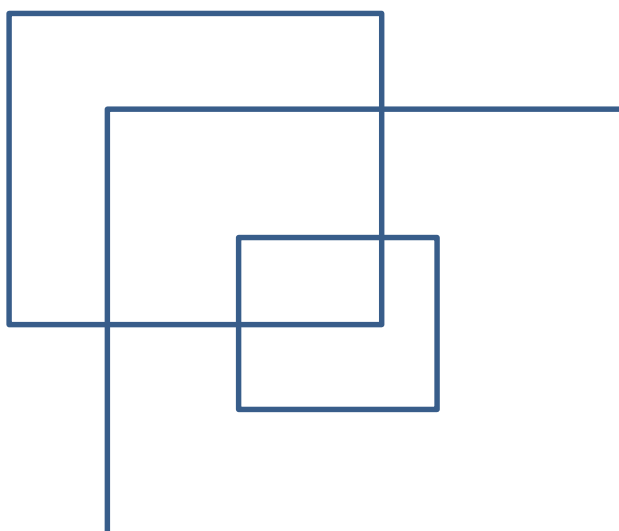




International
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Employment in multinational enterprises in Mexico: Analysis of the economic census



Multinational Enterprises and
Enterprise Engagement Unit
Enterprises Department

Department of Statistics

Geneva 2018

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First published 2018

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Bensusán, Graciela; Carrillo Jorge; and Florez Nelson

Employment in Multinational Enterprises in Mexico:
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ISBN: 978-92-2-131636-9 (print)
978-92-2-131637-6 (web pdf)

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Acknowledgements

The authors¹ are grateful for the intense collaboration of José Luis Mercado Hernández and Adriana Arenas Quezada, INEGI, who for four months supported us with the processing of micro-data from the 2009 and 2014 Economic Censuses; and the important contribution of Redi Gomis (Professor-Researcher, Colegio de la Frontera Norte).

¹ Graciela Bensusán is a Professor at Universidad Autónoma Metropolitana-Xochimilco and Part-time Professor at FLACSO-Mexico; Jorge Carrillo is a Professor at Colegio de la Frontera Norte; and Nelson Florez is a Professor at FLACSO.

Forward

Inward foreign direct investment has enormous potential to accelerate sustainable development, particularly in countries with limited access to capital in domestic markets. Foreign investment can facilitate job creation and skills development. It can also accelerate technology transfer and managerial capacity through increased backward and forward linkages between multinational enterprises (MNEs) and local enterprises, especially small and medium-sized enterprises (SMEs). The quality of the jobs created, both directly and indirectly also play a crucial role in advancing respect for workers' rights, social development and more inclusive growth. However, not all FDI lives up to this potential. Effective government policies are needed which create an enabling environment for MNEs to maximize their positive contribution to sustainable development.

The ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy provides guidance to governments on how to create an enabling environment for MNEs and other enterprises to contribute to sustainable development, in particular decent work. Commended to both governments and enterprises, it addresses general policies (including the fundamental principles and rights at work), employment, training, conditions of work and industrial relations.

Effective government policies require reliable data to assess their impacts. Only with such data can governments know whether their policies are on track, or need to be refined or modified. Yet, numerous surveys undertaken to examine the effect given to the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration) since its adoption in 1977 revealed that governments, even in OECD member states, struggle to collect data on the social impact of MNE operations in their countries.

The ILO has undertaken to support governments seeking to gather such data. The report "Measurement of the employment and labour-related impacts of MNEs: A proposal for action" (ILO, 2017) by Regina Galhardi maps the existing sources of data and areas of social development covered; and proposes a set of decent work indicators.

The paper "Measurement of the employment and labour related impacts of MNEs in Mexico: an analysis of two different methodologies" by Jorge Carrillo and Graciela Bensusán (ILO, 2017) examines the operational criteria used by the National Occupation and Employment Survey (ENOE) and the Economic Census in Mexico and those applied by an establishment survey to evaluate the strengths and limitations of each approach. This paper was discussed in a tripartite validation workshop held in Mexico City, Mexico in 2016. The consensus view of the constituents was that governments should gather data on the decent work impacts of MNE operations in their countries; but that further work is needed in finding the most effective means of gathering such data.

This study, also by Carrillo and Bensusán, assesses data from the national business census, which INEGI also conducts; and compares its advantages and limitations with the two methodologies assessed in their previous study.

A regional technical workshop for Latin America was held in Lima, Peru in early 2017. It brought together statisticians from several national statistics offices, a central bank and an investment promotion agency to discuss the papers produced by Galhardi and Carrillo and Bensusán. The main conclusion of these discussions was that this is an important but complicated area for data collection. A clearer statistical definition of MNE was needed, as well as guidelines for various methodologies for gathering such data, including clearer indicators and recommended questions for each target population surveyed. The study "Measurement of the employment and labour-related impacts of Multinational Enterprises (MNEs)" (ILO, 2017) by Richard Sidebottom provides an analysis of how to measure the impact of MNEs, with a particular focus on developing countries in Sub-Saharan Africa (SSA) where for most sectors MNE operations through global value chains is more important.

The objective of these studies is to stimulate a dialogue among national bodies—principally national statistics offices but also central banks, investment promotion agencies and other entities involved in collecting such data—to identify good practices and how ILO could better support these important efforts.

Rafael Diez de Medina
Director
Statistics Department

Githa Roelans
Head
Multinational Enterprises and
Enterprise Engagement Unit
ENTERPRISES Department

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1. Introduction

The expansion of multinational enterprises resulting from the process of economic globalization generated great expectations in developing countries around their ability to help solve the insufficiency of jobs. In a context such as Latin America—where half of the jobs are informal or precarious, low paying and without access to social security—it was expected that those created by multinational companies would help to reduce the high levels of poverty and inequality that characterize the region.

The research results, oriented to contrast expectations about the advantages of multinationals in terms of their ability to link economic and social innovation with the facts, are mixed. While positive results are recognized in the generation of employment with different levels of skills, it is found that there are multiple factors related to the trajectories of these companies and the host country that can affect their quality. As for the country host of the multinationals, the characteristics of the productive environment, as well as the institutional framework that regulates the rights of workers, are usually some of the domestic factors highlighted in the literature (Weller and Roethlisberger, 2011). Other factors include the characteristics of the multinationals such as the country of origin, the intensity of the capital, the added value and the destination country of the production; how liberal capitalism are, or the existence of activist human rights organizations concerned about respect for labor rights (Mosley, 2011).

While in developing countries the doubt that the problems generated by low economic growth will be mitigated by trade liberalization has begun, there is a growing discontent in the developed countries due to the arrival of foreign investment and the installation of multinationals in the various sectors of the economy. For example, protectionist positions are developed by governments and the population facing the loss of good quality jobs and their replacement by precarious ones. Moreover, the threats of job destruction associated to the fourth industrial revolution and the lesser importance that the labor cost will have as part of the total cost of production, threatens the jobs in the countries receiving the investments.

In any case, there are few studies that specifically focus on the quality of jobs in multinational companies and, even less, those that have the information required to compare it with that offered by companies that do not have these characteristics, and determine the extent of the different dimensions of the Declaration of Multinational Enterprises adopted by the ILO in 1977 are met.

Among other limitations, it highlights the insufficiency of the instruments capable of generating comparable information, between multinational and non-multinational companies, in relation to the dimensions of such Declaration; especially in developing countries where this is an obstacle in the adopting of public policies conducive to enhancing the positive effects of the former and, if necessary, counteracting the negative ones.

It is in this context, where the design of appropriate methodologies to account for the quantity and quality of jobs in multinational and non-multinational companies becomes more relevant. The study sponsored by the ILO is based precisely in this topic, which took as reference the case of Mexico.

The first part of the research carried out in 2016 and collected in this document, compares the advantages and disadvantages of two methodologies designed for that purpose. On the one hand, the National Survey of Occupation and Employment (ENOE) offers the opportunity to make a comparison in relation to the main dimensions of the Declaration of Multinational Enterprises of the ILO, although it does not have the explicit purpose of studying the quality of employment in multinational companies. On the other hand, we review the methodology of the COLEF Survey and its results. This survey was conducted between 2008-2010 and was part of an international study, whose interest was precisely to know the performance of foreign and Mexican multinational companies operated in this country.

The results of the analysis of these methodologies are included in this document. In the first section, we start with the review of the main studies related to multinational companies and the different definitions coming from international organizations as well as the academy. A second part deals with the ENOE, showing its possibilities as well as the gaps left for studying the quality of jobs in multinationals and not multinationals. The third and fourth part is dedicated to the COLEF Survey, presenting first its characteristics and then the analysis of the results. Finally, the fifth part includes the comparison of instruments and their results, as well as the recommendations and proposals. This paper continues the analysis of quality of employment in multinational enterprises (MNEs) in Mexico initiated in the first report of 2016: "Measurement of the employment and labor-related impacts of MNEs in Mexico: an analysis of two different methodologies" by Carrillo and Bensusán (2017a). In that report, based on the analysis of the National Occupations and Employment Survey of INEGI (ENOE) and a representative survey of MNEs (COLEF survey), it was possible to have, for the first time, a clear idea about the scope of these bases of data to analyze quality of employment in MNEs.

Carrillo and Bensusán (2017a) broadly discussed the definitions of MNEs used in academic literature and in international organizations. They proposed an operational definition for the analysis of MNEs and non-multinational enterprises (non-MNEs) in the case of ENOE; in the case of the COLEF survey, there was already an operational definition of multinational firms. They then analyze the methodologies and data from both the ENOE and the COLEF survey to assess the quality of employment in multinationals, based on the provisions contained in the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (ILO MNE Declaration). The results of the two methodologies were compared and recommendations were made for the improvement of the definition and analysis of MNEs.

Carrillo and Bensusán (2017a) also identified the variables of the 2014 Economic Census that would allow us to analyze some dimensions of employment quality in MNEs and non-MNEs and to compare them with the results of the ENOE and the COLEF survey. The results of the comparison of the two methodologies were presented at the Workshop: "Methodologies for Measuring the Impact of Multinational Enterprises on Decent Work" held in Mexico City. This workshop served to give continuity to this second stage of research that now focuses on the analysis of information from the Economic Censuses.

Contact with INEGI was initiated to determine the possibility of access to the micro-data, with almost daily contact with the INEGI staff to form and review the tabulations that served as the basis for the preparation of this report. The difficulties in drawing up the tabulations were diverse, mainly due to the requirements included in the request to fulfill the objectives of this research, as well as some problems in the processing of the data. Due to these, it was necessary to review on several occasions the methodology followed for the treatment of some variables, including working days and country of origin. There were also some obstacles for complying with the confidentiality requirement of the Economic Census. Under the modality we followed on this occasion, INEGI did not properly provide us a database (micro-data) but specific tabulations. Notwithstanding the above difficulties, this paper has pioneered this field of study in Mexico with the information provided by INEGI; never before had the characteristics of companies and employment in MNEs and non-MNEs been analyzed from the Economic Censuses.

This document summarizes some of the main aspects of the previous report and presents the results of the analysis of the 2009 and 2014 Economic Censuses. It completes the analysis of the specific advantages and disadvantages of the criteria and techniques used for the data collection of the three methodologies (Economic Census, ENOE and COLEF) in the study of the effects of MNEs, regarding the quantity and quality of jobs generated through their operations in Mexico.

This paper is structured in five sections. After this brief introduction, the operational definition we use and the variables used in the 2009 and 2014 Economic Census are presented in the methodology. The third section presents the analysis of data according to MNEs and non-MNEs. The general

characteristics, the distribution of the employed population, the salaries and the working days, are presented first for all sectors and then exclusively for manufactures. In the latter case, we contrast foreign multinational economic units, Mexican multinational economic units and non-multinational economic units. The fourth section summarizes the previous results (ENOE and the COLEF survey) and those derived from the Economic Censuses. Finally, the fifth section presents the recommendations. The bibliography is attached at the end of the document and the figures are in the annex.

2. Methodology

Some characteristics of the Economic Census are presented below. The Census applies to 17 groups of economic units that include the manufacturing, trade and services sectors. The observation unit is the establishment although, for the first time in the 2014 Census, new information was added on the company level.² The questionnaires' section of "legal category" distinguishes between MNEs and non-MNEs. In addition to the general information, new issues related to global value chains were included in the 2014 version: science, technology and innovation, in-house outsourcing, and the number of workers covered by the Social Security System.

The Economic Census defines establishment as follows: "It is the economic unit that is dedicated exclusively or mainly to a type of economic activity, in a single physical location, permanently settled in a place and delimited by constructions and fixed installations, combining actions and resources under the control of a single owner or controlling entity to carry out activities for commercial or social purposes and for which it is possible to collect data on its economic characteristics and results" (INEGI, 2003).

The first report (Carrillo and Bensusán, 2016 and 2017a) proposes an operational definition that allows the study of the impact of MNEs in accordance with the ILO MNE Declaration, as opposed to a complex one that sought to integrate the great variety of definitions in the literature. Based on the results of this study, we come with the following definition for MNEs:

"Private, public or public-private enterprises with operations in more than one country and at least 10% of foreign direct investment, with a minimum size of 50 employed by the company or establishment in the host country and at least 300 at the international level, regardless of the sector of the economic activity to which it is dedicated".

Based on this recommended definition, and after reviewing the Economic Census questionnaires, we established the following operational definition specific to the development of this report:

An establishment is a Foreign Multinational if all of the following are satisfied:

- G411 is 1) YES (belongs to a corporate)
- D311 is 1) YES (has foreign capital)
- D312 has 10% or more (of foreign capital)

² The unit of observation may vary according to sectors. The common themes across all sectors are the following: identification and location of data for the economic units; legal classification and type of organization; operational period; economic classification; employee remuneration; expenses; income; production value; assets; fixed capital; credits and bank accounts; and technological information.

- H000 is 50 or more (for the company's total number of employees, which is the sum of B (men) and C (women)).

An establishment is a Mexican Multinational if all of the following are satisfied:

- G411 is 1) YES (belongs to a corporate)
- D315 is 1) YES (it has contracts or programs of economic collaboration with companies in other countries)
- D317 is 1 (companies abroad from the same business group) or 2 (subsidiaries of Mexican companies abroad) (this only applies to 2014 Census)
- H000 is 50 or more (for the company's total number of employees, which is the sum of B (men) and C (women)).

The remaining establishments that do not fulfill either of the two above definitions are considered as non-multinational units.

3. Results

The ILO MNE Declaration addresses a range of workers' rights, including child labour, forced labour, freedom of association and collective bargaining, industrial relations, gender and other forms of discrimination in the workplace, reconciliation between work and family, job stability and promotion opportunities, wages, safety and health at work, and access to training. The Economic Census includes only a few of these areas: hours of work and salaries (including wages and salaries, social security contributions, other benefits and benefits distributed to workers). As we highlighted in the first report, none of the three methodologies includes all the dimensions as their purpose was not to evaluate their labour compliance by MNEs.

Even with the limitations explained above, our analysis of the results using the different definitions and methodologies with the available survey data allowed for the better understanding of employment quality, as was done in the previous report with the COLEF Survey and the ENOE. Although the periodicity of the Economic Census (five years) does not allow quarterly monitoring of employment trends (as is in the case of the ENOE), comparing data from 2009 and 2014 still yields a useful picture. We find a stable trend, except in some aspects that are mentioned below.

1. Characteristics of economic units

According to the Economic Census glossary, economic units are understood as:

“statistical units on which data are collected; Are mainly engaged in a permanent activity type in constructions and fixed installations, combining actions and resources under the control of a single owner or controlling entity, to carry out production of goods and services, whether for commercial purposes or not. They are defined by sector according to the availability of accounting records and the need to obtain information with the highest level of analytical precision.”³

³ See, <http://www.beta.inegi.org.mx/app/glosario/default.html?p=CE2014>.

The unit of observation used is the establishment and/or enterprise, which is defined as the "economic unit" that meets the above characteristics (INEGI, 2016: 4)⁴. Consequently, we use the term economic units⁵ to distinguish from the concept of multinationals in the ENOE survey, which refers to a business or establishment, and from the COLEF survey, which refers to firms. For the purpose of this document the concept of Multinational Economic Units (hereinafter MNEU) is used since the Economic Census describes the establishments as an Economic Unit. Non-multinational Units (which may include large non-internationalized units but above all small and medium-sized units) are called non-Multinational Economic Units (hereinafter referred to as non-MNEU).⁶

Data from the Economic Census shows that the percentage of those employed by an MNEU remained at 5.9% of all employees between 2009 and 2014. However, the number employed by an MNEU increased from 1,197,000 in 2009 to 1,275,000 in 2014.

Starting with a general overview of the results, according to the census data we find that the MNEUs are more stable (according to their age) than the non-MNEUs. The former are characterized by the following:

- The majority of employees are found in the oldest MNEUs (more than 10 years);
- They have a greater presence in manufacturing and a greater geographic concentration (especially in the northern states of the country), with a tendency to expand in other states of the republic;
- They hire a similar percentage of women to that of non-MNEUs in their employed population;
- The vast majority of the employed are concentrated in the category of "workers (salaried), who were directly linked to production, sales or services";
- They have a lower percentage of workers contracted out (see discussion on workers "not dependent on the company's name" in section 2.7) than the non-MNEUs and more regular working time with less presence of reduced hours, overtime or part-time work.

Surprisingly, although MNEUs pay workers better than non-MNEUs (30% on average), the deterioration in MNEU salaries and wages of employees is evident with the salaries increasing more slowly than the rate of inflation and increases in the statutory minimum wage. The increase in benefits was slightly higher than that of wages and salaries, which also occurred in non-MNEUs. The age of the units is positively related to the salaries and wages of the employees. The deterioration was greater in the service sector.

We will now examine separately each of these variables and their evolution according to the economic census of 2009 and 2014. Figures 1A and 1B in the Annex summarize the main information.

⁴ Economic Censuses 2014. Personnel employed subcontracted in economic units, INEGI, 2016.

⁵ It is important to mention that the economic unit analyzes different establishments. In other words, one economic unit could be Walmart, for example, and not each of its 262 supercenters or 2,411 retail units. In this sense, the economic unit of the Census is similar to the company unit that we used in the COLEF survey.

⁶ This acronym reflects the important differences in the units of registration and analysis of the three different methodologies that allow us to analyze the MNEs. The "U" that we use in this document at the end of MNEs represents the concept of the Economic Unit in the Economic Census. In contrast, the "U" in the COLEF survey refers to firms, and in the ENOE case it refers to companies or businesses.

1.1. Age of units

Given the importance of the trajectory of the Economic Units, we could expect that the quality of employment and compliance with the dimensions of the ILO MNE Declaration will increase over the years. We requested INEGI to tabulate according to age of the company. We created four categories: newly created (up to 2 years), young (3 to 5), adult (6 to 10) and senior (more than 10 years). We find a great contrast between MNEUs and non-MNEUs in terms of their age. While units older than 10 years old predominate in the case of MNEUs, in the case of non-MNEUs the largest percentage corresponds to newly created and senior companies. In both cases (MNEUs and non-MNEUs) there was growth of the senior units between 2009 and 2014 (64% to 72.4% in MNEUs vs 26.8% to 33.2% in non-MNEUs). The MNEUs of lesser age (up to 2 years, 3 to 5 years, and 6 to 10 years) decreased in their relative percentage. In contrast, the relative share of non-MNEUs from 3 to 5 years, 6 to 10 years, and more than 10 years increased, while newly created units witnessed a decrease (39.3% to 33.2%). See Figure 1A and 1B in the Annex for further details.

The dominance of units older than 10 years in MNEUs seems to indicate that MNEs make significant direct investments and that their plans are long-term. While a third of MNEUs in 2009 were younger, only a quarter were in 2014. In other words, while there is a considerable and continuing influx of MNEs into Mexico, especially after the 2008-09 crises, there are few that retire, and, thus, companies established in the country accumulate experience, and their workers probably also accumulate labor rights, as would be the case of vacations or seniority pay. However, the information available in the Censuses does not allow us to know the rate of labor turnover.

1.2. Activity sector

Likewise, there is a marked contrast in the distribution of economic units by activity sector. While most of the MNEUs are in the manufacturing sector, most non-MNEU are in retail trade. However, between 2009 and 2014 there was a significant decrease in the share of MNEUs in manufacturing (from 74.5% to 59.7%). In the case of non-MNEUs, this share practically remained unchanged (from 11.7% to 11.5%). See Figure 1B in the Annex.

MNEUs have little participation in retail trade, but they increased between 2009 and 2014 from 0.8% to 3.4%, while these percentages went from 46.5% to 45.2% in the same period for non-MNEUs. The presence of MNEUs in wholesale trade increased from 6% to 9.2% and in non-MNEUs the participation tripled (with 3.1% in 2009) in that same period. See Figure 2 in the Annex. We find that multinationals in Mexico do have a manufacturing vocation, but the tendency to tertiarization through services has increased considerably.

1.3. Geographic location

In 2009, MNEUs were highly concentrated in a few regions, with half of them (49%) in only four states of the republic: Mexico City, Chihuahua, Baja California and Tamaulipas. This concentration decreased five years later when these four states accounted for 43.7% of the MNEU. The State of Nuevo Leon increased its proportion of MNEU (from 6.6% to 8.7%) in that period, as did Guanajuato (from 2% to 3.2%) and Mexico City (from 13% to 15%), while other states experienced a loss, as in the case of the State of Mexico (from 8.9% to 7.6%). The distribution of non-MNEUs was more balanced and the greatest presence in 2014 occurred in the State of Mexico (12.6%) and in Mexico City (9.8%). There were no significant changes between the two census periods. See Figure 2 in the Annex.

This territorial concentration is associated with the development of manufacturing companies, mainly maquiladoras, now known as IMMEX companies, predominantly in the northern states of Mexico.

Also, much of the development in emerging areas such as the Bajío is associated with the boom of the automotive and aerospace sector in the country.

2. Distribution of the employed population

2.1. Age of Economic Units

The highest concentration of employed population occurs in the oldest economic units and hence in MNEUs, which on average are older. For both MNEUs and non-MNEUs, the population hired in this category (more than 10 years) tended to increase between 2009 and 2014 (MNEU, from 70.7% to 75.5%; non-MNEU, from 44.7% to 50.1%). In 2014, 90% of the employees in the MNEUs were concentrated in units of 6 or more years, while for non-MNEUs there was a greater dispersion by age of the economic units. However, there was a significant presence, although in decline, of newly created non-MNEUs (from 22.5% to 18.7%). See Figures 1A and 1B in the Annex. Therefore, in per capita terms, the oldest MNEs are the main generators of employment.

2.2. Activity sector

As mentioned before, MNEUs are concentrated in manufacturing and comprise 74.1% of total manufacturing jobs in 2009 and 72.2% in 2014. The greatest increase in MNEU employment during the period was in wholesale trade (from 1.5% in 2009 to 5.4% in 2014). See Figures 1A and 1B in the Annex. Non-MNEUs account for a smaller share of employment (19% in 2009 and 20.5% in 2014), but generate one of every four jobs in the retail sector.

Aggregated by all sectors, the distribution of employees by occupation remained stable, both in MNEUs and in non-MNEUs. However, in 2014 operational personnel (production, services and sales) had a greater presence in MNEUs (77.6%) than in non-MNEUs (45.7%). See Figure 2 in the Annex.

Considering the employees by type of occupation according to the sector of activity of the economic unit, we find that in 2009, in the MNEUs operating in the mining sector, the majority of the employees (64%) corresponded to the category of operational personnel (production, sales and services) and 24% corresponded to subcontracted personnel. In 2014, there was a strong process of staff outsourcing to the point where the operational personnel was reduced to 51.4% while the outsourced personnel increased to 35.2%. The same was true of non-MNEUs, while the number of operational personnel decreased from 60.2% to 55.3% between 2009 and 2014, the outsourced personnel climbed from 17.8% to 25.9%. See Figure 3 in the Annex.

In the case of manufacturing, the presence of subcontracting also tended to increase but was higher in non-MNEUs (from 16% to 20% between 2009 and 2014), while it only increased from 3% to 4% in that period for MNEUs. Another difference is that while operational personnel was around 83% in MNEUs, with no significant changes between censuses, in non-MNEUs the operational personnel had a slight decline and barely exceeded half of the employed (53.7% in 2009 and 51.8% in 2014). In the services sector, operational personnel reached 58.9% in 2009, rising to 66.1% in 2014. Subcontracting registered a small drop (from 11.5% to 9.1% between 2009 and 2014). Operational personnel had less presence and subcontracting remained relatively unchanged in non-MNEUs (46.1% to 48.2% for operational personnel and 9.2% to 9.7% for subcontractors). See Figure 3 in the Annex.

2.3. Geographic location of employed population

The 58.3% of the employed population was concentrated in 2009 in the four states with the largest presence of MNEUs (Mexico City (CDMX), Chihuahua, Baja California and Tamaulipas). The percentage decreased to 49.3% in 2014 as a result of greater distribution throughout the states. In the case of non-MNEUs, employees, as well as economic units, were concentrated in CDMX and the State of Mexico. See Figure 2 in the Annex.

2.4. Economic Units by size and country of origin

The distribution of MNEUs by size shows a higher concentration for those with more than 500 employed (64.9% vs 64.8% in 2009 and 2014, respectively). Non-MNEUs are concentrated among those with up to 250 employed (79.8% in 2009 and 77.8% in 2014). It can be observed that in the case of the former, there were no significant changes for those with more than 500 employees (barely 0.1% between the two censuses), while in the latter there was a slight growth for that same category (1.8%), with a decrease of those with up to 250 employees.

According to the country of origin in 2014, 66.4% of the MNEU belong to the USA and 19% to Europe. Mexico, along with other countries, is in the "other" category of origin summing to 7.4%. Some non-MNEUs have foreign capital, but less than 10% of foreign capital so they are not considered as MNEU according to the definition of this paper. Of these, 3.5% have US capital. See Figure 4 in the Annex.

2.5. By sex

The breakdown of employees by sex was similar in MNEUs and non-MNEUs, with men comprising the majority in both cases. However, while female participation fell in MNEUs (from 41.5% to 38.7%), it increased in non-MNEUs (from 39.8% to 41.3%). See Figure 5 in the Annex.

2.6. Personnel according to occupational category

The Economic Census divides the employees into five occupational categories as shown in Figure 2 (in the Annex). The vast majority of employees in MNEUs are concentrated in the category of "Operational Personnel" or "salaried workers who were directly linked to production, sales or services,"⁷ with no change between 2009 and 2014 (77.5% and 77.6%, respectively). In the case of non-MNEUs, 45% of the staff were classified in these two categories in 2009 and 45.7% in 2014.

One difference is that while there are practically no employees under the category of "owners, family members and other unpaid workers" (0.1% in 2014) or staff for fees or commissions without a base salary (0.2% in 2014), in the case of the non-MNEU the presence of the former was 31.7% and 28.6% in 2009 and 2014, respectively. The surprising high percentage of personnel employed in this category for non-MNEU may be due to the fact that in these units a minimum size of employed personnel was not set at the economic units and, therefore, microenterprises enter where there may be greater presence of unpaid family work. With less presence, although with a tendency to increase, there was the category of staff for fees or commissions without base salary (2.1% in 2009 to 2.7% in 2014). See Figure 2(f) in the Annex.

⁷ The Census refers to sales and service personnel to "people performing work connected with the operations of the auxiliary establishment". Further details are available at: <http://www.beta.inegi.org.mx/app/glosario/default.html?p=CE2014>

The presence of administrative, accounting and management personnel was higher in the case of MNEUs with a 17.4% in 2009 and 16.5% in 2014 and almost half of that for non-MNEUs with 9.2% in 2009 and 8.5% in 2014. See Figure 2(f) in the Annex.

The distribution of personnel by occupational type according to sex shows that one of the categories in MNEUs that has more women is that of "salaried workers who were directly linked to production, sales or services" (2009: 57.3% men vs 42.7% women). Five years later, the presence of women in this category dropped to 39.2%. On the contrary, the reverse happened in non-MNEUs. Women in this category increased from 35.5% to 37.1% in that period (2009-2014). A similar presence of outsourced female workers (not dependent on the company name, as explained below) was observed in MNEUs and non-MNEUs, but tended to decline significantly in the former (falling from 44.2% to 34%) and remain unchanged in the latter (36.5% vs. 37%) between 2009 and 2014. See Figure 5 in the Annex.

2.7. Unit dependent and non-unit dependent employees

One of the contributions that the Economic Census offers in relation to other sources (such as the ENOE) for the study of employees in economic units (establishments or companies) is the distinction made, according to INEGI terminology, between dependent and non-dependent employees of the company. The INEGI (2016: 16) defines non-dependent employees of the company as "... all people who worked for the economic unit, but who do not depended contractually on the economic unit and performed work linked to the production, marketing, administration and accounting, among others, covering at least one third of the working day of the economic unit. This excludes personnel who worked in the economic unit for the contracting of services of surveillance, cleaning and gardening." This is commonly known as outsourcing employees with core functions.

Non-dependent employees are divided into two categories: contracted personnel provided by another company name (as defined above) and staff for unpaid fees or commissions (these are the self-employed, including to those who only received tips and exclude attorneys, doctors, accountants and other professionals for fees, without regular work or exclusively for the economic unit) (INEGI, 2016: 16)⁸.

The importance of this category (non-dependent on the company employees) is due to its growing size since registration in the Economic Census. It increased 14.3% between 2003 and 2008 and 5.5% annually from 2008 to 2013.

Non-dependent employees comprise a very high percentage of employees in Mining (27.4%), Commerce (18.8%), Manufacturing (18.3%) and Transport, Mail and Storage (18.1%). In some manufacturing subsectors the growth was even greater: for example, the transport equipment subsector went from having 13.4% of subcontracted personnel in 2008 to 20.9% in 2014 (INEGI, 2016: 17 and 24).

The percentage of non-dependent employees was lower and had lower growth in MNEUs (from 5.1% to 5.9% between 2009 and 2014) than in non-MNEUs (where it increased from 14.1% to 17.3%). See Figure 2(e) in the Annex. Among MNEUs, the percentage is particularly high in mining (24% in 2009 and 36% in 2014) and services (22.6% in 2009 and 18.7% in 2014). See Figure 3 in the Annex. In the case of non-MNEUs, the sectors with the highest number of non-dependent employees were financial

⁸ INEGI distinguishes non-employee or subcontracted personnel from the outsourcing phenomenon, understood as the hiring of "companies specialized in certain tasks that do that fraction of the work with better results", which are finally integrated into the productive process of the company contractor. It is pointed out that the greatest presence of this practice occurs in medium or large companies and is carried out for different reasons such as specialization, reduction of costs, the search for efficiency or quality. These activities can go "from planning, to the final or finished phase" (INEGI, 2016: 16).

services (48.2% in 2009 and 39% in 2014), corporate (48.6% in 2009 and 41% in 2014), media information (36.8% in 2009 and 35% in 2014). Moreover, there were significant increases in the cultural activities, sporting and recreational services, educational services and mining sectors.

2.8. Working day

The duration of working days (part-time, reduced days, full time and days that include overtime as legally allowed) accounts for the quality of jobs. Both MNEU and non-MNEU are dominated by full-time working days of 40 to 48 hours without significant variation (barely a slight decline from 2009) in the analysis period (MNEU 61.4% vs non-MNEU 48.9%) in 2014. See Figure 2(g) in the Annex. There was also a significant percentage of the employees working between 49 and 56 hours in the MNEU, with a decreasing trend between 2009 and 2014 (from 23.1% to 18.1%), and, consequently, increasing the percentage of employees working more than 56 hours (from 5.2% to 7.3%). In the case of non-MNEU employees this latter percent was more than three times that of MNEU (from 23.5% to 22.9%) between 2009 and 2014. The presence of personnel with reduced working hours or part time (between 0 and 34 hours) was slightly higher in the non-MNEU. In sum, both indicators (greater presence of reduced hours and strenuous work days) indicate a lower quality of jobs in the non-MNEU compared to MNEU. See Figure 2(g) in the Annex.

2.9. Remuneration⁹

MNEU pay production, sales, or service personnel on average higher wages than non-MNEU. The salary difference is just over 30%. In both cases, there was a nominal increase between 2009 and 2014; this was just under 9% for MNEU and slightly over 14% for non-MNEU. Both increases were smaller than those corresponding to increases in inflation and general minimum wages between 2010 and 2013 (15.8% and 17.0%, respectively), which indicates that there was a deterioration of real income in both (greater in MNEU) and a lack of negotiation capacity of workers against the employers. See Figures 6 and 7 in the Annex.

With regard to the payment of social security contributions for these same personnel, the increases followed the same trend as they are calculated on the basis of wages. As for the item "other benefits"¹⁰, these were equivalent to slightly more than 14% in MNEU in 2009 and increased to 20.9% in 2014. Something similar occurred in non-MNEU, but the amount of benefits, which were slightly more than 10% of the salary in 2009, increased to 53.3% in 2014 in the period up to the 2014 census. According to the data, it would appear that in both cases benefit increases were used to offset lost purchasing power due to inflation. It is striking that the increase in non-MNEU was substantially higher than that of MNEU. In contrast, the amount of profits distributed among all workers was three times higher in the MNEU than in non-MNEU; in the former the increase in this category was of 17.76% between the censuses (2009-2014) and for the latter 22.08%.

It is worth noting that on average, MNEU paid almost twice as much to administrative employees, accountants, and management than those of production, sales or service personnel and to the same category in non-MNEU. The increases in the former category were just over 10% and around 15% in non-MNEU between 2009 and 2014. See Figures 6 and 7 in the Annex.

⁹ Remuneration in manufactures is found in a separate section.

¹⁰ "Other benefits" means the payments made by the economic unit to private institutions for the benefit of their workers or which directly paid salaries in kind, in addition to wages and salaries, such as private medical services, insurance premiums, educational services, study aids, and day care centers. Excludes: employers' contributions to social security schemes, purchase of equipment, uniforms and work clothes; training costs; holiday bonuses; disbursements for sports and recreational activities; expenses for tickets, per diem and food; and all those expenses reimbursable to the worker. Economic Census's Glossary.

Another factor associated with higher wages on average is the age of the economic unit, both in MNEU and non-MNEU, with the factor being more important in the latter. The difference in wages paid to production, sales or services personnel between the newly created unit and those over 10 years old was just short of 20% in the MNEU, but doubled in the case of non-MNEU. In the case of "other benefits," the difference from the two previous age categories increased between 2009 and 2014 in both cases. Senior MNEU in 2009 paid wage about 50% higher than their non-MNEU counterpart. For newly created (0-2 years) units, MNEU paid five times higher than non-MNEU; this increases to six times higher in 2014. See Figure 8 in the Annex.

The same was true in the case of average wages paid to administrative employees, accountants, and management: the greater the age of the units, the higher the salaries paid, and the differences in non-MNEUs were again much greater (more than doubled both in 2009 and 2014) than in MNEU (20% more in 2009 and slightly more than 40% in 2014). This difference may be explained by the greater vulnerability of newly created non-multinational units, which may explain the payment of lower wages. See Figure 8 in the Annex.

In the service sector we find that wages deteriorated for operational personnel (production, sales and service employees) of MNEUs (they fell 4.8% between 2009 and 2014). This wage was equivalent to 4.5 minimum wages in 2014. However, the salaries of employees, accountants, and management increased 19.1%, i.e. more than the 15.8% increase in inflation between 2010 and 2013. This indicates a real wage increase equivalent to an increase of 12 general minimum wages. Social security contributions fell in MNEUs by 30.7% during this period, as well as profit sharing between workers which decreased 44%. The increase in benefits was very low (1.6%) and, therefore, did not help compensate for the general deterioration of wages. See Figures 6 and 7 in the Annex.

In the case of non-MNEUs, wages for operating personnel (production, sales or services) in services increased by 14.5% between 2009 and 2014, which is equivalent to 2.6 minimum wages, and not enough for real wages to grow. Yet, the worst affected were administrative employees, accountants, and management whose wages increased by only 3.8%, well below inflation. Their salary was equivalent to 13 minimum wages in 2014. In contrast, contributions to social security increased by 22.6% and other social benefits by 21.9%, largely offsetting the wage loss. The distribution of profits increased slightly. See Figures 6 and 7 in the Annex.

2.10. Employees by type of occupation according to size and country of origin

The majority of employees in MNEUs in 2009 are working in production, sales or services, comprising 77% in those units with 500 or more employees, 75% in those with 251 to 500 employees and 78% in those with 250 or less employees. In non-MNEUs with 500 or more employees in 2009, those working in the same category comprised 77.5%. The percentages changed little in 2014.

The classification of administrative, accounting, and management employees had a greater presence in MNEUs, especially in the case of the smaller ones (50-250 employees), equivalent to 17.5% in 2009 and decreased to 16.7% in 2014. This percentage was 7% in 2009 and increased to 7.5% in 2014 for non-MNEUs.

In MNEUs there were few employees in the category of "owners, family and other unpaid workers," while in non-MNEUs of up to 250 employees this category represented 43.2% in 2009 and decreased by four percentage points in 2014.

The most significant finding of job quality, albeit indirect, is that the presence of employees not dependent on the Economic Unit is lower in MNEUs than in non-MNEUs. In the latter, this employment category is concentrated in companies from 251 to 500 employees (29.2% in non-MNEUs vs. 3.6% in MNEUs) and more than 500 employees (27% in non-MNEUs vs. 5% in MNEUs) in 2009. See Figure 9 in the Annex.

3. Manufacturing (MNEUs, Mexican MNEUs, non-MNEUs)

3.1. Age of Economic units

MNEUs in manufacturing are increasingly concentrated among units more than 10 years in existence, accounting for 64.1% in 2009 and 73.1% in 2014. However, the opposite trend occurs in the case of Mexican MNEUs, with units over 10 years of age falling from 82.4% to 76.7% between the two censuses. The percentage of newly created MNEUs also seemed to decrease between 2009 and 2014 (from 8.2% to 5.5%).

In the case of manufacturing non-MNEUs there was also growth in the oldest units from 33.8% to 39.4%, while newly created units decreased from 31.8% to 26.7%. See Figure 10 in the Annex.

3.2. Geographic location

Geographically, more than half of the manufacturing MNEUs (53.4%) were located in four states of the republic (Chihuahua, Baja California, Tamaulipas and the State of Mexico) in 2009. In the next census, again half of the MNEUs were concentrated in four states (but now these four were Chihuahua, Baja California, Nuevo León and Tamaulipas). Between the two censuses there were some states that gained presence (Nuevo León and Guanajuato), while others tended to lose it (CDMX, Chihuahua, Estado de México, Tamaulipas and Puebla, among others). Manufacturing non-MNEUs, like those of other sectors, have a lower degree of concentration and have the greatest presence (slightly more than 10%) in the state of Mexico.

Moreover, the data shows that there were 85 Mexican manufacturing MNEUs in 2009, but only 30 in 2014. This abrupt decline might call for a more careful revision of the data as this seems unlikely, yet there is no information accessible to us to verify this. The majority of these multinationals were concentrated in the State of Mexico followed by four Northern bordering states in 2008, while in 2014 they remained in the previous four Northern bordering states, but no longer in the State of Mexico. See Figure 10 in the Annex.

3.3. Employees by Economic Unit age, geographic location, sex, social security and occupational category

The distribution of employed personnel tended to concentrate on those of greater age in all international MNEUs, Mexican MNEUs, and non-MNEUs. Likewise, there was the same trend towards geographic concentration in four states of the republic, with a greater dispersion in the case of non-MNEUs. See Figure 11 in the Annex

By sex, the distribution continued in MNEUs and non-MNEUs with a similar trend to that of all employees, with a decrease in women's participation in non-MNEUs (from 42.1% to 38.8%) and in Mexican MNEUs (32.5% to 27.8%). On the contrary, they increased their presence in non-MNEUs (from 33.5% to 34.2%). The greatest participation of women occurs in non-MNEUs.

Likewise, as in the entire employee population, the presence of subcontracted personnel (not dependent on the company) in the manufacturing sector is very scarce both in the case of international MNEUs (grew from 3% in 2009 to 4.2% in 2014) and Mexican MNEUs, while it is larger and tends to grow in non-MNEU from 33.5% to 34.2%.

The operational personnel (employees directly linked to production, sales or services) hold, similar to before, the greatest percentage of employees in the manufacturing units, although with a tendency to

decrease. However, there is a significant difference between MNEUs and non-MNEUs, since in the former the operational personnel reached 82.3%, while in the latter it only reached 51.6% in 2014. It can be observed that other employee categories, such as the owners, family members and other unpaid workers and non-dependent employees on the unit, have a greater presence in non-MNEUs (together they comprised 37.1% in 2014) having a greater joint weight than those of administrative, accounting and management employees. These differences in composition could be seen as indicators of better employment quality in international and Mexican manufacturing MNEUs than in manufacturing non-MNEUs because of a lower presence of subcontractors and unpaid labor, which may be due to the fact that non-MNEUs include units having less than 50 workers, unlike the case of MNEUs. See Figure 11 in the Annex.

3.4. Working days

In all manufacturing units, regular working days (40-48 hours) predominate, although the legal limit is 56 hours (which means that some work days exceed nine hours). In MNEUs, the percentage of those with a workday of 48 to 56 hours diminished; yet the percentage of employees with strenuous hours (more than 56, exceeding the legal limit) increased (from 5.9% to 8.4% in MNEUs and from 11.4% to 17% in non-MNEUs). See Figure 11 in the Annex.

3.5. Remuneration

Considering the average wage by occupational category in manufacturing MNEUs, the wages paid to operating personnel (production, sales or services) increased 10.3% from 2009 to 2014, well below both the rate of inflation (which was 15.8% in the period 2010-2013) and the increase in the minimum wage (17.1% during the period 2010-2013)¹¹. The average wage in 2014 was equivalent to just under four minimum daily wages. In the case of non-MNEUs, the operational personnel's wage increase was higher (26.2%, from 2009 to 2014), so in principle there was a real wage increase. The average daily wage in this case (manufacturing non-MNEUs) was 3.5 minimum wages, just below the wage in MNEUs, which means that the gap tended to close.

The wages and salaries paid to administrative employees, accountants, and management in manufacturing MNEUs increased by 14.0% between 2009 and 2014, i.e. as in the other case, below the corresponding increases in inflation minimum wage. On average, daily income was equivalent to just over eleven minimum wages in 2014. In non-MNEUs, these employees obtained a 12.2% increase in the period under study, with the same trend of real income loss, and an average income in 2014 equivalent to eight minimum wages.

In the case of "other benefits" (where information is provided aggregated for all occupations) the benefits increased by 30.6% in MNEUs (2009-2014) and 50% in non-MNEUs. Again, it seems the gap in remunerations is closing between multinationals and non-multinationals.

Finally, within manufacturing, the profits distributed in MNEUs increased between the censuses by 48.6%, while in non-MNEUs the increase was of 52.5%. See Figure 11 in the Annex.

3.6. Employees according to size of economic unit and country of origin

The distribution of employees by unit size in manufacturing shows no differences with the trends described for all sectors. While in MNEUs the employees were concentrated in units with more than 500 employees, with growth between 2009 and 2014 (from 62.5% to 69%), the focus in non-MNEUs was on smaller units (50 to 250 employees) with a decrease between 2009 and 2014 (from 65.4% to

¹¹ The general minimum wage of 2014 was equivalent to 65.58 pesos per day.

60.9%). This decrease corresponds to an increase of employees in units with more than 500 employees (from 23.4% to 27%).

Likewise, the most common country of origin for MNEUs in 2014 was the USA (69.4%); 11.4% of all non-MNEUs had some US capital but not enough to be identified as a multinational.

For manufacturing companies, almost all of the employees were located in the occupational category of production, sales or service, in the case of those units with more than 500 employees (95% in 2009 and 93.5% in 2014). In the case of non-MNEUs, this percentage was 60.1% in 2009 and decreased to 54.4% in 2014. Furthermore, for non-MNEUs, there is also an important percentage of employees in the category of owners, family members and other unpaid workers in the units of less than 250 employees, with a slight decrease between the Censuses (from 29% to 27.7%). See Figure 12 in the Annex.

4. Comparison of results: CENSO, ENOE and COLEF

The three methodologies reviewed in this study allow us to analyze the behavior of MNEs according to some of the principles of the ILO MNE Declaration. Each methodology has its own benefits, and in some dimensions and for some variables they can be combined to provide a better understanding of job quality in multinationals. Although the three methodologies are complementary, they cannot replace each other. The ENOE, the CENSUS and the COLEF survey are different in terms of the unit of observation, the unit of analysis, the person interviewed, the temporality of data collection and the size of the sample; on top of this, each methodology is only partially covering the dimensions of the MNE Declaration. We now look at these differences in more detail.

First, the ENOE makes it possible to compare the quality of jobs between MNEs and other companies. The Census also allows researchers to distinguish between MNEs and other companies and provides rich information on country of origin and year of beginning operations, but it does not provide enough information on the quality of the jobs. In contrast, the COLEF survey allows researchers to distinguish between foreign and Mexican multinationals, which makes it possible to test whether employment practices in the countries of origin affect the quality of jobs offered in the host country.

Second, the ENOE, being a quarterly survey, allows monitoring of the evolution of employment quality. In contrast, the COLEF survey was administered only once and is very difficult to replicate; and the Economic Censuses are applied every five years.

Third, the unit of observation in the ENOE is the residence but the unit of analysis is the household (one residence could have more than one household) and the respondent must be at least 15 years of age and not necessarily the worker. For the Economic Census, the observational unit is the establishment, or sometimes the company, and the respondent is the representative of it. While the ENOE targets the labor market, the Census focuses on the economic structure. In the case of the COLEF survey, the unit of observation is the establishment, but the unit of analysis is the company or firm, and the respondent is the representative of the firm's human resources department.

Fourth, the ENOE and COLEF survey both have large sample sizes better representing the population under study. The ENOE has a sampling design with high representation of the population: it is the survey with the largest number of households sampled from all household surveys conducted in Mexico (120,260 households). This guarantees timely and accurate information on occupation and employment. In the COLEF study, the sample includes 922 multinational firms, the largest data coverage available as of now when dealing directly with firms, rather than business establishments.

Finally, no survey covers all the issues addressed in the ILO MNE Declaration. For example, the ENOE does not cover occupational safety and health or ask about the existence of collective agreements. The COLEF questionnaire does not cover some aspects of employment quality considered by the ENOE,

such as working hours or the formalization of contracts. And the Economic Censuses do not cover most dimensions. The following table summarizes the main differences.

These differences between the three methodologies are associated with advantages and disadvantages of the corresponding definitions of multinationals that can be elaborated. In the case of the ENOE, its main advantage in terms of its definition is its simplicity, especially taking into account that the respondent is an individual, at least 15 years old, who is at home at the time of the poll. However, its main drawback is that the criterion used to identify a multinational company is imprecise, since having offices in another country is not enough to classify a company as a multinational.

The definition used by COLEF allows researchers to distinguish between foreign and Mexican multinationals, as well as identify the country of origin. However, one of the difficulties with the COLEF survey is that the unit of observation is the firm, not the establishment, as is the case in most surveys in other countries. This complicates the study of factors of employment quality, as they can vary substantially between different establishments of a single multinational enterprise.

Finally, the Economic Census allows researchers to quantify the percentage of FDI in the MNE; and to identify the country of origin and the age of the establishment or company. These elements provide a more complete way of identifying a foreign multinational. The main limitation, however, is that there are few variables pertaining to employment quality.

Methodology	ENOE	COLEF	Economic Census
Possibilities of comparison MNEs – Non-MNEs	Yes	No	Yes
Follow-up (longitudinal analysis)	Yes	No	Yes
Observation Unit	Household	Multinational firm	Establishment or company (in some cases). “Economic Unit”
Sample quality	Highly representative	Highly representative	It covers all Economic Units (establishments and enterprises) in urban areas
Scope of the ILO MNE Declaration dimensions (job promotion, equal treatment and opportunities; job security; job training; work and life conditions; work relations; union freedom; collective bargaining).	Incomplete (does not cover equal treatment and opportunities, aside from sex; job training, health and safety, collective bargaining).	Incomplete (does not cover equal treatment and opportunities, job security, some aspects of work conditions, nor health and safety).	Incomplete (only covers volume of employment, sex, remunerations (wages, salaries and benefits) and social security.

Source: Authors elaboration based

Some substantive differences

It is important to mention the main differences found between the methodologies reviewed. For the purposes of analysis in the ENOE, employees from personal or family companies were excluded, as were other entities such as government, universities, health sector, etc. given that they are not part of the private sector, nor do they respond to the characteristics and dynamics of the labour market in this sector (Carrillo and Bensusán, 2016). In the case of the Economic Census (CENSO), it includes all units from different economic sectors, except those of extraction of crude petroleum and natural gas, corporate groups, non-profit institutions, mining units and fishery or aquaculture units.

The differing results of the total population employed by MNEs or units obtained through the different methodologies is striking. In terms of the volume of those employed and the percentage they represent in the formal private sector, the results differ significantly according to the sources. This is due in part to both their distinct definitions and methodologies, as we will show later. But, it is important to note that, because of sampling, both diverging results could in fact exist in a population set that is common to the Census and the ENOE.

In terms of the total employed population, according to the ENOE, MNEs accounted for 4.2% in 2009, increasing to 5.6% in 2015. For the total formal salaried employees in the private sector (more than 10 and 12 million in the reference period), multinationals had 19% in 2009 and 22.8% 2015. These percentages coincide, in relative terms, with those found in the COLEF survey, where in 2009 the population employed in MNEs was 2.6 million people (which is equivalent to 20% of the total salaried employees). For its part, the Economic Census showed an employed population of 1.2 million in MNEUs for 2009 (from a total of 20 million people). That is, the reference populations of "employed population" are very different in the ENOE and in the Census, reason for why their comparison is not possible. So it is not surprising that in 2009 the average number of employees by multinational firm was 2,985 people in the COLEF survey, but only 608 people in the Economic Census, and this information is not available for the ENOE. A detailed analysis of the structure of the employed population should therefore be carried out in order to have a clearer idea of the reasons for these differences and of the changes needed to have more comparable populations.

A summary comparison of results between the three methodologies based on the ILO MNE Declaration can be found in Figure 13 in the Annex. The data from the ENOE and the COLEF survey come from the previous report Carrillo and Bensusán, 2016. That Figure includes several variables (employment, demographic profile of the enterprises, wages, social benefits, working day, training, work organization, unions and company activity).

Finally, we present the main gaps in the indicators of decent work in the case of the Economic Censuses:

Main Gaps in Decent Work Indicators. ENOE and Economic Census

Principles of the ILO MNE Declaration	Statistical DW Indicators	Concepts	Main Source
Increase employment opportunities and standards	Number of employees	Employment	ENOE, Economic Census
		Employees	
		Earnings	
	Occupational segregation by sex	Employment	

Equality of opportunity and treatment	Female share of employment in senior and middle management	Employees	<u>ENOE, Economic Census (partial information)</u>
	Gender wage gap	Earnings	
Stability and security of employment	Precarious employment	Employees	ENOE OK, Economic Census not available
	Short-term workers rate	Precarious employment	
Training	Employees with recent job training		Not available
Wages, benefits and conditions of work	Excessive working time (add)	Earnings	ENOE, Economic Census
		Occupations	
		Working time	
Minimum age	Share of child labour	Child labour	ENOE OK, Economic Census not available
Health and Safety	Fatal (occupational) injuries incidence rate	Occupational injuries	Not available
	Non-fatal (occupational) injuries incidence rate	Fatal and non-fatal injuries	
	Time lost due to occupational injuries	Days lost by cases of temporary incapacity	
Freedom of association and the right to organize	Trade union density	Trade union	ENOE OK, Economic Census not available
	Percentage of workers in a given enterprise who are trade union members by total number of employees	Employees	
Collective bargaining		Collective bargaining agreement	Not available
	Collective Bargaining coverage rate	Employees	
	Percentage of employees whose pay and conditions of employment are determined by one or more collective agreement (s)		
Source: Authors based on Galhardi, 2015			

5. Conclusions and Recommendations

Before presenting the conclusions and recommendations, we would like to mention that it is the first time that the characteristics of MNEs are analyzed from the Economic Censuses in Mexico. Thanks to the availability of INEGI to get us the micro data, and given the identification, on our part, of variables that allowed us to compare MNEs (foreign and Mexican), and non-MNEs, we have unpublished information on this set of enterprises, as well as on dimensions of the ILO MNE Declaration.

- 1) INEGI does not have any survey focused on studying the quality of jobs in MNEs. The surveys reviewed do not include any definition of a multinational company. Therefore, starting from different operational definitions of MNEs and non-MNEs in each survey makes the findings fundamentally incomparable. In the case of the ENOE and the Economic Census, which are the official surveys, the following six dimensions are covered in either or both: employment opportunities, equality of opportunity, stability, wages, minimum age, and freedom of association. However, as mentioned before, these dimensions are covered only partially. On the contrary, the dimensions of training, health and safety and collective bargaining are not covered in any way in the methodologies of the ENOE and the Economic Census. In the case of the COLEF survey, more dimensions of the MNE Declaration are covered as above, plus some dimension such as collective bargaining are included (partially). Yet some dimensions are still missing.
- 2) The frequency of data collection is different in each of the three methodologies. The ENOE is applied four times a year; the Economic Census every five years, and the COLEF survey was administered only once. This is a great limitation for the latter's use by policymakers. In this sense, given the scope of the issue and the economic and social coverage of MNEs in Mexico, it would be highly advisable to have a specific annual survey by INEGI. As these processes involve a lot of financial resources and time, and certainly the willingness of the institutions to carry them out, an intermediate and very useful situation would be to commission the design and application of a survey to an academic institution, such as COLEF, who has a long trajectory studying MNEs in Mexico. Although the three methodologies analysed in the two reports complement each other, they cannot be statistically combined due to substantive differences: the unit of analysis and registration, the temporality in the surveys, and the specific variables that are included as indicators of the principles of the MNE Declaration. Yet it should be noted that none of these three methodologies had the specific objective of assessing the dimensions of the ILO MNE Declaration.
- 3) In the case of surveys, information gathered depends, above all, on the respondent (households, worker, and establishment) and the intention of the survey itself. In the case of economic surveys in establishments – which allow for a greater and more precise characterization of MNEs – it would be advisable to include questions that generally tend to form part of labour force surveys. These could be complemented with modules covering labour relations and applied to the employees of those establishments included in the sample survey, in order to avoid information bias.
- 4) The Census, having the unit of analysis as the establishment, offers many advantages, such as the possibility of exploring what happens in productive chains with jobs as they move away from the main economic unit. Now we can know how many subcontracted employees are in the economic units, but we cannot compare their working conditions.

For example, the remuneration is only available for the personnel dependent on the company.

- 5) The concept of outsourcing goes beyond what can be captured by dividing the personnel into dependent or non-dependent employees. There should exist information on the same questionnaire that captures who is paying the non-dependent employees; as of now, there is no data on who hires the non-dependent employees. If it were possible to examine this link, we could know more about employment in the sector.
- 6) We find very low the subcontracted personnel in MNEs, but in reality this phenomenon is more conceptually limited than that of outsourcing (jobs that were in and outsourced for reasons of specialization, costs, etc.). This phenomenon has to be studied but the Census does not provide this information, such as the knowledge of how many jobs left the units to move to other economic units that produce or provide services to the former.
- 7) The wage deterioration is confirmed in the case of the operational staff (wage earners of production, services and sales): increases are below inflation and below the increases of the minimum wage. This could be related to one or more factors, such as the workers' inability to benefit from the presence of multinationals, some compensating factor such as higher job security or better benefits or a closing of productivity gaps between MNEs and their non-MNE counterparts. Wage deterioration is worse in the services sector where subcontracting is more prevalent, indicating that limited negotiating strength of workers is a likely factor.

Operational recommendations for the Economic Census

In order to study the impact of MNEs on employment and decent work along the lines of the principles of the ILO MNE Declaration, information similar to that compiled by the Economic Census would be useful, with the inclusion of some additional questions, such as those explored in the COLEF survey.

The Economic Census operational definition includes appropriate variables to identify an MNE:

- (i) if the surveyed economic unit belongs to a corporate group;
- (ii) if foreign capital forms part of the social capital of the economic unit; and
- (iii) the percentage of foreign capital and country of origin.

Questions missing from this definition but part of the proposed operational definition include (1) whether the enterprise has establishments outside of the country and (2) the number of employees globally. Considering the scope of the Census, questions about the means of entry in the country could result in an additional advantage. In this case, the following additional questions may be considered:

Approximately, how many employees does the firm have globally?

(Read options and circle the one indicated by the respondent)

1. Less than 300 employees?
2. Between 300 and 5,000?
3. Between 5001 and 10,000?
4. More than 10,000?

This firm mainly deals with:

1. The Mexican market
2. The export market
3. Seeks natural resources
4. Technological assets
5. Other

Where in the value chain is the firm located (principal product or service)?

1. OEM (Original Equipment Manufacturer)
2. Tier 1
3. Tier 2
4. Tier 3
5. Other

The Economic Census provides an important opportunity to broaden understanding of MNEs, assuming that certain changes could be made. Currently, the unit of observation is the establishment (and in some cases, the firm). Adding a module to obtain information regarding aspects contained in the ILO MNE Declaration would mean that these could then be related to both companies' innovation strategies and value chains. This would be a formidable resource for comparing quality of employment along the value chain. It is known, from the literature, that the quality of employment is better in the first tier of the global value chain and tends to deteriorate in the lower tiers of the chain. Various initiatives have been taken by several institutions to change international statistics in order to be able to analyze global value chains.

Limitations of the definition used:

The definitions of foreign and Mexican multinationals were based on the basic questionnaire questions. As we do not have the database, we cannot perform statistical tests to compare these results with information from other databases; we cannot compare neither general statistics nor detail information on companies. In other words, the trial-and-error technique would allow us to have a better approximation of the variables that should be included in the definition. This would help not to underrepresent the multinationals, as was the case, especially with Mexican multinationals. For example, Jorge Basave (2016:23-24), an expert in this topic, calculated that there are around 70 big Mexican multinationals in the manufacturing sector and combining big and medium size companies, there are around 200 Mexican MNEs in all sectors. The COLEF survey found, in 2009, the existence of 120 Mexican MNEs in manufacturing and services. However, INEGI tabulations report only 30 Mexican MNEs in manufacturing in 2014. Therefore, we consider that INEGI should allow us to provide detailed information so that, after several tests, we could know what the variables are that could be responsible for the under-representation of those segments. Having pointed out this limitation, we can confirm that the multinationals found (foreign and Mexican) in the Economic Censuses of 2009 and 2014 are certainly multinational. That is, the Type 2 error in methodology is most likely to be found in the set of non-MNEs (in other words, classified a positive case (Mexican Multinational) as is a negative case (in Non-Multinational). Yet, since there are too many Economic Units in this latter category, the average percentages are unlikely to be affected if there are some Mexican MNEUs through this type of error.

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Annex VII

Figure 1A. Summary of results of the Economic Census

	MNE Economic Units		Non-MNE Economic Units	
	2009	2014	2009	2014
1. Economic Units	1,968	2,170	3,722,051	4,228,575
a Age of Economic Unit				
Adults (more of 10 years)	64.00%	72.40%	26.80%	31.20%
Young (0-10 years)	36.10%	27.60%	73.10%	68.90%
b Sector of Activity				
Manufacturing industry	74.50%	59.70%	11.70%	11.50%
Services	8.50%	16.50%	13.80%	15.30%
Commerce	6.80%	12.60%	50.00%	48.30%
Rest	10.00%	10.50%	12.40%	12.20%
c States, geographic location				
North Border (5 states)	47.80%	43.60%	13.00%	12.30%
Mexico City	13.00%	15.10%	10.30%	9.80%
Rest (26 states)	39.30%	41.30%	76.80%	77.90%
2. Employed Population	1,197,409	1,275,389	18,919,425	20,300,969
a. Age of Economic Units				
Adults (more of 10 years)	70.70%	75.50%	44.70%	50.10%
Young (0-10 years)	29.40%	24.50%	55.20%	49.90%
b Sector of Activity				
Manufacturing industry	74.10%	72.20%	19.90%	20.50%
Services	9.00%	19.90%	19.00%	20.30%
Commerce	1.70%	7.80%	32.40%	31.30%
Rest	15.10%	0.10%	28.80%	28.00%
c States, geographic location				
North Border (5 states)	54.30%	52.20%	17.90%	18.30%
Mexico City	16.90%	14.20%	16.40%	16.90%
Rest (26 states)	28.80%	33.60%	65.90%	64.90%
d. Sex				
Male	58.50%	61.90%	60.20%	58.70%
Female	41.50%	38.10%	39.80%	41.30%
e. People employed				
Dependent of the enterprise	94.90%	94.10%	85.90%	82.70%

Non-dependent of the enterprise	5.10%	5.90%	14.10%	17.30%	
f. Employees according					
Operators	77.50%	77.60%	45.00%	45.70%	
Administrators	17.40%	16.50%	9.20%	8.50%	
Rest	5.20%	6.00%	45.90%	45.80%	
g. Working day					
40 to 48	61.80%	61.40%	49.50%	48.90%	
More than 48	28.30%	25.40%	36.70%	36.30%	
0 to 39	10.00%	13.10%	13.80%	14.80%	
4. People employed by occupation type according sex (complement correspond to males)					
Female operators	42.70%	39.20%	35.50%	37.10%	
Female Administrators	35.80%	34.00%	42.10%	44.50%	
5. People employed by type of occupation according sector of activity of Economic Unit					
Manufacture operators (blue collar)	83.30%	82.30%	53.70%	51.80%	
Manufacture Administrators	13.70%	13.40%	10.30%	9.90%	
6. Average income by sector of activity of the employed population (monthly pesos)					
Manufacture, operators	7,113	7,845	5,225	6,594	
Commerce, operators	9,728	6,744	4,147	4,619	
Services, operators	9,199	8,760	4,531	5,188	
Rest of sectors, operators	8,763	11,528	10,265	11,057	
Total average	7,506	8,109	5,183	5,930	
7. Average remuneration by type of contribution (monthly pesos)					
Average operators	7,506	8,109	5,183	5,930	
Average Administrators	19,492	21,525	11,228	12,869	
Contributions to social security	1,519	1,682	823	976	
Other social benefits	1,060	1,281	530	812	
Profits (annual)	6,915	8,143	2,222	2,713	
8. Average remuneration by type of contribution and age of the Economic Unit (monthly pesos)					
Operators	MNE (Young)	6,589	6,550	3,189	3,566
	MNE (Adults)	7,801	8,514	6,333	7,182
Administrators	MNE (Young)	16,820	15,546	6,124	7,060
	MNE (Adults)	20,349	22,676	12,840	15,098

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 1B. Summary of results of the Economic Census (detailed information)				
	MNE Economic Units		Non-MNE Economic Units	
	2009	2014	2009	2014
1. Economic Units	1,968	2,170	3,722,051	4,228,575
1.1 Age of Economic Unit				
Newly created (0-2 years)	8.40%	6.00%	39.30%	33.20%
Young (3-5 years)	8.50%	6.10%	16.20%	16.50%
Adult (6-10 years)	19.20%	15.50%	17.60%	19.20%
Senior (+ than 10 years)	64.00%	72.40%	26.80%	31.20%
1.2 Sector of activity				
Manufacturing industry	74.50%	59.70%	11.70%	11.50%
Business support services and waste management, and preventive services	7.60%	15.30%	2.20%	2.20%
Wholesale trade	6.00%	9.20%	3.20%	3.10%
Retail trade	0.80%	3.40%	46.80%	45.20%
Temporary accommodation and food and beverage preparation services	0.90%	1.20%	10.50%	11.90%
Health and social work services	-	-	1.10%	1.20%
Rest of sectors	10.00%	10.50%	12.40%	12.20%
1.3 States, geographic location				
Mexico City	13.00%	15.10%	10.30%	9.80%
Chihuahua	13.80%	10.60%	2.40%	2.30%
Baja California	11.60%	10.10%	2.20%	2.30%
Nuevo Leon	6.60%	8.70%	3.50%	3.20%
Tamaulipas	10.10%	7.90%	2.70%	2.50%
Mexico	8.90%	7.60%	12.30%	12.60%
Coahuila	5.70%	6.30%	2.20%	2.00%
Jalisco	4.60%	4.30%	7.10%	7.40%
Guanajuato	2.00%	3.20%	4.80%	5.30%
Puebla	2.80%	2.40%	5.80%	5.90%
Rest (22 states)	21.00%	23.80%	46.80%	46.70%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 2. Synthesis results by occupied population

	MNE Economic Units		Non-MNE Economic Units	
	2009	2014	2009	2014
1. Occupied population	1,197,409	1,275,389	18,919,425	20,300,969
a. Age of Economic Unit				
Newly created (0-2 years)	5.80%	4.70%	22.50%	18.70%
Young (3-5 years)	7.20%	5.10%	13.80%	12.70%
Adult (6-10 years)	16.40%	14.70%	18.90%	18.50%
Senior (+ than 10 years)	70.70%	75.50%	44.70%	50.10%
b. Sector of activity				
Manufacturing industry	74.10%	72.20%	19.90%	20.50%
Business support services and waste management, and preventive services	8.30%	10.60%	6.70%	7.80%
Wholesale trade	1.50%	5.40%	5.80%	6.20%
Retail trade	0.20%	2.40%	26.60%	25.10%
Temporary accommodation and food and beverage preparation services	0.70%	9.30%	9.20%	9.50%
Health and social work services	0.00%	0.00%	3.10%	3.00%
Rest of sectors	15.10%	0.10%	28.80%	28.00%
c. States, geographic location				
Mexico City	16.90%	14.20%	16.40%	16.90%
Chihuahua	18.00%	15.00%	3.00%	3.00%
Baja California	12.30%	10.50%	3.00%	3.20%
Nuevo Leon	7.30%	8.40%	6.10%	6.40%
Tamaulipas	11.10%	9.60%	2.90%	2.70%
Mexico	5.00%	4.40%	10.00%	9.70%
Coahuila	5.60%	8.70%	2.90%	3.00%
Jalisco	3.40%	3.40%	7.70%	7.50%
Guanajuato	1.80%	2.50%	4.70%	5.10%
Puebla	3.10%	3.10%	4.20%	4.10%
Rest of 22 States	15.50%	20.20%	39.30%	38.50%
d. Sex				
Male	58.50%	61.90%	60.20%	58.70%
Female	41.50%	38.70%	39.80%	41.30%

e. People occupied				
Dependent of the enterprise	94.90%	94.10%	85.90%	82.70%
Non-dependent of the enterprise	5.10%	5.90%	14.10%	17.30%
f. People by occupation				
Operatives employees (production, sales or services)	77.50%	77.60%	45.00%	45.70%
Administrative employees, accountants and management	17.40%	16.50%	9.20%	8.50%
Total owners, family members and other unpaid workers	0.00%	0.10%	31.70%	28.60%
Employees provided by other enterprise	5.10%	5.70%	12.10%	14.50%
People per commissions	0.10%	0.20%	2.10%	2.70%
g. Working day				
0 to 14 hours	1.10%	0.00%	2.40%	2.20%
15 to 24 hours	0.20%	0.60%	2.40%	2.80%
25 to 34 hours	4.20%	5.30%	4.60%	5.40%
35 to 39 hours	4.50%	7.20%	4.40%	4.40%
40 to 48 hours	61.80%	61.40%	49.50%	48.90%
49 to 56 hours	23.10%	18.10%	13.20%	13.40%
More than 56 hours	5.20%	7.30%	23.50%	22.90%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 3. People employed by occupation type according with sector of activity of the Economic Unit										
Sector	MNEs									
	2009					2014				
	Total operatives employees	Total administrative employees, accountants, and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprises	Total of people per commissions	Total operatives employees	Total administrative employees, accountants, and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprises	Total of people per commissions
Mining	64.00%	11.60%	0.10%	24.20%	0.10%	51.40%	12.80%	0.00%	35.20%	0.70%
Manufacturing	83.30%	13.70%	0.00%	3.00%	0.00%	82.30%	13.40%	0.10%	4.00%	0.10%
Commerce	60.30%	24.70%	0.00%	13.70%	1.40%	63.90%	27.90%	0.00%	7.50%	0.70%
Services	58.90%	29.50%	0.00%	11.50%	0.10%	66.10%	24.50%	0.10%	9.10%	0.30%

Rest	71.40%	23.40%	0.00%	5.20%	0.00%	66.50%	22.80%	0.10%	10.10%	0.40%
Average over sectors	77.50%	17.40%	0.00%	5.10%	0.10%	77.60%	16.50%	0.10%	5.70%	0.20%
Sector	Non-MNEs									
	2009					2014				
	Total operatives employees	Total administrative employees, accountants, and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprises	Total of people per commissions	Total operatives employees	Total administrative employees, accountants, and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprises	Total of people per commissions
Mining	60.20%	15.40%	6.50%	17.80%	0.10%	55.30%	14.60%	3.30%	25.90%	0.90%
Manufacturing	53.70%	10.30%	19.00%	16.00%	1.00%	51.80%	9.90%	16.90%	20.00%	1.40%
Commerce	32.40%	6.10%	47.30%	12.50%	1.70%	34.00%	5.40%	41.80%	16.50%	2.30%
Services	46.10%	10.00%	31.80%	9.20%	2.80%	48.20%	9.00%	29.30%	9.70%	3.80%
Rest	61.10%	13.50%	10.00%	12.50%	2.90%	60.00%	12.70%	9.90%	14.40%	3.00%
Average over all sectors	45.00%	9.20%	31.70%	12.10%	2.10%	45.70%	8.50%	28.60%	14.50%	2.70%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 4. Occupied population (synthesis) by size and country of origin

	MNE Economic Units		Non-MNE Economic Units	
	2009	2014	2009	2014
	1,197,409	1,275,389	18,919,425	20,300,969
People occupied by size of Economic Unit				
Up to 250	19.40%	21.80%	79.80%	77.80%
251-500	15.70%	13.50%	6.00%	6.30%
more than 500	64.90%	64.80%	14.10%	15.90%
People occupied by country of origin				
USA	71.20%	66.40%	3.40%	3.50%
Canada	2.60%	2.60%	0.10%	0.20%
Germany		6.20%		0.30%
China	0.20%	0.10%	0.00%	0.00%
Europe	19.90%	12.80%	1.30%	1.30%

Asia	4.40%	4.40%	0.20%	0.10%
Rest (including Mexico)	1.70%	7.40%	94.90%	94.60%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 5. People employed by type of occupation according with sex

Occupation	MNEs					
	2009			2014		
	Men	Women	Total	Men	Women	Total
Total operatives employees	57.30%	42.70%	77.50%	60.80%	39.20%	77.60%
Total administrative employees, accountants and management	64.20%	35.80%	17.40%	66.00%	34.00%	16.50%
Total owners, family members and other unpaid workers	62.00%	38.00%	0.02%	34.50%	65.50%	0.10%
Total of employees provided by other enterprise	55.80%	44.20%	5.10%	66.00%	34.00%	5.70%
Total of people per commissions	75.90%	24.10%	0.10%	69.30%	30.70%	0.20%
Total employed	58.50%	41.50%	100.00%	61.90%	38.10%	100.00%

Occupation	Non-MNEs					
	2009			2014		
	Men	Women	Total	Men	Women	Total
Total operatives employees	64.50%	35.50%	45.00%	62.90%	37.10%	45.70%
Total administrative employees, accountants and management	57.90%	42.10%	9.20%	55.50%	44.50%	8.50%
Total owners, family members and other unpaid workers	53.30%	46.70%	31.68%	50.50%	49.50%	28.57%
Total of employees provided by other enterprise	63.50%	36.50%	12.10%	63.00%	37.00%	14.50%
Total of people per commissions	63.90%	36.10%	2.10%	59.70%	40.30%	2.70%
Total employed	60.20%	39.80%	100.00%	58.70%	41.30%	100.00%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 6. Average earnings by sector of activity of the employed population

Sector	MNEs									
	2009					2014				
	Total wages paid to production, sales or service personnel	Total salaries paid to administrative employees, accountants, and managers	Contributions of the company to social security	Other social benefits	Profits distributed to workers	Total wages paid to production, sales or service personnel	Total salaries paid to administrative employees, accountants, and managers	Contributions of the company to social security	Other social benefits	Profits distributed to workers
Mining	9,353.00	21,143.60	2,324.50	618	37,728.30	11,131	12,306	3,019	413	64,771
Manufacturing	7,113.10	19,371.70	1,361.00	1,016.20	5,236.70	7,845	22,077	1,702	1,327	7,783
Commerce	9,727.90	13,656.10	1,498.10	562.6	5,058.90	6,744	10,883	1,786	780	10,558
Services	9,199.20	20,389.40	2,024.00	1,304.10	13,155.40	8,760	24,286	1,403	1,325	7,368
Rest	8,763.40	16,368.70	2,059.50	1,178.30	8,445.00	11,528	14,594	2,320	788	6,881
Average over all sectors	7,506	19,492	1,519	1,060	6,915	8,109	21,525	1,682	1,281	8,143

Non-MNEs										
Sector	2009					2014				
	Total wages paid to production, sales or service personnel	Total salaries paid to administrative employees, accountants, and managers	Contributions of the company to social security	Other social benefits	Profits distributed to workers	Total wages paid to production, sales or service personnel	Total salaries paid to administrative employees, accountants, and managers	Contributions of the company to social security	Other social benefits	Profits distributed to workers
Mining	13,351.10	47,310.20	817.4	4,264.80	9,256.00	13,868	83,329	955	5,549	13,191
Manufacturing	5,224.70	14,152.60	938	658	3,273.20	6,594	15,879	1,165	1,040	4,993
Commerce	4,146.70	6,420.60	563.6	193.8	1,448.70	4,619	8,272	754	297	2,632
Services	4,531.40	11,282.00	697.5	313.8	1,574.10	5,188	11,706	855	383	1,434
Rest	10,265.30	11,745.20	1,707.90	1,751.50	4,045.50	11,057	12,703	1,624	3,206	2,261
Average over all sectors	5,183	11,228	823	530	2,222	5,930	12,869	976	812	2,713

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 7. Average remuneration by type of contribution

Monthly average	MNEs		Non-MNEs	
	2009	2014	2009	2014
Total wages paid to production, sales or service personnel	7,505.50	8,109.00	5,182.60	5,930.10
Total salaries paid to administrative employees, accountants, and managers	19,491.70	21,524.60	11,227.80	12,869.10
Contributions of the company to social security	1,518.70	1,681.80	823.1	976
Other social benefits	1,059.80	1,280.80	529.6	812
Profits distributed to workers	6,914.80	8,143.00	2,221.90	2,712.50

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 8. Average remuneration by type of contribution and age of the Economic Unit

Remuneration item	Age of the economic unit	MNEs		Non-MNEs	
		2009	2014	2009	2014
Average, wages paid to production, sales or service personnel	Newly created (0-2 years)	6,588.50	6,550.30	3,188.60	3,566.30
	Young (3-5 years)	7,470.40	6,816.20	4,364.70	4,497.30
	Adult (6-10 years)	6,646.20	7,090.60	4,443.10	4,880.90
	Senior (+ than 10 years)	7,801.00	8,513.70	6,332.90	7,181.80
Average, salaries paid to administrative employees, accountants, and managers	Newly created (0-2 years)	16,820.30	15,545.60	6,123.90	7,060.40
	Young (3-5 years)	15,407.10	17,744.30	9,197.00	8,123.00
	Adult (6-10 years)	17,308.00	16,949.80	10,484.40	9,389.80
	Senior (+ than 10 years)	20,348.50	22,676.40	12,839.80	15,097.50
Average, contributions of the company to social security 1+2	Newly created (0-2 years)	1,308.50	1,440.00	363.8	464.9
	Young (3-5 years)	1,363.80	1,431.70	525.7	650.9
	Adult (6-10 years)	1,223.50	1,522.10	713.4	753.9
	Senior (+ than 10 years)	1,621.10	1,744.90	1,074.90	1,228.90
Average, other social benefits 1+2	Newly created (0-2 years)	963.9	903.9	183.8	142.7

	Young (3-5 years)	941.6	774.9	333.1	195.2
	Adult (6-10 years)	812.7	881.1	321	244.4
	Senior (+ than 10 years)	1,138.00	1,416.40	758.8	1,264.40
	Newly created (0-2 years)	1,448.90	2,983.90	580.6	1,087.70
Average, profits distributed to workers(annual) 1+2	Young (3-5 years)	2,275.30	4,652.70	1,067.20	1,300.40
	Adult (6-10 years)	2,456.80	3,383.10	1,525.30	1,624.90
	Senior (+ than 10 years)	8,874.50	9,630.60	3,256.00	3,705.70

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 9. Employees by type of occupation according to size Economic Unit

Size of Economic Unit	MNEs									
	2009					2014				
	Total operatives employees	Total administrative employees, accountants and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprise	Total of people per commissions	Total operatives employees	Total administrative employees, accountants and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprise	Total of people per commissions
Up to 250	78,0%	17,5%	0,0%	4,5%	0,0%	78,7%	16,7%	0,1%	4,3%	0,2%
251-500	75,6%	17,0%	0,0%	7,4%	0,1%	72,6%	15,4%	0,0%	11,5%	0,4%
More than 500	77,0%	17,3%	0,0%	5,6%	0,1%	75,2%	16,0%	0,0%	8,5%	0,3%
Average over all sectors	77,5%	17,4%	0,0%	5,1%	0,1%	77,6%	16,5%	0,1%	5,7%	0,2%

Size of Economic Unit	Non-MNEs									
	2009					2014				
	Total operatives employees	Total administrative employees, accountants and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprise	Total of people per commissions	Total operatives employees	Total administrative employees, accountants and management	Total owners, family members and other unpaid workers	Total of employees provided by other enterprise	Total of people per commissions
Up to 250	39,0%	7,0%	43,2%	9,2%	1,6%	39,8%	7,4%	39,3%	11,4%	2,2%

251-500	55,6%	17,0%	1,3%	22,2%	3,8%	53,5%	9,9%	7,4%	24,5%	4,6%
More than 500	62,9%	14,4%	0,5%	18,9%	3,2%	62,9%	11,7%	0,0%	21,4%	4,0%
Average over all sectors	45,0%	9,2%	31,7%	12,1%	2,1%	45,7%	8,5%	28,6%	14,5%	2,7%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 10. Manufacture. Summary results by Economic Unit

	MNEs		Mexican MNEs		Non-MNEs	
	2009	2014	2009	2014	2009	2014
1. Economic Units	1,472	1,301	85	30	435,294	488,199
1.1 Age of economic units						
Newly created (0-2 years)	8.20%	5.50%	-	10.00%	31.80%	26.70%
Young (3-5 years)	7.80%	6.50%	9.40%	-	15.40%	14.70%
Adult (6-10 years)	19.90%	14.90%	-	-	19.00%	19.10%
Senior (+ than 10 years)	64.10%	73.10%	82.40%	76.70%	33.80%	39.40%
Grouped by segment confidentiality principle	-	-	8.20%	13.30%	-	-
1.2 States, geographic location						
Mexico City	5.20%	3.50%	7.10%	10.00%	7.10%	6.40%
Chihuahua	17.50%	15.50%	11.80%	13.30%	1.80%	1.70%
Baja California	14.90%	15.10%	8.20%	10.00%	1.30%	1.50%
Nuevo Leon	6.80%	9.30%	8.20%	0.00%	2.90%	2.60%
Tamaulipas	12.60%	10.80%	4.70%	0.00%	1.90%	1.70%
Mexico	8.40%	7.40%	24.70%	0.00%	11.10%	10.60%
Coahuila	6.20%	7.60%	8.20%	16.70%	1.80%	1.60%
Jalisco	3.50%	3.60%	4.70%	0.00%	6.90%	6.90%
Guanajuato	1.90%	2.90%	0.00%	13.30%	5.30%	5.70%
Puebla	2.30%	2.10%	0.00%	0.00%	8.40%	8.40%
Rest (22 states)	20.70%	22.20%	22.40%	36.70%	51.60%	53.00%

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 11. Manufacture. Summary results according employed population

	MNEs		Mexican MNEs		Non-MNEs	
	2009	2014	2009	2014	2009	2014
1. People employed	889,044	921,878	45,057	31,433	3,726,961	4,120,121
a. Age of economic unit						
Newly created (0-2 years)	6.40%	4.50%	0.00%	4.00%	15.00%	12.90%
Young (3-5 years)	7.60%	5.40%	10.90%	0.00%	11.30%	9.70%
Adult (6-10 years)	17.80%	14.30%	0.00%	0.00%	17.90%	16.70%
Senior (+ than 10 years)	68.30%	75.80%	89.10%	81.50%	55.90%	60.60%
Grouped by segment confidentiality principle				14.50%		
c States, geographic location						
Mexico City	3.80%	2.10%	4.30%	4.70%	9.90%	8.30%
Chihuahua	22.90%	19.30%	19.80%	8.90%	3.60%	4.70%
Baja California	16.30%	13.90%	9.70%	11.70%	3.50%	4.60%
Nuevo Leon	7.00%	8.40%	9.30%	0.00%	7.80%	8.40%
Tamaulipas	13.80%	12.40%	6.90%	0.00%	2.90%	2.90%
Mexico	4.80%	3.60%	14.60%	0.00%	12.90%	12.10%
Coahuila	6.30%	9.80%	11.80%	30.50%	3.80%	4.70%
Jalisco	3.20%	2.70%	2.00%	0.00%	9.40%	8.90%
Guanajuato	1.90%	2.50%	0.00%	15.90%	6.80%	7.70%
Puebla	3.20%	3.30%	0.00%	0.00%	5.50%	5.10%
Rest (22 states)	16.80%	21.90%	21.70%	28.40%	33.90%	32.80%
d. Sex						
Male	57.90%	61.20%	67.50%	72.20%	66.50%	65.80%
Female	42.10%	38.80%	32.50%	27.80%	33.50%	34.20%
e. People employed						
Dependent on the company	97.00%	95.80%	97.80%	92.60%	82.80%	78.50%
No dependent on the company	3.00%	4.20%	2.20%	7.40%	17.20%	21.50%
f. Employees by occupation						
Salaried workers who were directly linked to production, sales or providing services	83.30%	82.30%	79.70%	74.80%	53.40%	51.60%
Administrative, accounting and management employees	13.70%	13.50%	18.10%	17.80%	10.20%	9.80%
Owners, family and other unpaid workers	0.00%	0.10%	0.00%	0.00%	19.20%	17.00%
Staff recruited and provided by another company	3.00%	4.00%	2.20%	7.40%	16.20%	20.10%

Employees for fees or commissions without basic salary	0.00%	0.10%	0.00%	0.00%	1.00%	1.40%
g. Working day						
0 to 14 hours	0.00%	0.00%	0.00%	0.00%	0.60%	0.70%
15 to 24 hours	0.20%	0.80%	0.00%	0.00%	1.70%	2.40%
25 to 34 hours	2.20%	3.90%	0.40%	2.30%	3.00%	4.90%
35 to 39 hours	4.90%	8.30%	3.30%	1.50%	4.10%	5.40%
40 to 48 hours	58.60%	61.60%	84.10%	53.60%	62.70%	52.50%
49 to 56 hours	28.10%	17.00%	11.00%	21.20%	16.50%	17.10%
More than 56 hours	5.90%	8.40%	1.20%	21.40%	11.40%	17.00%
g. Incomes						
Average, Salaried workers who were directly linked to production, sales or providing services	7,109	7,847	7,803	9,649	5,179	6,559
Average, Administrative, accounting and management employee	19,418	22,091	21,752	20,433	13,971	15,803
Average, Contributions of the company to social security	1,360	1,704	1,454	2,475	929	1,149
Average, Other social benefits	1,015	1,327	1,306	1,085	646	1,040
Average, Profits distributed to workers (annual)	5,229	7,814	3,500	12,114	3,270	4,899

Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 12. Manufacturing. Occupied population (synthesis)				
	MNEs Economic Units		Non-MNEs Economic Units	
	2009	2014	2009	2014
	887,482	920,664	3,773,580	4,152,768
People Occupied by Size of Economic Unit				
Up to 250	19.7%	17.3%	65.4%	60.9%
251-500	17.7%	13.8%	11.2%	12.1%
More than 500	62.5%	69.0%	23.4%	27.0%
People Occupied by Country of Origin				
USA	75.2%	69.4%	8.1%	11.4%
Canada	1.8%	2.0%	0.4%	0.6%
Germany		6.7%		1.0%
China	0.3%	0.1%	0.0%	0.2%
Europe	16.8%	9.1%	2.7%	2.0%
Asía	4.1%	5.7%	0.9%	0.3%

Rest (including Mexico)	1.8%	7.0%	87.7%	84.6%
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Source: Instituto Nacional de Estadística y Geografía, INEGI. Censos Económicos 2009 and 2014

Figure 13. Comparison of main results between ENOE, COLEF & CENSOS ECONOMICOS			
	ENOE	COLEF	Economic CENSUS
1. Employment			
Total number of employees	2,736,000	2,669,021	1,197,409 (09)
Employment generators	More employment generators in MNE vs. Non-MNE	Not available	More generators of employment in MNEU vs. non-MNEU
Mexico's employment impact	20% of all formal employment in private sector	20% of IMSS	6% (of total employees in all Economic Units)
The largest employers	MNEs (vs. Non-MNE)	Mexican & service MNEs	MNEU (vs. non-MNEU). Manufacture MNEU
Average employment size	On average, more than half of MNE have 501 or more employees.	Total MNEs in Mexico 2,895 average employment	608 average employees in MNEU (2009)
		Mexican MNEs 3,041 average employment	530 average employees in manufacture Mexican MNEU (2009)
Enterprise employing 100 or less	27% MNE vs. 70.9% Non-MNE (2009).	1.8% (COLEF definition takes only 100 people & more)	Not available
Enterprise employing 501 or more	45% MNE vs. 9.2% Non-MNE (2009)	54.40%	Not available
Employment growth rate	Higher in MNE vs. Non-MNE	Not available	Not available
Employment internal mobility (carrier)	Not available	49.4% LOG	Not available
2. Demographic Profile			
Male employment	Majority male in MNE & Non-MNE (63.7% vs 67.8%, 2009)	Majority (6 out of 10)	Majority are male in non-MNEU & MNEU (60.2% vs 58.5%, 2009). But changed in 2004
Female employment	More in MNE vs. Non-MNE (36.3% vs. 32.2%)	40.50%	More in MNEU vs. non-MNEU (41.5% vs. 39.8%). But changed in 2014
Age	Majority young in MNE (25 to 44 years 62.9% vs. 57.2%, 2015)	Not available	Not available
Employment under minimum legal age	Non-existent (no employees under minimum age)	Not available	Not available
Employment of people with university degree	More in MNE vs. Non-MNE (22% vs. 21.9%, 2009)	31.90%	Not available

3. Type of Contracts				
Permanent contracts (Indefinite)	More in MNE vs. Non-MNE (81.1% vs. 64.8%, 2015)		Not available	
Part-time contracts	Not available	3.90%		
Informal hiring	Three times lower in MNE vs. Non-MNE, 2015	Not available		
Change in temporary contracts	Increasing in MNE & Non-MNE	Not available		
Formalization of employment	Tendency towards greater formalization in MNE vs. Non-MNE (93% & 96% vs. 81% & 85% in No MNE in 2009 & 2015)	Not available		
Written contracts (LFT norms)	Increasing in MNE vs. Non-MNE (94.7% vs. 81.4%, 2015)	Not available		
4. Wages				
Minimum Wages (MW)	Three times or more the MW (42% in MNE vs. 37.1% in Non-MNEs 2009); up to 2 MW, 20% vs. 24.3%, 2009)	6 or more minimum wages in the 45.7% of companies (GOG, 2008)	Paid 1.45 more in MNEU vs non-MNEU for operators; and 1.74 more for Administrators	
	1 to 3 MW (50% in MNE vs. 54.1% No MNE in 2009)			
	3 or more MW (42%)	26.3%		
		73.7%		
		High variation		
		Higher in services than manufacture		Paid 1.10 more in Mexicans MNEU than foreign MNEU to operators; and 1.12 more to Administrators
		Higher in foreign companies than Mexicans		
	Higher on SMEs than in big companies			
Wages tendency	Decrease in MNE & Non-MNE	Not available	Decreases in MNEU and non-MNEU; particularly backward in the administrative staff that works in Mexican MNEU	
5. Social Benefits				
Access to social security (IMSS coverage)	Higher in MNE vs. Non-MNE & increasing in both cases (96% vs. 84.6%, 2015)	Not available	Not available	
Additional Compensation	Impact a higher number of workers in MNE vs. Non-MNE	Significant but low relative to wages	MNEU paid 0.85 times more vs Non-MNEs in IMSS contributions; 1.0 in other social benefits; 2.11 in profits sharing	

	Significant but low relative to wages		
Social benefits (Christmas bonus, paid vacations, housing loan, retirement fund)	In MNE more vs. Non-MNE	Not available	Mexicans MNEU payed 1.07 times more than foreign MNEU in IMSS contributions; 1.29 in other social benefits; but less than a half in profits sharing
6. Working Day			
Flexible shifts	More flexible in MNE vs. Non-MNE & increasing in both cases (18% vs. 8.7%, 2015)	55% do not vary in labor flexibility	Not available
		43% increase	
Duration of working day	Lower in MNE vs Non-MNE & increasing in both cases (more than 48 hrs., 26.2% vs. 34.5% in 2015)		Lower in MNEU vs. non-MNEU: 28% more of 48 hrs. Vs. 37%. Tendency to decrease, especially in MNEU. Mexican manufactures the lowest in 2009 but grew 3.5 times the long working days
7. Training			
Training	Not available	8.8% average of the expenses of total cost	Not available
		17 average hours per year (75% of companies)	
8. Work Organization			
Work teams	Not available	73.2% of GOG	Not available
		More in manufacture than in services	
		More in the foreign companies than in Mexicans	
		More in the big companies than in smaller	
Formal performance evaluation		The great majority	
9. Unions			
% of unionized workers	Higher in MNE vs. Non-MNE & decreasing in both cases (25% vs 11%, 2009)	43.8% (1,201,605 people)	Not available
% of unionized firms	Not available	69%	
Tendency (3 years before)		Unchanged	
Other forms of representation or non-unionized workers		Majority of MNE do not have	

Negotiations take place (for work org., subcontracting, outsourcing, training, skill develop.)		Plant or establishment	
		More in manufacturing vs. service	
		More in large vs. SMEs (small multinational enterprises)	
Unilateral decisions regarding benefits		56.70%	
Quality of union representation		Poor	
Management perception of unions		Positive	
Meet with union representatives of others countries within the same MNE		Majority no	
Meet with union representatives of subcontracted firms of suppliers		No	
Structures that integrate unions within Mexican operations of a single firm on a regional level (NAFTA) or global corporate		Practically non-existent	
Monitoring labour rights in suppliers		Majority	
Companies			
Manufacturing enterprises	Higher in MNE vs Non-MNE (59% vs 29.5%, 2009)	67.8%	Much higher in MNEU than in non-MNEU (72% vs. 12% in 2009; 60% vs. 11% in 2014). Increase services in manufacture
Service enterprises (including trade)	Lower in MNE vs Non-MNE (39% vs 59.5%, 2009)	32.20%	

Source: Authors' elaboration based on ENOE, COLEF survey and Economic Census