

Analysis of Vocational Education and Training

Guatemala



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Guatemala

General

In the wake of thirty-six years of vicious civil war, Guatemala's damaged institutions still cannot cope with the needs of the most vulnerable. Non-governmental organizations have stepped in to help mend the social fabric, still tattered after nine years of peace. The government is grappling with the long-standing problems that led to the conflict: corruption, poverty and the social exclusion of indigenous Mayan populations (Unesco, 2005).

The 1996 signing of peace accords, which ended 36 years of civil war, removed a major obstacle to foreign investment, but widespread political violence and corruption scandals continue to dampen investor confidence. The distribution of income remains highly unequal, with perhaps 75% of the population below the poverty line. Other ongoing challenges include increasing government revenues, negotiating further assistance from international donors, upgrading both government and private financial operations, curtailing drug trafficking, and narrowing the trade deficit (CIA, 2006).

About 14.650.000 people live in the Republic of Guatemala. The workforce exists of 3.76 million people (2005 est.). 7,5 % of the work force people is unemployed. Most people are Roman Catholics, other religions are Protestant and indigenous Mayan beliefs. 60 % of the people speak Spanish and the remaining 40 % speaks Amerindian languages (23 officially recognized Amerindian languages) (CIA, 2006)

Table: Age structure

0 – 14 year	42,4 %
15 – 64 year	54,2 %
65 year and over	3,3 %

CIA, estimation 2005

Guatemala has a very young population with a growth rate which is one of the highest in the world.

Economy

Despite Guatemala's historically reasonable economic growth rates, current growth is neither sufficiently fast nor oriented towards the poor. Guatemala has historically enjoyed relative macroeconomic stability and reasonable growth (averaging 3.9% over the period from 1950-2000). Nonetheless, growth did not favour the poor because the economy did not generate enough low-skilled jobs. Agriculture, which employs the majority of the poor, experienced below-average growth rates over the past 20 years. In addition, other sectors did not grow fast enough to offer enough employment opportunities for the poor. Reflecting these trends, the estimated decline in poverty over the past decade has been slightly slower than what would have expected with neutral growth. Moreover, growth has fallen in recent years, and may have caused a slight increase in poverty (World Bank, 2005).

Guatemala's combination of poor human capital outcomes and lack of structural change in the economy and labour force highlight a pair of complementary – and critical – challenges facing the country with respect to increasing its economic productivity and growth in the coming years. On one hand, poor nutrition and low education levels for a large proportion of the Guatemalan workforce result in a largely low-skill workforce which represents an important constraint to productivity and an impediment to growth. On the other hand, lack of dynamism in the economy provides weak incentives for individuals and families to invest in human capital, as they see relatively little opportunities for economic mobility or increased incomes (World Bank, 2005).

Without concerted efforts on the part of the Government of Guatemala to increase the educational and nutritional status of all Guatemalans, the country may find itself with a persistently low-skill, low-productivity workforce, unprepared to take advantage of new economic opportunities that arise in the coming years (e.g., from the Central America Free Trade Agreement, CAFTA, among other things). At the same time, in the absence of large scale, strategic changes in economic policies, Guatemala is unlikely to be able to utilize effectively any improvements in the population’s human capital that it does make (World Bank, 2005).

Continuing concentration of workers in agriculture and the informal sector suggests that Guatemala is yet to have undergone a complete structural transformation in its economy –or a transformation in the economy’s demand for skilled labour. Agriculture as a proportion of GDP declined slightly during the period, from 25.9 to 22.3 percent of value-added. This decline in agricultural output as a share of GDP was accompanied by an increase in the share of services in the economy, from 54.3 to 58.4 percent. The share of industrial output in the economy essentially stagnated however, hovering at around 20 percent of GDP throughout the period. Manufacturing’s share of the economy actually declined over the period – from 15.1 to 12.9 percent of GDP (World Bank, 2005). Guatemala has a GDP per capita of 1940 USD (2002 est, EIU)

Men in lower-skilled occupations receive more than women while there is more wage equality among higher skilled jobs. Discrimination in labour markets is often reflected both in hiring practices but also in the earnings differentials between different groups such as men and women. In Guatemala, wages for men are up to 50% higher than for women in jobs like manufacturing and commerce. This wage differential is smaller and even negligible in the public sector or white-collar occupations, where typically the educational attainments are higher. Yet, as the analysis shows below, wage differentials cannot be fully explained by educational attainments alone, implying that there is a high degree of discrimination (World Bank, 2003).

	% of labour force	% of GDP
Agriculture	50 %	22,8 %
Industry	15 %	19,1 %
Trade and service	35 %	58,1 %

Source: CIA, 1998 and 2005

Most important agricultural products are: sugarcane, corn, bananas, coffee, beans, cardamom; cattle, sheep, pigs and chickens. Most important industrial products are: sugar, textiles and clothing, furniture, chemicals, petroleum, metals and rubber. Tourism is a major subject in the trades and services sector.

Table 15: Distribution of Workers by Sector, by Gender and Poverty Group
(in %, for employed population > 15)

	Extreme Poor			All Poor			Non-poor			All			Number (in 000's)
	M	F	All	M	F	All	M	F	All	M	F	All	
Agriculture	83	41	71	68	27	55	25	6	17	47	15	36	1,452
Mining	0.2	1	0.3	0.2	0.1	0.2	1	0	1	1	0.1	0.3	14
Manufacturing	3	26	9	6	25	12	16	17	16	11	20	14	577
Basic services ^a	0.3	0	0.2	0.2	0	0.2	1	0.3	1	1	0.2	0.4	15
Construction	4	0	3	8	0.2	6	10	0.4	6	9	0.3	6	237
Commerce	5	17	8	8	29	15	20	41	29	14	36	22	895
Transport	2	2	2	3	2	3	6	1	4	4	2	3	134
Financial services	0.3	2	1	1	2	1	5	5	5	3	3	3	122
Community services ^b	2	12	5	6	16	9	17	29	22	11	24	16	637
All	100	100	100	100	100	100	100	100	100	100	100	100	4,082
Total # employed (in 000's)	340	132	472	1,359	605	1,964	1,267	850	2,117	2,627	1,455	4,082	

^a Basic services such as electricity, water, sanitation, garbage collection etc.

^b Public and community services such as public administration, defense, sports associations, NGOs, domestic services.

Percentages may not add up to 100 due to rounding.

Source: World Bank calculations using ENCOVI 2000, Instituto Nacional de Estadística - Guatemala.

The relative scarcity of labour may be a binding constraint for productivity gains, as demand for skilled labour seems to be higher than in neighbouring countries. A typical firm in the manufacturing industries in Guatemala would employ more qualified professionals at all levels. In particular, 1.74 percent of the workforce presented a post graduate degree, as compared to the Central-American average of 1 percent (which includes Guatemala, Nicaragua and Honduras). Also, Guatemalan firms seem to find it more difficult to obtain skilled technicians or production workers than comparable firms would find – on average – in Central America. A typical Guatemalan firm would take twice as many days than a typical Central American firm to fill a vacancy for production workers and one and one-third as many days to fill a vacancy for technicians. Data seem to indicate that the scarcity of skilled labour is more severe in terms of individuals with basic qualifications (as required by production workers) than specific expertise (as required by technicians). In other words, this may be highlighting that the inelasticity of labour supply in the short-run is higher in the “production worker” segment (World Bank, 2005).

Table 18: Informal Employment (Probit Estimates)^a

	Male ^b	Female ^b
Individual characteristics		
Educational level completed:		
Primary	0.005	-0.146**
Secondary	-0.113***	-0.399***
Higher	-0.151**	-0.612***
Vocational/other	0.090	-0.068
Job training (yes=1)	-0.237***	-0.261***
Experience (years)	0.017***	0.004
Experience squared	-0.002***	-0.0001
Age categories: ^c		
Between 18-25	-0.030	-0.129
Between 25-60	-0.022	-0.059
Over 60	-0.062	0.200**
Language ability: ^d		
Monolingual indigenous	0.097*	0.011
Bilingual	0.118***	-0.088
Indigenous (yes=1)	0.026	0.048
Head of the household (yes=1)	-0.023	-0.235
Household characteristics		
Number of household members:		
Ages 0-6	-0.002	0.045*
Ages 7-14	-0.012*	-0.040**
Ages 15-60	-0.030***	-0.017*
Ages over 60	-0.030*	-0.005***
Total household consumption (Quetzales)	-3.97e-06**	2.65e-06
Geographic characteristics		
Rural	0.085***	0.082
Region		
Norte	-0.033	0.166**
Nororient	0.032	0.180**
Surorient	0.046	0.210**
Central	-0.003	0.098**
Suroccidente	0.040	0.114***
Noroccidente	0.176***	0.233***
Petén	0.163***	0.230***
Selectivity	0.368***	-0.453*
Sample Size	8892	4757
Fit (adjusted % of correct predictions)	0.24	0.22

^a Dependent variable: Employment sector (Yes=Informal, No=Formal). See Box 2 for definitions.

^b Marginal effects are reported.

^c The omitted variable for education is no education, for the age categories are those between 15-19, for language ability is monolingual Spanish, and for geographic are is urban.

Significant levels: * = 90%, ** = 95%, *** = 99%

Education

70.6% of the total population is literate. 78 % of the males, and 63,3 % of the females (CIA, 2003) Female illiteracy is particularly high especially among indigenous women (62%). Progress in teaching women to read and write lags about 20 years behind male literacy. Illiteracy is higher among the poor (46%) than the non-poor (17%) and in rural areas (42%) (World Bank, 2003).

Guatemala has the second-lowest education level in the hemisphere. Children in rural areas seldom have an opportunity to further their education beyond elementary school. This area has the highest illiteracy rate in Guatemala (Food for the hungry, 2006).

The Ministry of Education recognizes six formal education levels and corresponding target ages:

- Early childhood education (from birth to the age of 6)
- Pre-Primary (for ages 5 and 6)
- Primary (for ages 7 to 12)
- Secondary (for ages 13 to 20)
- University.

(Anderson, 2001)

The education system in Guatemala has two subsystems, the formal and non-formal education subsystems. The formal education subsystem includes pre-primary, primary, adult primary, basic secondary, diversified secondary, and university education. The non-formal

subsystem includes initial education, accelerated pre-primary (CENACEP), extra-mural, and literacy training. Non-formal education is directed to the population that has been unable to enter the formal education system, or has abandoned it without completing one level, principally primary education. It includes initial education programs, accelerated pre-primary, extra-mural, and literacy training that are implemented by a combination of governmental and nongovernmental actors. It is carried out through intra-mural or distance modalities. Some programs are carried out by government institutions other than the Ministry of Education (Ministries of Health, Agriculture and Defense, and the National Literacy Council, CONALFA) (Vakis, 2003). A variety of skills- and job-related training courses are also available for those in the job market, through firms, private sector training institutes, NGOs and through public sector training institutes, such as INTECAP, Guatemala's Technical Institute for Training and Productivity (World bank, 2005).

Pre-primary and initial education are not required in Guatemala, though a number of programs have developed over the past decade to expand their coverage. Over three quarters of preprimary students attend public schools (World Bank, 2003).

Primary education is compulsory for 7-12 year olds, although many do not enroll and there is a high percentage of over-age students in the primary system. 88% of all primary students attend public schools, with 79% provided by MINEDUC and 9% under the PRONADE program (World Bank, 2003).

Secondary education is split into two cycles: basic secondary and diversified secondary.

Basic secondary provides three years of education (grades 7-9) to those who have completed the sixth grade of primary school. It is expected to provide the academic and technical skills necessary to join the labour force to those who do not further pursue their studies.

Diversified secondary provides between 2-4 years (normally, grades 10-12) of schooling for those who have completed grade 9 of basic secondary and consists of four learning tracks: general education, teacher education, commercial education, and technical education. Only 40% of all secondary students are enrolled in public schools, with the private sector playing a more major role in provision at this level. Public sector schools include Ministry Schools (30% of total secondary enrolment) and Cooperative Schools (10% of total secondary enrolment), which operate primarily in urban areas and involve a tri-partite financing arrangement between MINEDUC, municipal authorities, and legally organized parents' associations (World Bank, 2003).

Guatemala has some of the lowest indicators in these areas among the Latin American countries. While progress has been made recently, the net enrolment rates in primary education are below 90 percent, and in basic secondary school below 30 percent. Completion rates are extremely low, less than 40 percent in primary school, and repetition rates are high. The average years of schooling is the lowest in Central America at 3.5 years. The quality of education is rather low according to standardized tests and the level of inequality in access to education is extremely skewed (less than 10 percent of the lowest quintile completes primary school). The conditions are even more worrisome with respect to levels of malnutrition, where the country's indicators are among the worst in Latin America, a factor that significantly reduces the ability to learn and develop as a productive individual (World Bank, 2005).

University education is provided by one public sector university, San Carlos (USAC) and nine private sector universities. Just under 40% of all university students are enrolled at the USAC (World Bank, 2003).

In Guatemala there are roughly 108 Science and Technology institutions, but their capacity to engage in output-oriented research and partnerships with private enterprises varies significantly. Among the 108, there are nine universities (San Carlos de Guatemala, Valle de Guatemala, Francisco Marroquin, Mariano Galvez, Rafael Landivar, Rural de Guatemala, del Istmo, Panamericana and Mesoamericana) but four of them have shown a particular interest in the area of technology and innovation (World Bank, 2005)

Most requested degrees are Business Administration, Law, Medicine, Engineering.

Number of specialisations

	Bachelors degree	Masters degree
Humanities	20	9
Engineer	14	12
Economics	11	13
Chemistry and pharmaceutical	7	2
Communication	6	-
Medicine	5	27
Architecture	5	4
Agronomy	5	4
History	4	5
Veterinary	2	1
Theology	2	-
Social work	1	-
Orthodontology	1	2
Mathematics	1	-
Law	1	6

Source: Guatemalan Education Ministry

The education system in Guatemala has shown marked improvements since 1996, but a lot still remains to be done. The system as a whole suffers from low coverage, inequities, low internal efficiency and low quality. Access to initial, pre-school, secondary and tertiary levels is very limited for rural area children and young adults. There is less female enrolment throughout the country, at all levels. Within this group, indigenous females, are at a greater disadvantage. Female students who attend primary school have lower achievement than their male counterparts, and indigenous children who attend primary school have lower achievement than non-indigenous children do. High repetition rates, and late enrolment in primary school lead to a high percentage of over-age students whose achievement is lower compared to their younger counterparts. Finally, the Guatemalan education system has inadequate financing, compared to countries in the region, and to Latin America as a whole, and costly inefficiencies, particularly in the first grade of education (Vakis, 2003).

The education system desperately needs repair. "School in Guatemala is thirty or forty years behind," recently lamented Education Minister Maria del Carmen Acena. "The secondary level has not had any reform for twenty-two years, and 20 per cent of teachers were hired because they had friends in power." (Unesco, 2005).

The qualification of the Guatemalan labour force is still low, compared to neighbouring countries and countries outside the region with similar development levels. In 2002 the illiteracy rate reached 30% of the population over the age of 15 in Guatemala, compared to 10.5% on average in Latin America (Table 4.3). In 2000, the average number of years of formal schooling completed in Guatemala was 3.5 per capita, the lowest average among Central American countries, below countries with much lower per capita income (such as Nicaragua and Honduras) and almost half that of a comparable east-Asian country (Thailand). Performance in terms of secondary and tertiary education is also below all comparable countries. The supply of skilled labour is a necessary condition for better technological performance either because skilled labour is a complement to more efficient technology or because innovation depends on the supply of tertiary qualification. In this

sense, the availability of skilled labour may be an important obstacle to productivity gains through better technological performance (World Bank, 2005).

Table 4.3: Indicators of Labor Force Qualification

	Illiteracy Rate (% of the pop over 15 years old)	Years of schooling	Fraction of the adult population			
			No school	Some Primary	Some Secondary	Some Tertiary
Costa Rica	4.2	6.0	10.4	56.0	15.7	17.8
El Salvador	20.3	5.2	27.9	48.8	13.4	9.8
Guatemala	30.1	3.5	39.5	42.1	13.4	5.0
Honduras	23.8	4.8	16.6	58.9	18.8	5.7
Nicaragua	32.9	4.6	28.9	43.1	19.8	8.3
Panama	7.7	8.6	9.1	36.2	35.8	18.8
LAC-Average	10.5	n.a	n.a	n.a	n.a	n.a
Thailand	4.2	6.8	12.6	61.5	15.1	10.9

Source: Barro and Lee (2002) and WDI (illiteracy rates). Data refers to 2000, except for illiteracy rate (2002). Barro, R. and Lee, J. (2002), Education attainment in the adult population, available at www1.worldbank.org/education/edstats.

(World Bank, 2005)

Technical and Vocational Education and Training

How is VET defined? Formal, informal and non formal? Does it include training on the job? Which ones have priority in governmental practices and policy? How successful are they?	“ a comprehensive term referring to those aspects of educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic and social life. It applies to all forms of technical and vocational education provided in educational institutions or through cooperative programs organized jointly by educational institutions at one hand, and industrial, agricultural, commercial and any other undertaking related to the world of work, on the other.”
% children in general education, regional differences	
% Youngsters in vocational education and training, regional differences	There is a growing number of workers who study trades in the evening or weekends (AMG, 2006)
Share of flow from regular education to vocational education and training	Most schools AMG knows do not keep accurate records of their students after they leave though they state that the ones they hear from tend to do well. Very few go on to VET. There actually is very limited skilled labour in Guatemala (AMG, 2006).
Gender ratio in VET on national level, regional differences	The focus often is on the females- especially as many NGO's have a greater focus on the woman and the exploitation of women. Though it seems these NGO's are not so active in vocational training they do set the direction for a lot of the training(maybe because they tend to be involved in getting equipment etc) (AMG, 2006)
Which institutions pay attention to VET? (private actors (local NGOs, Churches, private institutions), commercial	In addition to INTECAP, there are another 150 centers offering vocational and technical programs. Some of these are: the Guatemalan Management

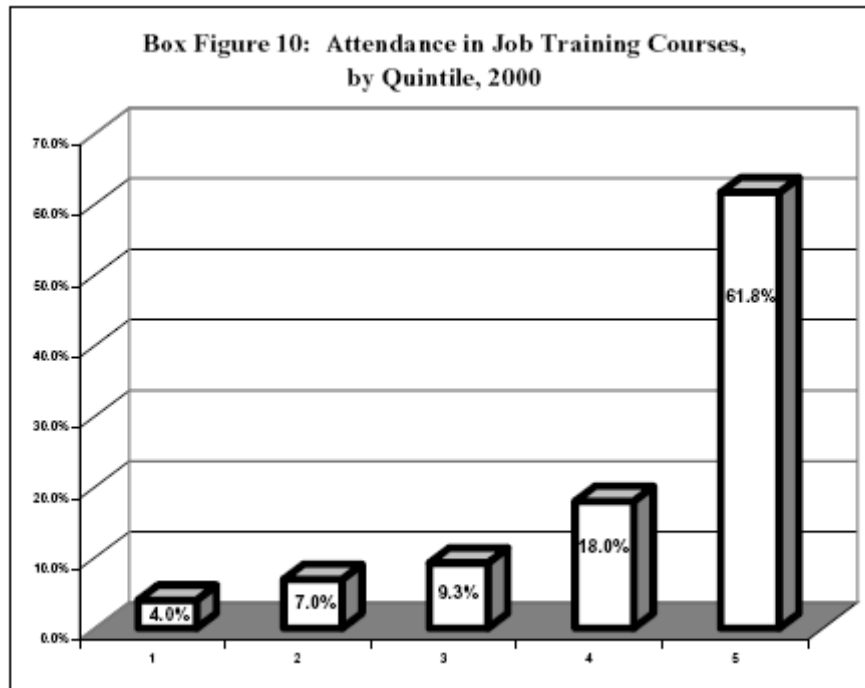
(organised by trade and industry companies) and public actors)	Association, Chamber of Commerce, Chamber of Industry, Small and Medium Business Association, Tayasal, Kinal Technical School, Zunil School of Hotelery, along with other institutes run by religious orders and NGOs dedicated to preparing men and women in a wide range of careers.
In which regions are they active, share urban / rural?	In the central region most people were educated (104,745 personen), in the Peten region the least persons were trained (3,267 personen). Over two-thirds of job training takes place in urban areas. In the rural areas it is very difficult to find qualified teachers for the skills one wants to teach. Even in Guatemala city a teacher can make much more having his own shop than as a teacher.

Beyond general education, a number of Guatemalans participate in skills or job-related training to build their human capital. Skills training is offered through a number of different sources, including on-the-job, through private training firms, NGOs, and through a variety of government training institutions, including INTECAP (Guatemala's Technical Institute for Training and Productivity). The vast majority of skills training is undertaken on the job or within private sector training institutes. As in the case of general education, the opportunity to benefit from skills training goes largely to the non-poor in Guatemalan society (Box 2.1). However, it is important to ensure that those who want to improve their human capital through skills training have access to good quality institutions and that funds administered by INTECAP be administered in an efficient manner that ensure their full benefit and proper aligning with the skills needs of employers.

Box 2.1: On-the-Job and Skills Training Programs in Guatemala

According to the 2000 ENCOVI data, nearly 9 percent of economically active individuals over the age of 12 had received job training in the previous 12 months. Several things stand out with respect to on-the-job and skills training programs in Guatemala.

- Over two-thirds of job training takes place in urban areas.
- About 47 percent of all trainings is done by firms or private sector training institutes. This compares with roughly 26 percent that is provided by the public sector (including by INTECAP, Guatemala's Technical Institute for Training and Productivity), 8 percent by NGOs and 18 percent by "other" training providers.
- Survey respondents report taking a wide variety of types of job or skills trainings. The largest single category of courses reported in 2000 focused on computers and informatics (9.2%), followed by human relations (5.7%), and sales (4.1%).
- As with other types of education, participation in job training is very much skewed towards the nonpoor. About 62 percent of all those who reported receiving training in the ENCOVI survey came from the wealthiest quintile, whereas 4 percent came from the poorest quintile (Box Figure 10).



Source: CIEN, using the ENCOVI 2000 survey data.

(World Bank, 2005)

<http://www.intecap.org.gt/publicaciones/> In Spanish, possible useful documents.

El INTECAP como institución líder en la formación profesional de los trabajadores y del recurso humano por incorporarse al mundo laboural, diseña y desarrolla acciones de capacitación que son de impacto y fomentan la productividad, para una contribución significativa al desarrollo del país.

La Guía de Servicios presenta la oferta formativa del INTECAP que es la capacitación ofrecida anualmente en respuesta al mercado laboural, para cuya operación cuenta con la capacidad instalada (recurso humano, instalaciones, maquinaria, equipo y materiales didácticos). Esta capacitación puede darse en cualquiera de sus Centros de Capacitación o como un evento móvil en las empresas, organizaciones o comunidades.

Para participar en la capacitación incluida en la Oferta Formativa, por favor dirigirse al Centro de Capacitación más cercano a su localidad. En el caso de requerir un evento móvil, dirigirse al Departamento de Servicios Directos al Cliente de la región respectiva.

Adicionalmente a los eventos mostrados en la presente Guía de Servicios, el INTECAP imparte capacitación puntual a solicitud específica de las empresas u organizaciones, para lo cual se diseña o adaptan programas y/o materiales didácticos. Esta capacitación se imparte con recurso humano especializado, según sea el área de interés, utilizando las instalaciones, maquinaria y equipo del INTECAP o proporcionados por la contraparte. Además, su desarrollo en cuanto a duración, contenido, fechas y horario, es en común acuerdo con el interesado.

Para solicitar este tipo de capacitación, puede contactar al Departamento de Servicios Directos al Cliente de su región.

Con las actividades de capacitación atiende a los trabajadores y las personas por incorporarse al trabajo, ya sea como trabajadores operativos, supervisores o directores. Está basada en principios y métodos didácticos y educativos modernos. Actualmente ofrece 7 diversos tipos de capacitación:

Formación Integral de Jóvenes, (FIJO)

Es una capacitación de duración variable entre uno y dos años; tiempo en el cual los

participantes se forman como trabajadores operativos en ocupaciones calificadas. Para participar en estos programas se requiere estar comprendido entre los 14 y 18 años.

Formación de Jóvenes y Adultos, (FORJA)

Es la formación inicial a nivel operativo y medio, destinada a adultos y a jóvenes mayores de 18 años, tiene una duración variable, desarrolla competencias en una o varias funciones laborales específicas.

Carrera Técnica, (CT)

Son eventos de formación inicial a nivel medio, de larga duración, que facilitan el desempeño en puestos de supervisión o de mandos medios.

Carrera Técnica Corta, (CTC)

Denominadas también CTC, son eventos de formación complementaria, destinadas para jóvenes y adultos; son de duración media.

Actualización y Complementación Técnica Administrativa, (ACTA)

También identificada como ACTA; son eventos que tienen como objetivo reducir las brechas originadas por el avance de la tecnología y del desarrollo de los procesos.

Diplomados

Son eventos de capacitación a nivel ejecutivo, tanto en aspectos técnicos como de gestión organizacional.

Seminarios

Son eventos a nivel medio y ejecutivo enfocados a necesidades específicas de transferencia tecnológica y de técnicas administrativas.

(<http://www.intecap.org.gt/servicios.php>)

INTECAP recognises three types of competencies:

Basic competencies: those required for a person to perform in any productive activity, such as reading, the ability to interpret texts, apply numerical systems, express themselves and knowing how to listen. Such skills are acquired gradually along life and in formal education.

Generic competencies: knowledge and abilities associated with the development of various occupational areas and branches of productive activity, i.e. they are the competencies defining a concrete profile for the different activities of the world of labour (economic sectors and branches), for example, analysing and evaluating information, working in teams, contributing to the safety and hygiene of the work place, planning activities, etc. These competencies may be self taught, acquired through educational and training programmes or on the job.

Specific competencies: skills associated with technical knowledge and abilities, required for the performance of a productive function. They are usually conveyed in specific language and refer to the use of certain tools and instruments, like, for example: welding with oxy-acetylene equipment, preparing the mill for hot rolling, or evaluating a candidate's performance. They may be acquired through a training process, on the job, or through self instruction.

Since 1998, INTECAP has been adapting the model for evaluation, certification and training of occupational competencies to its institutional structure and activities on the basis of technical standards to enhance the quality of human resources for productive functions and meet the training needs of the country's productive sector.

The so-called NORTE model consists of five components:

1. Standardisation
2. Vocational training design
3. Evaluation
4. Development of training events
5. Evaluation

The fact that firms are already investing in job training for their employees and that nearly half of all training is being provided by the private sector suggests that job training in Guatemala is largely a private good, where those investing see private returns to their investments, whether as firms or individuals. While Guatemala's strategy in this area should be private sector led, there may be a role for the public sector in facilitating training or providing financial incentives to firms to train employees (or prospective employees) (World Bank, 2005).

The majority of INTECAP's training services are free of charge while the institution has exclusive access to public funds for training. Firms consider the availability of services in Guatemala to be comparable to the regional averages and only slightly lower than expected given the country's level of development. However, free access may reduce the incentives for participants to try to get the full benefits of the training. INTECAP operations are paid by a payroll training levy of 1 percent on all enterprises with more than five employees (raising about Q10 million per month). This monopoly control over the levy fund gives INTECAP a major advantage over other training institutions, resulting in no significant entry of private providers into the training market. Liberalizing the labour training market in Guatemala is clearly still pending (World Bank, 2005).

A survey done with 30 companies in Cubulco don't have a very positive image as they feel the students have no practice so they must teach them again. In the city and larger centers there are several schools that are well known and companies are looking for their graduates. The government does not seem to focus on this level of education, though it encourages others and does not put unnecessary obstacles for the institutions (Questionnaire AMG, 2006).

Policy and organisation of VET

One of the best-established and most effective institutions in the country in vocational training is the Technical Institute of Training and Productivity (Instituto de Capacitación Técnica, INTECAP). This institute offers three different vocational levels: executive, middle management, and operational.

INTECAP operates in six regions, which encompass 32 educational centers at a national level. These include ten training centers in Guatemala City (including 2 partnership centers), 13 departmental delegations, and 9 training centers in other departments.

In 2003 INTECAP was responsible for the training of 169,270 persons. 16,768 of whom were trained in the agricultural sector, 37,381 persons were trained for the industrial sector and 115,571 persons were trained for the trade and services sector. In the central region most people were educated (104,745 persons), in the Peten region the least persons were trained (3,267 persons).

INTECAP's training is usually carried out at the actual work sites and not in the training centers. This direct applications approach gives the students the advantage of training specifically tailored to the requirements of the employer.

In addition to INTECAP, there are another 150 centers offering vocational and technical programs. Some of these are: the Guatemalan Management Association, Chamber of

Commerce, Chamber of Industry, Small and Medium Business Association, Tayasal, Kinal Technical School, Zunil School of Hotelery, along with other institutes run by religious orders and NGOs dedicated to preparing men and women in a wide range of careers.

The depth and breadth of Guatemala's training centers assure a qualified labour force ready to respond to the high standards of international companies.

Another important aspect is that typing courses are mandatory for students between the ages of 12 and 16. This requirement has allowed Guatemalans to develop the fast data entry ability needed to achieve an efficient competitive advantage. As a result Guatemala has become newly positioned as one of the principal destinations for the installation of call centers, back offices and data processing. ACS, a multinational company dedicated to data processing in the country had the following to say:

"The availability of qualified labour in Guatemala City has permitted us to compete against other countries in Latin America, United States, and Asia. The geographical location, the time zone, the satellite communication and the advanced telecommunications system has allowed us to be highly competitive. We have one thousand five hundred employees with impressive typing skills and outstanding analytic abilities." (Invest in Guatemala, 2005)

In general, private sector users report that the reputation of INTECAP has improved, due to its local presence (34 training centers across the country and 5 mobile units), and the partnerships it has established with other institutions (e.g. Valle de Guatemala's university). However, INTECAP policies may not be selective enough to ensure optimal performance: in addition to in-firm training, INTECAP provides technical education to young unemployed people (a third of its activity) and is involved in social programs (technical assistance to communities with high levels of extreme poverty, training for prisoners, etc). INTECAP is also in charge of promoting quality certification (World Bank, 2005).

The government sets the standards but the schools must organize their own curriculum to meet the standards as well as find their own teachers, materials etc (Questionnaire AMG, Feb 2006)

The main goals on VET in national policy

NA

Relation government and trade and industry (private) companies and private initiatives in VET

To mitigate the scarcity of skilled labour, a growing number of Guatemalan manufacturing firms have been training their workers and outperforming their peers in neighbor countries. In Guatemala, the majority of large, medium and small firms provided some formal training, but 62.5 percent of the micro enterprises did not provide any. The share of firms providing formal training is higher in the beverage, food and tobacco and chemical industries, while paper and non-metallic goods present the lowest levels. Labour training is a crucial instrument to enhance the capacity of the workforce to adapt to technical progress, especially when the education sector is performing poorly, as seems to be the case in Guatemala. Guatemalan firms seem to count excessively on learning by doing and informal training because external training is seen as inadequate. Enterprises do not provide formal training because 1) skilled labour workers could readily be hired from other firms (free riding), 2) lack of funds, and 3) programmes for external training are inadequate for their needs (World Bank, 2005)

Several isolated initiatives have been launched by the universities to develop cooperation with industry. For example, the Research Center in Engineering from the University of San

Carlos is creating a fund, in partnership with a cement enterprise to finance research work performed by PhD students. This fund would be managed by a joint academic-industry committee. The University del Valle de Guatemala has created a small training center (20 students) in the south west of the country, in close cooperation with the sugar cane industry. The University Rafael Landivar has created a "Science and Technology Unit", including a consulting center for SMEs (Small and Medium Enterprises). The University de San Carlos has recently organized a "feria de la competitividad", an event aiming at promoting innovation from SMEs and bridging the gap with the academic sector. These few examples of successful initiatives from universities and technological institutes in Guatemala have something in common: they consist of isolated initiatives, building on some opportunities of building partnerships with the industry, and were not driven by the incentives managed by the national science and technology institutions (CONCYT and FONACYT) (World Bank, 2005).

International donors / INGOs involved in VET

Embassies help a lot with getting equipment; Spain, USA, Canada and Germany are some that AMG has heard of.

NGO's tend to also help with equipment. PLAN International and a few others do help with specific classes such as business management. It seems many NGO's do not like to attach to long term commitments such as sponsoring teachers (Questionnaire AMG, 2006).

Networks around VET

INTECAP has started a modernization process, which includes establishing partnerships with other institutions and expanding its geographic coverage (World Bank, 2005).

AMG does not know any networks on VET in Guatemala (Questionnaire AMG, 2006)

Education of teachers

NA

VET specialisations

The INTECAP graduates technical specialists in fields such as tourism, hotel management, metalworking, data processing, accounting, textiles, call centers, telemarketing and telecommunications (Invest in Guatemala, 2005).

The largest single category of courses reported in 2000 focused on computers and informatics (9.2%), followed by human relations (5.7%), and sales (4.1%) (World Bank, 2005).

Most training goes into areas where there is not a lot of expensive equipment are needed. There are a lot of schools focusing on teachers, accounting and bachelors degrees (Questionnaire AMG, 2006)

Strengths and weaknesses

Strengths	Weaknesses
The majority of INTECAP's training services are free of charge	As with other types of education, participation in job training is very much skewed towards the nonpoor. About 62 percent of all those who reported receiving training in the ENCOVI survey came from the wealthiest quintile, whereas 4 percent came from the poorest quintile
INTECAP's training is usually carried out at	Most schools struggle to get material to practice on- such

the actual work sites and not in the training centers. This direct applications approach gives the students the advantage of training specifically tailored to the requirements of the employer.	as old cars to dismantle or old radios to practice on. In Guatemala the people use the things till they are completely destroyed and are not willing to let a school practice on their much needed goods. Many students therefore graduate but are not able to practically do the work. (AMG, 2006)
The depth and breadth of Guatemala's training centers assure a qualified labour force ready to respond to the high standards of international companies.	
In general, private sector users report that the reputation of INTECAP has improved, due to its local presence (34 training centers across the country and 5 mobile units), and the partnerships it has established with other institutions (e.g. Valle de Guatemala's university).	
Many vocational schools tend to start their students at grade seven because they realize that at that age they can still affect attitudes and build motivation in the students. (AMG, 2006)	

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Recommendations for further research

<http://www.intecap.org.gt/publicaciones/> the website of INTECAP, the organisor of vocational education in Guatemala is in Spanish.