China: Xinjiang Province

WORKFORCE DEVELOPMENT

SABER Country Report
2014

Dimensions	Status
1. Strategic Framework Xinjiang has identified WfD as a priority and established a high degree of coherence between WfD strategy and concomitant policies. Coordination in setting and implementing WfD policy is aided by clearly defined roles and responsibilities for all stakeholders, but the role of employers and other non-government stakeholders often does not extend beyond implementing government decisions. Policymakers have enough information on labor market conditions to make informed decisions, but assessments of economic development prospects and future skill needs are not systematic.	Established
2. System Oversight Xinjiang enforces strict accreditation of public and private training institutions and rigorously implements skills testing and certification. However, the lack of articulation agreements to facilitate transfer between education programs means that students sometimes find that their current qualifications will not allow them to progress to further education or change fields of study. Funding for TVET is increasing, but reviews of the impact of the procedures for allocating funds on efficiency are not undertaken on a regular basis, and efforts to leverage businesses as a source of resources are limited	Established
3. Service Delivery The public training sector, which comprises the vast majority of providers, is well managed. The major system strengths are the existence of institutionalized procedures for combining provider-level and labor market data to manage overall service provision and the use of industry inputs in the design of training programs. However, there is only limited use of incentives for providers to improve the quality and relevance of training programs and little diversity in pathways for skills acquisition.	Established

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Executive Summary

This report presents the findings of the assessment of the workforce development (WfD) system of Xinjiang Province, China, conducted based on the World Bank's Systems Approach for Better Education Results (SABER) WfD analytical framework and tool. The focus is on policies, institutions, and practices in three important functional dimensions of policymaking and implementation—**strategic framework, system oversight and service delivery**.

Benchmarking Results

The **Strategic Framework** dimension is scored at the Established level (2.9 out of 4.0). The government's priorities for human resource development are closely linked to plans for growing prioritized economic sectors. Some effort is made to project probable future demand for skills in key industries, but capacity is relatively weak and the practice is *ad hoc*. Xinjiang has established a technical and vocational education and training (TVET) Leading Group to coordinate government efforts to respond to employers' demand for skills. However, this Group's collaboration with training providers and employers in the implementation of strategic measures has been modest. The government offers financial incentives to firms, especially SMEs, to train workers, and it regularly consults with employers for the purposes of gathering labor market information. However, when it comes to exercising leadership in setting WfD priorities employers' advocacy lacks visibility.

"Xinjiang has a WfD system that facilitates lifelong learning and recognizes prior learning. However, students completing initial TVET have to navigate a relatively rigid system that creates educational 'dead-ends.'"

The score for **System Oversight** (2.7) places Xinjiang at the Established level. The government has put in place formal procedures for allocating funding for TVET that are based on requests from training providers. These procedures take institutional performance into account, but methods for assessing performance are not always reliable. There remains weakness with respect to fostering partnerships for encouraging employers and other stakeholders to contribute resources to the system.

The findings indicate that Xinjiang has a WfD system that facilitates lifelong learning and recognizes prior learning. However, students completing initial TVET have to navigate a relatively rigid system that creates educational "dead-ends" due to a lack of procedures for transfer across TVET and general education, and, to a lesser degree, for progression to more advanced levels of instruction. Nonetheless, the system is strong with respect to quality assurance: All vocational schools are accredited according to regularly updated standards and subject to periodic accreditation renewal, while the occupational coverage of skills testing is extensive and the certifications issued are respected and valued by employers.

"The rating for Service Delivery reflects strength with respect to government efforts to promote the market-relevance of the formal TVET system balanced by weakness in the diversity of training providers."

The rating for **Service Delivery** (2.7), also at the Established level, reflects strength with respect to government efforts to promote the market-relevance of the formal TVET system, balanced by weakness in the diversity of training providers. Industry experts have played an essential role in establishing curricula, determining training equipment needs, and setting technical standards for training. Information about labor market demand for skills, gleaned from annual enterprise surveys conducted by the government, is also an essential input into the process of updating curricula and creating new courses of study. These activities are prioritized for key strategic sectors, reflecting coordination among government departments concerned with WfD and those concerned with broader economic development strategy.

The performance of schools and their personnel are assessed against outcome indicators such as graduation rate, employment rate and student satisfaction. No hard targets are set, however, and there are issues with the reliability of some of these data. A weakness of the system is the lack of diversity in training provision. Non-government providers are allowed to operate, but few do and they are managed in much the same way as public providers. While such regulations can help ensure minimum standards of quality, this may compete with benefits such as increased access to training, competitive pressure to perform, and innovations in training delivery fostered by diversity in training provision.

Policy Recommendations

The SABER-WfD assessment indicates that, in many respects, Xinjiang has an established system for workforce development. However, it also reveals unevenness in system development and identifies several institutional weaknesses that impede system performance. Addressing these challenges would help tighten the system's alignment with Xinjiang's current 12th Five Year Plan as well as its Medium- to Long-term Education and Talent Development Plans.

In the short run, reforms in the provision of TVET in Xinjiang could focus on the following priorities: (a) strengthening coordination of stakeholder activities and clarifying the governance arrangements; (b) improving the efficiency of public school management; (c) expansion of training provision through greater participation by private providers operating under close supervision to assure quality standards; and (d) fostering closer linkages between TVET institutions and industry and research institutes.

In the medium- to long-term, the reforms could further strengthen Xinjiang's WfD system by focusing on the following: (a) enhancing governance of the system through mechanisms for quality assurance, and monitoring and evaluation; and (b) ensuring that all students entering TVET programs have a solid foundation for learning, acquired through a high quality basic education. The goal is to create a modern and flexible WfD system with diversified pathways for skills acquisition. Under the reforms, efforts could be made to enable some TVET schools and programs in the province to gain nationwide recognition as top-level schools and programs. Such a system would be an asset for realizing the economic goals of Xinjiang's Medium- and Long-term Education and Talent Development Plans.

1. Introduction

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

A New Diagnostic Tool

The SABER-WfD 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 WfD.[1] SABER-WfD aims to document and assess a country's policies and institutions in light of global good practice. It focuses on three broad functional dimensions of WfD policies and institutions:

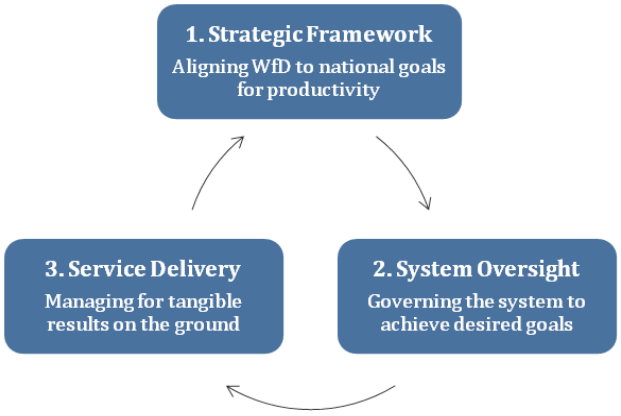
(1) ***Strategic framework*** which refers to the praxis of advocacy, partnership, and coordination in relation to the objective of aligning WfD in critical areas to priorities for national development;

(2) ***System Oversight*** which refers to the arrangements governing funding, quality assurance and learning pathways that shape the incentives and information signals affecting the choices of individuals, employers, training providers and other stakeholders; and

(3) ***Service Delivery*** which refers to the diversity, organization and management of training provision, both state and non-state, that deliver results on the ground by enabling individuals to acquire market- and job-relevant skills (see Figure 1).

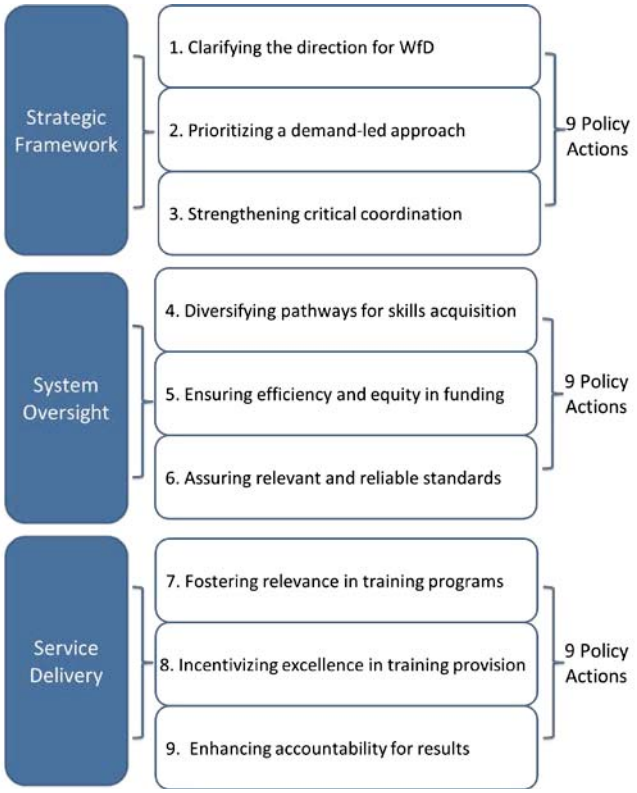
From the perspective of the line ministries, typically education and labor, strategy is about sensing, influencing, and responding to the external environment for WfD; oversight is about governing the activities of all stakeholders with a direct interest in WfD activities; and delivery is about managing the activities of those responsible for training provision.

Figure 1: Functional Dimensions of WfD Policies



Source: Tan *et al*. 2012.

Figure 2: Analytical Framework of SABER-WfD



Source: Tan et al. 2012. See Annex 1 for more details.

These three dimensions constitute a closed policy-making loop and, when taken together, allow for systematic analysis of the functioning of a WfD system as a whole. Each functional dimension is composed of Policy Goals (see Figure 2) spanning the three broad areas of governance, finance and information. Each of the Policy Goals is, in turn, further defined by three tangible Policy Actions, making a total of 9 Policy Goals and 27 Policy Actions.

[1] For details on SABER see http://www.worldbank.org/education/saber

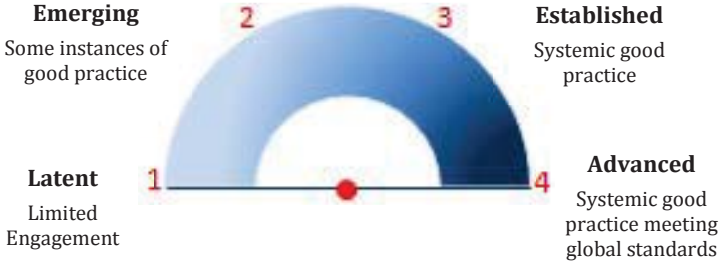
The SABER-WfD tool uses the foregoing analytical framework to create a structured data collection instrument for gathering information on a country's policies and institutions for WfD. For each of the 27 Policy Actions, the Data Collection Instrument (DCI) poses a set of questions relating to the corresponding aspect of the WfD system. Each question is answered by choosing from a list of closed options corresponding to stages of development. The choice is substantiated either by documentary evidence or by information supplied and corroborated by knowledgeable and credible informants. As in the other countries selected for this pilot phase, the collection of data using the SABER-WfD instrument was led by a Principal Investigator (PI)[2] who relied on documentary evidence as well as interviews with knowledgeable informants.

Data Processing and Scoring

For each of the 27 Policy Actions, the information gathered by the PI is scored according to standard rubrics. These rubrics correspond to four stages of maturity in policy and institutional development for WfD, as follows: (1) latent, (2) emerging, (3) established and (4) advanced. A summary description of the rubrics is given in Figure 3, while the details are explained in Annex 6.

Note that, in order to conform to the standardized presentation of reports under the overall SABER initiative, the dimension-level SABER-WfD categorical ratings shown on the cover of this report are based on the corresponding composite scores which have been converted to the relevant categories.[3] In the rest of the report, the composite scores are presented in the form of a dial, as shown below, in order to retain the detail they reflect.

Figure 3: Rubric for Benchmarking WfD



Source: Tan et al. 2012

The scores on the Policy Actions form the basis for scoring the nine Policy Goals. The approach involves the application of simple weights to aggregate the scores on the Policy Actions that relate to each Policy Goal, typically 1/3 for information relating to policy concepts and design and 2/3 to information relating to policy implementation. In the interest of parsimony in data collection, the SABER-WfD study accepts reviews and evaluations of policies and related follow-up actions as evidence of implementation. Finally, to obtain the scores for the three functional dimensions considered in the SABER-WfD framework, the scores for the Policy Goals that relate to each dimension are aggregated with equal weights. This algorithm yields composite scores on a 1-4 scale for every level of aggregation in the data; naturally, the composite scores are rarely whole numbers.

[2] For Xinjiang, the PI was Ms. Lei Shen (Associate Professor at Xinjiang Urumqi Vocational University and PhD student of Urumqi University)

[3] For a given composite score, X, the conversion to the categorical rating shown on the cover is based on the following rule: $1.00 \leq X \leq 1.75$ converts to "Latent"; $1.75 < X \leq 2.50$, to "Emerging;" $2.50 < X \leq 3.25$, to "Established;" and $3.25 < X \leq 4.00$, to "Advanced."

2. Country Context

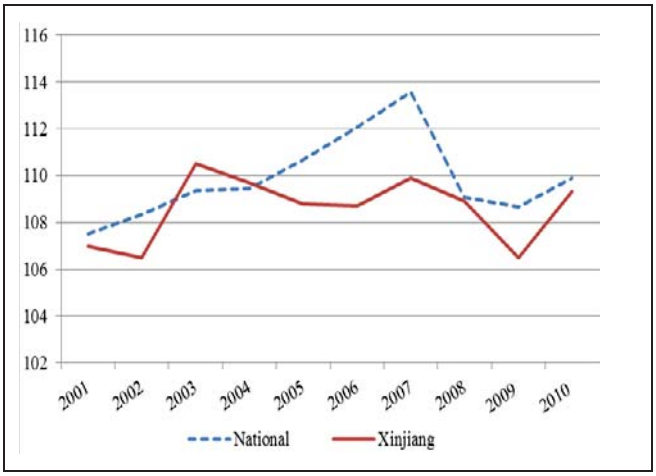
Xinjiang has enjoyed rapid economic growth over the past decade but continues to lag behind other provinces in China in important indicators of economic and social development. The government has identified an inadequate skills base as a binding constraint on further development and has pointed to WfD as a crucial tool for leveraging Xinjiang's abundant natural resources and young population to promote the expansion of economic activity into more sophisticated economic sectors. This chapter presents the econonmic and social context that form the background for Xinjiang's ambitious WfD agenda.

Economic Trends

The Xinjiang Uyghur Autonomous Region is a large, sparsely populated region 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 2010, Xinjiang's GDP reached 543.75 billion Yuan (US$ 80.4 billion), and per capita GDP reached 25,034 Yuan (US$ 3,700). However, these figures are still below the national average. Xinjiang's economy makes up only 1.36 percent of the national GDP, and its per capita GDP is about 5,000 Yuan (US$ 740) below the national average.[4] In addition, its pace of economic growth has been slower than the national average; from 2001 to 2010, the average per capita GDP growth rate in Xinjiang was only 8.6 percent, whereas the national average was 9.8 percent (see Figure 4). This economic feature is related to the existing sectoral structure of Xinjiang's economy, and also to the current workforce status in Xinjiang.

Compared with the national economy, the ratio of the primary sector's contribution to GDP in Xinjiang is greater than that of the national average, while the ratio of the secondary sector is almost the same as the national average,[5] and the share of the tertiary sector is comparatively smaller. Production of cash crops makes up 61 percent of the total production of major agro products in Xinjiang.[6] The share of agriculture has always remained at 20 percent of Xinjiang's total GDP, which is far above the national average of 10 percent.[7] The size of the secondary sector in Xinjiang's GDP has been growing every year, from 42.4 percent in 2001 to 47.7 percent in 2012, which is at the same level of growth as the national average (see Figure 5). The share of the tertiary sector's contribution is lagging behind the national average. It decreased from 38.2 percent of GDP in 2001 to 32.5 percent in 2012, which was 10.6 percentage points lower than that of the national average. This is in sharp contrast to the national trend of steady growth of the tertiary sector during the same period.

Figure 4: GDP Per Capita Growth Rate, Xinjiang and National Average (% per annum)[8]



Source: Chinese Statistical Yearbook 2002 to 2011

[4] National per capita GDP in 2010 was 29,992 Yuan.

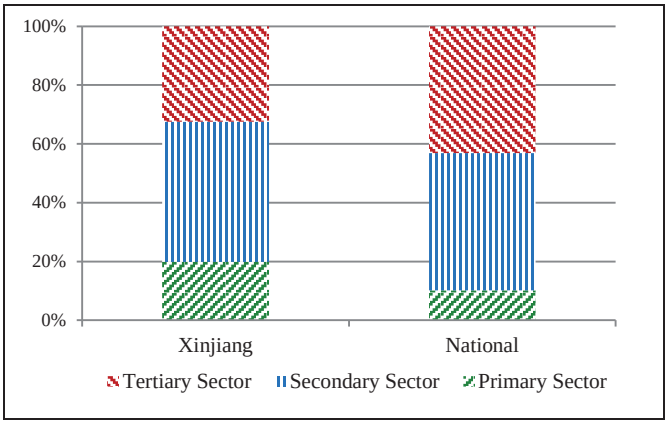
[5] The secondary sector is composed of industry (which includes mining, manufacturing, production and supply of electricity, gas and water) and construction.

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

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

[8] 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 percent 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.)

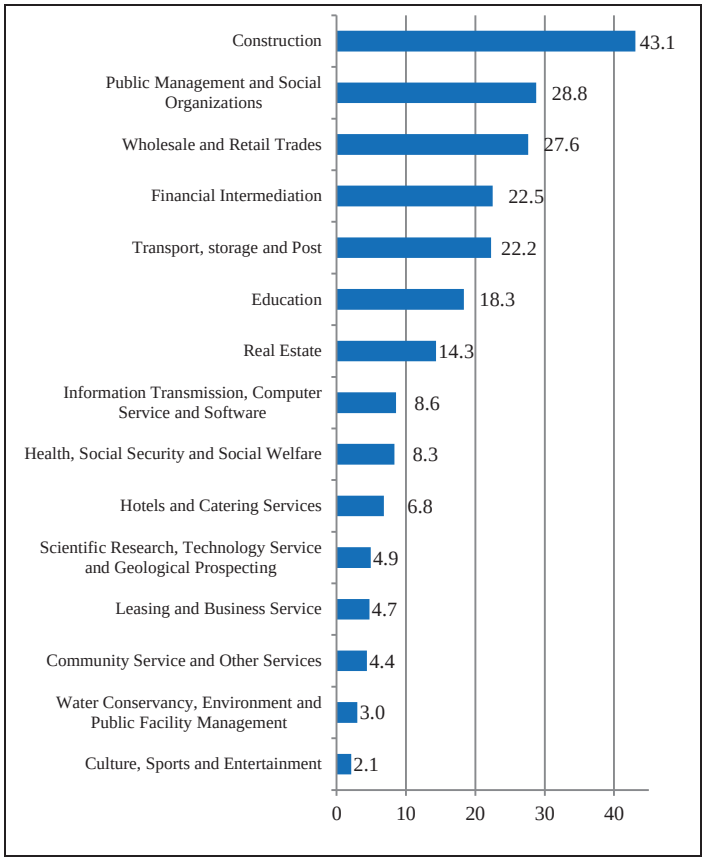
Figure 5: Composition of GDP by Sectors (%), 2010



Source: China's Statistical Yearbook, 2011

Industries that contribute most to total GDP in Xinjiang include construction; public administration and social organizations; wholesale and retail trades; finance; transportation, storage and post; education; and real estate (see Figure 6). Adding them together, they account for 32.5 percent of the total GDP in Xinjiang. Most of these industries are labor and capital intensive, rather than technology intensive industries.

Figure 6: GDP by Industry in Xinjiang, 2010 (billion Yuan)



Source: Xinjiang Statistical Yearbook, 2011.

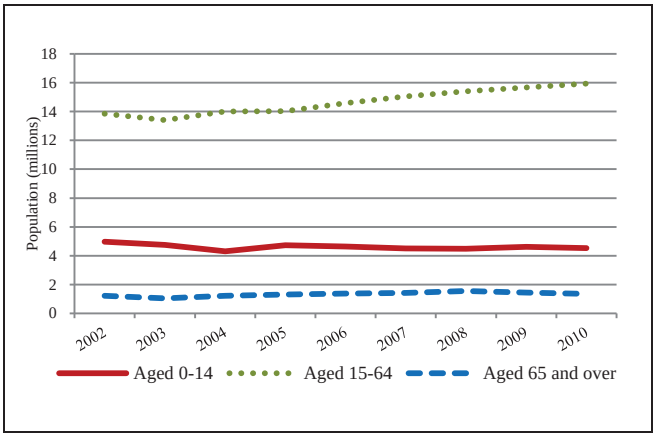
Labor Supply[9]

Compared with the national average, Xinjiang's workforce is younger and growing faster, and the decrease in the school-age population is slower. Therefore Xinjiang has a comparative advantage in terms of the size of its workforce. In 2010, Xinjiang's population reached 21.85 million, of which 59.9 percent were ethnic minorities. As a result of the preferential flexible family planning policy offered to ethnic minorities,[10] population growth in Xinjiang has always been at the top for the whole country. In 2010, the natural population growth rate in Xinjiang reached 1.06 percent, far higher than the national average of 0.48 percent. Meanwhile, the workforce increased steadily, from 13.85 million in 2002 to 15.93 million in 2010, averaging 1.8 percent annual growth, whereas the national growth of the working population during the same period was only 1.3 percent (see Figure 7). The population of 0–14 year olds decreased from 4.97 million in 2002 to 4.53 million in 2010, an annual reduction of 1.1 percent, whereas the national average reduction during the same period was 3.2 percent. 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.

[9] The statistics about the workforce population and resident population include migrants from other provinces. According to Census 2010, migrants from other provinces account for 8.2 percent of the total Xinjiang population. Compared to local residents, these migrants have a comparatively higher education level. For migrants, the share of the population with senior secondary and higher education is 44.8 percent. Compared to this, for local residents, the share is only 21.6 percent.

[10] According to the One-Child Policy in China, each couple is allowed 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 counterparts are entitled to have two; while a couple of Han rural residents are entitled to have two children, their minority counterparts are entitled to have three. The Xinjiang policy is comparatively looser than other provinces.

Figure 7: Distribution of Population by Age, Xinjiang, 2002-2010



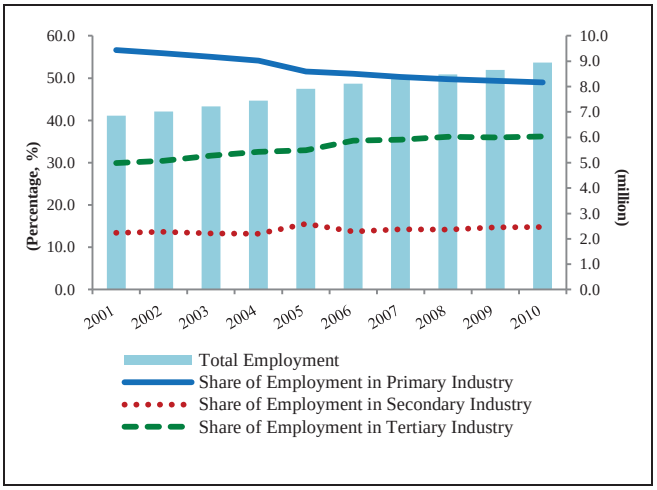
Source: China Statistical Yearbook 2003-2011

Educational attainment has improved gradually in recent years, but remains lower than the national average. In 2009, the average educational attainment of Xinjiang's workforce was 9 years of schooling, whereas the national average was 9.5 years. New entrants to the labor market had received an average of 10 years of schooling, whereas the national average was 12.4 years; and about 30 percent of the new entrants had received education at the senior secondary level and above, which was far behind the national average of 67 percent. The Xinjiang government aims to reduce 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, Xinjiang's capacity to provide education, and TVET in particular, has to increase faster than in other provinces to accommodate the increase in enrollment and to meet Xinjiang's WfD goals.

Labor Demand

The tertiary sector has provided more new jobs in Xinjiang in the past ten years, despite its shrinking share of overall economic activity. The total employed population in Xinjiang increased from 6.85 million in 2001 to 8.95 million in 2010, representing a 30.5 percent increase. The share of workers in primary sector jobs decreased from 56.6 percent to 49.0 percent, while employment in the secondary and tertiary sectors went up from 13.5 percent to 14.8 percent and from 29.9 percent to 36.2 percent, respectively (see Figure 8).

Figure 8: Xinjiang Employment Scale and Structure by Strata of Industry



Source: Xinjiang Statistical Yearbook, 2001-2011

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

Source: 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)

In terms of the occupational structure of the workforce, the proportion employed in public services is up while the proportion in traditional services is down. In the past five years in the tertiary sector, household services, health, social security and welfare have added jobs rapidly, with an average annual increase in total employment of over 3 percent (see Table 2). Meanwhile, traditional service occupations, like hotel and catering, as well as wholesale and retail industries, have been shrinking. Looking forward, the coal industry is projected to provide 300,000 new jobs by 2015, most of which will be for technicians and managers.[11]

Table 2: Changes in Employment by Sector in the Tertiary Sector in Xinjiang, 2006-2010[12]

Sectors With Most Rapid Growth in Employment	Annual Change (%)
Services to Households and Other Services[13]	14.36
Health, Social Security and Social Welfare	5.02
Financial Intermediation	4.29
Leasing and Business Services	3.72
Water Resource Management, Environment	3.64
Sectors With Most Rapid Decrease in Employment	**Annual Change (%)**
Hotels and Catering Services	-3.58
Wholesale and Retail Trades	-3.32
IT, Computer Services and Software	-3.19
Traffic, Transport, Storage & Postal Services	-0.95
Real Estate	-0.32

Source: Xinjiang Statistical Yearbook, 2007-2011

Challenges to Workforce Development

Xinjiang is rich in land, energy and mineral resources, and also has a comparative advantage in terms of the size of its workforce. However, it faces some constraints regarding its economic development, industrial structure and the quality of its workforce. Xinjiang's 12th Five Year Development Plan has set the 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". Accomplishing this will require an increase in the sophistication of economic activity through nurturing new industries, agricultural modernization and urbanization. Agriculture needs to transfer surplus labor through the use of innovative technology, the secondary sector needs to establish technology-intensive pillar industries, and the tertiary sector needs to foster a modern service industry. A high quality workforce is a fundamental step to achieve these transformations. Only through providing highly skilled workers can the comparative advantage of the size of the workforce be brought into play and natural resources be fully utilized.

The mismatch between labor supply and demand in key economic sectors has constrained Xinjiang's economic development. Skills development and TVET policies are at the center of the response required to promote continuing development. There is a shortage of skilled workers. A labor market survey in Xinjiang in 2011 showed that 71.8 percent of enterprises considered it hard to find appropriately skilled workers; 69.0 percent of the enterprises experienced difficulties in recruitment; and 30.1 percent of enterprises encountered difficulties in recruiting professional technicians.[14] 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 to the further development of the coal industry in the province.[15] The Xinjiang 12th Five Year Education Development Plan identified improved TVET provision as integral to economic development, and set the goals of promoting secondary vocational education, making TVET more attractive, and narrowing the gap between TVET provision and industrial demand.

TVET System

The formal educational system in Xinjiang is the same as for other parts of the country (see Figure 9): after up to three years of pre-school education (for children aged 3-6 years), students have 9 years of compulsory education (6 years of primary school and 3 years of junior secondary school). Compulsory education is followed by 3 years of

[11] The incremental workforce includes: 80,000 for major industries, 120,000 for support staff related to the coal industry, 20,000 for coal power installation, and 50,000 for the 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.

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

[13] 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).

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

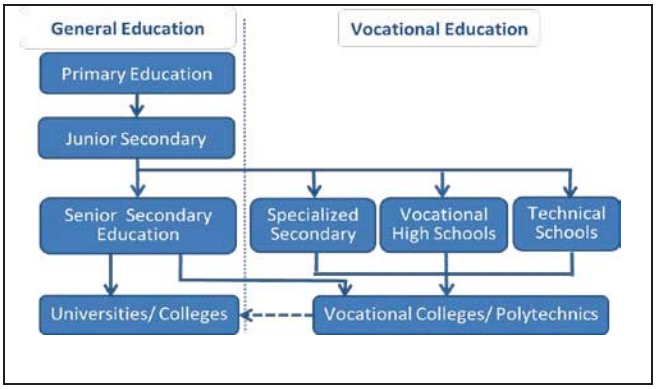
[15] See Talent Development Plan for Coal Mines, Coal Power and Coal Chemical Industry During the Period of 2006-2010 in Xinjiang.

senior secondary and 3 to 4 years of higher education (college or university level). The technical or vocational track includes secondary vocational education (vocational high schools, technical schools, or skilled worker schools) and 3 years at vocational colleges and professional institutions (polytechnics). All technical and vocational schools are administered by the Department of Education or Department of Human Resources and Social Security (HRSS). Table 3 provides details on enrolments, quality and funding levels for general and vocational education in Xinjiang in 2010.

Vocational schools and colleges also offer short-term training programs. Most short-term training programs are provided by training institutes outside the formal education system. There are limited data for these training institutes beyond the number of institutes and trainees.

The current TVET system in Xinjiang was created during the 1980s in the context of political reform and economic liberalization in China. In the 1990s, 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. 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); Comments on Implementation of the State Council Decision on Forcefully Promoting Reform and Development of Vocational Education (2003); and Notice on Developing Vocational Education and Skill Training (2005). TVET reform and development has also been included in the Xinjiang Medium- and Long-term Talent Development Plan (2010-2020); the Xinjiang Medium- and Long-term Educational Reform and Development Plan (2010-2020); and in the Xinjiang 12th Five Year Education Development Plan.

Figure 9: Xinjiang's TVET System



Source: Author's construction

Given this consistent high-level attention to TVET, enrollments have expanded rapidly in the past 10 years. Total enrollment in secondary vocational schools increased from 160,000 in 2001 to 261,600 in 2010. Enrollment in tertiary vocational schools stood at 111,800 in 2010. However, TVET remains a weak segment in terms of both size and quality when compared with general

Table 3: Key Statistics on Xinjiang's Education System, 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

education. In 2010, the number of TVET schools, admissions, students, and graduates were all less than for general education. In terms of enrollment, students in vocational education made up 38 percent and 45 percent of total students at secondary and tertiary levels, respectively. In terms of school administration, TVET teachers have lower qualifications than general education teachers; however, TVET teachers have heavier teaching loads because the student/teacher ratio is a little higher than for general education. Total educational investment in vocational education is much lower than that in general education. As a result, both vocational high schools and vocational colleges have lower expenditures per student than general senior schools and universities.

Mismatch between Skills Supply and Demand

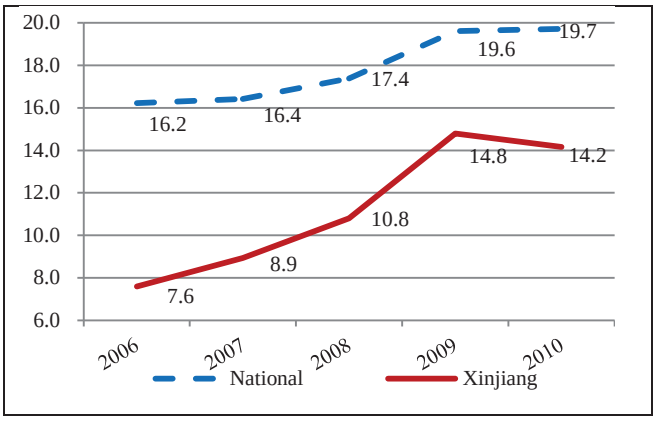
Many students are not adequately prepared when they enter the labor market. Xinjiang has achieved almost universal enrollment in compulsory education. The net enrollment rates of primary and junior secondary school are 99.73 percent and 97.26 percent, respectively. However, the capacity of senior secondary schools, colleges and universities is far from able to satisfy the demand for places. The progression rate – enrollment at the next level of education divided by number of graduates at the current education level – gives the story.

Table 4: Progression Rate and Destination of Students by Education Levels – Xinjiang vs. National, 2010

Education Level	Progression Rate (%)	
	Xinjiang	*National*
Primary Schools	100.5	98.6
Junior Secondary Schools	84.5	90.9
Senior Secondary Schools	54.2	83.3
Destination of those completing junior secondary school	**(%)**	
Senior Secondary Schools (general)	52.4	47.8
Vocational Secondary Schools, *of which*	32.1	43.1
Specialized Secondary Schools	*17.9*	*18.1*
Vocational High Schools	*8.5*	*15.9*
Technical Schools	*5.7*	*9.1*
Do not progress beyond junior secondary	15.5	9.1
Destination of those completing senior secondary school	**(%)**	
Universities/ Colleges	25.3	44.2
Vocational Colleges/ Polytechnics	28.9	39.1
Do not progress beyond senior secondary	45.8	16.7

Source: Chinese Statistical Yearbook, 2011; The progression is calculated by taking enrollment at the next level of education divided by number of graduates at the current education level.

Figure 10: Share of TVET Graduates among Total Labor Market Entrants in Urban Areas (%)



Source: Chinese Labor Statistical Yearbook, 2011

In 2010, the progression rate of junior secondary graduates in Xinjiang was 84.5 percent, which was lower than the national average of 90.9 percent; the progression rate of senior secondary graduates was 54.2 percent, which was far below the national average of 83.3 percent (Table 4). This means that 15.5 percent of junior secondary graduates and 46.1 percent of senior secondary graduates enter into the labor market without further formal education. General education in China focuses on preparing students for the next level of education (Yang, 2007),[16] so vocational education and training can serve as a bridge in equipping graduates with work-oriented training, something that has obvious benefits in terms of productivity enhancement. Many of these students leaving the general education track could benefit from vocational education before making the transition to the labor market. However, in Xinjiang the rate of student progression to vocational education is lower than the national average. One major reason is the insufficient number of places in vocational schools. However TVET is also still perceived by many as a second-tier track and thus it also does not attract the strongest students.

[16] 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

The supply of a skilled workforce by the TVET system has not yet played an important role in Xinjiang compared to the national average. The National Bureau of Statistics and HRSS divide the sources of total new labor market entrants in urban areas for each province each year into "recruited from the countryside", "recruited from cities and towns", "recruited demobilized and transferred soldiers", "recruited TVET graduates", "transferred into" and "others".[17] Figure 10 shows the percentage of TVET graduates among new entrants. The percentage of employed TVET graduates against total urban incremental employment in Xinjiang increased rapidly from 7.6 percent in 2006 to 14.2 percent 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.

Xinjiang's TVET system, especially vocational colleges, have expanded rapidly in the past 10 years, but additional improvements in quality and capacity will be necessary to support the government's goal of creating a more skilled workforce to support 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 student enrolled in general and vocational tracks by 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 systematically examine the Xinjiang TVET system, to identify its strengths and weaknesses in the context of global best practices, and then determine relevant and effective measures.

[17] Recruitment from the countryside or cities and towns mainly comprises general education graduates.

3. Summary | Benchmarking Results

This chapter highlights findings from the assessment of Xinjiang's WfD system based on the SABER-WfD analytical framework and tool. The focus is on policies, institutions and practices in three important functional dimensions of policymaking and implementation—strategic framework, system oversight and service delivery. Because these aspects collectively create the operational environment in which individuals, firms and training providers, both state and non-state, make decisions with regard to training, they exert an important influence on observed outcomes in skills development. Strong systems of WfD have institutionalized processes and practices for reaching agreement on priorities, for collaboration and coordination, and for generating routine feedback that sustain continuous innovation and improvement. By contrast, weak systems are characterized by fragmentation, duplication of effort and limited learning from experience.

The SABER-WfD assessment results summarized below provide a baseline for understanding the current status of the WfD system in Xinjiang Province as well as a basis for discussing ideas on how best to strengthen it in the coming years.

Overview of Results

Figure 11 shows the overall results for the three functional dimensions in the SABER-WfD framework.[18] The results reveal that the Strategic Framework dimension is scored at the **Established** level (2.9) while System Oversight (2.7) and Service Delivery (2.7) are rated lower, but remain within the Established band.[19]

Figure 11: Benchmarking Results – Dimension Level

Strategic Framework | **System Oversight** | **Service Delivery**

Note: the above composite scores are the same as the categorical ratings shown on the cover of this report. They have been converted using the rules indicated in footnote 3 on page 5.

SABER-WfD Ratings of the Strategic Framework

In the SABER-WfD framework, the role of WfD in realizing Xinjiang's socio-economic aspirations materializes through actions to advance the following three Policy Goals: (i) Setting a Direction for WfD (3.1); (ii) Fostering a Demand-led Approach to WfD (2.7); and (iii) Strengthening Critical Coordination for WfD (3.0) (see Figure 12).

The scores for these policy goals reflect the level of development for different aspects of the WfD system related to strategy. They indicate that Xinjiang has identified WfD as a strategic priority for achieving economic development goals. There is a high degree of coherence between strategy and policy at the provincial level, and legislation establishes clear roles for all stakeholder groups involved. However, clearly defined legal roles do not always translate into productive coordination among government agencies. Employers, crucial partners in demand-led systems, have been given a say in WfD policy, but when engaging with government policy makers they are clearly the junior partner and are rarely given decision-making authority. While the government conducts studies on present and projected labor market conditions to inform policymaking, such assessments are not routine. There is no institutionalized monitoring of policy implementation to provide feedback on the efficacy of strategic WfD measures.

SABER-WfD Ratings on Oversight of the WfD System

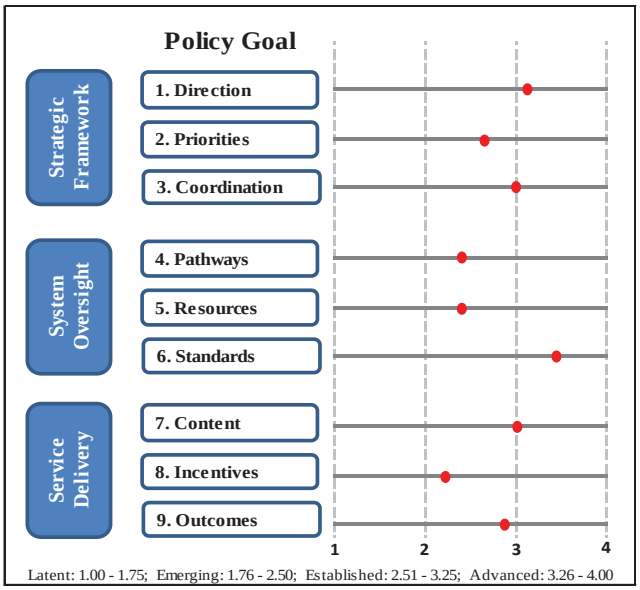
The SABER-WfD framework identifies three pertinent Policy Goals corresponding to the oversight mechanisms for influencing the choices of individuals, training providers and employers: (i) diversifying pathways for skills acquisition; (ii) ensuring efficiency and equity in funding; and (iii) assuring relevant and reliable standards.

Based on data collected by the SABER-WfD questionnaire, Xinjiang receives an overall rating of **Established** for system oversight. This score is the average of the ratings for the underlying Policy Goals: Diversifying Pathways for Skills Acquisition (2.4); (ii) Ensuring Efficiency and Equity of Funding (2.4); and (iii) Assuring Relevant and Reliable Standards (3.4).

[18] See Annex 2 for the full results.

[19] See Figure 2 and footnote 3 for a description of the levels of development and conversion rules by which numerical scores are converted to categorical ratings.

Figure 12: Xinjiang Benchmarking Results, 2012



These findings reflect the fact that Xinjiang enforces strict accreditation and licensing requirements for public and private training institutions and rigorously implements skills testing and certification. Standards for accreditation are promulgated at the national level and updated periodically. Accreditation according to these standards is carried out by independent panels of experts. While Xinjiang has put in place procedures for certifying prior learning for adults, students pursuing initial education face a rigid system where rules for transferring programs and gaining admission to higher levels of education can create educational "dead-ends." There is increasing government funding for TVET, but businesses, a crucial source of monetary and in-kind contributions to the TVET system in some countries, are not partners in funding the system in Xinjiang. The availability of labor market and administrative data from providers, along with consultations with stakeholders, allows the government to align funding to strategic WfD priorities. However, reviews of the impact on efficiency of procedures for allocating funds are not undertaken on a regular basis.

SABER WfD Ratings on Service Delivery

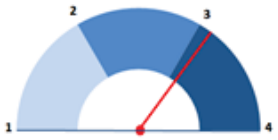
The Policy Goals for this Dimension in the SABER-WfD framework focus on the following three aspects of service delivery: (i) Enabling Diversity and Excellence in Training Provision (3.0); (ii) Fostering Relevance in Public Training Programs (2.2); and (iii) Enhancing Evidence-Based Accountability for Results (2.9).

The findings for service delivery indicate that the public training sector is subject to institutionalized reporting procedures for administrative and some outcome data. These results are used by the government to provide feedback to providers and, in combination with results from special surveys on skills demand and supply and other economic data, to make decisions about the overall supply of education and training. There are, however, concerns about the reliability of the data submitted by providers. Collaboration with industry is more common at the service delivery level. Many institutions have established formal relationships with employers in an effort to improve the quality and relevance of VET delivery. However, there is little diversity in the types of providers and pathways for skills acquisition, which constrains the system's ability to provide diverse, tailored, and high quality training services.

The results for each of the 27 policy actions that form the basis for the policy goal and dimension scores above are presented in the next section.

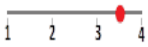
4. Detailed Results | Strategic Framework

Policy Goal 1 | Articulating a Strategic Direction for WfD



The results of the SABER-WfD benchmarking exercise indicate that for Policy Goal 1 Xinjiang's score is at the **Established** level. Detailed results for the three underlying Policy Actions are shown below and highlight the degree to which the country prioritizes WfD, whether its priorities are based on assessments of future economic prospects, and whether existing policies take such analyses into account.

▣ Advocate for WfD as a priority for economic development



This action is rated at the **Advanced** level. Xinjiang has set WfD as a priority for economic and social development through a series of strategy documents and plans issued by the government. The government evaluates and funds projects for WfD in light of these documents, though processes for evaluating project proposals and their implementation are *ad hoc*.

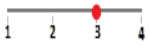
Government leaders attach great importance to WfD. The strategy of revitalizing Xinjiang through science, education and talent has been established since the 9th Five Year Plan for Xinjiang's Economic and Social Development and Outline of the 2010 Vision Objectives of the Xinjiang Uygur Autonomous Region (1996), which advocated educational development as a priority. The 12th Five Year Educational Development Plan of the Xinjiang Uygur Autonomous Region (2011) stresses the importance of vocational education and the necessity of TVET to improve social and economic development. A key goal of the Xinjiang Medium- to Long-term Education Development Outline is to improve the quality and attraction of TVET over the next 10 years. The Xinjiang Medium to Long-term Talent Development Outline identifies 12 priority projects. While these strategic documents have not included detailed implementation plans with clear budgets, projects that have been initiated with the goal of achieving the strategic objectives laid out in these documents are evaluated by the government, and provision for funding and evaluating such projects is set accordingly.

▣ Evaluate economic prospects and implications for skills

This action is scored at the **Established** level. The Xinjiang government has produced development plans for some sectors based on studies and assessments of skills needs. Such assessments have provided useful information on the design of skills training programs. Such work is not done for the entire economy but, instead, efforts are concentrated on key strategic economic sectors.

The government of Xinjiang has conducted official assessments of economic prospects for key industries. For example, it has carried out occasional formal evaluations of the skills supply and assessments of future skills needs for coal, coal power and coal chemicals, which are priority industries for future development. These studies were mainly carried out by the HR departments of relevant government agencies, public institutions, and large- and medium-sized enterprises. Following the policy, adopted in 2008, of promoting in-demand occupations and skills needed for key industries, the government has defined priority occupations and skills on an annual basis through enterprise surveys. The government has also made special appropriations to the education and training institutes responsible for training in urgently needed skills. Performance evaluations have been conducted as well.

▣ Develop policies to align skills demand and supply

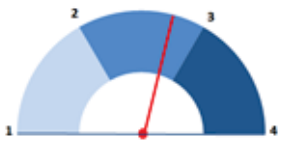


This action is scored at the **Established** level. Regular studies of the status of workforce skills supply and demand are conducted by Xinjiang's government, and some policy measures are determined based on the study results. However, the content and quality of such studies require improvement in order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

A system to monitor labor market demand and supply was established by Xinjiang's HRSS in 2002. Such information is disclosed publicly on a quarterly basis. Some universities, research institutions and think tanks have used this information to analyze human resource conditions in Xinjiang and prepare reports on the demand for training and on training quality. These studies have shown that TVET institutions struggle to attract the best students and deliver high quality education. Reasons for this include low salaries, a lack of student interest in vocational education, insufficient attention to training quality by vocational schools/colleges, and a lack of instructors with practical experience.

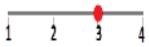
To solve these problems, the government has put more investment into infrastructure construction, opened up employment opportunities through public works projects, organized regular employment exchanges and recruitment fairs, and promulgated a series of policy documents on training subsidies, promoting access to training, and improving the environment for investment in TVET, among others. Meanwhile, a series of targeted training programs have been implemented, including re-employment training for redundant urban workers, employment readiness training for rural residents, employment training for rural migrants, on-the-job skills improvement training for enterprise employees, and entrepreneurship training. The Special Subsidy for Employment funding mechanism has also been established, which has subsidized employment intermediation, vocational training, social insurance, public welfare jobs and the development of occupational competencies. 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.

Policy Goal 2 | Prioritizing a Demand-led Approach



Policy Goal 2 examines the important role that users of skills play in influencing WfD outcomes. The Policy Actions under this Goal focus on the following: employers' engagement at the strategic level; government incentive programs for skills upgrading; and efforts to address future skills challenges. The overall score for this Policy Goal is at the **Established** level.

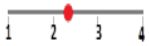
▣ Promote a demand-driven approach



This action is scored at the **Established** level. Input from enterprises and industries are sought when formulating relevant policies. Such exchanges are systematic.

While in the process of making decisions on major issues related to TVET, the Xinjiang government has sought inputs and comments from enterprises in the form of field studies and submission of special research by sector specialists. However, the role of enterprises in policy implementation needs to be increased.

▣ Strengthen firms' demand for skills to improve productivity



This action is rated 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 for some skills training programs. As a result, large numbers of enterprise employees have received vocational training. However, improvement is required with respect to policy monitoring and evaluation and the use of such evaluation in informing policy adjustment.

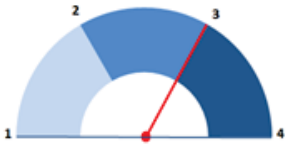
The Xinjiang Departments of Education and Finance have stipulated that the government (i) provide subsidies to encourage firms to offer training programs for newly recruited staff, and (ii) fully finance training for managerial staff and technicians in small- and medium-sized enterprises. Following the 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 assessments of the impact of these policies on enhancing workforce skills and the productivity of enterprises. The assessment results have contributed to the recommendations on skills and productivity improvement. For example, as a result of the assessments, requirements for improving practical operational capacity have been proposed. 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, offer incentives and provide more services to strengthen firms' demand for skills.

▣ Address critical challenges in the future supply of skills

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

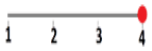
Aperiodic assessments of future skills demand are carried out by the government and stakeholders for key strategic industries such as coal mining, coal power and the coal chemical industry. However, no regular and system-wide evaluation system has emerged. Some of the recommendations of these assessments are planned to be phased in by the HRSS. In addition, a special fund for talent development at various levels has been established by the government. However, measures for administering this fund such as further assessments of skills demand, enumeration of the responsibilities of the implementing agencies, and a monitoring and evaluation system have yet to be determined.

Policy Goal 3 | Strengthening Critical Coordination



Policy Goal 3 examines the strength of critical coordination among key stakeholders to ensure effective WfD. The first Policy Action associated with this Goal is concerned with the quality of coordination mechanisms among WfD leaders; the second, with how formally roles and responsibilities are defined; and the third, with the existence and quality of regular interaction among stakeholders. Xinjiang's score for this Policy Goal is at the established level.

▣ Ensure coherence of key strategic WfD priorities



This action is rated at the **Advanced** level. WfD strategy is coordinated and formulated at the provincial level, and policies are formulated and implemented by relevant government agencies, following approval by the provincial management.

Xinjiang has established a special WfD agency: the TVET Leading Group. The focus of the WfD strategy has been determined and is now being implemented in accordance with the relevant provincial procedures and standards. The actions of the Departments of Finance, Education, and HRSS as well as the Development Reform Committee, are all coordinated by the Leading Group. A special working conference is called by the Leading Group every year. In addition, interim meetings are called as needed. The efforts of the Leading Group have given continuity and coherence to WfD strategy and budgeting; this greatly promotes the rational allocation and efficient use of TVET resources and ultimately improves coordination in TVET development in Xinjiang. One area where further improvement may be needed is coordination of efforts to assess and analyze future skills demand and supply.

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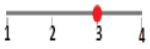
▣ Institutionalize the structure of WfD roles and responsibilities



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

Roles and responsibilities for majority stakeholders in the Xinjiang TVET system are clearly defined. 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 skills training to the workforce and providing the decision-making bodies with information on skills supply and demand. Currently, training institutions and employers have no right to vote on policy-making issues.

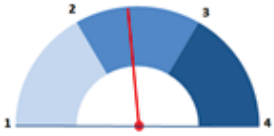
▣ Facilitate communication and interaction among all WfD stakeholders

This action is rated at the **Emerging** level. Although there is interaction among the WfD administrative agencies, the training institutes and the employers, no formal and effective mechanism for facilitating regular communication and interaction has been formed.

Although the WfD administrative agencies can coordinate well with the leadership of the TVET Leading Group, communication with other shareholders is limited. Similarly, the government tends to play a central role in facilitating interaction, with little interaction occurring between other stakeholders outside of government channels. Nonetheless, there have been some instances of productive cooperation between schools and enterprises, which have helped to raise the effectiveness of TVET delivery. Cooperation between vocational schools and research institutes has been rare. Instances of collaboration have been limited to a few schools and have focused only on a few specialties and programs

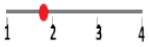
5. Detailed Results | System Oversight

Policy Goal 4 | Diversifying Pathways for Skills Acquisition



Policy Goal 4 examines the diversity of programs and ease of movement between them, whether the system facilitates skills upgrading by providing information on emerging trends and recognition of prior learning, and how well the system is able to adapt to changing skills demand. The score for this Policy Goal is at the **Emerging** level.

▣ Foster articulation across levels and programs



This action is scored at the low **Emerging** level. This shows that major efforts need to be made to promote articulation across levels and programs.

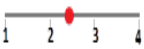
Xinjiang is working to increase both horizontal and vertical linkages within the TVET system to provide various and multiple TVET opportunities for the workforce. Currently it has achieved limited progress in establishing horizontal movement between general and vocational education tracks. Students at secondary vocational schools cannot transfer to general high schools and fewer than 10 percent of graduates of vocational colleges can continue to universities. But vertical movement has been improved between secondary vocational schools and tertiary vocational colleges. Graduates from secondary vocational schools with vocational certificates and intermediate computer certificates can be admitted by vocational colleges through a program that is currently in the pilot stage. However, training received in one school is not recognized by others, and movement between degree and non-degree programs has not been established.

▣ Promote life-long learning

This action is scored at the **Established** level. The government has adopted a series of policies on skills testing, accreditation, and training to encourage skills upgrading. However, there is no one-stop online resource or 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 skills 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 particular sections of the population and employment groups. This government training fund is allocated funds by the Departments of Education and HRSS through systematic annual budgets. Efficiency in skills training is assured by establishing standards for training institutes and monitoring training results.

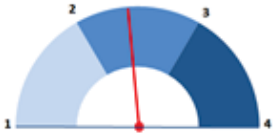
▣ Set policies and procedures to renew programs



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

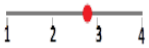
With regard to setting up new vocational training specialties and training programs, the Xinjiang Department of HRSS has set out the following regulations: schools should conduct surveys of sectors, employers and employment markets; analyze skills demand and supply; and submit feasibility study reports to the administrative agencies. The administrative agencies are required to respond within three months. Training institutions are entitled to decide for themselves whether to make adjustments or close training specialties. The relevant information is submitted to the responsible administrative agency only for the record. In a system with a limited number of training providers, this can result in uneven and suboptimal provision of training for certain occupations. 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



Policy Goal 5 focuses on the government's role in funding WfD, ensuring efficient and effective use of available funds, and in fostering partnerships that can multiply the resources available to encourage and support investment in WfD by individuals and employers. This Policy Goal scores at the **Emerging** level.

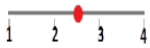
▣ Articulate the funding strategy



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

Funding sources for TVET come mainly from three sources: government budgets, donations and tuition fees. Government funds are appropriated and allocated through budgetary allocations, special funds, and grants. Special funds are allocated to vocational institutions in response to submission of requests, which are reviewed and approved by the Department of Education or Department of HRSS, depending on the requesting institution. Institutions in receipt of special funds are required to submit annual reports on fund utilization, and these are reviewed by expert committees. Grant funds are renewed based on assessment results. Special funds are directed preferentially towards institutions that serve vulnerable groups (such as rural and ethnic minority students), as well as to major industries and urgently needed specialties. The majority of revenue generated by training institutions is required to be submitted to the Ministry of Education through the provincial Department of Education, but providers are allowed to keep some revenues to use to support school development.

▣ Allocate funds to achieve efficient results



This action is scored at the high **Emerging** level. The government determines funding to programs when it sets the annual budget based on its study results and comments from various parties. However, there is a lack of clearly defined standards for budgeting, and for procedures for allocation and regular review.

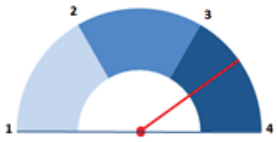
With regard to distributing public funds for training programs, the government starts to prepare the annual educational budget one year in advance, which is incorporated into the budget of the Department of Finance. Requests are submitted by the schools to the Departments of Education and HRSS for review and approval, with funds disbursed within one month after approval. However, the government has not yet set up a mechanism for regular review of the standards for making allocation decisions. Regular reviews are conducted only on fund utilization. The government adjusts priorities according to which funding is allocated based on workforce needs for economic development at the time of budgeting. The government maintains a directory of urgently needed occupations financed by budgetary outlays, as well as WfD projects that support special employment groups; this directory is updated and released annually.

▣ Foster partnerships

This action is rated at the **Emerging** level. Communication between government agencies and stakeholders is limited with respect to funding. Not all cooperating parties are entitled to receive public funds and few key stakeholders provide funding support to WfD.

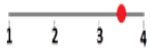
The departments collect data from sectors and enterprises, listen to their comments and release to the public, on a regular basis, the educational statistics and various consolidated data. But industry and other key stakeholders contribute only a small range of resources toward WfD, often in the form of in-kind services and personnel time. These connections are organized with the government serving as intermediary. Individual institutions are not empowered for form such partnerships independently.

Policy Goal 6 | Assuring Relevant and Reliable Standards



This Policy Goal examines how the system can assure the quality of both the services offered by training providers and of the skills acquired by individuals through reliable procedures for accreditation and skills certification. The score for this Policy Goal is at the **Advanced** level.

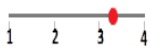
▣ Specify accreditation standards



This action is scored at the **Advanced** level. Accreditation standards are formulated at the national level with input from stakeholders. Accreditation is required of all schools.

Training schools attached to the Department of Education are reviewed and assessed in accordance with 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 three or four years. There is no independent accreditation agency. Instead, once the standards are promulgated, assessment of training schools is carried out 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 HRSS are formulated by experts in accordance with the relevant rules of the national and regional governments, and after seeking comments from vocational education institutes and relevant sector agencies. These standards are implemented after review and approval by the provincial government. In terms of the accreditation process, it is the same as that of the Department of Education.

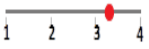
▣ Strengthen skills testing and certification



This action is scored at the **Advanced** level. Standards for skills testing and certificates are formulated and implemented by government agencies. They are completely independent from skills training. However, there is no integrated management system for skills testing, and testing is not conducted by an independent agency.

At present, the value that employers attach to skills testing varies considerably by occupation. For some (e.g., accountants, teachers, tour guides, and hotel clerks), employers prefer to recruit certified individuals. Standards for skills certification are defined at the national level, and the testing process is managed by the local government. Certificates are reviewed and issued at the national level. Local governments are entitled to formulate some standards for local testing and may issue local skills certificates. The cost of certification is reviewed and implemented by the government price agency. The certificate and training processes are completely independent of each other. Since 2003, vocational qualifications and dual certificate systems have been extensively adopted by all training institutes of various types in Xinjiang. Students at vocational training institutes are encouraged to participate proactively in skills identification and certificate testing during their training.

▣ Assure the credibility of accreditation and skills certification

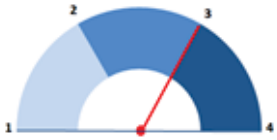


This action is scored at the **Advanced** level. Training institutes and skills testing must follow government regulations. There are also strict rules on accreditation and the skills testing process. However, there is a lack of accreditation and periodic audits for skills test centers.

Accreditation standards for training schools and institutes are promulgated by the Departments of Education and HRSS. Accreditation is required of all schools. Schools must also be licensed in order to operate. Licenses are issued only when applicants can demonstrate that they meet the requirements to open and operate a training institute. Once training institutes have been licensed, the government carries out regular or periodic assessments to ensure continued compliance. Should, after accreditation has been granted, schools or institutes fail an inspection, they are required to rectify any issues within a set period of time and may even face withdrawal of their license. Financial incentives are provided in order to encourage the training institutes to reach the accreditation standards. Awards are given to reward excellent performance at both the school and individual level. Furthermore, financial support, such as special funding for enhancing teachers' qualifications, is given to these high performing schools. In addition, the government is discussing preferential tax policies. In terms of establishing skills standards, the government will take into consideration the comments provided by employers, trade unions and training providers. The skills standards are promulgated either by the central or local government. Skills tests follow standardized testing protocols.

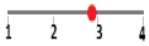
6. Detailed Results | Service Delivery

Policy Goal 7 | Fostering Relevance in Training Programs



Policy Goal 7 focuses on strengthening linkages with industry and research institutions, integrating industry inputs into the design of training programs, and enhancing the competence of administrators and instructors in training institutions. Xinjiang's score for this Policy Goal is at the **Established** level of development.

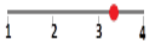
▣ Link training, industry, and research institutions



This action is scored at the **Established** level. At the post-secondary level there is widespread formal cooperation between training providers and industry for the purpose of enhancing training relevance and quality. Cooperation also exists among secondary-level TVET providers and industry and between post-secondary providers and research institutions, but these links are less common.

In Xinjiang, vocational schools have worked with industries in the following ways: businesses and industry have provided practical training bases for teacher training and for students to practice their skills, and donated facilities 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 the secondary vocational level between schools and research institutions, but at the post-secondary level, research institutes play an important role in teacher training for vocational colleges, and they provide recommendations on program design and curriculum development.

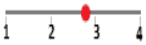
▣ Design training with industry inputs



This action is scored at the **Advanced** level. In the process of designing training projects, experts from enterprises and sectors have played an essential consulting and decision-making role.

In the process of setting up public training projects and defining priorities for development, the government seeks full information from the sectors and takes their comments into account. The government conducts annual studies of the enterprises requiring workers, and publishes the directory for urgently needed competencies in key sectors. This information is used as guidance for training. Comments of sector experts are sought in line with the national standards for designing curricula, determining training equipment needs, and setting materials and technical standards. However, enterprises mainly play a consulting role rather than a decision-making role; and not all institutes forge robust partnerships with related enterprises to secure input into their training programs.

▣ Improve the competence of administrators and instructors

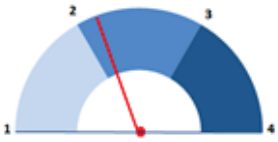


This action is scored at the **Established** level. Educational qualifications and skills are required for administrators and teachers of the training institutes. However, the mechanisms for in-service training, professional improvement and performance evaluation are not yet fully established. There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

Administrators of public training institutes must meet requirements pertaining to teaching experience, academic qualifications and industry experience in order to be hired. They are recruited by the human resource sector of their administering agency in accordance with the organizational procedures. The administering agency periodically arranges for administrators to participate in learning programs, academic workshops and study tours. 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, the assessment mechanism for the performance of administrators could be more robust. Evaluation is carried out annually by the administering agency in areas such as ethics, diligence, and skills. Administrators' terms are decided by the human resource sector and their salary is fixed in accordance with the salary matrix, thus removing important incentives for administrators to enhance their qualifications and managerial skills. Recruitment of teachers is open to the public, but only those with a teacher's qualification certificate and an appropriate academic and professional background are entitled to apply. The administering agency also provides teachers with various learning opportunities and funding support. Teachers are given fixed-term contracts, and their performance is evaluated to determine retention or dismissal from their posts. The salary matrix of the government agency is applied to teachers.

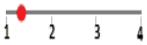
International best practices in this area include: recruitment of administrators and instructors through a competitive process based on both academic qualifications and industry experience; and performance-based salary and retention decisions based on routine evaluations. These best practices could be incorporated into Xinjiang's reform agenda.

Policy Goal 8 | Incentivizing Excellence in Training Provision



Policy Goal 8 examines the diversity in training provision and the incentives to both encourage private providers to meet WfD standards, and motivate public institutions to respond to the evolving demand for skills. Xinjiang's score for this Goal is at the **Emerging** level.

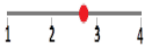
▣ Promote diversity in training provision



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. The 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.[20] Foreign educational agencies, other organizations or individuals are not entitled to set up independent training institutes, but they are permitted to provide training through joint programs. However, under this policy, only a very few non-government and non-public training institutes have been formed. 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 institutes.

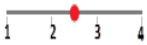
▣ Incentivize private providers to meet WfD standards



This action is rated at the **Established** level. The government policies apply to both public and private training institutes. But there is a 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 on a regular basis. Institutes that fail to meet the standards are closed. As the government conducts only periodic reviews of public institutes but makes annual reviews of private institutes, it could be said that stricter monitoring is applied to the private schools. However, the government has not set up an integrated management information system to facilitate timely monitoring of the performance of both public and private training providers. Such a move could foster compliance with the required standards and facilitate the imposition of penalties for non-compliance.

▣ Motivate public institutions to respond to the demand for skills

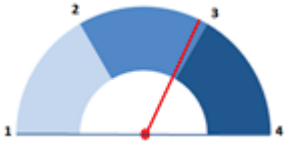


This action is scored at the **Emerging** level, but comes close to reaching Established. Assessment of training outcomes achieved by public training institutes is carried out to a certain extent by the administering agencies. However, there has been no evaluation of the impact of these assessments on motivating training institutes to be more responsive to the demand for skills.

Information on outcomes such as graduation rate, employment rate, employer satisfaction, student satisfaction, and satisfaction of society with graduates are defined as performance indicators against which colleges and universities under the Department of Education are to be evaluated. The graduation rate is a mandatory indicator, whereas employment rate and satisfaction of employers are regarded as soft indicators for the performance evaluation of schools attached to the Department of HRSS. High-performing training institutes are able to publicize their achievement and receive funding support. By contrast, those institutes and projects that fail to reach the training goals will receive reduced funding support from the government, or they may even be closed. Nevertheless, there is no evaluation of these incentive measures.

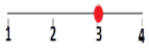
[20] Apart from domestic private and non-profit institutes, the government permits trainings provided by domestic profitable institutes in technical education.

Policy Goal 9 | Enhancing Accountability for Results



Policy Goal 9 is concerned with systemic monitoring and evaluation of the demand for skills; procedures for data collection and management; and attention to outcomes, efficiency and innovation in service delivery. This Goal scores at the **Established** level.

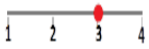
▣ Strengthen monitoring and evaluation



This action is scored at the **Established** level. The government carries out regular assessments of skills demand. However, WfD data are not available from a consolidated website.

Information on policies, plans, funding arrangements, the management of training institutes and teacher training can all obtained from the administering government agencies. Some statistics on the workforce can be acquired online, either from websites of the relevant agencies or from websites that compile WfD statistics. The Xinjiang government carries out investigations and assessments 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 occasional basis. Since 2002, the Department of HRSS has had a system in place for forecasting emerging skills gaps and another system for regular disclosure of the information. But all these WfD data are not available from a consolidated website.

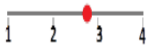
▣ Specify reporting requirements by training institutions



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

Both private and public institutions are required to submit administrative data as well as information on graduation, resettlement and employment rates. The names of institutes failing to submit reports are shared with competing institutions. Statistical data are collected and maintained by the administering government agencies. Some of the data are disclosed by the government; some are made available in response to an application by interested parties; and others are only for the purpose of government monitoring and acceptance, and so are not accessible to the public. However, some submitted data are not totally reliable, such as the rate of employment of the graduates. Little review is carried out in terms of data quality.

▣ Increase the focus on outcomes, efficiency and innovation



This action is scored at the **Established** level. The government routinely measures institutional performance and conducts special studies to assess important issues. The results of such analyses are used to provide feedback to training institutes and inform decisions about funding allocation. There is no institutionalized routine M&E of training services with feedback of results to institutions to assist them in prioritizing funding allocations and identifying good practices and options for system-level improvements. Online dissemination of the labor market outcomes of graduates is not managed systematically.

The administering agencies carry out routine assessment of the training institutes regarding training implementation. Some special programs, like the Demonstrative Secondary Vocational School Program, and issues, such as the use of special funds, receive special attention. The results of the assessment are used as an input for providing feedback, rewarding excellence and allocating money to special projects. Exemplary training institutes and schools are praised and receive bonuses. Their experiences are shared with other schools and training institutions. However, information on the employment rate of graduates is disclosed by only some schools. No unified, cross-ministry M&E system has yet been established by the administrative agencies.

7. Results Analysis and Policy Recommendations

Before discussing policy implications, a brief overview of the major factors influencing the results for each dimension is presented.

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 the enforcement of WfD priorities. This has resulted in the highest score of 4 being accorded to Ensuring Coherence of Key Strategic WfD Priorities, thereby placing the overall score for 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

- 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 Standards (Policy Goal 6).
- The lack of articulation agreements to facilitate student progression across levels and programs greatly holds back the scores. The paucity of resources provided by key non-government stakeholders and the lack of any review of the impact on efficiency of criteria for allocating funds also cause lower scores.

Service Delivery

- Collection and provision of basic data on service provision and the integration of industry inputs into the design of training programs are strengths, resulting in a rating of **Established**.
- Inadequately diverse pathways for skills acquisition lead to the lowest score among all policy actions; inadequate incentives to public and private providers to provide quality and relevant training programs also hold back scores.

Strength and Weakness of Xinjiang TVET System

The policy actions with the highest scores include the following: (i) ensure coherence of key strategic WfD priorities; (ii) specify accreditation standards for training providers; (iii) advocate for WfD as a priority for economic development; (iv) assure the credibility of accreditation and skills certification; and (v) strengthen skills testing and certification. The policy actions with the lowest 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 partnerships between WfD authorities and stakeholders; and (v) strengthen firms' demand for skills to improve productivity. These are all key areas for future improvement. Figure 13 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).

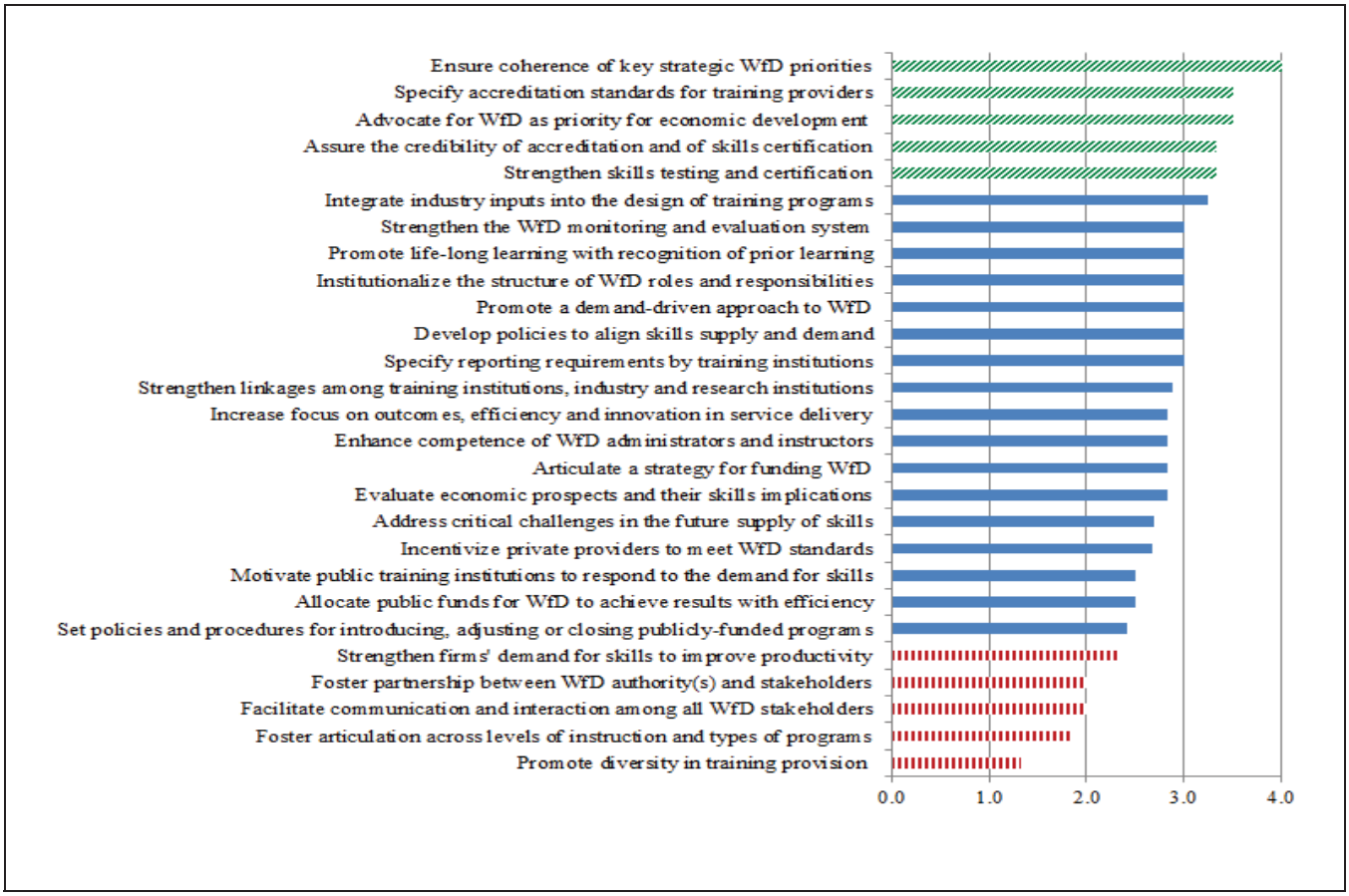
Policy Recommendations

Based on the above findings, we propose the following short-, medium- and long-term policy recommendations for improving the environment for WfD in Xinjiang. They have been formulated in the context of Xinjiang's development strategies. The short-term recommendations aim at overcoming the weaknesses of the Xinjiang TVET system by addressing the lowest scoring items. The proposed corrective interventions focus on expanding the 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 reform. The proposed reforms focus on substantially improving the quality of the Xinjiang TVET system while at the same time achieving the goals of the Xinjiang Medium- to Long-term Education and Talent Development Plans.

Short-term Policy Recommendations

In the short run, Xinjiang TVET provision needs to be expanded through (i) strengthened coordination and governance, (ii) improved and more efficient public school management, (iii) more engaged and closely supervised private institutes, and (iv) closer linkages with industry and research institutes to enhance the relevance of skills supply. The objective is to set up a WfD system that complements Xinjiang's development objectives and is sensitive to local characteristics in its provision of quality

Figure 13: 27 Policy Action Scores for Xinjiang TVET



vocational education and training to all. Detailed actions by dimension are proposed below:

Strategic Framework

Strengthen the roles of industries, and training and research institutions in policy making and implementation. This will involve institutionalizing further the roles and responsibilities of stakeholders through legislation; fostering better coordination among all related authorities (including the Department of Education, Department of HRSS, Department of Finance, Development and Reform Commission, Trade Union) at all levels through the provincial Leading Group; and promoting extensive interactions with all stakeholders by engaging them in policy making.

Build a comprehensive assessment of Xinjiang's economic prospects and future skills demand and supply. This will involve expanding the evaluation of skills demand to cover more sectors; improving the current research on skills supply and demand in order to have timely and holistic information; opening more channels for releasing research results; and requiring all training institutes to update and adjust their training programs in accordance with research findings and information.

System Oversight

Foster articulation of the TVET system. This will involve scaling up the pilot program that links secondary and tertiary vocational education; and promoting a credit system and articulation agreements for the transferability and acceptance of credits across levels and programs, along with setting up standards for assessing and certifying learning, and exploring articulation arrangements between degree and non-degree programs.

Formulate rigorous regulations and procedures for establishing, improving and shutting down training programs. This will involve updating and standardizing current regulations and procedures; and taking into account of the assessment results of skills supply and demand in the coming period as well as the assessment results of the training institutions' performance

Increase investment in TVET and improve the effectiveness of fund utilization. This will involve addressing the financial gap that has resulted from lower

investments in past years by investing more in TVET to upgrade school facilities and equipment; working out criteria and procedures for funding allocations so as to increase the equity and transparency of public finance; introducing results-based evaluations to raise efficiency, especially for earmarked programs and fiscal aid programs; and establishing a mechanism for periodic reviews of the criteria for allocating funds.

Improve the credibility of accreditation and skills certification. This will involve setting up an information management system for skills testing; and conducting accreditation and periodic audits for skills testing centers.

Service Delivery

Promote diversity in training provision. This will involve supporting private training institutions through new measures such as the government's transfer of responsibility for the management of some training programs to private training institutions.

Encourage more financial inputs from other stakeholders. This will involve providing incentives to garner more resources from key stakeholders, for example, donations from enterprises, both monetary and in-kind contributions, such as facilities and equipment for labs or workshops to improve conditions in schools, and bringing in qualified practitioners to the TVET teaching staff (either part-time, adjunct or through other arrangements) to promote the professional development of the TVET teaching staff and help in training instructors and students.

Strengthen monitoring and evaluation to improve outcomes and efficiency. This will involve establishing an integrated management information system that includes outcome indicators for the delivery of training services and to ensure the credibility of data; informing training institutions on evaluation results and using incentives for the delivery of high quality training programs and penalties for low performance programs; and involving an independent third party for monitoring and evaluation to ensure credibility.

Enhance the capacity of school administrators and instructors. This will involve setting up incentives and rewards such as performance-based salary and retention measures based on routine evaluations; providing appropriate training for administrators and instructors; and giving instructors industry experience.

Strengthen the school–industry linkage. This will entail improving training quality and relevance by involving industry and research institutions in the training process; and encouraging training institutions to adjust training programs according to the research results of skills demand.

It is suggested that all the above recommendations be implemented through international cooperative projects or domestic programs. Pilot projects could be conducted to try out some interventions such as the standardized credit system for courses and programs, transferring management of certain training services to private institutes, capacity building for administrators and instructors, monitoring and evaluation, and school–industry linkage. Other interventions, such as skills demand assessment through enterprise surveys, learning standards, fund allocation and management, methods of monitoring and evaluation, and procedures to renew programs, could be research topics.

Medium- to Long-term Policy Recommendations

In the medium- to long-term, the quality of Xinjiang's WfD system needs to be improved through enhanced governance, quality assurance, and monitoring and evaluation, and through improved connections with high quality basic education. The goal is to set up a flexible and diversified modern WfD system for a skilled workforce and to achieve the objectives of the Xinjiang Medium- and 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 proposed below:

Set up WfD shareholder partnerships and communication mechanisms. This will entail extending the partnerships from key agencies to all stakeholders, involving private institutions, enterprises and research institutions in policy making and implementation, and institutionalizing the partnership network; and formulating new policies to stimulate stakeholders to provide more resources and involving stakeholders in the training process.

Improve the quality assurance mechanism. This will involve upgrading management of IT-based skills testing; conducting accreditation and auditing for skills testing centers; establishing one-stop on-line resources and standardized arrangements to promote life-long learning and recognition of previous learning; and reaching all vulnerable groups covered by publicly funded training programs.

Set up a systematic and comprehensive monitoring and evaluation system. This will improve the assessment of future skills demand for all sectors; improve the evaluation of the quality of training programs from a focus on inputs to outcomes by introducing results and outcome indicators such as the employment rate of graduates, initial salary, and satisfaction of employers; and enable an impact evaluation to be conducted for the implementation of new policies to promote evidence-based policy making.

Build high quality pre-school and compulsory education. High quality TVET builds on high quality pre-school and compulsory education as these provide children with a good start and solid foundation for further training and life-long learning; it is therefore critical for Xinjiang to have good pre-school and compulsory education.

Based on the above analysis, pilot projects and research, some new regulations and legislation should be initiated to achieve quality assurance, monitoring and evaluation, and multilateral cooperation. Furthermore, it is necessary to strengthen life-long learning by ensuring that basic education is fully integrated into the system.

Annex 1 | Acronyms

DCI	Data Collection Instrument
HRSS	Human Resources and Social Security
M&E	Monitoring and evaluation
PI	Principal Investigator
SABER	Systems Approach for Better Education Results
SME	Small and medium scale enterprise
TVET	Technical and vocational education and training
WB	World Bank
WfD	Workforce Development

Annex 2 | The SABER-WfD Analytical Framework

Dimension 1: Strategic Framework
Aligning WfD to national 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 demand-driven approach
- Policy Action 5: Strengthen firms' demand for skills to improve productivity
- Policy Action 6: Address critical challenges in the future supply of skills

Policy Goal 3: Strengthen critical coordination
- 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
Governing the system to achieve desired goals

Policy Goal 4: Diversifying pathways for skills acquisition
- Policy Action 10: Foster articulation across levels and programs
- Policy Action 11: Promote life-long learning
- Policy Action 12: Set policies and procedures to renew programs

Policy Goal 5: Ensuring efficiency and equity in funding
- Policy Action 13: Articulate funding strategy
- Policy Action 14: Allocate funds to achieve efficient results
- Policy Action 15: Foster partnerships

Policy Goal 6: Assuring relevant and reliable standards
- Policy Action 16: Specify accreditation standards
- Policy Action 17: Strengthen skills testing and certification
- Policy Action 18: Assure credibility of accreditation and of skills certification

Dimension 3: Service Delivery
Ensuring tangible results on the ground

Policy Goal 7: Fostering relevance in training programs
- Policy Action 19: Link training, industry, and research institutions
- Policy Action 20: Design training with industry inputs
- Policy Action 21: Improve competence of 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 demand for skills

Policy Goal 9: Enhancing accountability for results
- Policy Action 25: Strengthen monitoring and evaluation
- Policy Action 26: Specify reporting requirements by training institution
- Policy Action 27: Increase focus on outcomes, efficiency and innovation

Annex 3 | Rubrics for Scoring the SABER-WfD Data

Functional Dimension 1: Strategic Framework					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
1. Articulating a Strategic Direction for Workforce Development	*Advocate for WfD as a priority for economic development*	▪ WfD is **not prioritized** in national economic development.	▪ Political and other leaders **recognize the importance** of WfD for economic development; economic development plans have identified a few WfD priorities.	▪ Political and other key leaders in industry provide **sustained support** for WfD; economic development plans assess and specify several WfD priorities that are being implemented.	▪ WfD is fully integrated into national policies and strategies, reflecting a holistic approach[21] to WfD; economic development plans formally assess and specify a wide range of WfD priorities that are supported by implementation plans and budgets, these are subject to **continuous evaluation and improvements**.
	Evaluate economic prospects and its implications for skills	▪ The concept of a demand-driven approach[22] to WfD has **yet to emerge**.	▪ A demand-driven WfD strategy is **beginning to take shape** but policy reforms are often impeded by various difficulties.	▪ A demand-driven WfD strategy **informed by appropriate analyses** is accompanied by some policy reforms that have been implemented.	▪ A well-informed demand-driven WfD strategy with **continuous evaluation and improvements** has been internalized as a standard practice.
	Develop polices to align skills demand and supply	▪ Policies are being developed but are **not based on formal analyses** of skills demand.	▪ A few policies have been developed on the basis of **occasional assessments** to address imbalances between skills demand and supply; these policies and interventions are subject **to in-house reviews**.	▪ A range of policies based on **occasional and routine assessments** by government and independent WfD stakeholders have been implemented to address skills imbalances; these are subject to **routine in-house reviews and independent external evaluations**.	▪ Policies are formulated on the basis of **well-informed analyses**, including assessments by independent organizations, and they are **routinely reviewed and updated** with inputs from relevant stakeholders to ensure program offerings fit the economic climate and demands for new skills.

[21] A holistic approach is one that addresses multiple dimensions of skills development, including: (a) aligning skills training to employers' needs and national goals for productivity, growth and poverty reduction; (b) governing the system to achieved the desired national goals, and (c) ensuring tangible results on the ground.

[22] In a demand-driven strategy, the demand for skills drives the supply of training services. Arrangements to achieve this relationship between skills supply and demand include: the involvement of employers in shaping training policies and provision, financing tied to employment outcomes, etc.

Functional Dimension 1: Strategic Framework					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
2.Prioritizing a Demand-led Approach	*Promote a demand-driven approach*	▪There is **limited or no attempt** to incorporate business and industry inputs in establishing and implementing WfD priorities.	▪Business and industry play an advisory role in establishing and implementing WfD priorities **based on occasional studies and assessments**.	▪A demand-driven approach to WfD is in place with business and industry providing inputs for setting WfD priorities **based on routine assessments** provided by government agencies, employers, trade associations and labor unions.	▪A demand-driven approach to WfD has been fully established with business and industry **playing both advisory and executive roles** supported by routine assessments from government agencies, other key WfD stakeholders and independent organizations.
	Strengthen firms' demand for skills to improve productivity	▪**Few incentives and services** exist to support skills development for technology upgrading by firms.	▪**Incentives and services** are in place to provide selective support for technology-related skills upgrading; incentive programs are **subject to occasional reviews** but often without adequate follow-up of recommendations.	▪Incentives and services enable firms to expand the skills sets of workers to facilitate technology adaptation and adoption for greater productivity; these measures are supported by **routine reviews** followed by implementation of some review recommendations.	▪Incentives and services enabling firms to address skills constraints impeding their ability to upgrade technologies and productivity are well established; these are routinely reviewed and adjusted for impact; **all key review recommendations are implemented**.
	Address critical challenges in the future supply of skills	▪There is **limited or no formal assessment** of the future supply of skills.	▪Future supply of skills is **assessed on an occasional basis**; recommendations from assessments are implemented with some delay, often without adequate funding and assignment of responsibility for implementation.	▪Assessments of future skills supply are **routinely conducted** for key sectors at the regional and national levels; recommendations are implemented with **little delay**; responsibilities for implementation of recommendations are made explicit but without explicit attention to monitorable goals.	▪Future skills supply is routinely assessed for multiple industries and sectors at the national and international levels; **recommendations are implemented promptly**; responsibilities for implementation are clearly spelled out and attention is given to the realization of monitorable goals.

Functional Dimension 1: Strategic Framework					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
3. Strengthening Critical Coordination	*Ensure coherence of key strategic WfD priorities*	▪There is **no mechanism** in place to ensure coherence of key strategic WfD priorities among WfD leaders.	▪Coherence of key strategic WfD priorities at the leadership level is achieved through **informal processes** that yield limited WfD outcomes.	▪Coherence of key strategic WfD priorities at the apex leadership level is achieved through **formal and informal mechanisms** that yield positive WfD outcomes.	▪Formal mechanisms overseeing coordination and implementation of WfD strategies are in place and they support strengthening structures of WfD policy development, budget allocations, and assessments of future skills demand and supply.
	Institutionalize the structure of WfD roles and responsibilities	▪Roles and responsibilities for WfD **are not formally defined**, leaving the WfD authority without a clear mandate.	▪Roles and responsibilities of WfD stakeholders are **poorly defined**, leaving the WfD authority with a limited mandate and limited resources to discharge its responsibilities effectively.	▪Roles and responsibilities are **well-defined** and supported by legislation and resources that enable the WfD authority and key stakeholders to discharge their respective functions effectively.	▪Clear WfD roles and responsibilities have been institutionalized through legislation and **the WfD authority has the mandate** to formulate and request resources that are needed for the relevant authorities to discharge their responsibilities in a transparent and effective manner.
	Facilitate communication and interaction among all WfD stakeholders	▪**No formal process** exists for engaging all stakeholders.	▪**Informal structures** exist that facilitate communication and interaction among key stakeholders.	▪**Formal structures** exist in key economic sectors that support extensive communication and interaction among the relevant stakeholders.	▪Formal structures fostering **extensive interactions** among WfD stakeholders that culminate in consensuses on WfD priorities and policies are in place in most sectors.

Functional Dimension 2: System Oversight					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
4. Diversifying Pathways for Skills Acquisition	*Foster articulation across levels and programs*	▪ **No functioning articulation arrangements**.	▪ *Ad hoc* articulation arrangements exist within secondary schools and post-secondary institutions; **only *ad hoc* incentives** are in place to foster articulation across levels of instruction.	▪ *Ad hoc* articulation arrangements exist across institutions at the secondary and post-secondary levels; a **program of incentives** is in place to foster articulation arrangements.	▪ **Standardized articulation arrangements** exist across secondary and post-secondary programs as well as between TVET and higher education; a system of incentives is in place to foster articulation across programs and levels of education and training.
	Promote life-long learning	▪ **No arrangements or public resources** are in place to support life-long learning, recognition of prior learning, and disadvantaged groups.	▪ ***Ad hoc* private resources and arrangements** support life-long learning and recognition of prior learning; publicly-funded training programs exist for disadvantaged groups subject to some restrictions.	▪ **School- and community-based resources and arrangements** support life-long learning and recognition of prior learning; publicly-funded training programs with minimal restrictions are available for most disadvantaged groups.	▪ **Integrated regional or national system with one-stop online resources and standardized arrangements** support life-long learning and recognition of prior learning; publicly-funded training programs provide open access to all disadvantaged groups.
	Set policies and procedures to renew programs	▪ There are **no set policies** to manage program offerings; training providers may introduce, adjust or close publicly-funded programs at will.	▪ Introduction, adjustment and closure of publicly-funded programs are made through ***ad hoc*, non-standardized processes**; applications for these changes must be done personally and are vetted by *ad hoc* committees.	▪ Introduction, adjustment and closure of publicly-funded programs are based on a **few explicit and standardized requirements**; applications can be made online and they are vetted by formal committees with some representation from other WfD stakeholders.	▪ Management of publicly-funded training programs are made on the basis of **comprehensive and explicit requirements** that include labor market analyses; applications can be made online and they are vetted by formal committees with representation from other WfD stakeholders and they operate with a commitment to act in a timely manner.

Functional Dimension 2: System Oversight					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
5. Ensuring Efficiency and Equity in Funding	*Articulate funding strategy*	▪ *Ad hoc* funding of WfD by multiple stakeholders; **no evaluation** of funding allocation and strategy.	▪ Systematic funding of WfD is determined by government agencies with annual budget appropriations and line-item allocations; **only occasional evaluations** of funding allocation and strategy.	▪ Systematic funding of WfD is determined by government agencies with advice from key stakeholders; annual budget appropriations are supported by detailed spending plans; there are **routine evaluations** of funding allocation and strategy.	▪ Systematic funding of WfD is determined through consensus building among government agencies and key stakeholders; annual budget appropriations are supported by detailed spending plans to foster improved performance; routine evaluations of funding allocation and strategy are **accompanied by appropriate reforms** as needed.
	Allocate funds to achieve efficient results	▪ **No formal process** for allocating public funds for WfD.	▪ **A formal process without explicit criteria** is in place; there are no reviews of allocation criteria.	▪ A formal process for allocating public funds based on **explicit criteria** exists; there are periodic reviews of the criteria but recommended changes face relatively long implemented lags.	▪ Allocation of WfD funds is based on explicit criteria aligned with WfD priorities, including efficiency in resource utilization; there are frequent reviews of the criteria and recommendations are **implemented in a timely manner**.
	Foster partnerships	▪ **Limited or no partnership** between WfD authority and stakeholders in business and industry; key stakeholders provide few, if any, resources toward meeting WfD priorities.	▪ **Limited partnership** with business and industry is in place; partners have access to some public resources; key stakeholders contribute a small range of resources toward WfD priorities.	▪ **Extensive partnership** between WfD authority and key stakeholders in business and industry; partners have access to some public resources; key stakeholders contribute a broad range of resources for WfD.	▪ An **institutionalized partnership network** with open membership for all WfD stakeholders is in place; partners have access to wide range of public resources; key stakeholders contribute an extensive range of resources to meet WfD priorities.

Functional Dimension 2: System Oversight					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
6. Assuring Relevant and Reliable Standards	*Specify accreditation standards*	▪ **No accreditation standards** have been established; training providers are free to offer any program.	▪ **Some accreditation standards** have been established; standards are infrequently reviewed; accreditation applies to public institutions only.	▪ An **accreditation agency has been established** with standards developed jointly with relevant stakeholders; standards are reviewed internally on a regular or as needed basis; accreditation applies to public institutions and non-state providers receiving public funding; **renewal applies to the latter only**.	▪ An accreditation agency with standards reflecting international best practices is in place; accreditation standards are reviewed frequently both internally and by independent parties; **accreditation and renewal of accreditation is compulsory for all** public institutions and non-state training providers, regardless of their sources of funding.
	Strengthen skills testing and certification	▪ Competency-based testing has **yet to be introduced; testing** is largely based on theoretical knowledge and administered by training providers themselves.	▪ Competency-based testing **applies to critical occupations in key sectors**; testing may focus on a mix of theory and practice and is administered and certified by independent third parties.	▪ A standardized competency-based testing system is in place and **applies to most occupations**; testing may focus on a mix of theory and practice and is administered and certified by independent third parties.	▪ A standardized competency-based testing system has been established for most occupations; **IT-based testing** focuses on theory and practice and is administered and certified by independent third parties.
	Assure credibility of accreditation and of skills certification	▪ There is **limited attention** to accreditation standards.	▪ Accreditation standards are established through *ad hoc* arrangements; some support is provided to encourage non-state providers to seek accreditation; credibility of skills testing is ensured through explicit **standardized testing protocols**.	▪ Accreditation standards established with inputs from WfD stakeholders apply to all institutions and providers receiving public funding; credibility of skills testing is ensured through explicit standardized testing protocols and **accreditation of testing centers**.	▪ A license to operate is issued only to institutions and providers meeting accreditation standards determined by key WfD stakeholders; credibility of skills testing is ensured through standardized testing protocols, accreditation of testing centers and **random audits**.

Functional Dimension 3: Service Delivery					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
7. Fostering Relevance in Training Programs	*Link training industry and research institutions*	▪ **Weak or no links** between training institutions and industry and research institutions.	▪ **Informal links** exist between some training institutions and industry and research institutions to improve training relevance and quality.	▪ **Formal links** exist between **some** training institutions and industry and research institutions, leading to significant collaboration in several activities.	▪ **Formal links** exist between **most** training institutions and industry and research institutions, leading to significant collaboration in a wide range of activities such as the provision of industry internships and training, and the introduction and redesign of training programs.
	Design training with industry inputs	▪ **Industry has limited or no role** in identifying, prioritizing and designing publicly-funded programs.	▪ **Industry has an advisory role** in identifying, prioritizing and designing publicly-funded programs in some training institutions, usually through informal contacts.	▪ **Industry has both an advisory and a decision-making role** in identifying, prioritizing and designing publicly-funded programs in some training institutions.	▪ **Industry has a widespread advisory and decision-making role** in identifying, prioritizing and designing publicly-funded programs in most training institutions.
	Improve competence of WfD administrators and instructors	▪ **Few or no measures** are in place to enhance the competence of WfD administrators and instructors.	▪ Recruitment of administrators and instructors is based on minimum academic qualification(s), with provisions for some in-service training and performance-based recruitment and retention measures based on **occasional evaluations**.	▪ Recruitment of administrators and instructors is based on minimum academic qualification(s), with provisions for in-service training and performance-based recruitment and retention measures that are based on **routine evaluations**.	▪ Recruitment of administrators and instructors occurs through a competitive process based on **both academic qualification(s) and industry experience**, with a wide range of in-service training programs and performance-based recruitment and retention measures based on routine evaluations.

Functional Dimension 3: Service Delivery					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
8. Incentivizing Excellence in Training Provision	*Promote diversity in training provision*	▪Training occurs through **state provision only**, with no incentives to promote non-state provision of training.	▪Training policies allow some private providers to operate; training is provided **mainly** by **non-profit providers** with few incentives in place to foster non-state provision of training.	▪Training policies facilitate participation of non-state training providers; training is offered **mainly by NGOs**, with a system of incentives that are evaluated routinely are in place to foster non-state provision.	▪A **highly-diverse mix of non-state training providers** offer training within a comprehensive system with a wide range of incentives is in place to foster non-state provision; incentives are subject to evaluations and the recommendations are implemented.
	Incentivize private providers to meet WfD standards	▪**No incentives** are in place to encourage non-state providers to meet WfD standards.	▪**At least one incentive** that is subject to occasional evaluation is in place to encourage non-state providers to meet WfD standards, but no review system exists to ensure continued adherence to WfD standards.	▪A **system of financial and non-financial incentives** that are subject to occasional and routine evaluations is in place to encourage non-state providers to meet WfD standards; periodic audits are conducted to ensure continued adherence to WfD standards.	▪A **comprehensive system of incentives** that are subject to both occasional and routine evaluations and adjustments is in place to encourage non-state providers to comply with WfD standards; periodic audits with penalties for noncompliance are conducted and enforced to ensure continued adherence to WfD standards.
	Motivate public training institutions to respond to demand for skills	▪**No mechanism or process** is in place to ensure training institutions are demand-driven.	▪Training institutions are expected to meet target repetition and graduation rates but **few incentives** are in place ensure they are demand-driven.	▪Training institutions are expected to meet a wider range of WfD outcomes; **some incentives and penalties** that are subject to both occasional and routine evaluations are in place to ensure these institutions respond to the demand for skills.	▪Training institutions are expected to meet a wide range of WfD outcomes; a **robust system of incentives and penalties** that is subject to both occasional and routine evaluations and adjustments is in place to ensure that the training institutions are driven by employers' demands for skills.

Functional Dimension 3: Service Delivery					
Policy Goal	**Policy Action**	**Level of Development**			
		Latent	**Emerging**	**Established**	**Advanced**
9. Enhancing Accountability for Results	*Strengthen WfD monitoring and evaluation*	▪ **Limited attention** is placed on the monitoring and evaluation of skills demand and supply; an overview of WfD data is available through informal channels only.	▪ **Occasional monitoring and evaluation** of skills demand and supply is in place; an overview of WfD data is available only in government agencies.	▪ **Routine monitoring and evaluation** of skills demand and supply is in place; an overview of WfD data is available in published reports and websites.	▪ Skills demand and supply are monitored and evaluated through routine surveys and specially commissioned studies; WfD data are available from a consolidated website.
	Specify reporting requirements by training institutions	▪ **No specific data collection and reporting** are required; training providers maintain their own data bases.	▪ Public institutions and non-state training providers are required to collect and maintain administrative and graduation statistics; **data reporting is voluntary** for non-state providers but they may be notified of non-compliance.	▪ Public institutions and non-state training providers are required to collect, maintain and submit a comprehensive list of data through an integrated management information system to the WfD authority; **timely submission is fostered through incentives for compliance** and penalties for non-compliance.	▪ Both public institutions and non-state training providers are required to collect, maintain and submit a comprehensive list of data, including client-feedback, to the WfD authority using an integrated management information system; **incentives, penalties and data quality audits are performed to ensure timely reporting of reliable data**.
	Increase focus on outcomes, efficiency and innovation	▪ **No system of evaluation and monitoring** is in place to ensure efficiency in delivery of training services.	▪ **Occasional evaluation and monitoring of limited aspects** of training services is in place with results used to provide feedback to the training institutions; information on labor market outcomes of graduates is publicly available for some institutions only.	▪ **Routine evaluation and monitoring of several key aspects of training services** is in place with results used to provide feedback to training institutions, to prioritize funding allocations, and identify good practices in service delivery; information on labor market outcomes of graduates is publicly available for all institutions.	▪ **Institutionalized routine evaluation and monitoring of all key aspects of the delivery of training services** with results used to provide feedback to institutions, to prioritize funding allocations, identify good practices and options for system-level improvements; online dissemination of labor market outcomes of graduates is available to all users.

Annex 4 | References and Informants

Legal documents:

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Informants

No	Name of informants	Affiliation	Position
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4	Xiang Hong	Training Division of XJ Economic &Information Commission	Director
5	Ma Xiaoyun	Human Resource Department of Unicom Corporate	Manager
6	Bang Hua	Human Resource Department of Tianshan Ltd.	Staff
7	Jia Yina	XJ Small & Medium Enterprises Service Center	Training Manager
8	You Wei	XJ Small & Medium Enterprises Bureau	Division Chief
9	Zhou Xuewei	XJ Vocational Education Leading Group	Division Chief
10	Wen Jiangfeng	XJ Vocational Education Leading Group	Staff
11	Wang Changming	Teaching Division of Urumqi Vocational University	Division Chief
12	Zhao Junhong	Student Affairs Division of Urumqi Vocational University	Chief staff
13	Li Jianrong	Higher Education Division of XJ Department of Education	Deputy Division Chief
14	Gao Xiaoping	Human Resource Building Division of XJ Department of Human Resources & Social Security	Division Chief

Annex 5 | SABER-WfD Scores

Dimension		Policy Goal		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

Annex 6 | List of Figures and Tables

Figures

Tables

Annex 7 | Authorship and Acknowledgments

This report is the product of staff at the World Bank comprising Liping Xiao and Jin Song (senior education specialist and labour economics consultant, respectively, East Asia and Pacific Region Human Development Sector Department), as well as Jee-Peng Tan and Ryan Flynn (leader and member, respectively, of the SABER-WfD team based in the Education Department of the Human Development Network). Liping Xiao led a research team under the China Programmatic AAA on Xinjiang TVET Study. The research team collected and analysed socio-economic and education data both at national and provincial levels and conducted field visits in Xinjiang to build partnership with local authorities and researchers. Zhihui Jin's team from the Government of Xinjiang's Education Department played the coordinating role with government departments, schools, research institutions and enterprises. Lei Shen from Urumqi Vocational University was responsible for data collection using the SABER-WfD instrument under guidance of and with personal involvement of the research team. Liping Xiao and Jin Song wrote the report. All the comments had been incorporated into the final report. The Bank SABER-WfD team scored the data, designed the template for the report and made substantive contributions to the final write up.

Broad consultations had been conducted with government officials, school teachers and administrators, and researchers in Xinjiang and Beijing. The research team acknowledges the support of all who have contributed to the report and its findings, including informants, participants at various consultation workshops. The team benefited from valuable discussion with Eduardo Velez Bustillo and Shuchao Ma. The team also benefited from comments from Xiaonan Cao, Rita Costa, and Nalin Jena. The team is grateful to Gaifen Qu from the Xinjiang Education Department for making arrangements for field visits and workshops. Kenneth H. Ashworth thoroughly reviewed and proofread the English version of the report. In preparing the report, the team was ably supported by Tao Su as well as members of the SABER-WfD team at the World Bank: Rita Costa, Viviana Gomez, Lorelei Lacdao, Joy Yoo-Jeung Nam, Brent Parton and Alexandria Valerio. The research team gratefully acknowledges the generous financial support of the Government of the United Kingdom through its Partnership for Education Development (PFED) with the World Bank, which makes it possible for HDNED's SABER-WfD team to provide technical support in the form of standardized tools for and guidance on data collection, analysis and reporting.

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The **Systems Approach for Better Education Results (SABER)** initiative produces comparative data and knowledge on education policies and institutions, with the aim of helping countries systematically strengthen their education systems. SABER evaluates the quality of education policies against evidence-based global standards, using new diagnostic tools and detailed policy data. The SABER country reports give all parties with a stake in educational results—from administrators, teachers, and parents to policymakers and business people—an accessible, objective snapshot showing how well the policies of their country's education system are oriented toward ensuring that all children and youth learn.

This report focuses specifically on policies in the area of Workforce Development.