

# **Employment trends on tertiary sector for Millennial Generation**

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## Abstract

This article contains a compilation about employment trends in tertiary sector from *Millennial Generation* to reflect on labor market for young professionals in Mexico. A set of job profiles based on previous research in the topic will be analyzed, for this aim, using a mixed method involving ethnography and descriptive statistics. In addition, it is important to state a *soft skills* demand pattern for organizations in order to improve their employability, in contrast to those offered jobs which nowadays request *hard skills* on candidates. Finally, an enumeration of some tertiary activities classified according to National Occupation and Employment Survey (ENOE) and the National Institute for Social Security (IMSS) is done in order to contribute to a research field concerning *Millennial Generation* and employability in tertiary sector, especially for those Post-Graduate Scholarship Programs' graduates abroad.

JEL classification codes: E24, F16, I22, I31, J23

**Key Words:** Employment, labor market, Tertiary sector, *Millennial Generation*, *soft skills*, *hard skills* 

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### Introduction

Throughout the course of this article, a set of parameters is acknowledged to redesign a new job profile including the characteristics and abilities originally demanded by recruiters (*hard skills*), along with a new set of *soft skills* which might meet the requirements of the tertiary sector of the economy; especially with regard to people engaged in trade-related activities.

To this extent, it is important to outline some of the functional aspects of the job market, since this section is part of the thesis project entitled: "Impact of the Erasmus+ Program in terms of labor market integration in Mexico", by which the elaboration of job profiles is intended so that they contribute to such research since it belongs to its object of study, in particular, of those graduates of the Erasmus+ Program who return to Mexico.

In this sense, due to the poor labor market integration of young professionals from the Millennial Generation, especially from those who have recently finished their post-Graduate studies abroad, the following research question is posed for this article:

To what extent the development of *soft skills* by young professionals of the Millennial Generation can ease their high-quality labor market integration in tertiary sector activities in Mexico?

This leads to the following working hypothesis:

 $H_1$ : Soft skills are necessary, but not sufficient to achieve high-quality labor market integration in the country, since employers still appreciate *hard skills* in their recruiting processes.

In order to answer the question posed and prove  $H_1$ , the development of the article will be done so that it makes a direct contribution to the Organizational Studies area, as well as the labor market integration processes for the post-Graduate Programs' graduates, primarily within the field of tertiary sector activities.

### Literature review/Theoretical foundations

# a) Erasmus+ Program

The aim of the Erasmus+<sup>3</sup> Program -among others- is to promote the training of Third-Cycle graduates (*Erasmus Mundus Joint Master Programs*, EMJMD) from countries with bilateral agreements with the European Union, in order to support mobility and the creation of a European Higher Education Area -which also includes non-European countries-, according to the Bologna Declaration (1999) based on the following strategic objectives:

 $<sup>^3</sup>$  Acronym for the official name of the Program: "European Region Action Scheme for the Mobility of University Students".

- Promote the lifelong learning process and mobility in the education and training field at a higher level.
- Strengthen efficiency and quality in education and training at a postgraduate level.
- Encourage equity, inclusion and cooperation among individuals and groups.
- Increase creativity and innovation, including all education and training levels (Lorenzo Galés, 2014).

On this basis, three thematic areas are defined on the Erasmus+ Program Operational Manual: *The European Union Programme for Education, Training, Youth and Sports (2014-2019*), which are focused on encouraging "mobility, employability and foreign language learning" (Lorenzo Galés, 2014), of their graduates. It also states that

the training among the different protagonists and players in the European educational community [encourage] the coordination between educational strategic organizations and facilitate colaboration among institutions for the development of common policies and resources, [which enable] the increase in tertiary education enrollment in 8 percent and reduce early school desertions by 4%". [in the European Economic Area] (Lorenzo Galés, 2014)

Meanwhile, the Mexican Erasmus+ Program graduates are expected to develop a high international profile based on a multicultural experience as a result of getting along with students from different parts of the world, which results on the enhancement of higher-level social capital, as well as the transmission of knowledge and training for the country.

Therefore, although it is not the main topic of this essay, it is impossible to ignore the fact that the findings and reflections on employment trends for the *Millennial Generation* could be considered as an input for the chapter on employability and labor market insertion for the final document of the aforementioned thesis.

### b) Context of the labor market in Mexico

It is worth mentioning that the labor market is currently in a bleak scenario, as the real growth achieved by the Mexican economy was in the order of 1.9% in 2018 (Kelly Services, 2019), while GDP growth was in the order of -0.1% in 2019.

Additionally, in June 2018, the unemployment rate of the economically active population was 3.4%, of which young people made up the highest unemployment figure, since according to the National Occupation and Employment Survey of the National Institute of Statistics and Geography (ENOE-INEGI), during the first quarter of 2018, the population between 15 and 29 years old registered an unemployment rate of 5.8% (Kelly Services, 2019), which represented 1.7 million unemployed people.

Similarly, in its 2019 semi-annual report, the Organization for Economic Cooperation and Development (OECD) specified that times of economic slowdown would be ahead, due to "rising oil prices, tightened financial conditions [in the international environment] and trade tensions between powers, among other factors, which would [negatively] impact the labor market" (Kelly Services, 2019).

In this context, the International Labor Organization (ILO) mentions that the growth rate of the global labor force is not sufficient to match the retired population growth rate, which will affect pension systems and local economies. From this perspective, the same ILO estimated the global unemployment rate to hit 5.5% by 2018, so that in 2019, the number of unemployed was expected to increase by 35 million in comparison to the 1.4 billion people who were unemployed in 2018 (Kelly Services, 2019).

Moreover, it is equally noteworthy to establish that in the international field "crucial mega-trends are affecting the labor market in these times and will do so. These include: technological progress and digital transformation, globalization and demographic changes" (OECD, 2019). For such purposes, it is important to take into account:

"factors such as digitalization, globalization, and job obsolescence...which impact the outplacement of older people's employment. Also, it is important to mention that migrants receive lower quality employment despite their skills [as] they tend to move to more developed OECD countries." (OECD, 2019)

As for Mexico, the firm Asesoría Contable y Fiscal para Empresarios (Accounting and tax consulting for entrepreneurs, ACFE) identifies that by 2020 the careers with the highest number of employed professionals were Accounting (661,200 people), Administrative Sciences (607,400 people) and Law (554,200 people) (ACFE, 2020).

Meanwhile, the same source states that the careers with the highest income levels are Naval and Aeronautical Engineering, Physical Medicine and Rehabilitation with salaries averaging around \$ 16,000.00 MXN (ACFE, 2020); while young people between 20 and 24 years old choose to study careers focused on the Political Science, Marketing, Customs Science and Foreign Trade disciplinary fields (ACFE), which is consistent with some of the currently demanded careers by the national labor market.

It is also important to reflect on:

"of the increase in global employment [that] has occurred in line with accelerated technological progress, which can be observed through the significant rise of ICT, the use of robots in the workplace and the increasing adoption of artificial intelligence (AI). Such technologies have removed a substantial number of jobs contributing to a significant decline in certain industries, from textile production to the manufacturing of complex electrical equipment (OECD, 2017). As both productivity and incomes have risen, additional demand for goods and services has been triggered, leading to further occupational growth... [as part of] the digital revolution... over the past decade..." (OECD, 2019)

Faced with all of this, the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) states that the impact of the labor markets on each Latin American country is a result of the productive structure and the employment distribution of each sector. It is easy to identify among the affected areas those related to tourism (airlines, lodging, restaurants and hotels), commerce and manufacturing, as well as real estate and administrative activities. These are labor-intensive sectors, and some, such as commerce, have a high rate of informal employment.

Given this scenario, the Kelly Services reports highlight the relevance that the *Millennial Generation* (*Y*)<sup>4</sup> is currently gaining, whereby it also emphasizes the role of the studies conducted by Deloitte, which state that this generation will make up 75% of the workforce by 2025, so it will be the generation with the highest share in the labor market in the country, which is why, to determine their behavioral patterns in this area is imperative (Kelly Services, 2019; Deloitte, 2019).

# c) Characteristics of [youth] employment in Mexico

For the above-mentioned reasons, it is important to consider the labor profile required for hiring young people in various jobs in Mexico, since the needs and characteristics that the *Millennial Generation*  $(Y)^5$  requires to fulfill a job position will be taken into consideration. The main characteristics that these young people share are:

- *Multitasking* (they try to perform more than two tasks simultaneously).
- Effective use of technological tools.
- Constant awareness of the importance of keeping their skills and knowledge up to date.
- Taking on new challenges and having few long-term prospects to stay in a company (Kelly Services, 2019).

Similarly, the members of this demographic segment also take these considerations while looking for an employer:

- Financial remuneration and benefits.
- Continuous learning opportunities
- Job flexibility.
- Positive work environment.
- Wellness programs and incentives.
- Ethical behavior reputation.
- Volunteering opportunities / impacting on their communities.
- Inclusion and diversity (Kelly Services, 2019).

According to the above, in the emergent economies it should be stated that:

"Market forces that influence the relative capital and labor prices play an important role setting the profitability of investing in labor-substituting technologies. Countries with relatively low labor costs, for example, have witnessed a slower automation process and, also for that reason, do not show a

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<sup>&</sup>lt;sup>4</sup> People born between 1982 and 1997.

<sup>&</sup>lt;sup>5</sup> According to Martín Cuesta and other authors (2009), a generation is defined by "a set of shared values, perspectives and ways of approaching and observing reality, which are shaped by a series of events called "Generational Significant Events (GSEs)" that have an impact on their way of understanding reality and on their members' behaviors" (Martín Cuesta, Ibáñez, Tagliabue, & Zangaro, 2009). According to Ron Zemke et al. (2000), it is believed "that North American millennials have a strong inclination to teamwork and prefer doing things where the objectives are clear. Also, this generation's members have a strong focus on goals and these are closely linked to their personal development" (Martín Cuesta et al., 2009).

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similar polarization pattern in labor as in more industrialized countries." (OECD, 2019)

As a result, Deloitte emphasizes some labor market trends in Mexico, such as the following:

- Process digitalization.
- The evolution of "future jobs" [based on process automation], which [in theory] evolve into a transition focused on business models that seek new and more versatile skills for their workers (Deloitte, 2019).

However, the above-mentioned consultancy states that Mexico faces a situation of serious imbalances and risks for some groups of workers, especially,

"young people... including those who neither study nor work, colloquially known as *ninis*, who exceed the average percentage of those belonging to the other OECD countries: 21% of Mexico compared to 13.2% that makes up the average of the organization". (Deloitte, 2019)

As a result, it cannot be ignored that the current development of new technological processes (automation) and the trend to require multidisciplinary knowledge (*soft skills*) have increased the qualifications for young people to apply for a job. The following are the effects of this:

- Atypical work. This relates to self-employed individuals, whose percentage reaches 26.8% compared to the OECD average (14.2%). This employment type is characterized by lower social security [or lack of it], as well as limited training opportunities (Deloitte, 2019).
- The enhancement of labor and social protection According to the OCDE, the "atypical workers" demand a labor and social protection system to guarantee their rights (Deloitte, 2019).
- Collective labor agreements. Today, the rise of atypical work has left most employers [and employees] without any clear intermediaries (unions) in terms of labor (Deloitte, 2019). As a result, the unionized share of employees in Mexico fell from 28.5% (1984) to 12% (2018); which reduced the share of employees covered by collective bargaining agreements from 13.2% (1994) to 12.5% (2016) (Deloitte). Therefore, these types of challenges should be addressed by the new recently approved Labor Reform in Mexico.
- Unemployment as a result of the COVID-19 pandemic. According to the firm Kelly Services, Mexico will not recover its GDP-2019 growth level until the 4Q of 2022, even though a 4.8% recovery is expected for 2021, as well as a 3.1% recovery for 2022. Similarly, there is an unemployment rate (overall) of 6%, which is lower than the projected 11.8% for Brazil this year, but higher than the expected 5.2% for the United States in the same period (Kelly Services, 2021).

# d) Moving towards soft skills development

Considering the previously mentioned arguments, it is important to highlight that young people of the *Millennial Generation (Y)* require the development of *soft skills*, which according to R. Nitonde, are considered as "skills for life" (Nitonde, 2014).

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In this context, a definition of soft skills, provided by Pérez Ruiz (2017) states their importance in terms of life dynamics faced by society, which requires a strong unity among the work, family and social environment of any country.

According to the cited author, the following are defined as soft skills

... those qualities that enable [someone] to act effectively. They bring together a combination of abilities intended to have a good interaction; that is, to know how to listen, dialogue, communicate, lead, stimulate, delegate, analyze, judge, negotiate and reach agreements. They include a set of interdisciplinary skills and critical thinking, ethics and the ability to adapt to change". (Perez R., 2017)

Furthermore, Eslava Arnao, quoted by Pérez Ruiz (2017), states additional criteria on this term and considers that:

""The effective combination of *hard skills* and *soft skills*, [allows] solving specific critical social situations or problem-solving capacity and achieving success in management efforts in labor, and even social and family environments, [considered as] "life skills". (Perez R., 2017)

However, the importance of those works corresponding to Industry 4.0, in which the workforce and the fourth industrial revolution are illustrated by "developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing, biotechnology, etc. and their influence on the production, consumption and employment dynamics, which engages companies, governments and individuals, cannot be forgotten either." (Guerrero San Juanico, Chavez Cruz, and Chiatchoua, 2018).

The Institute for the Integration of Latin America and the Caribbean, affiliated to the Inter-American Development Bank (Intal-IDB, 2017), which also supports the above, states that the Fourth Industrial Revolution

"is the knowledge and innovation revolution, marked by the development of exponential technologies such as artificial intelligence, 3D and 4D printing, Internet, Big Data and robotics, [which] support the efficiency in production management." (Basco y Carballo, 2017)

Based on what these lines have stated, the gap between the production of goods and services is starting to dissolve, the development of value chains, the artificial intelligence (AI)-based processing of algorithms, which expands connectivity to all aspects of life and modifies both the production and consumption patterns in a given society (Basco and Carballo, 2017).

As a result, it is remarkable that the future of labor will be conditioned by technological change and the development of new skills, as well as labor mobility and migration, in addition to demographic change and education (Guerrero San Juanico, Chavez Cruz and Chiatchoua, 2018), which, in turn, will become critical factors for the labor supply and demand in the upcoming years.

# e) Types of job skills required by tertiary sector employers in Mexico

In line with the above, this article carries out an exploratory study on labor market insertion in tertiary economic activities, especially for those professionals focused on business and administration careers. For this reason, some comparative tables are presented on the different skills that are being requested in the definition of the jobs of the future regarding the development of labor competencies for the project of the New International Airport of Mexico (NAIM), originally planned in the municipality of Texcoco, State of Mexico; which was canceled during the beginning of the Administration of President Andrés Manuel López Obrador, in December 2018.

Table 1:

Synthetized catalog of the main positions and operational activities in the New International Airport of Mexico (NAIM) project

Required professions in the NAIM	Required administrative positions in the NAIM	Operational activities in the NAIM		
[Business]     Administration  2) Comercio Exterior	<ul><li>Analysts on:</li><li>Foreign Trade</li><li>Imports</li></ul>	<ul><li>Facility management</li><li>Operations of:</li><li> Flight</li></ul>		
y Aduanas.  3) International	<ul> <li>Borders and harbors</li> </ul>	o Terminal		
Business. 4) International Relations 5) Economy 6) Finance	<ul> <li>Bilingual customer service.</li> <li>Coordinator on:         <ul> <li>Imports</li> </ul> </li> <li>Logistics</li> <li>Logistics and transportation trainee</li> </ul>	<ul> <li>Security.</li> <li>Passenger and baggage handling</li> <li>Assistance of Aircrafts</li> <li>Aircraft ramps</li> </ul>		
	<ul> <li>Supplier Order Management</li> <li>Executive of:         <ul> <li>Foreign trade.</li> <li>Legal</li> </ul> </li> <li>Imports and exports specialist</li> </ul>	<ul><li>Sales staff</li><li>Freight and logistics.</li></ul>		
Imports and exports agent				

Source: Compilation based on the document elaborated by: Guerrero San Juanico, C., Chavez Cruz, E., and Chiatchoua, C. (October 3, 4 and 5, 2018). "The creation of the New Mexico City International Airport: development and employment opportunities". *XXIII International Congress of Accounting, Administration and Informatics.*, 27. (A. N. (ANFECA)., Ed., & U. N. (UNAM)., Compiler) Ciudad Universitaria, Mexico City, Mexico. Pag. 7-9

Within the framework of Table 1, the research authors developed a catalog of the main administrative positions and operational activities that require professional training to get a job

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in the former NAIM project, as well as the careers required to develop in those positions and the main activities to be performed. This can be extrapolated in order to understand the labor market demands, specifically for young Mexican professionals in the tertiary sector.

In addition, a second table is included, which refers both already specified "soft skills", as well as those requirements demanded by the professions previously defined by a set of knowledge comparable to "hard skills", which are then compared in order to determine to what extent some of them are prioritized above others while recruiting young professionals for different job positions.

Furthermore, the hard skills concept is defined by E. Yturralde (2020) as:

"...the technical skills required to perform certain tasks or roles and which are attained or developed through education, training, coaching and often while performing the tasks themselves whose necessity is clear [for professional success]." (Worldwide Inc., 2020)

On the other hand, the *hard skills* can also be conceived as those that "are learned... acquired and performed through practice, iteration and education; [they comprise] tangible and verifiable skills in a simple way; although these skills are relevant to all [professional] areas, especially: purchasing, accounting and production" (Ortega E., 2019). From the employers' perspective, such skills are advantageous in terms of being measurable through competency and knowledge assessments through the completion of specific tests<sup>6</sup>.

In line with the above, the human resources personnel of a company finds it valuable to consider the ability of job applicants to interact with other workers, as well as their [possible] commitment to the organizational culture and values of the firm at which they applying, when assessing the job candidates. In this way, "the HR professional has the opportunity to make a detailed analysis and thorough observation in order to filter candidates..." (Ortega E., 2019) whom do not meet the position description of the job for which their services are demanded.

It is for those reasons why Ortega E. (2019) states that the hard skills will continue being the key competences, to either hire personnel or to build a higher competitiveness level within a company or organization.

The above, can be illustrated through Table 2 (*below*), which extends the catalog of professions and administrative positions for the NAIM mentioned by Guerrero San Juanico, Chávez Cruz and Chiatchoua (2018) in Table 1. In addition, these authors indicate the type of skills needed to perform the listed jobs and address the dilemma regarding the importance of the mastery by the employee in both *hard skills* and *soft skills*.

### Table 2:

<sup>&</sup>lt;sup>6</sup> Some examples of *hard skills* demanded by employers are: University training, technical courses, handling of tools and/or machines, computer and IT software skills, mastery in programming languages, project management, foreign language proficiency, and accounting and administrative skills (Ortega E., 2019).

Type of skills required for a position in the New International Airport of Mexico (NAIM) Project.

# Knowledge needed in the NAIM (hard skills)

### Tariffs

- · Certificates of Origin
- · Foreign Trade
- General Foreign Trade Rules
  - Import and export documents
  - Tariff classification
- SLAM (Simultaneous Localization and Mapping)
- Macroeconomic environment
- · Imports and exports
- Mexico Index (INMEX)
- · Inventory management
- · Foreign trade legislation
  - o Customs law
  - o ISO 9000 Standard
  - o Mexican Official Standards
  - Import customs regulation in force
  - o International Treaties
- Customs logistics.

# Job-related skills 2020 (soft skills)

- Cognitive skills (creativity, logical thinking and reasoning)
- Content skills (active learning, ICT management, etc.))
- Social skills (emotional intelligence, negotiation, persuasion)
- · Resource Management skills
- Physical skills
- Process skills (critical thinking)
- Decision-making skills.
- Technical skills (quality assurance, problem solving).

Source: Compilation based on the document elaborated by: Guerrero San Juanico, C., Chavez Cruz, E., and Chiatchoua, C. (October 3, 4 and 5, 2018). "The creation of the New Mexico City International Airport: development and employment opportunities". *XXIII International Congress of Accounting, Administration and Informatics.*, 27. (A. N. (ANFECA)., Ed., & U. N. (UNAM)., Compiler) Ciudad Universitaria, Mexico City, Mexico. Pag. 7-9.

As shown in Table 2, a combination of both kinds of skills or abilities can be observed, so it is worth highlighting that the emphasis on *hard skills* is still predominant when recruiting new employees.<sup>7</sup>.

<sup>&</sup>lt;sup>7</sup> Given the period in which the latest version of this article is presented, it can be seen that according to an interview with Daniel Fajardo, General Coordinator of Desarrollo Metropolitano de la Secretaría del Desarrollo Agrario, Territorial y Urbano (SEDATU) (Agrarian, territorial and urban development), published by El Financiero (2020); by 2022, the Felipe Ángeles International Airport (AIFA) is expected to generate 16,688 direct jobs, which will reach 80,000 by 2052, and may increase to 250,000 jobs, considering those generated indirectly in Santa Lucía, Zumpango, Tecámac, Tizayuca, Tlaltenco, Tultitlán, Tultepec and Nextlalpan municipalities, located in the northern area of the Valley of Mexico. (Usla, 2020)

This phenomenon can be observed in some indicators of the latest version of the National Occupation and Employment Survey (ENOE), as well as some data provided by the IMSS and the Secretariat of Labor and Social Welfare (STPS), which aim to place the relevance of tertiary economic activities compared to other remunerated activities in Mexico. In this way, we intend to identify the labor position and income level of the young population in order to make the appropriate comparison for this case. (STPS and INEGI, 2020).

Similarly, in a separate section, some relevant aspects of the National Occupation and Employment Survey (STPS and INEGI) are analyzed, which consider the base contribution wages provided by the IMSS to determine income levels, regarding both commercial activity and other tertiary activities. This scenario is presented in order to compare the salary levels of the aforementioned activities with the average income level in the country, for which results can be observed in the following graphs (*below*).

# **Applied methodology**

This article analyzes previous literature in order to provide an answer to the research question and develop a logical narrative to follow up the propositions stated at the beginning of the research.

It also carries out an exploratory study that is intended to identify the labor market insertion patterns of the young population in Mexico, especially regarding to tertiary activities. Therefore, a mixed methodological approach is used, since it considers a qualitative approach using the ethnographic method, since the research focuses on a specific population group (*Millennial Generation*), through which, according to Monje A. (2011), the aim is to understand their cultural context without making assumptions in advance based on a limited knowledge of their professionalizing aspirations.

On the other hand, Hammersley and Atkinson (1994) define ethnography as "a method of social research intended to approach the researcher to the context and the actors where the phenomenon to be investigated takes place" (Garcia Herrera, 2008), immersing the researcher in real-life situations, where he:

"collects all kinds of data that enable him to approach his object of study, [which helps him] dimension the social reality in which he lives, identify first-hand sources of information and make interpretations from other interpretations, which are based on the experiences of the investigated actors. Therefore, he acknowledges the reflexive nature of social research, and the fact that the [own] researcher is part of the social world he is investigating, and consequently, he shapes his corresponding object of study." (Garcia Herrera, 2008, p. 131)

As a result, the article is based on a general knowledge of the *millennial* population, as well as the problems they are currently facing. In this context, data is obtained from secondary sources, such as Human Resources consultancy reports (Kelly Services and Deloitte), Executive Reports from International Organizations (OECD, IDB, ECLAC), Mexican government sources (INEGI, STPS), and ultimately, from the appropriate literature on the subject.

Moreover, the research was supported by the implementation of tools using quantitative approaches such as Descriptive Statistics, where it is stated that its

"basic concept facilitates the frequency distribution as a method to organize and summarize data, which is sorted, indicating the number of times each value is repeated. This distribution can be performed with variables measured from the nominal to the ratio level." (Monje A., 2011, p. 174)

Furthermore, and based on the distribution of the collected data, these are arranged according to their complexity and are displayed in various forms, in textual terms in this case, through charts, tables and graphs (Monje A., 2011), which can be found in the results section of this research, after conducting the corresponding analyses.

# Results and analysis

After analyzing the qualitative-interpretative aspect of the information presented in the previous study on the NAIM, we can notice the dominance of the vacancies offered in the economic-administrative area, specifically in the commercial area and based on *hard skills* that require the analysis and coordination of various activities, with a predominance of logistical issues. This leads to the fact that the previously catalogued positions require the applicant to have an intermediate level of training, since the current jobs have not evolved according to the demands of the *Millennial Generation (Y)* to perform in the labor market. Moreover, according to an extract from the National Occupation and Employment Survey (ENOE), which considers the analysis of the first economic quarter of the years 2005, 2010 and 2015 regarding tertiary economic activities, there is sufficient evidence to confirm what is mentioned here.

**Table 3:** Extract from the National Occupation and Employment Survey (ENOE). Includes total population, economically active population (EAP) and tertiary sector of the economy.

Indicator	2005 (1Q)	2010 (1Q)	2015 (1Q)
I. Total population <sup>2</sup>	106,701,738	113,764,977	120,527,797
2. Population aged 15 years and older	73,074,978	81,026,517	87,883,549
Economically active population (EAP)	43,099,847	48,069,274	52,007,842
3.2 Economic activity sector	41,441,076	45,524,339	49,806,064
Tertiary	24,312,872	28,113,656	30,770,354
Commerce	8,141,480	9,003,885	9,615,772
Restaurants and lodging services	2,448,546	3,057,382	3,524,357
Transportation, communications, mail and warehousing	2,069,173	2,256,432	2,444,539
Professional, financial and corporate services	2,198,729	2,784,717	3,530,683
Community services	3,381,945	3,810,483	4,007,422
Miscellaneous services	4,172,743	4,912,607	5,338,016

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Government and international organizations	1,900,256	2,288,150	2,309,565
Not specified	320,211	293,139	278,067

Source: Compilation based on ENOE data. (STPS & INEGI, 2020)

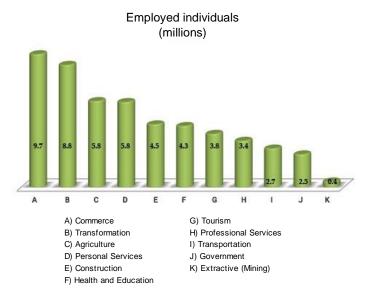
It is worth pointing out that the population dedicated to commercial activities as a percentage of the total population has suffered a slight decrease in the periods mentioned in Table 3 compared to the population dedicated to tertiary activities, which resulted in a decrease from 33.48% of employed people over the entire tertiary sector in 2005, to 32.02% in 2010 and 31.25% in 2015.

This is supported by the Labor Observatory (2020), which reports that the commercial sector represents 19% of the EAP in the country, of which 54.4% of those employed in this sector have a high school education and 40.6% range between 16 and 34 years old, according to the National Employment Service (SNE, 2020).

Meanwhile, the SNE Report, entitled "Occupation by Economic Sectors", for the 1st Quarter of 2020, indicates that among the economic activity sectors, "Tourism (21.5%), Transformation (18.2%) and Commerce (17.6%) have the highest proportion of young people aged 16 to 24 years old" (SNE, 2020); which supports the object of study of the current research and is illustrated in Graph 1.

There, it is shown that in the tertiary sector of the economy, as of 1Q 2020, 9.7 million people were employed in commerce, 5.9 million in personal services and 4.2 million in Education and Health, which gives a total figure of 19.8 million people working in tertiary activities.

# G1: Employed individuals classified by economic activity.



Source: National Employment Service (SNE, 2020). Ocupation by Economic Sectors. First Trimester 2020. (Government of Mexico) Retrieved September 14, 2020, from Labor Observatory: https://www.observatoriolaboral.gob.mx/static/estudios-publicaciones/Ocupacion\_sectores.html

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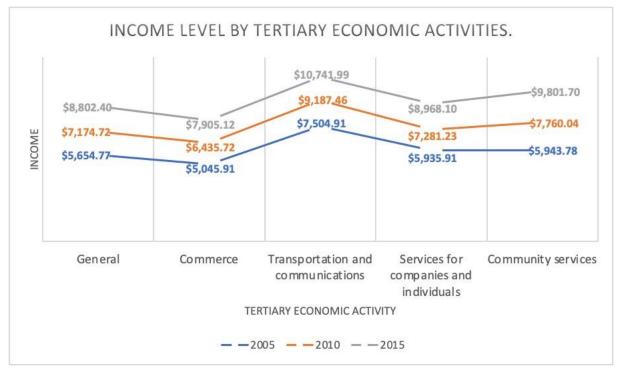
In addition, the Evaluation Program per Company by ISSSTE states that "the average monthly salaries of the employees who contribute to the system range from \$4,853.00 per month as a nutritionist, to \$15,311.00 per month as an office worker" (Indeed, 2020), however, further research is required since it takes a more detailed analysis of a set of criteria that would allow a statistically reliable estimate for the purposes of the ISSSTE system. Once the above is clarified, the findings of this research are considered based on the monthly IMSS contribution salary, which is shown in the table below:

Table 4: Monthly IMSS contribution salary by tertiary economic activity

Monthly IMSS contribution salary by economic activity	1Q-2005	1Q-2010	1Q-2015
General	\$5,654.77	\$7,174.72	\$8,802.40
Commerce	\$5,045.91	\$6,435.72	\$7,905.12
Transportation and communications	\$7,504.91	\$9,187.46	\$10,741.99
Services for companies and individuals	\$5,935.91	\$7,281.23	\$8,968.10
Community services	\$5,943.78	\$7,760.04	\$9,801.70

Source: Compilation based on ENOE data and the IMSS Contribution Salary by economic activity sector (STPS, 2020).

In terms of salaries, the activities of the commerce sector are located below the IMSS general average monthly income during Q1 2005, Q1 2010 and Q1 2015, through which we observe salary increases in this category and those indicated according to the ENOE, which are also proportionally increasing the general average income in tertiary activities.



G2: Income level by tertiary economic activities

Source: Compilation based on ENOE data and the IMSS Contribution Salary by economic activity sector (STPS, 2020).

Finally, and based on the results shown in Graph 2, it is clear that the Transportation and Communications sector has a higher level of remuneration than the general average income of the Tertiary Activities, which was also requested when hiring jobs for the NAIM project (Guerrero San Juanico, Chavez Cruz and Chiatchoua, 2018), representing an additional area of opportunity to ensure the labor market integration of the *Millennial Generation (Y)*, in spite of the fact that these salaries exceed \$10,000. 00 per month in just a small fraction of the cases studied.

## Limitations of the study

Due to space issues, the linkage between the jobs mentioned in this article and their labor market insertion perspectives presented here had to be inferred mainly through the use of interpretative methods (e.g., ethnographic or phenomenological method) since the Statistical Method was used only in a descriptive way, so that more in-depth research should therefore make use of the Statistical Correlation method in order to test the hypothesis, which could not be done along these lines.

Likewise, the data presented here fail to assess the impact of the SARS-COV-2 pandemic among Mexico's young population, since it was mainly obtained before the

pandemic started, thus, the study was unable to consider among its effects the phenomenon of job destruction, derived from the previously mentioned situation.

Another limitation of the analysis was the inability to include the government sector in the catalog of professions in the tertiary sector, due to the wide gap in salaries according to the hierarchical level within each government agency or area, in addition to the fact that public servants contribute to the Institute of Security and Social Services for State Workers (ISSSTE), which is why they are not included in the IMSS contribution registry and it was not possible to find a reliable and verifiable source of information to validate the information provided in this source.

# Scope for future research

Based on what has been reviewed in this study, it is important to highlight the relevance of factors such as automation and robotization in the context of the Fourth Industrial Revolution. For this reason, it is highly recommended that both INEGI and the National Employment Service develop in their measurement instruments an indicator for employment and performance measurements in the context of quaternary economic activities (Research and Development) or at least a technological GDP, since future research requires both academics and public policy experts to be able to understand the medium-term performance of this sector in the future.

From there on, it will be easier to know the feasibility of the country's evolution towards Industry 4.0 as part of the Fourth Industrial Revolution in which a notorious lag by the public entities in charge of carrying out the aforementioned measurements can be appreciated, which is preventing a strategy for the integration of the *Millennial Generation* - in addition to the *Centennial Generation* (born in the period 1997-2010) - in activities focused on science, technology and innovation.

Moreover, it is necessary to study in depth the impact of scholarship and international cooperation programs such as Erasmus+ on labor market integration in the field of the aforementioned activities, which can also be replicated for other programs such as Fullbright-García Robles, Chevening or DAAD: Fullbright-García Robles, Chevening or DAAD.

Therefore, it is important to reconsider the type of skills required by the workforce in the current situation, since, in order to deepen the studies on employability and labor market integration in the tertiary sector, it is suggested to address in another research the labor practices based on "Home Office", and the use of virtual platforms such as: *Skype, Moodle, Teams or Zoom*, which facilitate real-time interaction between those who collaborate on them, whereby it is expected that in the medium term the future of academic and office jobs will evolve to a hybrid modality of 50% face-to-face and 50% online" (Oppenheimer, 2018)..

Finally, and based on the previous study on labor market integration for young professionals at the New International Airport of Mexico (NAIM), it is proposed to continue with a study of analogous characteristics regarding the Felipe Angeles International Airport (AIFA), in order to understand the present and future labor supply, as well as the description of the corresponding job positions in order to know which are likely to be updated, particularly regarding the skills requirements (hard and soft) of young Mexicans, since it is expected that recruitment processes

may take place in the first quarter of 2022 with the opening and eventual launching of the new airport.

### Conclusions

From the research conducted, it is perceived that it is very complicated to find jobs in the tertiary sector in Mexico that require the so-called *soft skills or skills of the future* (Nitonde, 2014) (Guerrero San Juanico, Chavez Cruz and Chiatchoua, 2018), which is why a reflection in line with the validity of the labor market in our country is recommended.

As a result, it should be noted that there is a significant gap between the requests and demands of the *Millennial Generation (Y)* and the labor market offerings, since it has not yet been possible to integrate among its options, to achieve an adequate employability to the needs of Industry 4.0, so that Mexico's role regarding new technologies places the country in the consumer position of such goods and services, therefore, the Mexican labor market remains focused on the primary, secondary and tertiary economic activities requirements; at the expense of the quaternary ones.

Furthermore, *soft skills* are formally required for the performance of a job activity, as the consultancy Kelly Services reports in its study on the labor market (Kelly Services, 2019), as well as Guerrero, Chávez and Chiatchoua (2018) in their research on the NAIM. However, on a practical level, jobs that require management and development of *hard skills* continue predominating, so the hypothesis posed at the beginning of the essay is partially proven, although additional research will be necessary to later correlate the effects of automation and robotization on the development of the "future professions" in Mexico.

Finally, it will be important to consider the role that *superstar companies* can play in the development of public policies aimed to promote employment by governments, since their goal is to increase productivity and reduce prices while developing their final products.

Moreover, with the emergence of new technologies, there is a growing trend to increase consumers' income and employment in other industries, including the so-called "future professions", such as social network administrators, internet of things architects, artificial intelligence experts and user experience designers, among other economic activities (Oppenheimer, 2018; OECD, 2019), and which will require a government strategy to encourage the study of technical and professional careers by young people of today's generations.

Therefore, the main contribution of this paper lies in the fact that the findings of the study, while being applicable to young graduates of the Erasmus+ Program in Mexico, can be also extrapolated to other scholarship programs such as MAEC-AECI, Fullbright-García Robles or Chevening, depending on the testimonies of their respective former scholarship holders along with the available databases on their labor market integration after completing their postgraduate studies.

Likewise, regarding the current AIFA project, an analysis of its job offer will be required when it starts operating, in order to identify if the hiring patterns remain constant or, otherwise, if its labor market has suffered any effect due to a political externality, such as the change of location of the aforementioned airport derived from a presidential decision made in the year 2018.

Finally, from the Organizational Studies perspective in Mexico, it is worth reflecting on the importance of venturing into this new field of knowledge since it is relevant to reach a disciplinary update that goes alongside the professional field and aims to innovate in the theory and practice areas, when addressing the quaternary activities and the labor market integration of the *Millennial Generation (Y)*, within the framework of Industry 4. 0, which includes aspects such as the society of information and the development of new technologies, with the expectancy of making this article a contribution to the development of a line of research in the field of Administration.

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