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Labor Market Assessment

Guatemala



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ALCANZA**

LABOR MARKET ASSESSMENT GUATEMALA

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Executive summary

The following study, conducted by the USAID Realizing Equitable Access, Retention and Completion in Higher Education (REACH or ALCANZA) Project, is an update of the *Labor Market Assessment* (LMA) carried out by the USAID LAC Regional Workforce Development Project (also known as Advance or Avanza) in Guatemala in 2017. The objective is to reexamine the current labor market, particularly the demand for professional and vocational skills. This study includes a literature review, a statistical analysis of the evolution of the Gross Domestic Product (GDP), a statistical analysis of the labor market and the external sector, and an analysis of employment opportunities in the country, including the employment strategy called *Guate No Se Detiene* (Guatemala don't stop, in English). This investigation also proposes a methodology for selecting the most relevant provinces (officially called *departamentos* in Guatemala) where the REACH Project should focus its interventions and helps identify the most pertinent productive sectors in the chosen provinces based on interviews with experts. The selected regions include Guatemala, Alta and Baja Verapaz, Huehuetenango, San Marcos, Quetzaltenango, Quiche, and Totonicapan.

Furthermore, this study produces a synthetic index to assess which economic sectors are the most productive based on their relevance and growth potential. The index helps guide the selection of the REACH project's scholarships and grants, which are intended for college career programs that are the most in-demand by the country's most productive and fast-growing business sectors.

The sectors identified in the study include the following:

a) Industry

- The textiles and garments sector is the second most important category within industrial activities. It is one of Guatemala's most relevant export sectors and is included in the *Guate No Se Detiene* strategy. This economic sector has an essential presence in two of the selected provinces and a prominent but lesser relevance in the other provinces. Textiles and garments also include products with a higher comparative advantage and were identified in the 2017 LMA.
- The chemicals sector is also included in the *Guate No Se Detiene* strategy as one of the sectors with the most products. The sector includes more subsectors with growth potential and products with higher comparative advantage.
- The plastics sector is identified as having one of the highest growth rates and growing exports out of all the industrial activities. It is also included in the *Guate no Se Detiene* strategy as an economic area with growth potential.
- The non-metallic products sector is also one of the products identified with growth potential and included in the *Guate No Se Detiene* strategy.

- Within the *Guate No Se Detiene* strategy, the electronic equipment sector includes a list of products with growth potential. It is also recognized as a priority sector for the USAID Creating Economic Opportunities Project.
- The pharmaceuticals and medical devices sector is also prioritized for the USAID Creating Economic Opportunities Project and recognized as relevant in Guatemala's economic corridor and the *Guate No Se Detiene* strategy.
- One of the most critical areas for industrial GDP is the food products sector, which has also been identified as a leading sector for USAID Creating Economic Opportunities Project for Guatemala and Alta Verapaz provinces and the LMA 2017. Additionally, it was included in the *Guate No Se Detiene* strategy.
- Although the machinery sector was not identified in the *Guate No Se Detiene* strategy, this study suggests including it because it contains a significant number of products for selection with growth potential. It is also a leading industrial activity, and the Atlas of Economic Complexity has identified it as a sector with high potential for diversification.

b) Agroindustry

- Within agroindustry, silviculture, fishing, supporting activities for agriculture, vegetables, melons, roots, cattle-raising, coffee, and cereals carry the most weight within the country's GDP. Also, several products within this category are within the country's main exports, such as bananas, plantains, nutmeg, coffee, sugar, saccharose, and palm oil. The *Guate No Se Detiene* strategy identified products like crustaceans, frozen fish, bananas, dried fruits, dates, figs, pineapples, and avocados as having a higher comparative advantage. This sector is relevant in the selected provinces and is considered one of the most important for the national economy; simultaneously, it was identified in the 2017 LMA.

c) Services:

- This sector includes outsourcing such as information technology outsourcing (ITO), business-process outsourcing (BPO), and information and communication technologies (ITC). It has been identified as a relevant sector in the Guatemalan economic corridor and is included in the *Guate No Se Detiene* strategy. ICT has become the main export within this sector. This entire sector was consistently mentioned in the interviews with experts. It was highlighted as a relevant area for the selected provinces and identified as a priority sector by the USAID Creating Economic Opportunities Project.

d) Trade:

- Trade is Guatemala's most relevant economic sector based on its weight in the GDP. It has one of the highest growth rates and the second-highest demand for labor in the country, and the interviewees mentioned it as a relevant sector.

e) Construction:

- This sector is critical because it has increased its size in the GDP and requires more labor than other economic sectors. It has been identified as a relevant sector in all the selected provinces.

f) Forestry:

- This sector was identified as important in three provinces, and due to its growth potential in Guatemala, this study recommends its inclusion in the strategy.

g) Tourism:

- Like the forestry sector, tourism was mentioned in several provinces as a relevant sector. In the index for selecting economic sectors, lodging and food services are ranked ninth. This sector is also among the country's leading exports, so this study recommends its inclusion in the strategy.

The professions demanded by the identified economic sectors include the following:

Industry:

According to the interviewees, the industry requires the following:

- a)** Engineers and industrial technicians,
- b)** Refrigeration technicians,
- c)** Electronics technicians,
- d)** Mechanics.

In the case of the food and beverages industry, the professions in demand include:

- a)** Food production technicians,
- b)** Personnel qualified in good productive practices.

According to the Association of Technology and Industry, the main professionals demanded for this sector include:

- a)** Machine operators, tool manufacturers, and die-cutter operators, *
- b)** Designers and manufacturers of molds, *
- c)** Programmers of Computerized Numeric Controls (CNC), who often have a mechanical engineering degree,
- d)** Quality supervisors, *
- e)** Industrial machine mechanic, *
- f)** Production engineer.

*These positions could require higher technical education, although depending on their profile, they could perform well with vocational training.

The textile industry demands the following professions:

- a) Technicians with specialization in productive and quality processes,
- b) Floor supervisors.

According to the International Labor Organization (ILO, 2019), the following sectors require new skills all over the supply chain:

- a) New production processes,
- b) Design,
- c) Finances,
- d) Product development,
- e) Logistics,
- f) Marketing,
- g) Sales,
- h) Client service,
- i) ICTs.

Agroindustry:

The interviewees mentioned that this requires the following professionals:

- a) Personnel for modernizing productive processes,
- b) Personnel in charge of good farming practices,
- c) Personnel to supervise the enforcement of the exporting protocols, including the implementation of traceability, quality control, and compliance with sanitary and phytosanitary processes. These include personnel for environmental quality certification and quality auditors.

According to the ILO (2020), the agroindustry sector also requires:

- a) High-level managers, including high-level commercial development managers, technical directors, and farmers: In addition to their managerial role, these professionals must have skills in agriculture, data collection, and agribusiness incubators. In this respect, one could imagine the need for professions related to agribusiness and management, specializing in the agricultural sector or agronomy and management.

- b) Professionals and middle managers: This level comprises veterinarians, plant breeders, extension workers and agricultural technicians, agronomists, agricultural economists, and other occupations in this supervision level. People with skills in ICTs are also needed.
- c) Technicians, professionals, and qualified operators: These are agricultural technicians who need skills related to this area as well as specific knowledge, such as breeding, safety, and occupational health experts, machinery and farming machinery operations, experts in fish tank construction, breeding experts, and application of chemicals experts. The critical positions for this category include operative work at the farm level.

Information and communication technologies (ICTs):

The ICT sector is horizontal and supports the growth of other sectors. This sector was constantly mentioned as one of the opportunities all over the country. The personnel required for this sector include:

- a) Programmers;
- b) Tech support technicians;
- c) Experts in digital marketing, platform use, and social networks;
- d) Cybersecurity.

Business-process outsourcing (BPOs) are included in this sector. The most common qualifications for this area include:

- a) Business management,
- b) Marketing,
- c) ICTs,
- d) English language skills.

According to the ILO (2019), workers with skills in ICTs and STEM (Science, Technology, Engineering, and Math) will be in high demand in industries worldwide.

Trade:

The interviewees mentioned that this sector requires people with management and sales skills, which are also horizontal to other industries. These skills and knowledge include:

- a) Sales;
- b) Trade;
- c) Client service;

- d) Financial, accounting, and business management;
- e) Marketing.

With the growth of electronic commerce, prompted by the COVID-19 pandemic, this sector also requires personnel with the following skills and knowledge¹:

- a) Client experience management to provide a positive experience for the clients and increase the number of regular clients.
- b) Digital marketing that guides potential clients towards the business' products.
- c) SEO (search engine optimization) skills that increase website traffic.
- d) Content production skills to produce content aimed at clients.
- e) Data analysis skills to analyze the performance of websites, sales, buyers, etc.
- f) Design skills to create websites that offer the best possible consumer experience.
- g) Artificial Intelligence (AI) skills to automatize business processes.

Construction:

The professions directly related to this sector include:

- a) Civil engineers and technicians,
- b) Woodwork and metalwork experts,
- c) Machinery operators,
- d) Architects,
- e) Decorators,
- f) Supervisors,
- g) Horizontal experts related to management, project management, client service, ICT, lawyers, and regulations experts.

Tourism:

This sector requires the following professionals:

- a) Technicians in tourism,
- b) Hostelry professionals,
- c) Chefs and cooks,
- d) Staff with skills in client service.

¹ Also see: <https://www.brightpearl.com/blog/learn-to-hire-employees-to-fill-skill-gaps-and-improve-e-commerce-sales>

According to the Asian Development Bank (2019), the professional skills required in the tourism sector often include the following:

- a) Cooks and chefs,
- b) Travel agents,
- c) Certified hostelry workers,
- d) Certified personnel in food and beverage services.

Also, this same study indicates that current education in tourism also includes:

- a) Adventure tourism,
- b) Ecotourism,
- c) eTourism,
- d) Health tourism,
- e) Management of tourism businesses.

Forestry:

According to the interviewees, the areas in which professionals are needed include:

- a) Areas related to conservancy, including financial services for conserving natural resources;
- b) Wood production.

According to the Federal Office for the Environment (2011), the relevant qualifications for the sector include:

- a) B.A. in Agriculture and Biotechnology,
- b) Natural resources and environmental technology,
- c) Natural resources management,
- d) Management of forests,
- e) Forest engineering,
- f) Technician in wildlife,
- g) Technician in arboriculture,
- h) Forestry technician,
- i) Ecology and natural resources management,
- j) Forest conservation and management.

This study also recorded the opinions of Guatemalan youth. It organized workshops with 48 young people to understand their expectations concerning higher education and the career paths related to the productive sectors identified in this study. Their input was critical to this investigation. For example, the labor market analysis identifies STEM degrees as the most sought-after. However, the interviewees point to the low levels of STEM-related education in secondary school, which may become an entrance barrier to these types of degrees.

On the other hand, to guide young people in choosing relevant career paths for the Guatemalan economy, young people and their parents will need more information and awareness on the options, which must be provided in easy-to-use and adequate formats. Communication campaigns that address the barriers to accessing higher education are likely to be needed.

In general, the young interviewees mentioned that the universities need to better communicate their placement services to their graduates and that they will likely need to strengthen them. The opinions regarding university placement services were mostly negative. One potentially helpful action could be an internship program related to the students' degrees, preferably with remuneration. This is particularly relevant when we consider the needs of economically vulnerable youth and their inability to stop working to participate in internships.

Finally, the interviewees mentioned the importance of including students in the REACH Project's activities and that more students should be interviewed to allow for more diverse opinions. Thus, this study suggests maintaining regular communication with youth to establish a consultative group, allowing them to offer their insights on matters concerning the design and execution of the program's activities.