterprises and industries are sought when formulating relevant policies. Such exchanges are already systematic. However, the role of the enterprises in policy implementation needs to be improved and given more weight.

While in the process of making decisions on major issues related to TVET, the Xinjiang government has sought inputs and comments from enterprises and sectors in the form of field studies in enterprises and special researches by sector specialists from the sectors and enterprises.

▣ Strengthening firm's demand for skills to improve productivity



This action receives low scores at the **Emerging** level. To encourage enterprises to strengthen their demand for skills to improve productivity, the government has formulated some policies, such as providing subsidies to some skill training programs. As a result, large numbers of enterprise employees have received vocational training. However, improvement is required in areas of policy monitoring and evaluation, and policy adjustment.

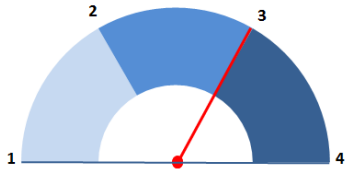
The Xinjiang Departments of Education and Finance stipulate that the government provide part of the financial subsidies for training programs organized for Xinjiang's staff newly recruited by enterprises and to finance free training provided by the government for managerial staff and technicians of small and medium sized enterprises. Following the implementation of these policies, the government calculated the total amount of government investment in these training programs and the number of trained staff. Nevertheless, the government has made only preliminary assessment of the impact of these policies on skill enhancement of the workforce and enhancing the productivity of enterprises. The assessment results have contributed to the recommendations on skill and productivity improvement. For example, requirements are proposed for improving practical operational capacity. However, the government is not adequately monitoring the implementation of these recommendations. There is a need for the government departments to improve the management of these subsidized programs, to set up incentives and provide more services strengthening firm's demand for skills.

▣ Addressing critical challenges in the future supply of skills

This action is scored at the **Established** level. Some assessments of challenges in the future skills supply have been made by the government, enterprises and sectors. However, such assessments are not systematic and they play a very limited guiding role in planning for the current skills training.

Aperiodic assessments on future skills demand are carried out by the government and the stakeholders, but they are limited only to some targeted industries, such as coal mining, coal power and coal chemical industry. No regular and proficient evaluation system has emerged. Following some recommendations which have come from these assessments on future skills supply for these industries, implementation is arranged to be phased in by the Department of Human Resources and Social Security. A special fund for talent development at various levels has been established by the government. However, the assessments of further skills demand, enumeration of responsibilities of the implementing agencies, and a monitoring and evaluation system are yet to be detailed.

Policy goal 3 Strengthening Critical Coordination to realize WfD objectives



Strengthening critical coordination of Xinjiang TVET is scored at the **Established** level. Strengthening critical coordination consists of three policy actions: ensuring coherence of key strategic WfD priorities; institutionalizing the structure of WfD roles and responsibilities; and facilitating communication and interaction among all WfD stakeholders. Rapid development has been achieved under the first two actions; however, greater improvement is required in facilitating communications and interactions among all WfD stakeholders.

▣ Ensuring coherence of key strategic WfD priorities

This action gets highest score at the **Advanced** level. WfD strategy is coordinated and formulated at the provincial level, and policies are formulated and implemented by the various government agencies, following approval by the provincial management. Nevertheless, assessment and analysis of future skills demand and supply have yet to be fully coordinated by the provincial government.

At the provincial level, Xinjiang has established a special WfD agency - TVET Leading Group. The focus of the WfD strategy has been worked out and is being implemented in accordance with the relevant provincial procedures and standards. The various departments of Finance, DRC, Education, and Human Resources and Social Security are all coordinated within the Leading Group. A special working conference is called by the Leading Group every year. In addition, interim meetings are called as needed. There is continuity and coherence within the set framework in terms of WfD strategy, budget and priority themes. Establishing an effective function for the Xinjiang TVET Leading Group change the fragmented TVET management among various departments, and this greatly promotes the rational allocation and efficient use of TVET resources and ultimately improves the coordinated TVET development in Xinjiang.

▣ Institutionalizing WfD roles and responsibilities

This action is scored at the **Established** level. Roles and responsibilities of stakeholders, including workforce development administrative agencies, skills providers, and employees, are clearly defined. However, roles of training institutes and employers in policy formulation and implementation need further improvement.

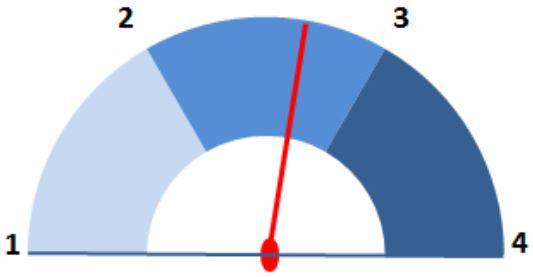
Roles and responsibilities of majority stakeholders within Xinjiang TVET system are clearly defined. As the administrative agency, the government is responsible for educational development, conducting studies and formulating development plans and financial budgets, as well as reviewing education and training results. The training institutions and employers are responsible for delivering skill trainings for the workforce and providing the decision making bodies with information on skills supply and demand, as a basis for making decisions. But currently training institutions and employers have no right to vote on policy-making issues.

▣ Facilitating interaction among all WfD stakeholders

This action gets low score at the **Emerging** level. Although there are some communications and interactions among the WfD administrative agencies, the training institutes and the employers, no formal and effective mechanism for such communications and interaction has been formed.

Although the WfD administrative agencies can coordinate well with the leadership of the provincial leading group, communications and interactions with other shareholders and among all stakeholders are limited. In spite of that handicap, cooperation between schools and enterprises helps raise effectiveness of TVET. But cooperation between enterprises and schools/colleges need to be further strengthened. And cooperation between vocational schools and research institutes is limited to a few schools and occurs only in some specialties or programs.

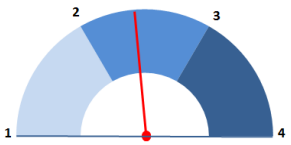
Dimension 2 | System Oversight



Policy Goal 4	**Diversifying Pathways for Skills Acquisition**
Policy Goal 5	**Ensuring Efficiency and Equity in Funding**
Policy Goal 6	**Assuring Relevant and Reliable Standards**

Dimension 2 System Oversight

Policy goal 4 Diversifying Pathways for Skill Acquisition



In area of diversifying pathways for skill acquisition, Xinjiang TVET is scored at the **Emerging** level. Its assessment is carried out through the following three approaches: fostering articulation across levels and programs; promoting life-long learning; and setting policies and procedures to renew programs.

▣ Fostering articulation across levels of instruction and types of programs

This action receives very low score at the **Emerging** level. This shows that major efforts need to be made by Xinjiang TVET to promote articulation across levels and programs.

Xinjiang is working on the articulated TVET system both at the horizontal and vertical levels to provide various and multiple TVET opportunities for the workforce. Currently it has limited progress on horizontal articulation between general and vocational educations. Students at secondary vocational schools cannot transfer to high schools; fewer than 10% of graduates of vocational colleges can continue to universities. But vertical articulation has been improved between secondary vocational school and tertiary vocational colleges. Graduates from secondary vocational schools with vocational certificates and intermediate computer certificates would be admitted by vocational colleges which have started as pilot program already. However, training received in one school is not recognized by others, and the articulation between degree and non-degree programs has not been established. Therefore, the current Xinjiang TVET system is far from a well-articulated system.

▣ Promoting life-long learning with recognition of prior learning

This action is scored at the **Established** level. The government has adopted a series of policies on skills tests, accreditation, and training to encourage upgrading skills. However, there is still a lack of a one-stop online resource and standardized arrangement to support life-long learning and recognition of prior learning. The training programs financed by public funds do not cover all vulnerable groups.

Both schools and communities provide employment guidance services. Some talent-search websites also provide comprehensive services including talents assessment and evaluation, and storage of personnel files. Vocational colleges provide both degree certificates and skill certificates to recognize prior training and learning. The local departments of HRSS release the Qualification Directory of New Posts to the public. The government fund has subsidized training programs targeting some particular populations and employment groups. This particular training

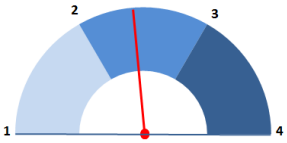
fund is allocated by the Departments of Education and Human Resources & Social Security through systematic annual budgets. Efficiency in skills training is ensured by setting up standards for training institutes and monitoring of training results.

▣ Setting policies and procedures to renew publicly-funded programs

This action is scored at the **Emerging** level. Xinjiang has set up some standards and procedures for setting up training programs. However, it is less satisfactory in adjusting and closing weak and inadequate programs.

With regard to setting up new vocational training specialties and training programs, the Xinjiang Department of HRSS has worked out regulations as follow: schools should conduct surveys in sectors, enterprises and employment markets, analyze skills demand and supply, and submit feasibility study report to the administrative agencies; the administrative agencies are required to respond within three months. A deficiency in the program is that training institutions are entitled to decide on their own and for themselves whether to make adjustment or close training specialties. The relevant information is submitted to the responsible administrative agency only for the record. Therefore it is essential to improve relevant standards and procedures for adjusting and closing specialties and training programs, to make them standardized and comprehensive, and to ensure that they are vetted by formal committees with representation from all WfD stakeholders.

Policy goal 5 Ensuring efficiency and Equity in Funding of WfD



This policy is scored at the **Emerging** level. It is assessed from the following three aspects: articulating a strategy for funding WfD, allocating public funds for WfD to achieve results with efficiency; and fostering partnership between WfD authority(s) and stakeholders.

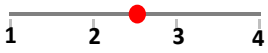
▣ Articulating a strategy for funding WfD

This action is scored at the **Established** level. The WfD administrative agency in Xinjiang has established the system, to a certain extent, for funding sources and fund distribution. Nevertheless, improvement is required in terms of setting up standards for fund distribution and assessment methods to determine efficiency of fund utilization.

Funding sources for Xinjiang TVET come mainly from three channels of government budgets, donations and tuition. Funds are appropriated and allocated through budgetary funds, special funds, and grants. Special fund are appropriated after requests are approved by vocational education institutions. The fund users are required to submit annual reports on fund utilization, and these are reviewed by expert committees. The grant funds are appropriate based on assessment results. Special funds are directed preferentially towards vulnerable groups (such as rural and ethnic minority students), as well as to major industries and urgently needed specialties

identified. The training institutions are allowed to keep some revenues for all aspects of school development.

▣ **Allocating public funds to achieve results with efficiency**



This action is scored at the end of the **Emerging** level. The government proposes important programs supported by the government finances at the time of working out the annual budget based on its study result and comments from various parties. However, there is lack of clearly defined standards for allocation budget, and for procedures and regular reviews.

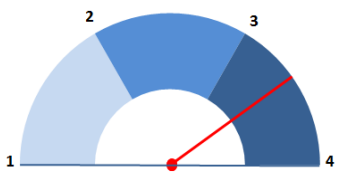
With regard to distributing public funds for training programs, the government starts to prepare the annual educational budget one year in advance, which is incorporated into the budget of the Financial Department. Requests are submitted by the schools to the Departments of Education and Human Resources and Social Security for review and approval, with fund appropriated within one month after approval. However, the government has not yet set up a mechanism for regular review of the standards on funding budgets and fund distribution. Regular reviews are conducted only on fund utilization. The government adjusts fund distribution based on workforce needs for economic development at the time of budgeting. For example, a directory of major urgently needed specialties financed by the financial budget, as well as WfD projects to support special employment groups is released annually by the government.

▣ **Fostering partnership between WfD authority (s) and stakeholders**

This action is scored at the **Emerging** level. Communications and exchanges between the WfD government agencies and stakeholders are limited. Not all cooperating parties are entitled to receive public funds and not enough participating key stakeholders nor do they provide adequate funding support to WfD.

The Departments of Education, Human Resources and Social Security exercise administrative oversight and provide operational guidance to secondary vocational schools, higher vocational colleges, and relevant scientific research institutions. They also provide per student appropriations, recurrent fees and various special funds. The departments collect data from sectors and enterprises, listen to their comments and release to the public, on a regular basis, the educational statistics and various consolidated data. But industry and other key stakeholders contribute only a small range of resources toward WfD priorities, often in the form of in-kind services and personnel time rather than cash.

Policy Goal 6 Assuring Relevant and Reliable Standards for Quality in WfD



This goal gets higher score and already arrives at the **Advanced** level; however, within the level, it locates at the low stage. Quality standards are assessed from the following three aspects: specifying accreditation standards for training providers; strengthening skills testing and certification; and assuring the credibility of accreditation and of skills certification.

▣ Specifying accreditation standards for training providers

This action is scored at the **Advanced** level. Accreditation standards are formulated at the national level. Stakeholders are consulted in the process of formulation. Accreditation is required for setting up of all types of schools, and both regular and periodic assessments are carried out. There is no independent accreditation agency.

Training schools attached to the Department of Education are reviewed and assessed in accordance with promulgated national accreditation standards and the assessment results are submitted to the Ministry of Education for the record. Accreditation standards are revised if the national standards are changed. Normally standards for private institutes are adjusted once every 3-4 years. Once the standards are promulgated, the qualifications for running training schools are reviewed by independent authentication groups composed of experts selected by the Department of Education. Periodic assessments are required for public vocational schools and annual assessments are required for private vocational schools. Accreditation standards for training institutes attached to the Department of Human Resources and Social Security are formulated by organized experts in accordance with the relevant rules of national and regional governments, and after seeking comments of vocational education institutes and relevant sector agencies. These standards are implemented after review and approval by the provincial government. In terms of accreditation process, it is the same as that of the Educational Department.

▣ Strengthening skill testing and certification

This action is scored at the **Advanced** level. Standards for skill testing and certificates are formulated and implemented by the government agencies. They are completely independent from skills training. This is well accepted by the training institutes. However, there is lack of an integrated management system for skill testing and the operation is not run by an independent agency.

At present, posts requiring high skills (like accountants, teachers and tour guides) or low skills (like power workers, tube workers and hotel clerks) recruit only those who have passed skills testing and received certificates. Standards for skills certificates are defined at the national level, and the testing process is managed by the local government. Certificates are reviewed and issued from the national level. Local governments are entitled to formulate some standards for local testing and may issue local skills certificates. Costs of certificates are reviewed and implemented by the government price agency. Certificate testing and training processes are completely independent of each other. However, since 2003, vocational qualifications and dual certificate systems have been extensively adopted by all training institutes of various types in Xinjiang.

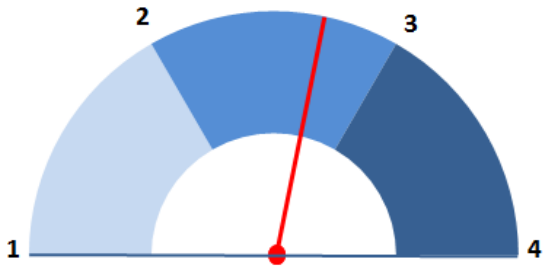
Students of vocational training institutes are encouraged to participate proactively in skills identification and certificate testing during their time of training.

▣ Assuring the credibility of accreditation and of skills certification

This action is scored at the **Advanced** level. Training institutes and skills testing must follow government regulations. There are also strict rules on accreditation and the skills testing process. However, there is lack of accreditation and periodic audits for skills test centers.

Accreditation standards for training schools and institutes are promulgated by the Departments of Education and HRSS. Mandatory implementation of the accreditation is required. Licenses are issued only when applicants are proved to be qualified. Rectification within a set period of time or even cancellation of license is applied if the schools or institutes are proved to be unqualified. The government carries out regular or periodic assessment following the establishment of the training institutes. Financial incentives are provided in order to encourage the training institutes to reach the accreditation standards. Awards are given to excellent performance schools and individuals identified at the time of annual assessment. Furthermore, fund support, such as special funding for enhancing teachers' qualifications, is given to these excellent performance schools. In addition, the government is discussing the preferential tax policies. In terms of setting up skills standards, the government will take into consideration the comments provided by employers, trade union and training providers. The skills standards are promulgated either by central or local governments. Skill tests follow standardized testing protocols.

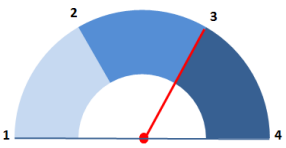
Dimension 3 | Service Delivery



Policy Goal 7	**Fostering Relevance in Training Programs**
Policy Goal 8	**Incentivizing Excellence in Traning Provision**
Policy Goal 9	**Enhancing Accountability for Results**

Dimension 3 Service delivery

Policy goal 7 Fostering Relevant Content in Training



Programs

This policy is scored at the **Established** level. It is assessed from the following three aspects: strengthening training-industry-research links; integrating industry inputs into the design of training programs; and enhancing competence of WfD administrators and instructors.

▣ Strengthening training-industry-research links

This action is scored at the **Established** level. Some training-industry-research links have been started for the purpose of enhancing training relevance and quality. Nevertheless, such links are far from extensive and systematic.

In Xinjiang vocational schools have worked with industries in the follow ways: business and industry provided practical training bases for skills practice of students and teachers' training, and donated facility and equipment to schools. Training institutes provide tailor-made training or contract-based training to some enterprises. At the post-secondary level, some training institutes jointly conduct some research programs with enterprises. Cooperation is very limited at secondary vocational level between schools and research institutions, but at the post-secondary level, the research institutes play an important role in teacher training for vocational colleges, and they provide recommendations on program design and curriculum development.

▣ Integrating industry inputs into the design of training programs

This action is scored at the **Advanced** level. In the process of designing training projects, experts from the enterprises and sectors have played an essential consulting and decision making role. However, this is not adequate to what is needed.

In the process of setting up public training projects and defining priorities for development, the government seeks full information and adopts comments from the sectors. The government conducts annual studies of the enterprises requiring workers, decides and discloses the directory for urgently needed specialties of the key sectors. This information is used as guidance for talent training. Comments of the sector experts are sought in line with the disclosed national standards in areas of setting up curriculum, determining training equipment needs, and setting materials and technical standards. However, enterprises mainly play a consulting role instead of decision making role; and not all institutes can involve related enterprises into their training programs.

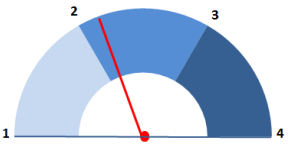
▣ Enhancing competence of WfD administrators and instructors

This action is scored at the **Established** level. Educational qualifications and skills are required for administrators and teachers of the training institutes. However, the mechanisms for in-service training, professional improvement and performance evaluation are not yet fully established. There are only limited incentives to encourage the administrators and teachers to improve their managerial and teaching capacities.

Administrators of public training institutes should meet the requirements of teaching experience, academic qualifications and experience in technical positions. They are recruited by the human resource sector of their administered agency in accordance with the organizational procedures. The administering agency organizes administrators periodically to participate in learning, academic workshops and study tours during their terms. Assessments of these in-service training programs are also conducted, to a certain extent, in terms of training design and delivery. Such assessments are conducted by the training institutes and reported to the administering agency. However, there is no matured assessment mechanism. Evaluation is carried out annually by the administering agency, in areas such as ethics, diligence, and skills. The administrators' terms are decided by the human resource sector and salary is fixed per the salary matrix. Therefore, there are no incentives for administrators enhancing their qualifications and managerial skills. Recruitment of teachers is open to the public, but only those with teacher's qualification certificates, certain academic background and skills level are entitled to apply. The administering agency also provides teachers with various learning opportunities and funding support. Fixed term contracts are applied to the teachers. Evaluation of performance results determines retention or dismissal from their posts. The salary matrix of the government agency is applied to teachers.

The international best practices in this area include: recruitment of administrators and instructors through a competitive process based on both academic qualifications and industry experience; performance-based salary and retention measures based on routine evaluation. These best practices could inform Xinjiang's reform in this area.

Policy goal 8 Incentivizing Excellence in Training Programs



This policy goal is scored at the **Emerging** level, which is the lowest among all 9 policy goals. The policy action of Promoting Diversity in Training Provision within this policy goal receives the lowest score among all 27 policy actions. Also the policy actions of Incentivizing Private Providers to Meet WfD Standard and Motivating Public Training Institutions to Respond to the Demand for Skills needs major improvement.

▣ Promoting diversity in training provision

This action is scored at the **Latent** level. The low ranking is in part due to a government policy that does not encourage private individuals and organizations to engage in training provision. Vocational and technical training at present is mainly provided by public institutes. Government should promote the establishment of more independent training institutes.

In terms of vocational and technical training, the government permits, apart from public schools, only domestic private and non-profit institutes to provide pre-employment technical and

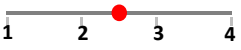
vocational training[16]. Foreign educational agencies, other organizations, or individuals are not entitled independently to set up training institutes, but they are permitted to provide training through joint programs. However, under this policy, there are only a very few non-government and non-public training institutes. The government provides equal treatment to private institutes and public institutes, in terms of grants, teacher training, skills identification, employment information services, and government procurement of the training results. However, there is no policy of providing extra incentives for developing more vocational technical training by non-government and non-public institute.

▣ Incentivizing private providers to meet WfD standards

This action is rated at the **Established** level. The government policies apply to both public and private training institutes. But there is lack of effective assessment to incentivize private providers to meet WfD standards.

As mentioned above, the government treats private providers equally with public institutions in terms of skill authentication, teacher training, government training contracts, financial subsidies, and student grants. Following the establishment of training institutes, the government administering agency conducts reviews of them on a regular basis. Institutes which fail to meet the standards are closed. As the government conducts only periodic review to public institutes but makes annual review of private institutes, it can be said that stricter monitoring is applied to the private schools. However, the government has not set up an integrated management information system to timely monitor the performance of both public and private training providers which will foster compliance and impose penalties for non-compliance.

▣ Motivating public training institutions to respond to the demand for skills



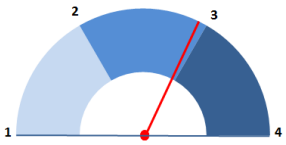
This action is scored at the end of the **Emerging** level. Quantitative assessment is carried out to a certain extent by the administering agencies on training results provided by the public training institutes. However, there has been no evaluation of impact of these assessment measures on training institutes.

Information on graduation rate, employment rate, employer satisfaction, student satisfaction, and satisfaction of the society on graduates are defined as performance indicators of the colleges and universities under the Department of Education. Graduates rate is a mandatory indicator whereas employment rate and satisfaction of the employees are regarded as soft indicators for performance evaluation for schools attached to the Department of Human Resources and Social Security. Excellent performing training institutes are able to publicize their achievement and receive funding support. Nevertheless, there is no evaluation of these incentive measures. Those

16 Apart from domestic private and non profit institutes, the government permits trainings provided by domestic profitable institutes in technical education.

institutes and projects which are failing to reach the training goals will receive reduced funding support from the government, or they may even be closed.

Policy goal 9 Enhance Accountability for Result in WfD



This policy goal is scored at the **Established** level. It is assessed from the following three aspects: strengthening WfD monitoring and evaluation system; specifying reporting requirements by training institution; and increasing focus on outcomes, efficiency and innovation in service delivery.

▣ Strengthening the WfD monitoring and evaluation (M&E) system

This action is scored at the **Established** level. Related policies can be found in the government agencies. The government carries out regular assessment of skills demand. However, M&E of skills supply is not conducted through routine surveys or specially commissioned studies, and WfD data are not available from a consolidated website.

With regard to monitoring, information on policies, plans, funding arrangement, the management of training institutes and teacher training can all obtained from the administering government agencies. Some statistics on workforce can be acquired from the websites of the relevant agencies and comprehensive websites. The Xinjiang government carries out investigations and assessment on a regular basis on skills demand in the labor markets. The Department of Education also carries out investigations on WfD either on a regular or periodic basis. Since 2002, the Department of Human Resources and Social Security has set up a system for urgently needed talents forecast and a system to disclose the information regularly. But all these WfD data are not available from a consolidated website.

▣ Specifying reporting requirements by training institutes

This action is scored at the **Established** level. The government is responsible for collection and maintenance of data related to training institutes. Public has access to most of these information. However, there is no government system that currently monitors the reliability of these data.

Both private and public institutions are required to submit management data, graduation data and resettlement and employment data. Institutes failing to submit reports are exposed to their competing institutions. Statistical data is collected and maintained by the administering government agencies. Some of them are disclosed by the government; some can be consulted after visit requests are approved; and others are only for purpose of checks and acceptance by the government, hence not accessible to the public. However, some submitted data is not totally reliable, such as the rate of employment of the graduates. Little review is carried out in terms of data quality.

▣ Increasing focus on outcomes, efficiency and innovation in service delivery

This action is scored at the **Established** level. The government conducts some checks on the training process, yet they lack a matured M&E system to measure the results of training. There is no institutionalized routine M&E of training services with feedback of results to institutions to assist them to prioritize funding allocations, and to identify good practices and options for system-level improvements. Online dissemination of labor market outcomes of graduates is not available to all users.

The administering agencies carry out routine assessment of the training institutes regarding training implementation. This focuses on teaching quality, ideological work, and infrastructure of training base. The progress of some special programs like the Demonstrative Secondary Vocational School Program, and how fund are used receive special review. The results of assessment are used as the basis for providing feedback, rewarding excellence and budgeting special projects. Units with excellent performance are praised and receive bonuses. Their experiences are shared with other schools and training institutions. However, information on rates of employment of graduates is disclosed by only some schools. No unified M&E system is yet established by the administrative agencies.

IV. Result Analysis and Policy Recommendations

1. Result Analysis

(1) Major Factors Affecting Scores

This section presents the key factors under the three dimensions that elevate or hold back the scores.

Strategic Framework

- Governance and coordination at the provincial level have established and ensured enforcement of WfD priorities, which resulted in Ensuring Coherence of Key Strategic WfD Priorities getting the highest score of 4; thereby placing the score of Strategic Direction above the other two dimensions
- Inadequate assessment of future skills demand and insufficient involvement of training institutions and employers in policy making and implementation hold back the score somewhat

System Oversight

- Maintaining strict accreditation of public and private training institutions and rigorous administration of skills testing and issuance of certificates move the scores above the Established level in the Standards category of System Oversight
- The non-existence of articulation agreements for courses and programs across levels and programs greatly hold back the scores; also the lack of broad resources from key stakeholders and improper distribution and utilization of funds cause lower scores

Service Delivery

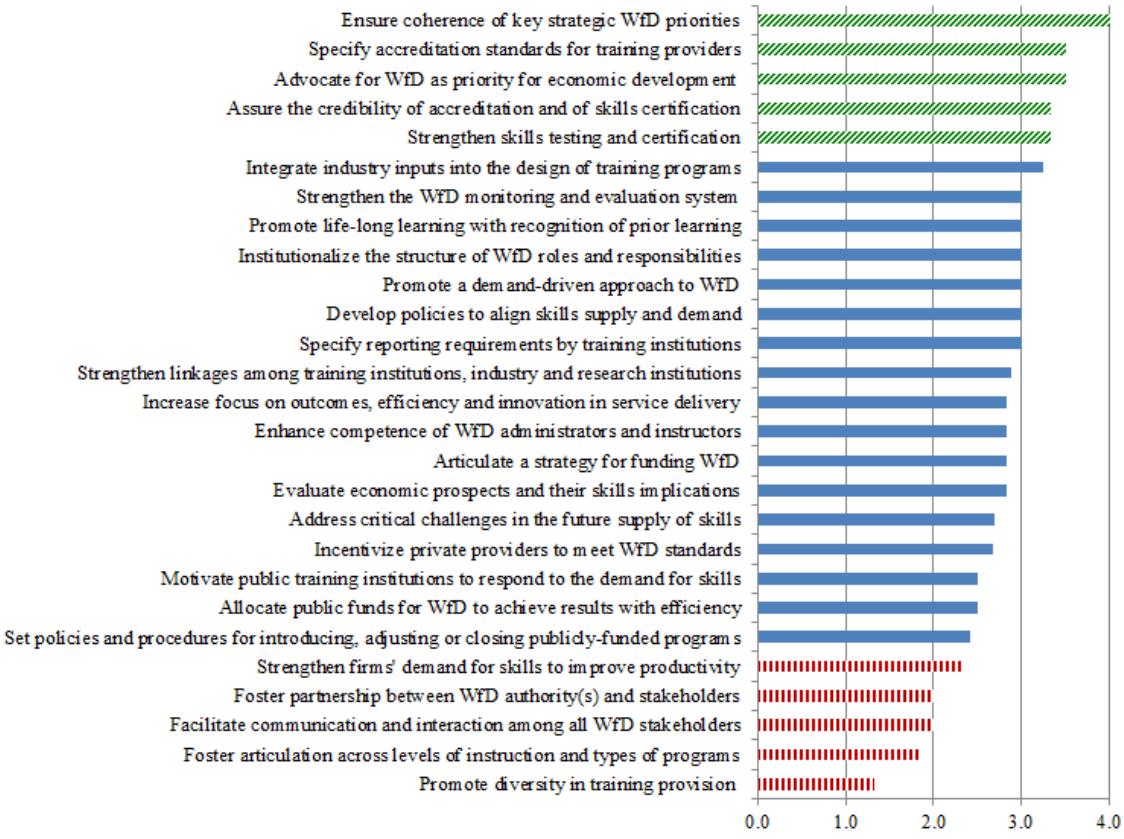
- Collection and provision of basic M&E for WfD and integration of industry inputs into the design of training programs elevate the score at the Established level
- Inadequately diversifying pathways for skills acquisition receive the lowest score among all items; inadequate incentives to public and private providers to provide quality and relevant training programs also hold back scores

(2) Strength and Weakness of Xinjiang TVET system

Upon examining all the 27 policy actions in Xinjiang it is found that the policy actions which are close to the global best practices and with high scores include the following: (i) ensure coherence of key strategic WfD priorities; (ii) specify accreditation standards for training providers; (iii)advocate for WfD as priority for economic development; (iv) assure the credibility of accreditation and of skills certification; and (v) strengthen skills testing and certification. The policy actions with many problems and consequently with low scores include: (i) promote diversity in training provision; (ii) foster articulation across levels of instruction and types of programs; (iii) facilitate communication and interaction among all WfD stakeholders; (iv) foster partnership between WfD authority(s) and stakeholders; and (v) strengthen firms' demand for

skills to improve productivity. These are all key areas for future improvement. Figure 9 summarizes the ranking of all 27 policy actions. Those in green hold the highest rankings, those in blue the middle to moderately high rankings, and those in red the lowest rankings (For more details see Annex 2).

Figure 9 Order of 27 Policy Actions Scores of Xinjiang TVET



2. Policy Recommendations

Based on the above findings, we propose the following short-term, medium & long-term policy recommendations for Xinjiang TVET enhancement, which have been considered in the context and development strategies of Xinjiang. The short-run recommendations aim at overcoming the weaknesses of the Xinjiang TVET system by addressing the lowest scoring items. The focus of the proposed corrective interventions is to expand both quantity and quality of TVET provision while achieving the goals of the Xinjiang 12th Five Year Plan. The medium to long-term recommendations aim at institutional changes. The focus is to substantially improve the quality of Xinjiang TVET system while at the same time achieving the goals of the Xinjiang Medium to Long-term Education and Talent Development Plans.

(1) In the short run, Xinjiang TVET provision need to be expanded through strengthened coordination and governance, improved and more efficient public schools management, and more engaged and more closely supervised private institutes; and the relevance of skills supply should be enhanced through closer linkages with industry and research institutes. The objective is to set up a TVET system unique to the needs of Xinjiang and to fit local characteristics and provide quality vocational education and training to all. The following detailed actions are proposed in terms of the three dimensions:

Strategic Framework

Strengthening the roles of industries, training and research institutions in policy making and implementation: to further institutionalize the roles and responsibilities of stakeholders through legislation; to foster better coordination among all related authorities (including Department of Education, Department of Human Resources and Social Security, Department of Finance, Development and Reform Commission, Trade Union and so on) at all levels through the provincial leading group; and to promote extensive interactions with all stakeholders by engaging them into policy making.

Building a comprehensive assessment of Xinjiang economic perspectives and of future skills demand and supply: to expand evaluation of skills demand to cover broad sectors; to improve current research on skills supply and demand in order to have timely and holistic information; to have more channels for releasing the research results; to require all training institutes to update and adjust their training programs in accordance with research findings and information.

System Oversight

Fostering articulation of TVET system: to scale up the pilot program that links secondary and tertiary vocational education; to promote a credit system and articulation agreements for the transferability and acceptance of credits across levels and programs along with setting up learning standards, and especially exploring articulation arrangements between degree and non-degree programs.

Formulating rigorous regulations and procedures for establishing, improving and shutting down training programs: to update and standardize current regulations and procedures; to increase attention to assessment results of skills supply and demand and whether operations of institutes have been incorporated into the design and deliver of training programs.

Increasing investment in TVET and improving the effectiveness of fund utilization: to invest more in TVET to address the financial gap that resulted from lower investments in the past years to upgrade school facilities and equipment; to work out criteria and procedures on fund allocation to increase the equality and transparency of public finance; to introduce result-based evaluation to raise efficiency, especially for ear-marked programs and fiscal aid programs; to establish mechanism for periodic review of criteria for allocating funds.

Improving credibility of accreditation and of skills certification: to set up an information management system for skills testing; to conduct accreditation and periodic audits for skills testing centers.

Service Delivery

Promoting diversity in training provision: to support private training institutions through new measures such as government outsourcing some training programs to private training institutions.

Encouraging more financial inputs from other stakeholders: to provide incentives to garner more resources from key stakeholders, for example, donations from enterprises of cash and in-kind contributions such as facilities and equipment for labs or workshops to improve school conditions, bring in qualified practitioners to the TVET teaching force in part-time, adjunct or other formats to promote professional development of the TVET teaching force, and help in training instructors and students.

Strengthening monitoring and evaluation to improve outcomes and efficiency: to establish an integrated management information system which includes outcome indicators for the delivery of training services and to ensure the credibility of data; to inform training institutions on evaluation results and to use incentives for the delivery of high quality training programs and penalties for low performance programs; to ensure the credibility an independent third party could be involved for monitoring and evaluation.

Enhancing the capacity of school administrators and instructors: to set up incentive and rewards mechanisms based on routine evaluation such as performance-based salary and retention measures; to provide various training for administrators and instructors and equip instructors with industry experience.

Strengthening school-industry linkage: to improve training quality and relevance by involving industry and research institutions in the training process; to encourage training institutions to adjust training programs according to the research results of skills demand.

It is suggested that all above mentioned recommendations would be implemented through international cooperative projects or domestic programs. Some interventions such as a standardized credit system for courses and programs, outsourcing training services to private institutes, capacity building for administrators and instructors, monitoring and evaluation, school-industry linkage could be tried out in pilot projects. Other interventions such as skills demand assessment through enterprise surveys, learning standards, fund allocation and management, methods of monitoring and evaluation, and procedure to renew programs could be research topics.

(2) In medium to long-term, the quality of Xinjiang TVET system needs to be improved through enhanced governance, quality assurance and monitoring and evaluation, and through improved connections with quality basic education. The goal is to set up a flexible and diversified modern TVET system for a skilled workforce and to achieve the objectives of the Xinjiang Medium & Long-term Education and Talent Development Plans. Efforts

also should be made to enable some TVET schools and programs to become recognized among the top level in China. The detailed actions are as follows:

Setting up WfD shareholders partnership and communication mechanism: to extend the partnerships from key agencies to all stakeholders, to involve private institutions, enterprises and research institutions in policy making and implementation, and to institutionalize the partnership network; to formulate new policies to stimulate stakeholders to provide more resources and involve stakeholders in the training process.

Improving quality assurance mechanism**:** To upgrade management for IT-based skill testing, to conduct accreditation and auditing for skill testing centers; to establish one-stop on line resources and standardized arrangements to promote life-long learning and recognition of previous learning; to reach and secure all vulnerable groups covered by public funded supported training programs.

Setting up systematic and comprehensive monitoring and evaluation system: to improve the assessment of future skills demand for all sectors; to improve the evaluation of the quality of training programs from input to outcome by introducing results and outcome indicators such as employment rate of graduates, initial salary, and satisfaction of employers; to conduct impact evaluation for the implementation of new policies to promote evidence-based policy making.

Building up high quality pre-school and compulsory education: high quality TVET builds on high quality pre-school and compulsory education as they prepare children with a good start and solid foundation for further training and lifelong learning, so it is critical for Xinjiang to have good pre-school and compulsory education.

Based on the above analysis, pilot projects and research, some new regulations and legislations should be initiated to achieve quality assurance, monitoring and evaluation, in addition to multilateral cooperation. Furthermore, it is necessary to strengthen the linking up and integration of basic education with promoting life-long learning.

Annex 1. Diagnostic Tool and Analytical Framework

A Brand New Diagnostic Tool

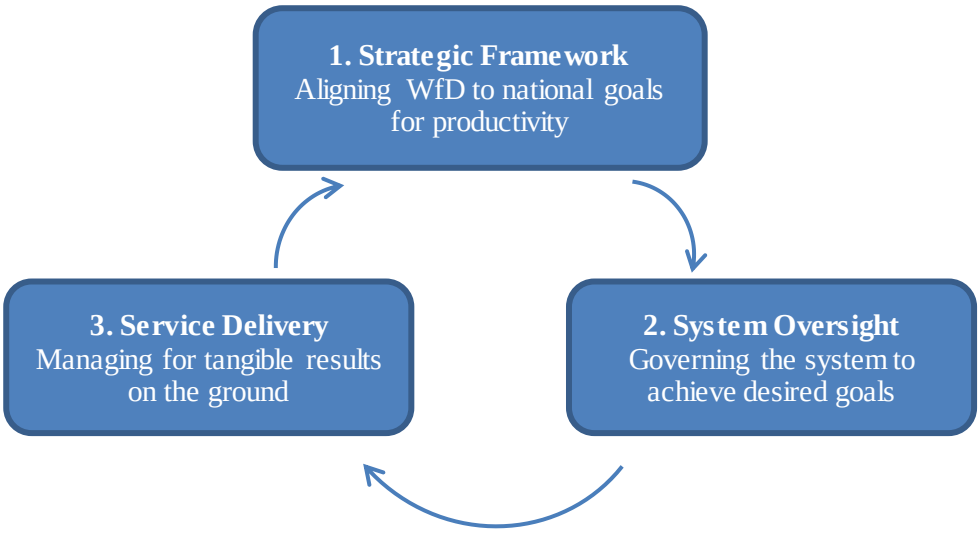
The tool, known as SABER-WfD, is a product of the World Bank's initiative on System Assessment and Benchmarking test for Education Results (SABER), which focuses on several policy domains, including workforce development (WfD). SABER-WfD aims to assess how well a given country's policies and institutions are performing in light of global good practice. It focuses on:

(1) ***Strategic framework*** which refers to the framework that sets the direction for WfD and defines its authorizing environment;

(2) ***System Oversight*** which refers to the standards and quality assurance arrangements that guide the functioning of the system; and

(3) ***Service Delivery*** which refers to the set up for training provision that equips individuals with market and job-relevant skills (see Figure 1).

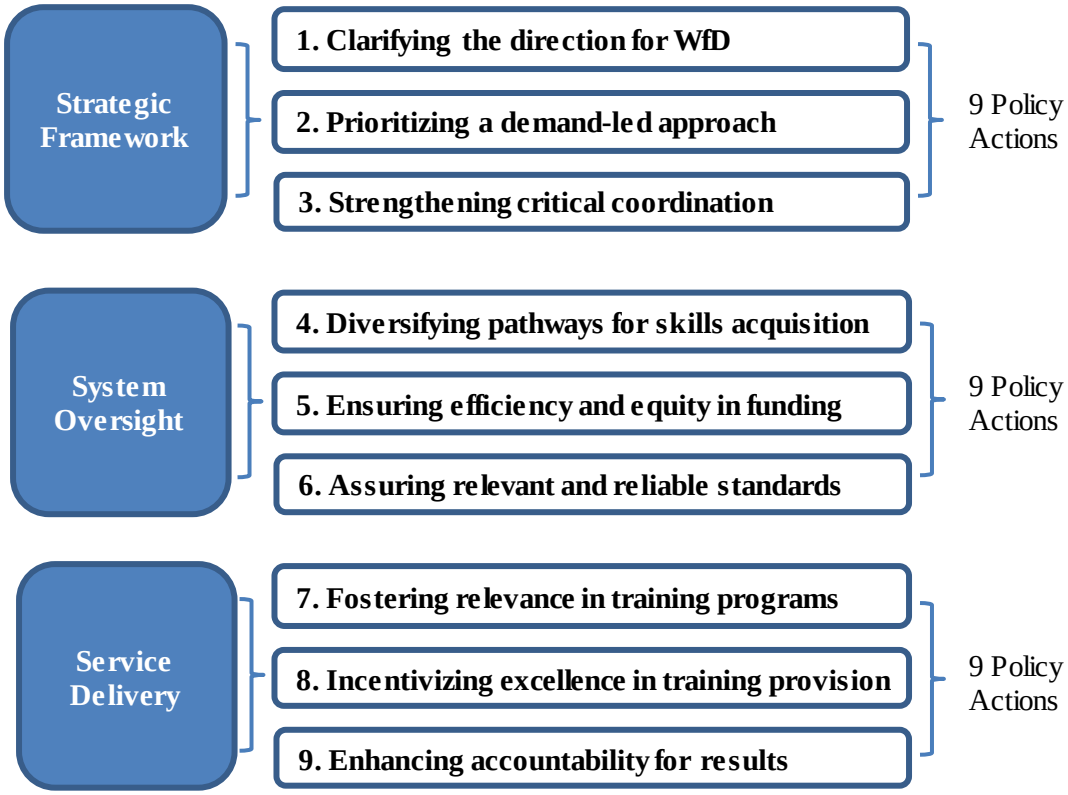
Figure 1: Functional Dimensions of WfD Policies



Source: Tan *et al.* 2011.

These three dimensions constitute a closed policy-making loop and, when taken together, allow for analysis of the functioning of a WfD system as a whole. Each functional dimension is composed of policy goals spanning three broad areas as shown in Figure 2: governance (1, 4, 7), finance (2, 5, 8) and information (3, 6, 9). Each of the policy goals is in turn further defined by three tangible policy actions, making a total of nine policy goals and 27 policy actions.

Figure 2: Analytical Framework of SABER-WfD



Source: Tan et al. 2011. See Annex 1 for more details.

Table A. Analytical Framework of SABER-WfD

Dimension 1: Strategic Framework

Aligning WfD to national/provincial goals for productivity, growth and poverty reduction

- Policy Goal 1: Articulating a strategic direction for WfD
  - Policy Action 1: Advocate for WfD as a priority for economic development
  - Policy Action 2: Evaluate economic prospects and its implications for skills
  - Policy Action 3: Develop policies to align skills demand and supply
- Policy Goal 2: Prioritizing a demand-led approach to WfD
  - Policy Action 4: Promote a Demand-drive approach to WfD
  - Policy Action 5: Strengthen firm's demand for skills to improve productivity
  - Policy Action 6: Address critical challenges in the future supply of skills
- Policy Goal 3: Strengthen critical coordination to realize WfD objectives
  - Policy Action 7: Ensure coherence of key strategic WfD priorities
  - Policy Action 8: Institutionalize WfD roles and responsibilities
  - Policy Action 9: Facilitate interaction among all WfD stakeholders

Dimension 2: System Oversight Strategic

Governing the system to achieve desire goals

- Policy Goal 4: Diversifying pathways for skills acquisition
  - Policy Action 10: Foster articulation across levels of instruction and types of programs
  - Policy Action 11: Promote life-long learning with recognition of prior learning
  - Policy Action 12: Set policies and procedures for the renewal of publicly-funded programs
- Policy Goal 5: Ensuring efficiency and equity in funding for WfD
  - Policy Action 13: Articulate a strategy for funding WfD
  - Policy Action 14: Allocate public funds for WfD to achieve results with efficiency
  - Policy Action 15: Foster partnership between WfD authority(s) and stakeholders
- Policy Goal 6: Assuring relevant and reliable standards for quality in WfD
  - Policy Action 16: Specify accreditation standards for training providers
  - Policy Action 17: Strengthen skills testing and certification
  - Policy Action 18: Assure the credibility of accreditation and of skills certification

Dimension 3: Service Delivery

Ensuring tangible results on the ground

- Policy Goal 7: Fostering relevant content in training programs
  - Policy Action 19: Strengthen training-industry-research linkages
  - Policy Action 20: Integrate industry inputs into the design of training programs
  - Policy Action 21: Enhance competence of WfD administrators and instructors
- Policy Goal 8: Incentivizing excellence in training provision
  - Policy Action 22: Promote diversity in training provision
  - Policy Action 23: Incentivize private providers to meet WfD standards
  - Policy Action 24: Motivate public training institutions to respond to the demand for skills
- Policy Goal 9: Enhance accountability for results in WfD
  - Policy Action 25: Strengthen the WfD monitoring and evaluation system
  - Policy Action 26: Specify reporting requirements by training institution
  - Policy Action 27: Increase focus on outcomes, efficiency and innovation in service delivery

Annex 2 SABER-WfD Results of Xinjiang TVET System

Dimension		Driver		Policy Action	
Strategic Framework	2.9	Direction	3.1	Advocate for WfD as priority for economic development	3.5
				Evaluate economic prospects and their skills implications	2.8
				Develop policies to align skills supply and demand	3.0
		Priorities	2.7	Promote a demand-driven approach to WfD	3.0
				Strengthen firms' demand for skills to improve productivity	2.3
				Address critical challenges in the future supply of skills	2.7
		Coordination	3.0	Ensure coherence of key strategic WfD priorities	4.0
				Institutionalize the structure of WfD roles and responsibilities	3.0
				Facilitate communication and interaction among all WfD stakeholders	2.0
System Oversight	2.7	Pathways for Skills Acquisition	2.4	Foster articulation across levels of instruction and types of programs	1.8
				Promote life-long learning with recognition of prior learning	3.0
				Set policies and procedures for introducing, adjusting or closing publicly-funded programs	2.4
		Resources	2.4	Articulate a strategy for funding WfD	2.8
				Allocate public funds for WfD to achieve results with efficiency	2.5
				Foster partnership between WfD authority(s) and stakeholders	2.0
		Standards and Quality Assurance	3.4	Specify accreditation standards for training providers	3.5
				Strengthen skills testing and certification	3.3
				Assure the credibility of accreditation and of skills certification	3.3
Service Delivery	2.7	Content	3.0	Strengthen linkages among training institutions, industry and research institutions	2.9
				Integrate industry inputs into the design of training programs	3.3
				Enhance competence of WfD administrators and instructors	2.8
		Incentives	2.2	Promote diversity in training provision	1.3
				Incentivize private providers to meet WfD standards	2.7
				Motivate public training institutions to respond to the demand for skills	2.5
		Outcomes	2.9	Strengthen the WfD monitoring and evaluation system	3.0
				Specify reporting requirements by training institutions	3.0
				Increase focus on outcomes, efficiency and innovation in service delivery	2.8