

LABOUR MARKET
PAPERS

17

**Wages and employment
status flexibility in Mexican
manufacturing industry**

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International Labour Office Geneva

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Foreword

The process of modernisation and trade liberalization that Mexico has experienced since 1985 put considerable pressure on manufacturing firms to adjust their production, technology and labour practices. Economic liberalization not only covered trade, but involved proposals to liberalise labour market relations and alter the regulations covering them. This paper's purpose is to obtain a better idea of the impact of fundamental changes on manufacturing establishments and their adjustment strategies. It is based on data obtained through a survey of manufacturing establishments, conducted in 1992 through collaborative efforts by the Mexican Ministry of Labour and the ILO's Labour Market Policies Branch.

It presents information on how liberalization and technological change affected the manufacturing sector between 1989 and 1992, how manufacturing employment fluctuated with the opening of the economy, how manufacturing firms were changing in terms of economic performance and how firms responded, in terms of wages and employment status adaptation, to trade liberalization, and movements in the economy due to the structural adjustment process. It also addresses questions on Mexico's strategy to lower labour costs through greater labour flexibility in order to obtain a comparative advantage in the creation of a North-American market.

Acknowledgements are due to Loretta De Luca and Arnulfo Arteaga (UAM-Mexico) who co-ordinated and were responsible for the various phases of the "National Survey on Employment, Wages, Technology and Training (ENESTyC). A comprehensive publication presenting their analysis of the ENESTyC results is forthcoming.

Thanks are also due to Duncan Campbell, Richard Anker, Christine Evans-Klock, Niall O'Higgins and Diana Alarcón for providing helpful comments.

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CORRECTIONS:

p.5, last paragraph

The Mexican Government intensified the process of structural adjustment by accelerating the path towards trade liberalization.

p.14, 1st paragraph

Manufacturing establishments are known to devote little attention to the training and retraining of production workers and for providing training mainly to managerial, professional and technical staff. The basic metals industry, which was privatized in 1989 and was going through a large process of restructuring during this period, reported having trained as much as 62% of its labour force in 1992 according to the ENESTyC.

p.34, 1st paragraph

Employers were encouraged by government policy to pay very low wages and to adjust other remuneration according to their own criteria.

p.35, 1st paragraph

In certain sectors of the manufacturing industry, where wages and employment status flexibility was more common, labour flexibility did not seem to have had a positive effect on employment. Could it be concluded that the liberalization of the Mexican economy, besides promoting wages and employment status flexibility, has also had a negative effect on manufacturing employment?

1. Introduction

A. Description of ENESTyC

In October 1992, the National Survey on Employment, Remuneration, Technology and Training (ENESTyC) of manufacturing enterprises was carried out in Mexico, covering 5071 establishments. This was conducted through collaboration between the Ministry of Labour of Mexico and the ILO's Labour Market Policy Unit, as part of the ILO's Enterprise Labour Flexibility Survey (ELFS) Programme. The launching of the project was highly appropriate since some of the topics examined in it such as technology, work organization, employment security and gender differentials had received little or no attention on previous Mexican surveys. ENESTyC is the first survey in Mexico that aims at covering such a large number of topics on the manufacturing sector and that stratifies information in so much depth.

The survey aimed at pointing out useful entry avenues in the country's strategy of development and it responded to the Government's top priorities to assess the level of competitiveness of its production. Establishments in the survey were divided into nine industries, 54 industrial branches¹ and four size classes.² Micro establishments comprised between 1 to 15 workers, small establishments between 16 and 100, medium-size establishments between 101 and 250 and large establishments more than 251 workers.

The size of the survey was imposing since initially it comprised 7,200 establishments. Some cases of refusal to answer the whole questionnaire or parts of it were found particularly among "maquiladoras"³ and the National Oil and Gas Industry (PEMEX) which was finally not included. When non-responses or low-quality responses from establishments were discarded, the number was brought down to 5,071. The latter number was considered to be the minimum necessary to achieve appropriate representation for the country's 32 states, and the totality of the whole manufacturing industry's branches and its four size classes of establishments. The survey covered the country's 10 most important urban regions and some rural entities (Figure 1).

A number of institutions were asked to collaborate, in particular the National Institute of Statistics, Geography and Informatics (INEGI), and the National Commission on Minimum Wages. It was not possible for the ILO to obtain the raw data of the survey with a desegregation at the establishment level due to a confidentiality rule of the INEGI. However, INEGI agreed to provide some custom tabulations to compensate for the lack of establishment-level desegregation.⁴

¹ See Appendix for the industrial classification used in the survey.

² Micro establishments provided in 1992, 14.5% of manufacturing employment, small 19%, medium 15.5% and large 51%.

³ Foreign owned plants established in Mexico which assemble goods for sale in a foreign country (usually the United States) are referred to as "maquiladoras". "Maquila" refers to the process of production or assembly operations; the factory within which the operations are housed is called a "maquiladora". Occasionally the industry is called an "in-bond" industry since the foreign firms have to post a bond for capital brought from outside but used in Mexico. (Susanne Peters: "Labor Law for the Maquiladoras: Choosing Between Workers' Rights and Foreign Investment" in *Comparative Labor Law Journal*, Philadelphia, 11 (2), Winter 1990).

⁴ Loretta de Luca, ILO Mission Report, Mexico Labour Flexibility Survey, Mexico City, 4-20 November 1992.

Figure 1. Regions covered by the ENESTyC Survey and percentage of participation

Regional office and coverage	Percentage of participation per region
1. Hermosillo, SON: Sonora, Sinaloa, BCS, BCN	7.7
2. Monterrey, N.L.: Nuevo, León, Tamaulipas, Coahuila	13.2
3. Durango, DGO: Chihuahua, Durango, Zacatecas	7.0
4. San Luis Potosí, S.L.P.: S.L.O., Guanajuato, Queretaro, AGS	9.4
5. Guadalajara, JAL.: Jalisco, Colima, Nayarit, Michoacán	9.9
6. Toluca, EDO DE MEXICO, Morelos, Guerrero	17.7
7. Puebla, PUE.: Puebla, Hidalgo, Tlaxcala, Veracruz	10.0
8. Oaxaca, OAX.: Oaxaca, Chiapas, Tabasco	2.4
9. Mérida, YUC.: Yucatán, Campeche, Quintana Roo	1.8
10. Mexico City: Federal District	20.9
Total	100.0

Source: Ministry of Labour - INEGI, ENESTyC information documents.

The period covered by the survey (1989-1992) is important because it took place at a time of economic recovery (since 1989), approximately between two and five years after the starting of radical structural adjustment within the framework of the Pact for Economic Solidarity (PSE) of 1987, and the strengthening of the opening of the economy. The fundamental changes taking place in the country demanded an increasing need to obtain more statistical information about the manufacturing sector's activities, its behaviour and the fundamental characteristics of its development. The manufacturing sector accounted for about 23% of Mexico's GDP in 1992 and employed about 20% of its workforce.⁵ The survey aimed at determining the readiness of Mexican manufacturing firms to withstand the accrued competitive pressure stemming from the liberalization of trade in order to devise policies to help them face this challenge. It obtained information concerning level of technological development, organization of production, productivity and efficiency, level of international competitiveness, grade of labour force's qualifications, level of industrial concentration and situation of the structure of employment, remuneration and wages.⁶

B. Main findings

In the analysis of the ENESTyC data⁷ a distinction is made between export-oriented and non-export oriented industries. Export oriented industries are defined according to the level of production destined to the international market: those industries that exported more than 10% of their sales in 1989 were considered export-oriented and others non-export oriented. Within the **export-oriented**, the only industry that was found to be highly export oriented (exporting more than 20% of its production) was the metal products, machinery and equipment industry. The rest exported, on average, between 10 and 20 per cent of their production: (in descending order of importance) the basic metals; the textiles, garments and leather; the chemical substances, coal derivatives, rubber and plastics; and the non-metal mineral products industries. Lastly, the three industries found to be **non-export oriented** were food, beverages and tobacco; wood and wood

⁵ The Economist Intelligence Unit: *Country Profile Mexico 1993/94*, (London, 1994), p.23.

⁶ Loretta de Luca, op.cit.

⁷ Figures were embedded into the paper and tables were annexed in the back.

products; and paper and paper products. In the case of these three industries, sales to the international market represented less than 5% of their production.

The overall image of Mexico's manufacturing delivered by the survey was not very bright. Employment in the manufacturing sector increased slightly according to the ENESTyC survey during this period, but only because of the continuous augmentation in maquiladora employment and the fact that the survey included single proprietorships and other micro and small-sized establishments. Employment fell in most export-oriented industrial branches. Other Ministry of Labour statistics, for example, for larger establishments showed a continual decline in manufacturing employment during this period.⁸ The country's manufacturing profile was also changing; some industries, namely the metal products, machinery and equipment industry with its automotive branch was growing buoyantly, but a number of others, in particular textiles and paper and paper goods and wood and wood products, were floundering.

By the end of 1992, mainly larger and stronger capital-intensive establishments that were receiving large inflows of private investment and introducing new technology and competitive products were increasing manufacturing output, but were not necessarily increasing employment. A factor that seems to play a role in the level of employment was whether that industry faced competition from foreign products and if it was ready to compete with those foreign products (the case of textiles, garments and leather industry). Whether production was primarily sold in domestic market (the case of the food, beverages and tobacco) then employment was not reduced. On the contrary, if the industries were export-oriented (the metal products, machinery and equipment, chemicals and non-metal mineral products) or were in a process of restructuring (the case of the basic metals industry) then they reduced employment mostly in large establishments and in those industrial branches that destined most of their production to the international market. Logically, such developments were entailing retrenchment, underemployment and displacements of the workforce.

Another finding of the ENESTyC survey was that a clear employment and work flexibilization has been taking place, characterised in particular by a high reduction of real wages, increasing wage differentials (a broadening gap between the highest and lowest wages), a larger role played by non-wage components of remuneration and a growth of precarious forms of employment. Flexible forms of employment (casual, subcontracted, remunerated by the hour and non-remunerated), while still only affecting a small proportion of the workforce, increased and are expected to increase further.

2. Background

At the moment that the survey was conducted, the great majority of the Mexican labour force was living in a precarious situation. The labour crisis that began in 1982, had further intensified since 1989 with the continuing transition to an export-oriented economy. Unemployment and underemployment were growing, real salaries were deteriorating and workers' employment and wages security were weakening.

⁸ INEGI: Cuaderno de Información Oportuna, 1993.

According to Mayolo López, in a study including all economic sectors, out of an economically active population of 24 million, only 25% had a remunerated, full-time, permanent job. The rest were either working under a flexible work arrangement or in the agricultural sector and were concentrated in the informal sector or were underemployed or unemployed.⁹ The National Employment Survey of the Institute of Statistics, Geography and Informatics published amazing data: the percentage of workers not receiving any social benefits was as high as 64% in 1993.¹⁰

The Mexican Ministry of Labour has published stable levels of open unemployment: it fluctuated between 2.8% and 4.4% from 1985 to 1992. This percentage counts as unemployed all those persons who have worked less than two hours a week or not at all. A 2.7% average unemployment between these years does not reflect the real problem in the country. Unemployment has not risen higher because of strong and rapid real wage adjustment and the absence of unemployment insurance.¹¹

The real problem can be better understood if the rates of underemployment and informalization are considered. The country has been experiencing an impressive growth of its informal sector that was calculated to employ more than 50% of the labour force in 1993 and as much as 64% if all those that do not receive any benefits are included in the informal sector accounts. Informal sector in the manufacturing sector represents between 18% and 20% of its labour force. The Ministry of Labour considers as underemployed all those persons that work involuntarily between 2 and 35 hours a week and that earn less than the minimum wage. There the percentages start mounting and from 1987 to 1992 fluctuated between 20.5% and 23.3% of the economic active population. An additional indicator to consider about the precariousness of the labour market in Mexico is the percentage of workers that labour 48 hours a week and that earn less than a minimum salary (13.3% in 1992).¹² The practice of holding two-full time jobs is also widespread due to strikingly low wages.¹³

The standard of living and working conditions of workers have been, and are still, deteriorating. There is a growing tendency to separate the determination of wages from the cost of living; the substitution of permanent contracts with casual, or task-specific contracts, and to neglect the institutional right to strike. According to Gutierrez Garza (1989), there is also a growing tendency to render collective contracts more flexible and to cease to use the

⁹ Fernando Mayolo López: "Apostó a la inflación y muy poco de lo que prometió pudo cumplir", in *Proceso* (México), 31 de octubre de 1994, no. 939, p. 13.

¹⁰ National Institute of Statistics, Geography and Informatics (INEGI): *National Employment Survey 1993*, (Mexico), p.156.

¹¹ In Mexico, there does not exist any mechanism of social security or of training institutions that could help counterbalance the effects of the deregulation of the labour market. Low salaries do not allow workers to save and so they cannot afford to be unemployed. Thus they go to the streets to trade whatever they can or accept any available job even for a few hours a week. There are, for example, university graduates who work as taxi drivers or street vendors and manage to earn enough money to survive. (Servicio Macroeconómico de CIEMEX-EPA, [México, Centro de Investigación Econométrica de México, 1994], p. 7.5)

¹² Secretaría del Trabajo y Previsión Social: *Principales indicadores de empleo, desempleo y subempleo*, (México, November 1994), p.12

¹³ As of March 1992, the monthly minimum wage represented 290.4 nuevos pesos (working a 48-hour week) or US\$88 at an exchange rate of 3.3 nuevos pesos for 1 dollar.

tripartite social agreement commission. In some firms, employers have even taken advantage of strikes and have closed the plant's doors during a strike, just to reopen them afterwards with new and less attractive, individual contracts for workers.¹⁴

Not even economic recovery and/or the control of inflation proved sufficient to ameliorate the workers' situation. Even during the relatively prosperous times (1989 to 1992), wages were still kept very low. As María de los Angeles Pozas said, the government tried to "sell the country" advertising as its main comparative advantage its low-waged labour force.

Employment growth was found mainly concentrated in commerce and services. Even so, growth in employment in these two sectors was minimal and insufficient considering that Mexico's population is young and that there are one million young workers joining the labour market each year. Informal employment also absorbed much of the increase in the labour force and accounted, in 1992, for almost half of total employment.¹⁵

The deterioration of employment conditions is expected to continue. The Government has announced that it will undertake a major labour law reform, particularly in the areas of hourly pay, dismissal compensation and flexible work rules to provide employers with more liberty to adapt workers' wages and employment status because some employers complain that the Mexican labour market is still too rigid.

3. The Manufacturing Sector and Trade Liberalization

A. Trade and investment

At the time of the survey, the Mexican government was fighting inflation with a renewed version of the PSE, the Pact for Stability and Economic Growth (PECE) in force since January 1989. This was a tripartite agreement between government, labour and business organizations aimed at consolidating public finances, stabilising the exchange rate (valuing the peso according to a fixed schedule of depreciation against the US dollar), monetary discipline and a negotiated agreement to control wages and prices. Its major components were huge reductions in the fiscal deficit, a tighter monetary policy, structural reforms, and a comprehensive wages' policy. This agreement played a major role in achieving macroeconomic stability, containing inflation and re-establishing economic growth. By 1992 annual inflation had fallen to 12%, compared with 159% at the end of 1987, while national GDP grew at 2.8% per annum.¹⁶

From 1989 on, the character of the country's industrial sector changed rapidly, moving towards a more deregulated market. The Mexican Government structural adjustment by accelerating the process of trade liberalization, which was started in 1985. One year later, the country joined the General Agreement on Tariffs and Trade (GATT). In 1989, on coming

¹⁴ "Reconversión Industrial y Lucha Sindical", op.cit., p.33.

¹⁵ Minerva Cruz: "Se vive el peor desempleo; está limitada la capacidad para generar fuentes de trabajo", in *El Universal* (México), 30 de diciembre 1994, p. 18.

¹⁶ The Economist Intelligence Unit: *Country Profile Mexico 1993/94*, (London, 1994), p.16.

to power, President Salinas de Gortari hastened the process of modernising the industrial apparatus through the promotion of private national and foreign investment, and through a quick liberalization of trade and the opening up of the economy. By 1989, Mexico had eliminated hundreds of tariffs and quotas affecting its trade with the United States and some Latin American countries. To show the rapidity of these changes, imports covered by import licenses were reduced from 92.2%, on average, in 1985 to 7.9% in only five years. Also, the tariff range which represented 0-100% of import value in 1985 was decreased five years later to only 0-20%.¹⁷

In 1992, Mexico started negotiations with the United States and Canada on the North American Free Trade Agreement (NAFTA), with the hope of raising private investment and attracting modern technology to Mexico.¹⁸ The increasing dismantling of import barriers encouraged modernisation and restructuring of part of Mexican industry. However, trade liberalization also meant that import growth of foreign products increased faster than expected and competition in the national market put those companies that lacked capital and technology in a precarious position.

The manufacturing sector was affected by this rapid trade liberalization. On one hand, after a severe period of economic crisis in the country, the government decided to retire almost completely from the economy. Most public credit available before was cut and manufacturing establishments were not provided with assistance to restructure. Besides, starting from 1989, there was a huge flow of U.S. manufacturing products into the country competing with national products. On the other hand, foreign capital was permitted to invest in many areas that were prohibited before. So, there was a marked increase in foreign capital inflows. The manufacturing sector, as a whole, absorbed an average of 27% of all foreign investments from 1989 to 1992 (Figure 2 and Table 1).

Foreign investment was concentrated in four industries: metal products, machinery and equipment (27%), chemicals (22%), food, beverages and tobacco (21.3%), and non-metal minerals (17%). Most of the above mentioned, belong to the group of export-oriented industries with the exception of the food, beverages and tobacco industry. In the case of the latter, the reason why it received such a high percentage of investment could be that it is a industry considered to be reliable since it produces basic goods and depends, mostly, on a strong domestic market.

The two industries in the group of export-oriented which did not receive a big proportion of investment were those two that needed to restructure their industrial apparatus: textiles, garments and leather industry and basic metals. Textiles and garments received 3.1% and basic metals 2.3% of total foreign investment destined to the manufacturing industry. Trade liberalization has provoked an important restructuring in the textiles sector. This industry has strongly felt the pressure of foreign imports and has been forced to reduce its production

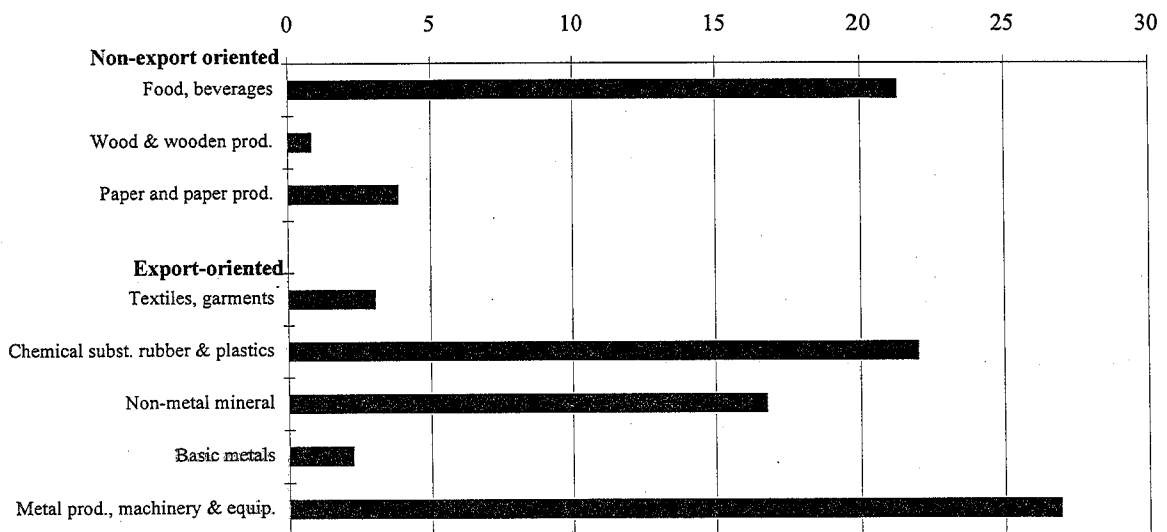
¹⁷ U.S. International Trade Commission: *Review of Trade and Investment Liberalization Measures by Mexico and Prospectives for Future United States Mexican Relations*, Investigation No. 332-282, phases I and II. (Washington, D.C., 1989), chapter 4.

¹⁸ Low labour costs give Mexico a trading advantage with its northern neighbours, and there are many U.S. and Canadian companies opening their doors in the country or renting national companies as their "maquiladoras". (Gordon H. Hanson: "Industria, especialización y libre comercio", in *Ajuste Estructural, Mercados Laborales y TLC*, op.cit., p.318 & 371)

destined to the national market. Moreover, the national textiles industry has not been able to modernise quickly in order to be able to meet the standards of quality and productivity needed to capture the international market. It is mostly the maquiladora sector of this industry that has increased its exports. In the case of the basic metals, fifty percent of its steel production used to belong to state companies. In 1989, the government decided to sell its steel companies to private investors, who undertook fundamental restructuring of establishments and a big portion of the labour force was retrenched.¹⁹

Finally, the other two non-export oriented industries that also comprised big sectors in need of substantial industrial restructuring in order to be able to compete with foreign products are the paper and paper products (4%), and wood and wood products (.9%). They received very little foreign investment.

Figure 2. Percentage of total foreign investment in manufacturing industry from 1989 to 1992



Source: Resultados de la Nueva Política de Inversión Extranjera en México, 1989-1994, Ministry of Commerce and Industrial Promotion (SECOFI), 1994, table 4.

In 1992, 22% of all manufacturing establishments had capital of foreign origin, 71% national private origin and 7% national public origin. The percentage of capital of foreign origin was even more important if a distinction is made between subsidiaries and non-subsidiaries establishments: 32% of subsidiaries establishments had capital of foreign origin. Within this last category the food beverages and tobacco industry, the chemical substances industry and the metal products, machinery and equipment industry had the highest percentages: between 36% and 56%.²⁰

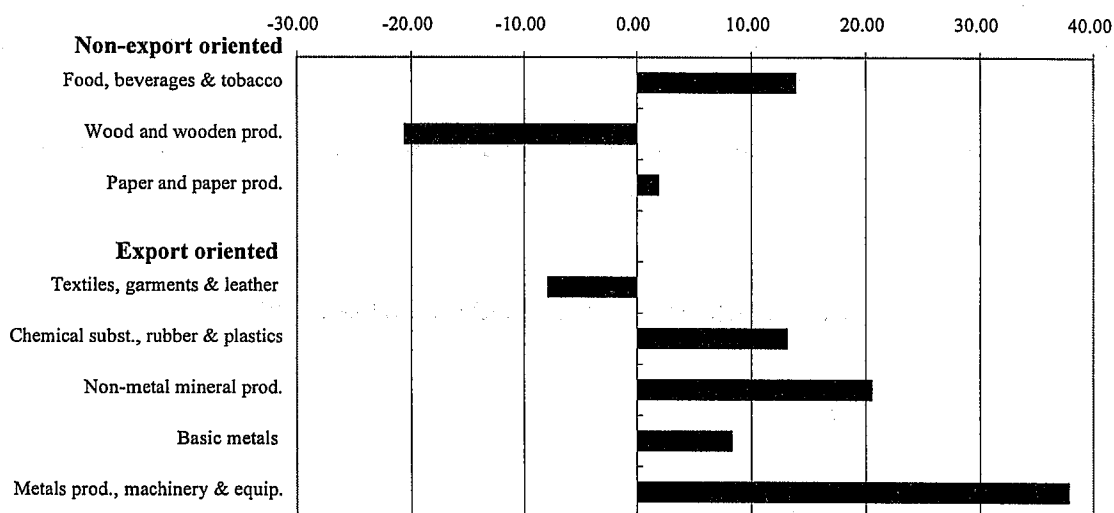
In consequence, from 1989 to 1992, average output in manufacturing grew, mainly in those industries that were receiving foreign capital inflows; metal products, machinery and

¹⁹ *Country Profile Mexico 1992/93*, op.cit. p.25.

²⁰ ENESTyC, table 5.

equipment (37.8%), non-metal mineral products (20.5%), chemicals (13.2%), and food and beverages (13.9%). There was a big fall in wood and wood products (-20.6) and in textiles and garments (-7.9), and a small growth of 1.9% in paper and paper products (Figure 3 and Table 2).

Figure 3. Percentage growth of gross domestic product in manufacturing industry 1989-1992



Source: INEGI: Mexican Bulletin of Statistical Information, No. 6 Oct.-Dec. 1992.

It is interesting to see that those industries that received foreign capital inflows showed a positive balance of trade from 1989 to 1992; while, on average, the remainder of the industries in the private national or public sector, had a deficit during the same period.²¹

How did all these economic changes affect the workers' situation and employment as a whole? Did foreign investment create employment in manufacturing? Did manufacturing employment grow, or did it decrease with import competition? Did this process of trade liberalization and the promotion of production to the international market change labour relations in the country? Before analysing the evidence pertinent to these questions provided by the ENESTyC survey, it is necessary to summarise succinctly the legal framework within which employment changes have occurred.

B. Labour regulations and recent changes

A brief summary of Mexican labour law could be useful to understand the Mexican experience. In the country there still exists, at least in paper, a lot of protection for workers. There is a lot of debate as to modify the federal labour law and make it more flexible but until now no changes have been made. In practice, however, in an individual manner or in collective contracts there exists a variety of ways to contract or subcontract workers without respecting

²¹ *Inversión Extranjera y Empleo en México*, op.cit. cuadro 23.

some or in cases even all the labour protection regulations. This could be one of the reasons why in the ENESTyC survey few employers reported having casual workers that do not receive the whole package of protection laws that permanent and temporary workers should normally receive.

Labour regulations are extensively set out in article 123 of the Mexican constitution and in the federal labour law. For example: the law establishes a limit of eight hours on day shifts and of 7 hours on night shifts. The extension of the working time cannot exceed three hours a day, nor three times a week. Overtime work should be paid double the rate for normal working time. For every 6 working days, workers should enjoy at least one paid day of rest. Workers are not obliged to work during their day of rest, if they do so, they should be paid double.

Mexican federal labour law explicitly states that minimum wages are set by regional tripartite commissions and approved by a national tripartite commission. Minimum wages are classified as general or professional. General minimum wages are established in one or several economic regions according to cost of living. Professional minimum wages are established in several industries, and in some commercial sectors and by professions, skills or special jobs. A minimum general wage should be enough to satisfy the material, social and cultural needs of a family and provide for the children's education. The minimum professional wage should consider in addition the workers' industrial and commercial activities. Other non-minimum wages are to be negotiated in collective contracts by the national trade unions or workers confederations and employers representatives or in individual agreements. Wages should never be lower than the minimum wage established by the law.

Permanent and even casual workers (only after 60 days of having started to work) have the right to receive profit shares. Employers who fire workers without a justified cause, are compelled to provide a three month indemnity wage or to fulfil the contract. It is up to the worker to choose between receiving the indemnity or fulfilling the contract. In addition, all workers should be covered by a social security that comprises a disability, involuntary dismissal, sickness, accident, and life insurance, plus a pension. All establishments are even obliged by law to contribute to a modest income housing fund that provides comfortable and hygienic lodging to workers. Employers are even required by law to provide training, and tax incentives are offered to those establishments that create their own training facilities.²²

In practice the working conditions of the Mexican labour force are not always in line with written regulations. Collective agreements are not always settled, either, to the interest of workers as unions are influenced by political considerations. Labour relations have been often governed by negotiations in collective contracts influenced by the political momentum. Especially since 1989, within the framework of the new liberalization model, state interventions became more favourable to business interests and a large margin of state and business discretion in the application of the labour law developed. The subordination of the official trade union

²² Services provided by official training centers are severely restricted due to lack of funds to provide adequate equipment and teachers.

leadership to the state and the Economic Solidarity pacts allowed the use of competitive strategies in setting lower wages and less permanent employment arrangements.²³

Employers exercise their influence to change the federal labour law by arguing that it is still too rigid has become an obstacle to the modernisation of the production process. They emphasise that the competitive context resulting from the new free trade policy requires the flexibilization of labour institutions. Employers propose that workers' income should be set according to their productivity. They claim that non-wage labour costs represent an additional 85% of every peso paid to a worker in terms of social security, other benefits and fiscal taxes, and that these costs should be reduced.²⁴

In an analysis of recent trends in collective bargaining agreements in Mexico, García (1993), found that the principal modifications made in the negotiations of collective contracts in the country are increasing the authority of employers to:

- 1) reassign workers to another activity, shift, post, location, etc.;
- 2) organise work, supervise it and fix work programs;
- 3) reduce differences in job responsibilities and the number of work categories of a same job;
- 4) expand the decision capacity of the establishment to select personnel, increase the utilisation of casual workers and to hire mid and high-level professionals (personal de confianza) with external collaboration contracts;
- 5) engage in more subcontracting of third parties in basic jobs, service and maintenance, provision of inputs and for work less frequently utilised;
- 6) introduce new technological and organizational changes, and other changes to incorporate measures to raise productivity;
- 7) introduce the notion of "compromise" between trade unions and the establishment to resolve rapidly those problems that could affect production for exports;
- 8) promote on ability rather than seniority.²⁵

Labour flexibility, which already existed unofficially, intensified as a result of labour market reforms. These reforms created a new adjustment demand on firms by opening the economy. So, labour flexibility appeared as "deregulatory" measures concerning such important issues as employment, and wages security. The most evident expression of increasing labour flexibility is the way that the government reduced workers' real wages. Restrictions were eased concerning the adjustment of wages to provide for a minimum standard of living for a family, and employers were given more liberty to adjust wages according to market demand in order to keep costs down. Minimum compulsory benefits offered to workers

²³ Francisco Zapata: *What flexible is, rigid can be: the Mexican labor market in the eighties*, (Mexico, El Colegio de Mexico, 1995), p.1-2.

²⁴ International Labour Organization Regional Office for Mexico, Cuba, Haiti and the Dominican Republic: *Mesa Redonda Políticas de Competitividad y Empleo: El Rol de las Instituciones*, (Mexico, May, 1995), p.10.

²⁵ Norberto E. García: *Ajuste, Reformas y Mercado Laboral*, (Santiago, OIT-PREALC; 1993), p.190.

before, as the case of social security benefits, started to be withdrawn. So in practice, employers were no longer obliged to provide workers with health and accident insurance, retirement benefits, or paid vacation. Instead, bonuses and other social benefits were offered according to workers' educational attainment, level of training and productivity. Mexican workers began to be hired and to work under conditions that previously had not been considered beneficial for workers or legal. For example, fixed contracts were replaced by task-based contracts. Casual and other forms of flexible employment started to become more common. Furthermore, workers were required to show more adaptability on the job to new production demands.

4. Changes in the manufacturing sector

A. Implications of trade liberalization on sales, technology acquisition and training

One of the most important characteristics of the Mexican manufacturing sector is that its sales are still mainly destined for the national market (82.9%). In 1992, on average, only 12.8% of sales, from the manufacturing firms that were included in the survey, were exported to the U.S., 1.2% to Central and South America, 1% to Europe and 0.9% to Canada.

There was a small decrease in the share of exports to the U.S. from 1989 to 1992 probably due to diversification efforts by Mexican exporters and to the recession in the U.S. economy. In spite of the relative decrease, the biggest trade partner for Mexico continues to be the U.S., by a very large margin. One of the reasons why Mexican manufacturing production continues to go mainly to the national market is that most manufacturing enterprises have not been able to innovate technology and have not gone through the process of industrial restructuring, so many of their products are still not ready to compete internationally. Another fact is that manufactured exports have been concentrated only in a few industrial sectors and in few large capital-intensive establishments linked to large transnational corporations.

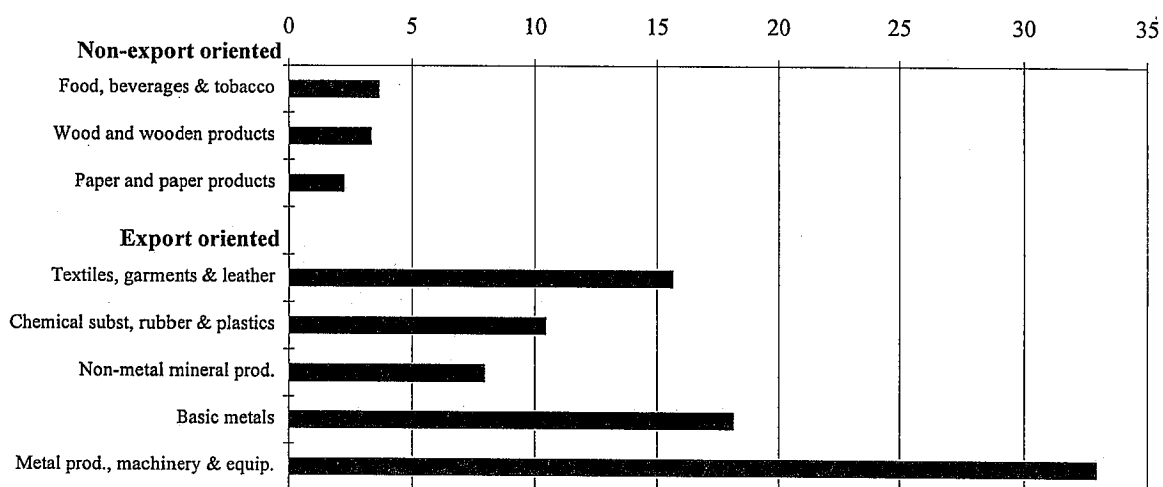
Those industries that had important export-oriented industrial branches, were benefiting from the opening of the economy increasing their sales to the international market. This was the case of nine out of thirteen industrial branches belonging to the *metal products, machinery and equipment*: the manufacturing and assembly of office, processing and computer equipment, the automotive industry, repairing and assembling of machinery for special uses, repairing and assembling of machinery for general uses, manufacturing and/or assembly of machinery, equipment and electrical appliances; manufacturing and/or assembly and/or assembly of radio, television and communication electronic equipment; the manufacturing and/or assembly of household appliances, the manufacturing, repairing and/or assembly of instruments and precision equipment (Figure 4 and Table 3).

Also the manufacturing of glass and glass products, and the manufacturing of clay for construction of the *non-metal mineral products* industry were benefiting. The non-metal products industry was reducing its sales to the export market and by 1992, it could be almost considered out of the group of export oriented industries. The basic chemical substances and the artificial and synthetic fibres branch of the *chemical substances, coal derivatives, rubber and*

plastics industry; the iron and steel basic industry and the basic non-iron metals of the *basic metals* industry; and to a lower degree the manufacturing of canned food of the *food, beverages and tobacco* industry; and finally three industrial branches of the *textile, garments and leather* industry: the production of hard fibres and cords, the manufacturing of textile material and the leather, furs and its derivatives were also increasing its sales to the international market.

Large establishments destined a bigger share of their production to export. In 1992, large establishments exported 21.6% of their sales, medium 10.4%, small 6.3% and micro only 0.8% (Table 4). A growing proportion of large rather than small, medium and micro establishments were able to restructure their industrial apparatus and were able to reduce their labour force to new market demands. Still, as these export-oriented industries seem to be prospering rapidly and as NAFTA will improve their prospects and reduce the prospects of others, trade liberalization policies seem to be benefiting only a small proportion of Mexican manufacturing industry.

Figure 4: Percentage of export sales by manufacturing industry, 1992



Source: ENESTyC survey tabs 20a, 20b.

Even before NAFTA came into force, much of the Mexican manufacturing industry needed technological and financial assistance in order to confront the liberalization of the economy. Most small-scale producers were struggling to stay afloat because of restricted access to credit. A big proportion of weak, small and micro-size firms were affected by the reduction in the demand for national industrial products and the invasion by foreign goods. Those large establishments not receiving enough national or foreign capital felt the pressure of competition from foreign products, too.²⁶

In response to survey questions about the main repercussion expected from NAFTA, most of employers stated that they were expecting higher competition from imported

²⁶ Enrique de la Garza Toledo: "TLC y Relaciones Laborales en México" in *Ajuste Estructural, Mercados Laborales y TLC*, (México, Fundación Friedrich Ebert, El Colegio de México-El Colegio de la Frontera Norte, 1992), p.288.

products, some of them mentioned that it was going to provide them "greater access to new and/or better technology" and only a few said that it was going to "increase the facility to export" to NAFTA countries. Micro-sized establishments expressed the greatest concern on the question of "higher competitiveness of imported products".

Many national manufacturing firms that did not produce good quality products began to close causing underemployment, displacements and retrenchments or started offering "maquiladora" services to multinationals. Micro and small-scale establishments multiplied rapidly and most of them moved into the informal sector. The majority of them could and can not survive in the market for long since they are not ready to provide the necessary services to larger establishments or simply they do not have the means to do it. Many of them have been closing down since 1989 and others are following declaring as their principal reasons loss of clients and excessive competition.²⁷

Trade liberalization called for greater specialisation and productivity, and Mexican industry needed to restructure its productive apparatus quickly in order to meet the challenge of competition from more advanced countries. Fernando Cortina Legarreta, President of the Mexican Confederation of Chambers of Commerce (CONCAMIN), said that Mexico was confronted by the enormous challenge of accomplishing in months what took other countries decades to achieve.²⁸ The Ministry of Commerce and Industrial Promotion (SECOFI) declared by the end of 1992 that there was only a privileged nucleus of big national monopolies and transnational companies that were able to "modernise" by acquiring new technology (only 5% of the total number of establishments).

The survey results indicate that the average percentage of income devoted to the payment of transfer and/or acquisition of technology in manufacturing establishments is still very low, only 2.5% in 1989 and increased to 3.1% in 1992. There seems to be a general low interest to invest in the purchase of technology. Most industries in Mexico were devoting between 2.3 and 5.9% of their income to acquire new technology. The paper and paper products industry, (Figure 5 and Table 5) and the non-metal mineral products industries granted the highest proportion of their income for this purpose.

Another important aspect to mention is that micro industry was spending, on average, a larger part of their income to the acquisition of new technology compared to any of the other three sizes of establishments. This fact shows the concern of micro industry to stay in the market.

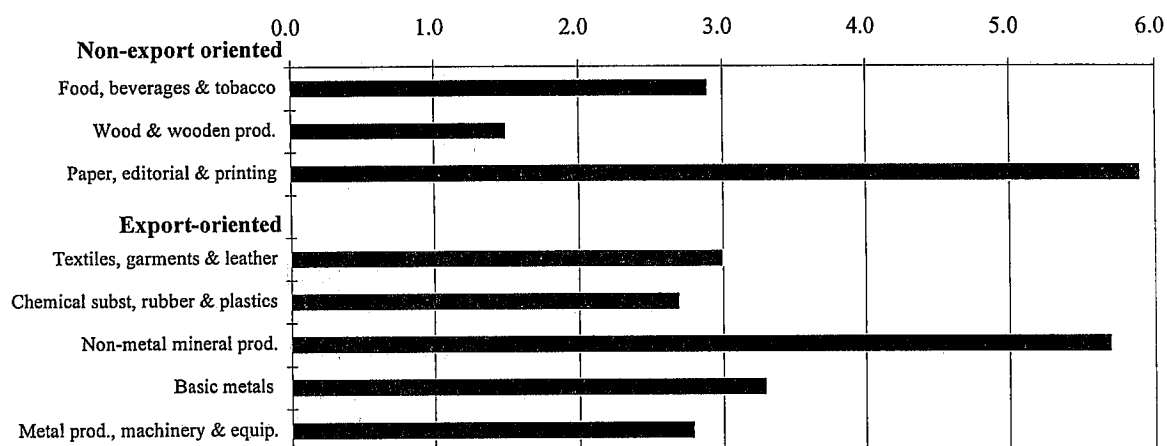
Training is a very important factor in the provision of labour force adaptability to the challenges posed to the Mexican labour force since it permits productivity increases and labour responsiveness to change. On one hand, about one third of managers recognised as a major employment problem the lack of skilled labour and they also recognised that trade liberalization demanded accrued technical knowledge on workers that they still did not possess. On the other

²⁷ The exact number of enterprises that closed down cannot be known because not all of them registered their closure. (Secretaría del Trabajo y Previsión Social-Instituto Nacional de Estadística, Geografía e Informática: *Encuesta Nacional de Micronegocios* (México, 1994), p.152.)

²⁸ Fernando Ortega Pizarro: "Lo que deja a los pequeños empresarios el regimen Salinista", in *Proceso* (México), 31 de octubre 1994, p. 8.

hand, according to the survey responses major efforts to provide training were found in export, as well as non-export oriented industries.

Figure 5. Average percentage of income destined to payment of transfer and/or acquisition of technology by industry, 1992



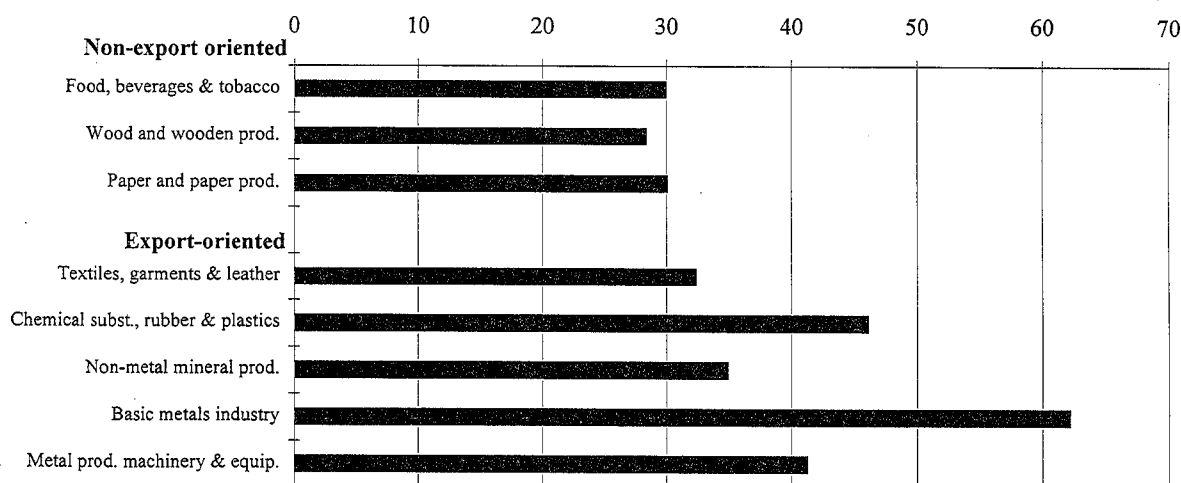
Source: ENESTyC tabs 25a & 25b.

Did employers report a high percentage of training only because the Mexican federal law requires establishments to provide training to their workers? A low interest in investment in human resources in Mexican establishments have been reported by other authors. Manufacturing establishments are known to devote little attention to the training and retraining of production workers and for providing training mainly to managerial, professional and technical staff. The basic metals industry which was privatised in 1989 and was going through a large process of restructuration through this period, was training as much as 62% of its labour force in 1992 according to the ENESTyC. On average between 35% and 37% of the labour force in the manufacturing sector received some kind of training from 1989 to 1992. All industries that were receiving foreign investment and that were increasing their output like the chemical substances, coal derivatives, rubber and plastics (46%), the metal products, machinery and equipment (41%) and the non-metal mineral products (35%) provided a high percentage of training. Those industries more prone to export had, on average, a higher rate of training than non-export oriented. The level of training was directly related to the size of the establishment: the larger the establishment, the higher the percentage of training provided (Figure 6 and Table 6).

At the time of the survey, the government continued implementing two very important training programs: the "Program of Scholarships for Training for Work" (PROBECAT) geared towards unemployed workers aged between 10 and 55 aimed to develop capabilities and skills that will help them find a better-skilled job, and the Program of Integral Quality and Modernisation (CIMO) which besides providing training to workers, supports employers to develop quality programs and enterprises modernisation. These two programs, though, covered only a small proportion of the workforce.

If the high percentage of training reported by the ENESTyC is considered, then most manufacturing establishments are responding positively to meet organizational and production changes in the manufacturing industry. These training efforts should continue to be made in order for them to have a long-term effect and provide a well-prepared labour force. A large scope of training seems to be one of the essential needs in Mexico for the labour force to meet the challenge of modernisation.

Figure 6. Percentage of workers receiving training in 1992 by industry



Source: ENESTyC tabs 137b, 279a & 279b.

B. Employment changes in establishments surveyed

The increase in export sales did not necessarily mean an increase in manufacturing employment. The manufacturing sector's employment growth rate registered in the ENESTyC survey from 1989 to 1992 was 2.2% on average per year, but mainly in micro-sized establishments (8.2%), which have been reported to be short-lived, and in maquiladoras. The ENESTyC survey covered all types of establishments including maquiladoras, single proprietorships and other micro-sized operations. As mentioned before, one of the important reasons for the slight growth in manufacturing employment is the continuous growth in maquiladoras' employment share. In fact, the share of maquiladora employment went up from 4.9% in 1980 to 16.8% in 1993. Maquiladora employment reported an annual average growth of 12.6% from 1980 to 1993²⁹ (Figure 7).

Maquiladoras are prospering, profiting from low wages and the numerous devaluations of the peso. The conditions given by the government to the establishment of the maquiladora sector in the country have been widely criticised since apart from providing low-waged jobs the maquiladora sector in Mexico does not have any other positive secondary effects in the economy. Maquiladoras are not required to obtain part of their inputs in the country (contrary to what happens in South East Asian countries). Besides, maquiladoras are also criticised for being

²⁹ INEGI: Cuadernos de Información Oportuna, México, 1993.

Figure 10. Minimum and average real wages, 1980-1992 (Index 1980 = 100)

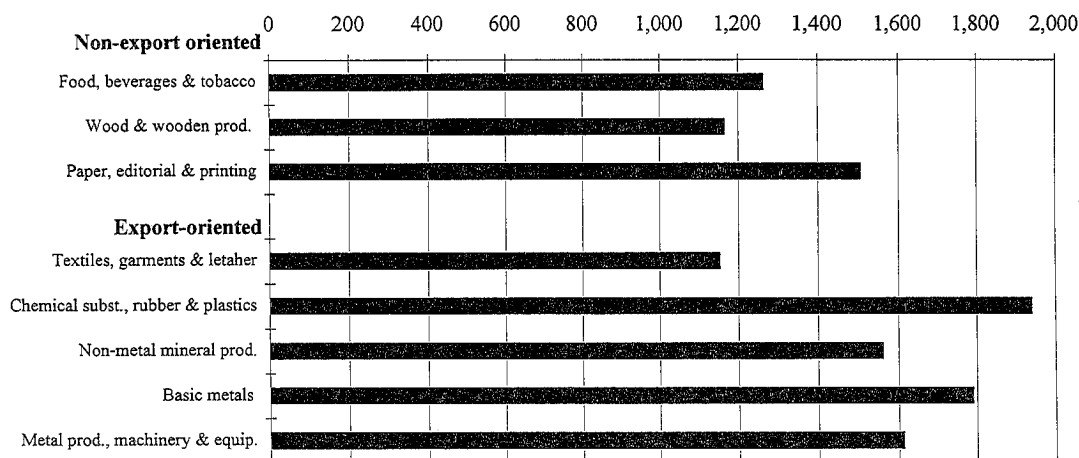
Economic sector	Year												
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Minimum real wages:													
General minimum wages	100	107	97	81	77	75	73	65	61	56	52	50	45
Average real wages													
Agriculture	100	107	97	81	77	77	75	72	61	58	52	50	47
Manufacturing	100	103	100	77	73	73	67	66	66	70	73	76	81
Construction	100	101	89	72	68	68	60	58	50	49	49		
Commerce, hotels	100	101	91	74	69	68	62	58	52	53	53		
Federal Government	100	106	101	70	67	66	55	54	48	53	54		
Public enterprises	100	104	105	80	75	78	71	76	73	76	79		
Average wage of all economic sectors	100	104	97	76	71	72	65	64	58	60	60	63	64

Source: National Institute of Statistics, Geography and Informatics (INEGI).

B. Industry and occupational wage differentials

According to ENESTyC in 1992, the average salary in manufacturing was 5 times the minimum wage³⁸. In 1992, the total of unskilled, semi-skilled and skilled workers represented 71% of manufacturing workforce and the majority of them received wages representing between two and three times the monthly minimum wage. The three export-oriented industries with the highest average remuneration to permanent and casual full-time workers were: the chemicals industry (6.7 times the minimum wage), followed by the basic metals industry (6.2 times the minimum wage) and metal products machinery and equipment (5.6 times the minimum wage). They were followed by the paper and paper products (5.2), the food, beverages and tobacco (4.4 times the minimum wage) and the textile, garments and leather and the wood industry (both paid 4.0 times the minimum wage) Export oriented industries, on average, offered higher wages than other industries (Figure 11 and Table 8).

Figure 11. Average monthly remuneration by industry in 1992 (current pesos)



Source: ENESTyC tabs 252a, 252b, 141b.

It is interesting to see that the export-oriented industry that had the biggest fall in employment (basic metals) was also the one providing the highest average wages. Probably a policy of the restructuration process of the industry was to attract a highly skilled labour force with high wages. This is a common practice followed by transnationals, maquiladoras, and other national industry. After a time, they start lowering wages and after two or three years in the establishment, workers realise that their wages are even lower than less educated workers in other establishments. More wage differentials seem to have been created intensifying inequality between manufacturing workers and concentrating income wages among the higher wage earners (managerial and professional). Wage differentials across workers especially according to educational level and occupation increased. Those groups of workers most closely associated

³⁸ The ENESTyC survey does not provide information on 1989 wages, so it was not possible to make a comparison between 1989 and 1992. However, it provided data on 1992 manufacturing wages, wage differentials and types of wages by industry and by size of establishment.

with the increasing export orientation of the economy were precisely those among whom wage differentiation were widened the most.³⁹

In fact, the widening of wage differentials, have effectively rendered wages more flexible. Overall, in 1992, 20% of manufacturing establishments had increased their number of wage categories since 1989, across all industries. The industry where there was the highest increase in the number of wage categories was the basic metals industry, then the paper and paper products, the chemicals industry, the metal products, machinery and equipment and the textiles, garments and leather. The widening of wage differentials seems to have been a general rule (Table 9).

The increase in wage differentials was large by size of industry: large, medium and small establishments increased their number of wage categories by around 40%; while micro establishments only by 16%.⁴⁰

Managerial, professional and supervisory wage-earners have benefited the most from trade liberalization and income wages have become more concentrated among the higher-paid strata.⁴¹ The survey data permits a comparison between different occupations' remuneration. In 1992, on average managerial workers received 7,258 nuevos pesos (25 minimum salaries), and unskilled workers earned only 817 nuevos pesos (2.8 minimum salaries) per month: a ratio of almost 9 to 1. Between technicians, clerical, supervisors, skilled, semi-skilled and unskilled the difference was small. Managers' salaries were double the average for the professionals (Figure 12 and Table 10).

Occupational wage differences also varied to a great extent by size category of firm. The biggest difference found between managerial and unskilled workers remuneration was in large establishments where managerial earned in average 12,163 nuevos pesos (42 minimum salaries) and unskilled only (3.6 minimum salaries). Across all occupations and industries interviewed, micro-sized establishments paid the least (Figure 13).

The survey evidence confirmed a linear relationship between the size of the firm and remuneration: the smaller the firm, the lower the remuneration. This fact has been generally evidenced by other authors like Main and Reilly in Great Britain and Brown and Medoff in the U.S.⁴² (Table 10).

Gender differentials within occupations proved to still be very big in Mexico. In those establishments surveyed, female average remuneration was only 63% of men's average remuneration in 1992. The biggest gap found was within managerial staff, where females earned an average of 47% of men, and professionals, 64.2%. Gender differentials became

³⁹ Terry Mckinley and Diana Alarcón: "Widening Wage Dispersion under Structural Adjustment in Mexico", in *Conference on the Impact of Structural Adjustment on Labour Markets and Wages Distribution in Latin America*, (San José Costa Rica, 1994), p.18.

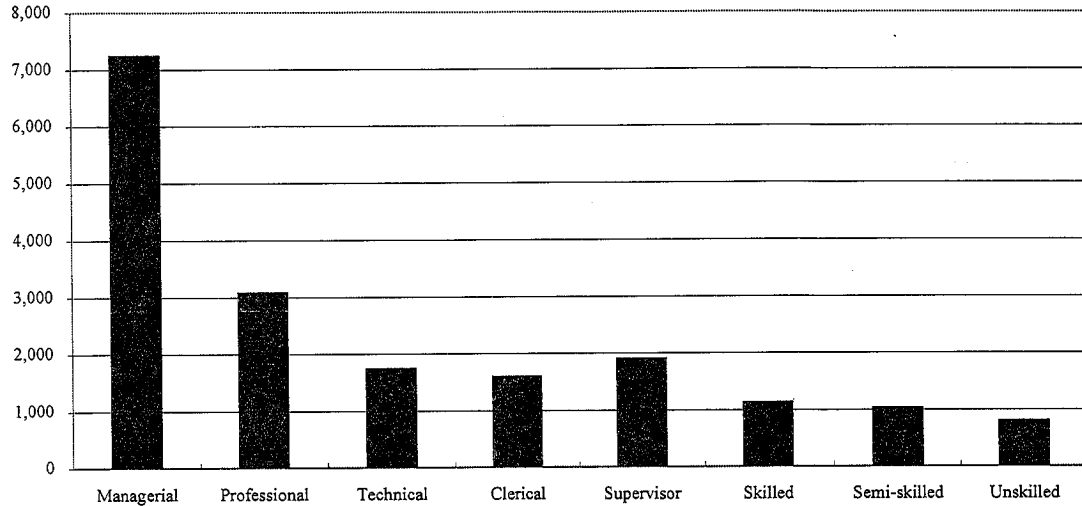
⁴⁰ ENESTyC survey, tables 260 and 261.

⁴¹ Terry Mckinley and Diana Alarcón, *ibid.*

⁴² Brian G.M. Main and Barry Reilly: "The Employer Size-Wage Gap: Evidence for Britain" in *Economica* (1993) 60, 125-42; Brown, C. and Medoff, J.: "The Employer Size-Wage Effect" in *Journal of Political Economy* (1989), 97, 1027-59.

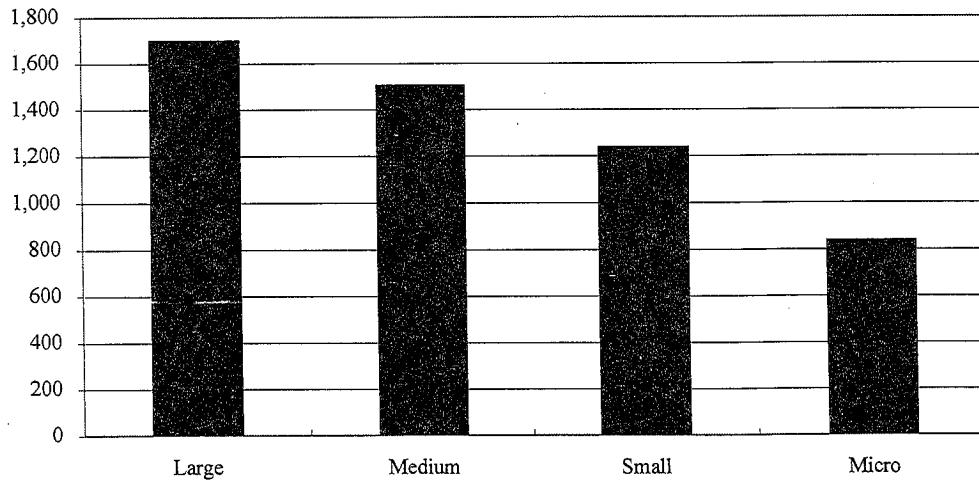
smaller within lower occupations: unskilled females' average remuneration was 73% of male and 70% for semi-skilled workers (Table 11).⁴³

Figure 12. Average monthly remuneration paid by occupational level, 1992 (current pesos)



Source: ENESTyC tabs 140b & 251.

Figure 13. Average monthly remuneration paid by size of establishment, 1992 (current pesos)



Source: ENESTyC tabs 140b & 251.

⁴³ Gender differentials are discussed in another forthcoming paper: G. Moreno Fontes, "Women Industrial Workers in an Opening Economy; the case of Mexico".

C. Flexible remuneration: overtime, fringe benefits, bonuses, profit sharing and other social benefits

In 1992, average wages and basic salaries represented 76% of total remuneration for workers of all occupational categories; while flexible wages accounted for the remaining 24%. This 24% can be divided into: 3% overtime, 17% fringe benefits and 4% other remuneration (productivity, quality, attendance and punctuality, profit sharing and other social benefits).

These percentages varied by industry division. For example, the proportion of wages and basic salaries in total remuneration was very low in export-oriented industries like the basic metals industry (only 69%); while fringe benefits represented 24% (compared to 17% average), overtime 4% and other remuneration 4%. The metal products, machinery and equipment and the chemicals industry also provided a high percentage of fringe benefits, overtime and of other remuneration; while its wages and basic salaries were lower than the average. On the other hand, other non-export industries like the wood industry had a high proportion of their remuneration (84%) as wages and basic salaries and a low proportion as fringe benefits (12%), overtime (2%) and other remuneration (2%) (Table 12). With the exception of the textiles industry, export-oriented firms provided a lower proportion of remuneration (28% on average) in basic wages and salaries than non-export establishments (19% on average).

i. Bonuses

As mentioned before, within the classification of "other remuneration", the survey collected information on the incidence of three kinds of bonuses (productivity, quality and attendance and punctuality), as well as profit sharing and social benefits. Employers responded that in general, attendance and punctuality were the most frequently offered bonuses, followed by productivity bonuses, and then quality bonuses.

Attendance and punctuality bonuses were found most frequently in the case of the metal products, machinery and equipment industry, then, in the food, beverages and tobacco industry, and least, in the chemicals industry. Productivity bonuses were high in metal products, machinery and equipment, in the textiles industry, in chemicals and finally in the food, beverages and tobacco industry. The quality bonus share was also highest in metal products, machinery and equipment, in the basic metals and in the chemicals industry (Table 13).

The emphasis on making wages more flexible was shown to be more important in those industries with a production strongly destined to the domestic market and /or to those export-oriented industries more exposed to liberalization measures.

By size of industry, it was large (47%), then small (31%), medium (16%) and lastly micro (6%) establishments that gave the highest percentage of all three types of bonuses.

ii. Profit sharing and other social benefits

Profit shares and other social benefits represented, in 1992, 52% of non-wage remuneration. Some other social benefits obtained by workers were: supplies, aid for house rent, aid for transport, aid for school material, aid for food, savings fund, and life insurance.

In the case of clerical workers, 6.7% received money for supplies, 5.8% were paid a life insurance, 5% obtained a savings fund, 4.4% received aid for food, 3.1% received aid for transport, 2.8% got some aid for school material and only 1.3% obtained aid for house rent.

A higher proportion of production workers received these social benefits than clerical workers. This is probably because their basic wages were also lower than clerical workers' wages, so they were compensated with more flexible remuneration. Nine percent of production workers received money for supplies, 8.2% were paid a life insurance, 6.7% obtained a savings fund, 10.9% received aid for food, 6.7% received aid for transport, 5.1% received aid for school material and 3.3% received aid for house rent.

Large establishments offered more social benefits than medium, small and micro establishments. But large, medium and small-size establishments usually provided their workers with life insurance, and a savings fund; while micro-size establishments provided their highest share of additional benefits in aid for food. This is not surprising given that most micro establishments are owned and run within family circles on a paternalistic basis.

Mexican establishments are obliged to share their profits with their workers. But there are many firms that avoid this law in practice. In 1992, the average percentage of profits shared among workers was positively related to the size of the firm: the larger the firm, the higher the profit share (9.1% in large and 7.6% in micro). The four industries that gave the highest proportion of profit shares belonged to the group of export-oriented: chemicals, basic metals industry, the metal products, machinery and equipment industry, the textiles and the paper (Table 14).

In general, the pattern keeps repeating itself (with the exception of the paper industry): those industries that have been successful in competing with foreign products and/or which have industrial branches destined to export part or most of their production are the ones that have been introducing more flexible types of remuneration.

6. Employment status flexibility in an export-oriented economy

Employment status flexibility varied from contract to contract since employers started practising an individual way of hiring workers. From one worker to the other, labour hiring conditions could differ as the night and day.

Those employers that answered the ENESTyC survey did not report having a big number of workers hired or contracted under a flexible employment status (non-waged, casual, subcontracted, and hourly-paid work). According to the survey only 16% of manufacturing workers had a flexible form of employment status (Figure 14).

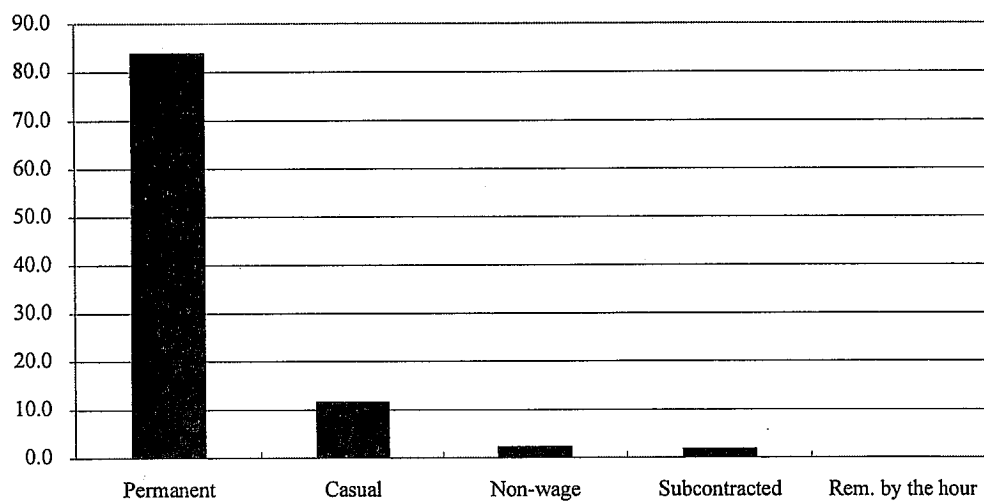
One of the reasons for this could be simply that these forms of employment are not important in the Mexican manufacturing sector or maybe that employers just did not report them because it is still illegal to hire workers without providing them with the necessary benefits required by the law. A third reason why the way of contracting or hiring workers has not been flexibilized more could be that wages are so low that establishments do not need to adopt other employment practices in order to maintain or increase profits. According to other sources though, there has been an increasing prevalence of precarious forms of employment in the manufacturing sector, although their growth has been less marked than that of wage

flexibility. Hence, employment status flexibility seems to be lower in Mexico compared to wage flexibility. Still, Mexican employers' seem to be following the international trend of adapting workers' employment status in order to minimise costs and raise productivity and the proportion of the workforce affected is increasing.

As explained before, a secure wage, work status, employment stability, worker protection and labour security are guaranteed by Mexican law for permanent and temporary workers. These rights are not covered, though, for the growing number of casual or subcontracted workers, or those remunerated by the hour and non-remunerated. Employers that hire employees under flexible conditions have the liberty to make the adjustments they consider necessary whenever they believe that is suitable and required by a free labour market.

Lately, there has also been a trend in Mexico towards the reduction of employment categories in most establishments. Workers are not usually very happy with this policy because it often also means more responsibilities and work for the same pay.⁴⁴

Figure 14. Distribution of employment by employment status



Source: ENESTyC tabs 141a, 141b & 151.

A. Non-wage labour

Non-wage labour is a type of employment status flexibility that was not found to be very important in Mexico. In 1989, the percentage of non-wage workers according to the survey was 2.3% of total manufacturing employment. Two years later, the percentage had increased slightly to 2.4%, a modest share (Table 15).

⁴⁴ María de los Angeles Pozas: "Modernización de las Relaciones Laborales en las Empresas Regiomontanas" in *Ajuste Estructural, Mercados Laborales y TLC*, (op.cit), p.369-370.

If non-wage workers are divided by occupation, the majority were concentrated in managerial posts (51% in 1989 and 50% two years later), or as unskilled workers (33% and 32%) (Table 16). The majority were also found in micro establishments (probably as owners and family members), where they represented a 14.7% of total employment in 1989 and 13.3% in 1992. In large, medium and small establishments the percentage was not significant.

By distribution of industrial sector, in 1989 the largest percentage of non-wage labour (43%) was in the food and tobacco industry, 15.2% in the metal products, machinery and equipment industry, 14.5% in the non-metal mineral products, and 12% in the textiles industry. In 1992, the percentages in the foods industry had gone up by 3 percentage points; fallen slightly in the other two industries (Table 17).

The number of non-wage workers in the survey is low. Why is this, if the 1989 industrial census registered that 5 of every 10 persons working in the textiles industry, for example, did not receive any remuneration at all?⁴⁵ Probable reasons for this low percentage is that persons answering the survey did not want to declare their non-remunerated workers because they did not want to mention that they were not paying their workers or because they thought that family labour was not supposed to be included in the survey results.

B. Casual labour

Mexican establishments have started relying more on casual labour,⁴⁶ than permanent or fixed jobs, in order to reduce labour costs. Casual labour is the most common form of employment status flexibility in Mexico. Some establishments have even fired permanent workers, just to hire them several days later as casuals.⁴⁷ However, the ENESTyC survey reported a slight decrease of casual workers from 1989 to 1992. This number represented 11.9% of the total number of all permanent, casual, non-remunerated and subcontracted workers in 1989 and 11.7% in 1992 (Table 15). But, according to Gutierrez Garza (1992), the actual figure is much higher: between 17 and 19% in the manufacturing sector and has been increasing constantly since 1989.⁴⁸ The ENESTyC calculation for clerical and production workers classified as casual agrees with Gutierrez Garza's analysis: 18%. By occupation, in 1992 most employees with a casual status were unskilled workers (75%) and semi-skilled workers (13%). There were no managerial workers working as casuals. The higher the occupational level, the lower the percentage of casual workers (Table 16).

There was also a higher probability of concentration of casual workers in large and medium-size firms. In large establishments their percentage share of total employment did not change from 1989 to 1992 (13.4%). In medium enterprises the percentage share increased a

⁴⁵ UNAM-Facultad de Economía: *Investigación Económica*, (México), julio-sept 1992, no.185, vol.XLVII, p. 164.

⁴⁶ Casual labour is remunerated personnel with or without a written contract, working full-time or part-time for a definite period of time or a specific task. Most of the time, casual labour are not covered by life insurance, vacations, and retirement pension benefits. They normally also receive lower wages than fixed or permanent workers..

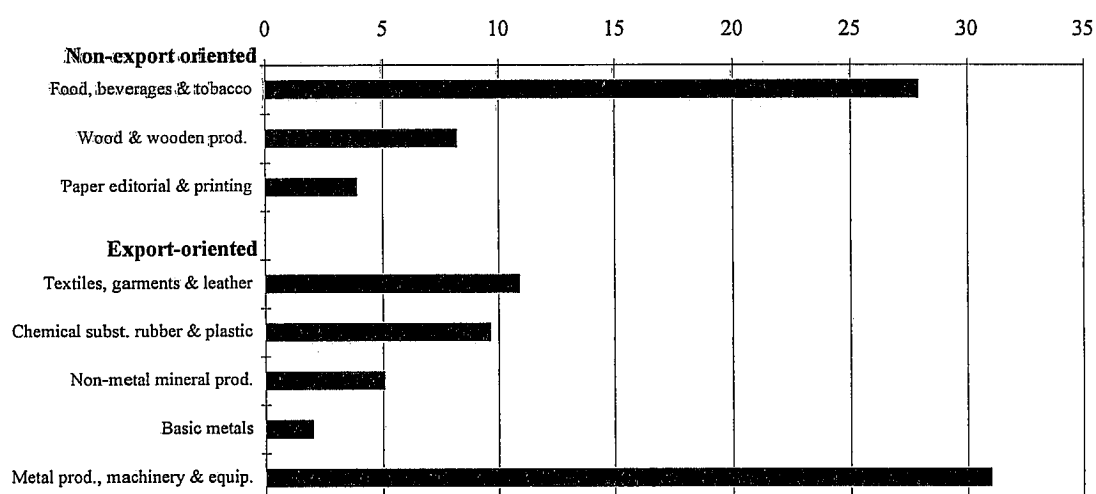
⁴⁷ Esthela Gutiérrez Garza, ed. "La Crisis Laboral y la Flexibilidad del Trabajo 1983-1988", in *Testimonios de la Crisis y los Saldos del Sexenio 1982-1988*, (México, Siglo XXI, 1992) p.203.

⁴⁸ *Ibid*, p. 213.

little from 1989 (13.7%) to 1992 (14.4%). And, in small and micro-size establishments the share fell. In general, there was not a big change in the distribution of casual workers from 1989 to 1992 in our survey.

The distribution of casual workers by industry in 1989 was high in the industry of food and tobacco (27%), and in the metal products, machinery and equipment (29%), then in textiles (13%) and in chemicals (10%). Two years later, the share went up slightly to 28% in the food industry and to 31% in the metal products, machinery and equipment industry (Figure 15 and Table 17). A high percentage of casual workers mainly in establishments that are receiving foreign investment and that are increasing their GDP, as well as those with strong domestic production and those that are facing a lot of foreign competition indicates employers' preference to increase labour flexibility in all types of establishments.

Figure 15. Percentage of casual workers by industry, 1992



Source: ENESTyC tabs 141a, 141b, 147, 151.

The main reasons given by employers for hiring casual workers were “variation in production and/or demand”, then “bigger productivity” and “temporary replacement of workers”. The main reason given varied by industry; for example, in the textiles, wood, metal products and machinery industries the main reason expressed was “variation in production and/or demand” while, in the food industry it was “temporary replacement of workers”.

C. Labour subcontracting

Another form of employment status flexibility is labour subcontracting.⁴⁹ In the case of the manufacturing sector two types of subcontracting have been identified: one in which production is contracted out but raw materials are not provided and another in which raw

⁴⁹ Subcontracted workers are personnel hired by a third party that works inside or outside of the establishment and that are hired for a specific job. They normally receive a lower pay than a permanent or fixed-contract worker.

materials and other inputs are provided. The first might be called horizontal subcontracting and involves orders of goods regularly produced and sold by a firm to a variety of clients. The second is called vertical subcontracting or domestic maquila and it consists of processing work or production carried out for another firm under very specific contract arrangements, including exact specifications regarding design and other products characteristics. Vertical subcontracting results from a fragmentation of the production process in such a way that different parts can be carried out by different firms. Some of the subcontracting arrangements are the result of the need to replace imports with domestic production resulting from the need to lower production costs.⁵⁰

By subcontracting small and micro establishments, large and medium business could reduce their imports and at the same time provide work to lower segments of production. According to the ENESTyC survey subcontracting does not seem to be practised very often by large and medium establishments of the manufacturing sector in Mexico probably because of lack of productivity of small and micro establishments to provide the adequate services to larger establishments. The percentage of subcontracted workers in the survey rose from 1.6% to 1.9% (Table 15). As in the case of casual workers, subcontracted workers were concentrated in unskilled (46% of total in 1989 and 49% in 1992) and semi-skilled occupations (18% of total in 1989 and 15% in 1992). The only difference is that there was a larger share of clerical workers who were subcontracted (12%) than casual workers (Table 16).

The subcontracted workers' share of the total number of workers by firms' size, from 1989 to 1992, stayed the same in large establishments (1.7%), and increased in medium-sized firms, from 1.4% to 1.6%.

The labour subcontracting share of total employment in chemicals rose from 3.8% in 1989 to 5.4% in 1992 and in non-metal mineral products industry from 1.3% to 2.5%. In the basic metals industry, the share decreased from 2.7% to 2.5% from 1989 to 1992. Again, those industries with the highest inflows of foreign investment were the ones that requested, more often, a subcontracted labour force in order to reduce labour costs (Table 15).

Subcontracted workers receive a lower pay than permanent or fixed-contract workers. This is clearly the case with homework which is mostly done by women who receive on average less than a third of the minimum wage.⁵¹ Most of the subcontracting is illegal since firms do not provide subcontracted workers with the social security benefits required by law.

The main reasons stated by employers for subcontracting a bigger proportion of personnel are: 1. the lowering of fixed costs, 2. avoidance of problems associated with fluctuations of production, 3. avoidance of labour conflicts and unionisation.⁵²

Subcontracting permits the shifting of employment toward the more informal, or underground, segments of the economic system, thereby providing a way to escape state regulations on production and market transactions, union contracts, taxes and fringe benefits.

⁵⁰ Lourdes Benería: "Subcontracting and Employment Dynamics in Mexico city" in *The Informal Economy Studies in advanced and less developed countries*, (Baltimore and London, The John Hopkins University Press, 1989), p.175.

⁵¹ Lourdes Benería, p.179.

⁵² Ibid, p.183.

Subcontracting provides for a great deal of flexibility in expanding and contracting productive capacity in the small-business sector. So, the most positive aspect of subcontracting is that it stimulates the development of small and micro business.⁵³ The development of micro and small establishments should be promoted in Mexico in order for them to be able to provide a larger number of services to bigger establishments.

D. Hourly-paid workers

Very few workers are recruited for a few hours at a time and paid on an hourly basis in the Mexican manufacturing sector according to the ENESTyC survey. In 1992, the number of workers remunerated per hour represented only 0.1% of the total number of workers. (Table 15) The percentage was bigger in small establishments than in micro, medium and in large establishments.

7. Employment forecasts

The ENESTyC survey asked also several questions about the expectations of employers in the near future. One of the main desires expressed by many firms hoping to increase employment in the future was to innovate in order to be able to withstand competition within the national market and at the international level. Most industries mentioned that they would increase their level of employment if they introduced new products, if labour was reorganised, if new technology was introduced, if there was a positive variation in the level of production and/or demand, or if the capacity of the establishment was enlarged. Employers considered labour reorganization second in importance.

In all sizes of establishments, the main reason given for planning to increase the level of employment was, again, the introduction of new products. The proportion was higher in large establishments than in the micro establishments. Establishments from all industries and sizes' responded that employment growth was going to be subject to the fact that they adapt promptly and properly to new market demands.

When asked about the main reason for reducing employment in the future, most industrial employers gave as their main answer the negative variation in the level of production and/or demand. The second most important response given was the lack of new technology. Both of these reasons reveal establishments' urgency to restructure quickly in order to withstand competition from more powerful trade rivals.

Small and micro establishments expressed a higher preoccupation about their future because of negative variations in the level of production and/or demand and their lack of means to introduce new technology. Employers from the smaller establishments expressed more concern than those from the bigger establishments on the importance of acquiring new technology, due probably to their fear of being thrown out of the market by stronger and more competitive firms.

Overall, the main employment problem expressed by employers was financial and economic, followed by low productivity, and third, lack of skilled workers. Those

⁵³ Ibid, p.184.

establishments that were introducing new technology or new labour relations in the productive process increased the technical knowledge required of their workers. There was a tendency expressed to demand higher skills from workers in those industrial branches that introduced labour flexibility and new technology.

The food and beverage industry was the one most worried about financial and economic matters, followed by the non-metal mineral products, the paper, the chemicals and finally, the metal products and machinery industries. Low productivity was expressed as a concern mainly by the textiles and wood industries.

If this problem is considered in relation to the size of the firm, micro establishments were more worried about financial and economic problems than small, medium and large establishments. Micro establishments also expressed more concern for low productivity than the other three sizes of establishments. The opposite relationship was found on the question of lack of skilled workers. Only 12% of micro establishments thought that this was important, while between 33% and 34% of small, medium and large establishments considered the lack of skilled workers important. This is surprising because it is micro establishments that have had the greatest difficulty in adapting to market demands because of lack of human resources.

In general, export-oriented employers were optimistic and were expecting a growth in employment in the years to come. The higher the national market share and the larger export sales, the higher the probability expressed by establishments for employment growth.

8. Conclusion

In Mexico, a labour crisis has existed since 1982, which has become even more acute after the acceleration of liberalization and opening up of the economy in 1989. Workers have been losing ground in terms of standard of living and working conditions. Unemployment and underemployment rates have been increasing and the informal sector has been growing at a very fast rate. The search of productivity and reduction of labour costs consists very often of the closing of establishments, precarious utilization of the labour force and the reduction of wages.

Manufacturing employment has declined in large establishments and export-oriented industrial branches. A factor that seems to play a role in the level of employment is whether that industry faces competition from foreign products and if it is ready to compete with those foreign products. Also, if that industry still needs to restructure introducing innovative technology and adapting work conditions to the market needs or not. But, in general, it seems that if domestic production was important and if it did not face competition and if those industries were labour-intensive, then employment was reduced very slightly. On the contrary, if that industry was destined a big part of its production to exports or was in a process of restructuring (the case of the basic metals industry) then there was a substantial reduction of employment within that industry.

As it was seen, those industrial branches that are facing competition internally and whose production was not able to compete with foreign products reduced employment. Trade liberalization has called for greater specialisation and productivity and the majority of Mexican industry needs technological and financial assistance in order to restructure its

productive apparatus quickly and meet the challenge of competing nationally and internationally with much more advanced countries. The ENESTyC survey reported a low investment in technology acquisition. At the time of the survey (1989-1992), a large number of enterprises were being obliged to close their doors because they were unable to withstand market changes. Others that did not have the means to restructure their industrial apparatus, but which were able to stay in the market, tried to increase the flexibility of labour in terms of wages and employment status.

A trend that was very clear in the study is that the most common way in which labour flexibility was implemented was by adapting wages to market demands. Employers were encouraged by government policy to pay a very low wages and to adjust other wages according to their own criteria. In fact, they tried to increase profits by reducing wages and did it to the detriment of their workers' standard of living. In 1992, the majority of manufacturing workers received between two and three minimum wages. Yet, more wage differentials were created which intensified inequality and concentrated wage income among the higher income earners.

In the survey, export-oriented firms had a bigger proportion of flexible wage components than non-export establishments. The emphasis put on compensating workers in order to obtain a highly productive labour force was shown to be more important in those industries introducing or hoping to introduce competitive products into the national market and in those highly and medium export-oriented industries more exposed to liberalization measures. In general, export-oriented firms also paid higher average wages than other industries, but wage compensation was not equally distributed. More wage differentials have been created intensifying inequality between manufacturing workers and concentrating high wages among managerial and professional. There was also a direct relationship between size of firm and the level of remuneration; the smaller the establishment, the lower the remuneration offered. Another interesting finding is that, most probably, the policy of keeping wages down has had a positive aspect in that it may have restricted a massive retrenchment of workers and more unemployment.

Hence, employment status flexibility in the manufacturing sector does not seem to be very important or at least has been applied in a lower degree than wage flexibility. A probable reason for this is that real wages have gone down so much that establishments do not need to manage labour in other ways, in order to obtain profits. A secure wages, work status, employment stability, worker protection and labour security are guaranteed by Mexican law for permanent workers. These rights are not covered, though, in the case of the growing number of casual or subcontracted workers, or those remunerated by the hour. Employers have obtained since 1989 more liberty to hire employees under flexible conditions and have been making the adjustments they consider necessary whenever they believe these adjustments are suitable and required by a free labour market.

The most common intra-firm form of flexible employment is casual work. Mexican employers have started relying more on casual labour than on permanent or fixed jobs in order to decrease labour costs. Casual workers represented 18% of the total number of employees in 1992 and their number was increasing. Export-oriented firms hired a higher percentage of casual workers than did domestic production-oriented establishments. Non-

remunerated, subcontracted and remunerated per hour workers still represent a low proportion of total manufacturing employment according to the survey results.

Labour flexibility appeared to be a way of obtaining a comparative advantage that could help firms improve labour force productivity and reduce labour force costs. As it was seen before, in general those industries that are practising more wages and employment status flexibility are those export-oriented and capital-intensive industries that are at the same time reducing employment the most. In certain sectors of the manufacturing industry, where wages and employment status flexibility was more common, labour flexibility did not seem to have had a positive effect on employment. Could it be concluded that the liberalization of the Mexican economy besides promoting wages and employment status flexibility has also had a negative effect on manufacturing employment?

There was a direct relationship found between size of establishment and export sales in 1992: large establishments destined a bigger part of their production to the international market. Actually, it was mainly bigger and stronger firms that could restructure quickly, obtain new technology, and introduce competitive products that profited from the opening of the economy by increasing their export sales and modernising their productive apparatus quickly. As export-oriented and mainly large industries seem to be prospering rapidly and as NAFTA will improve their chances and reduce the chances of others, trade liberalization policies seem to be benefiting only a small part of Mexican manufacturing industry.

The neo-liberalization model seems to promote the opening and development of large and strong economic units (mainly those destined to the export-market), and forgets about the development of small and micro establishments. Most of those that are on the "winner side" are capital intensive and require a smaller labour force than old industry. The whole process is creating accumulation of capital, centralisation and the promotion of oligopolies. As a result, the new model is reinforcing gross capital and big trusts and weakening those that have very little or the "losers" of the game. The large benefits obtained by the most protected sectors of the economy do not trickle down in the form of higher wages to workers. Will this imbalance could be compensated in the future? Would more jobs and better wages materialise provided the country stays this course and starts producing a bigger proportion of competitive products for the national market?

The Government announced in 1994 that it will undertake a major labour law reform, particularly in the areas of hourly pay, dismissal compensation and flexible work rules to provide employers with more liberty to adapt workers' wages and employment status because some employers complain that the Mexican labour market is still too rigid. How will these measures affect the impoverished Mexican worker?

At the moment, the Mexican Government continues opening its borders to foreign products and further reducing import barriers. There is no policy to assist establishments not able to restructure their industrial apparatus. The Government has been withdrawing and letting the economy "laissez-faire". It has reduced its public expenditure and the limited funds destined before to finance manufacturing firms in distress are no longer available. Funds destined for training and education have been also cut. In addition, there is a lack of schools that provide technical and specialized training. Also the investment in industrial and scientific research is very low. Will these policies increase workers' vulnerability? What will happen to

small and medium-size establishments that were able to stand competition until now? Will this lack of institutional aid create more closing of establishments, unemployment and by consequence more poverty?

The promotion of more training and the providing of more technical education should be essential answers to the adaptability of workers to the globalization of Mexican economy instead of just trying to solve the problem by flexibilizing the labour force conditions. The designing of an efficient economic policy aimed at a positive utilisation of the labour force should be a must to the government. Instead of reducing training, the improvement and increase in number of official and private training and technical education programs should be promoted. The Mexican Government should put more emphasis on these two issues since they represent the best chances for the recovery of the purchasing power of the majority of the labour force. It could also represent in larger terms an impulse for the promotion of economic growth. A well-trained labour force could probably also improve workers' wages. The government should not forget that workers also represent the national market consumers.

Another important factor to consider is the encouragement (as much as possible) of the development of micro-sized establishments and the creation and establishment of labour-intensive industries that can provide as much work to Mexicans as possible. The rapid increase in the number of the labour force requires it. A large scope of action seems to be open to raise productivity and quality. The Government should put more emphasis in the organization of programmes (maybe with funds from larger establishments) aimed at modernising industrial relations and the promotion of policies to lend support to small and micro establishments.

The Mexican Government says that economic development and living standards should benefit in the long run from more investment from, and trade with, the United States and Canada and from the resulting enhanced competitiveness. It also says that wages should start rising, since NAFTA's parallel agreement on labour calls for a gradual improvement of Mexican wages. The findings from the 1992 survey will help provide a benchmark against which the results from increased openness and decreased labour market rigidities and protection can be compared in the future.

Appendix

Industrial classification used in the survey

The **food, beverages and tobacco** industry covers 13 industrial branches: meat; manufacturing of dairy products; *manufacturing of canned food, grinding of cereals and other agricultural products, manufacturing of bakery products, grinding of corn and manufacturing of tortillas; manufacturing of oils and fats; sugar; manufacturing of cocoa, chocolate and candies; manufacturing of other food products for human consumption; manufacturing of food products for animals; beverages and tobacco.

The **textiles, garments and leather** industry comprises: *the production of hard fibres and cords; *the spinning, weaving and finishing of soft fibres; manufacturing of textile materials; manufacturing of jerseys; manufacturing of garments; *leather, furs and its derivatives and shoes.

The **wood and wood products** industry embraces: the manufacturing of sawing and carpentry products, *manufacturing of wood packages, other wood products and cork; manufacturing and repairing of wood furniture.

The **paper and paper products, printing and publishing** industry comprises: the manufacturing of cellulose, paper and its products and the printing and publishing house branches.

The **chemical substances, and coal derivatives, rubber and plastics** industry covers: the *manufacturing of basic chemical substances; *artificial and synthetic fibres; pharmaceuticals; the manufacturing of other substances and chemical products; rubber and plastic products.

The **non-metal mineral products** industry embraces: pottery and ceramics; *the manufacturing of clay for construction; *the manufacturing of glass and glass products, and the manufacturing of cement, lime, plaster and other products.

The **basic metals** industry covers *the iron and steel and the *basic non-iron metals branches.

The **metal products, machinery and equipment** industry comprises: the melting and moulding of iron and non-iron metal pieces; manufacturing of other metal structures, tanks and industrial boilers; manufacturing and repairing of metal furniture; manufacturing of other metal products; *manufacturing, repairing and assembling of machinery for special uses; *manufacturing, repairing and assembling of machinery for general uses, *manufacturing and assembly of office, processing and computer equipment; *manufacturing and/or assembly of machinery, equipment and electrical appliances; *manufacturing and assembly of radio, television and communication electronic equipment; *manufacturing and assembly of household appliances; *the automotive industry; *manufacturing, repairing and assembly of transportation and equipment parts; *manufacturing, repairing and assembly of instruments and precision equipment.

Note: *export-oriented industries destine more than 10% of their production to the international market

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Table 1. Manufacturing sector's foreign investment as a percentage of total foreign investment from 1989 to 1992 and share of foreign investment in foreign investment in the manufacturing industry (millions of dollars)

	1989	1990	1991	1992	Foreign investment 1989-1992	Percentage of total foreign investment	Share of foreign investment in manufacturing
Foreign investment in all economic sectors	2 499 738	3 722 468	7 015 171	5 705 158	18 942 535	100.0	
Foreign investment in the manufacturing sector	982 369	1 192 904	1 326 164	1 562 762	5 064 198	27.0	100.0
1. Food, beverages and tobacco	212 009	181 978	362 528	322 229	1 078 745	5.7	21.3
2. Textiles, garments and leather industry	48 910	23 231	24 466	59 069	155 676	0.8	3.1
3. Wood industry and wood products	19 880	4 612	4 086	14 544	43 122	0.2	0.9
4. Paper and paper products editorial and printing	40 664	12 782	61 536	82 862	197 844	1.0	3.9
5. Chemical substances, coal products, rubber and plastic	254 612	484 851	162 163	213 044	1 114 671	5.9	22.0
6. Non-metal mineral products	11 287	19 431	210 038	610 497	851 253	4.5	16.8
7. Basic metals industry	16 031	16 032	61 511	21 231	114 805	0.6	2.3
8. Metal products, machinery and equipment	283 124	426 043	432 737	225 539	1 367 444	7.2	27.0
9. Other manufacturing industries	95 849	23 946	7 097	13 745	140 638	0.7	2.8

Source: "Resultados de la Nueva Política de Inversión Extranjera en México 1989-1994", Ministry of Commerce and Industrial Promotion, 1994, table 4.

Table 2. Gross domestic product in the manufacturing industry by percentage change from 1989-1992

	1989	1990	1991	1992	Percentage change 1989-1992
Total	1 117.2	1 205.8	1 246.6	1 274.3	14.1
1. Food beverages and tobacco	279.3	286.5	298.5	318.1	13.9
2. Textiles, garments and leather industry	131.2	134.8	132.7	120.8	-7.9
3. Wood industry and wood products	43.1	41.8	37.7	34.2	-20.6
4. Paper and paper products editorial and printing	68.3	69.5	63.9	70.1	1.9
5. Chemical substances, coal products, rubber and plastic	209.1	218.9	226.0	236.6	13.2
6. Non-metal mineral products	77.4	79.7	85.2	93.3	20.5
7. Basic metals industry	67.5	78.3	69.8	73.1	8.3
8. Metal products, machinery and equipment	213.9	269.1	304.8	294.8	37.8
9. Other manufacturing	29.5	27.2	28.0	33.3	12.9

Source: Mexican Bulletin of Statistical Information, No. 6, Oct.-Dec. 1992, p. 4.

Table 3. Distribution of manufacturing establishments' average sales by industry and industrial branch and sales destination, 1989-1992 (percentages)

Industry	Total																				
	National			United States			Canada			Central and South America			Europe			Japan			Others		
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	
Total	100	100	82.2	82.9	14.2	12.8	0.4	0.9	1.0	1.2	1.1	1.0	0.4	0.4	0.7	0.7					
1. Food, beverages and tobacco																					
Meat industry	100	100	96.1	96.3	3.0	3.1	0.0	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.4	0.0					
Manufacturing of dairy products	100	100	99.6	99.7	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Manufacturing of canned food	100	100	99.8	99.8	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0					
Manufacturing of cereals and other agricultural products	100	100	78.8	78.5	20.0	19.3	0.1	0.4	0.0	0.3	0.4	0.5	0.3	0.6	0.3	0.4					
Grinding of cereals and other agricultural products	100	100	93.4	93.5	5.6	5.5	0.0	0.0	0.0	0.0	0.3	0.4	0.5	0.5	0.1	0.1					
Manufacturing of bakery products	100	100	99.7	99.8	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Grinding of corn and manufacturing tortillas	100	100	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Manufacturing of oils and edible fats	100	100	98.9	98.4	0.9	1.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Sugar industry	100	100	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Manufacturing of cocoa, chocolate and candies	100	100	86.2	98.8	1.6	0.8	0.0	0.0	0.2	0.3	0.0	0.2	0.0	0.0	12.0	0.0					
Manufacturing of other food products for human consumption	100	100	95.5	94.7	4.0	4.5	0.0	0.0	0.4	0.5	0.1	0.2	0.0	0.0	0.0	0.0					
Manufacturing of food products for animals	100	100	99.9	99.7	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Beverages	100	100	96.0	95.7	3.0	3.1	0.0	0.3	0.1	0.1	0.7	0.6	0.2	0.2	0.0	0.0					
Tobacco	100	100	99.7	99.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.3	0.0					
2. Textiles garments and leather industry																					
Production of hard fibres and cords	100	100	84.2	84.3	9.9	10.1	0.9	0.5	0.4	0.7	1.2	1.3	2.4	2.5	0.9	0.5					
Spinning, weaving and finishing of soft fibres	100	100	32.2	31.5	57.5	58.2	0.1	0.1	0.1	0.3	6.0	6.8	2.8	2.0	1.4	1.1					
Manufacturing of textile materials	100	100	86.7	87.0	3.4	3.2	0.7	0.7	0.8	1.2	1.2	1.4	5.5	5.6	1.7	1.0					
Manufacturing of jerseys	100	100	71.9	72.8	21.5	22.8	3.9	1.1	0.6	0.8	0.7	0.7	0.4	0.8	1.1	0.9					
Manufacturing of garments	100	100	95.8	95.5	3.2	3.2	0.3	0.2	0.0	0.2	0.6	0.8	0.0	0.0	0.0	0.1					
Leather, furs and its derivatives industry	100	100	92.5	93.0	6.9	6.2	0.4	0.4	0.0	0.2	0.0	0.2	0.0	0.0	0.1	0.0					
Shoe Industry	100	100	68.7	68.9	26.1	29.7	2.0	0.2	0.2	0.2	1.9	0.5	0.0	0.4	1.2	0.1					
	100	100	90.1	89.0	7.6	8.0	0.2	0.3	0.0	0.1	1.8	1.9	0.2	0.7	0.0	0.0					
3. Wood and wood products industry																					
Manufacturing of sawing and carpentry products	100	100	96.2	96.6	3.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Manufacturing of wooden packages, other wooden prod. and cork	100	100	89.7	91.4	9.9	8.5	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0					
Manufacturing and repairing of wood furniture	100	100	84.3	84.2	15.7	15.6	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0					
	100	100	98.0	98.1	2.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
4. Paper and paper products industry																					
Manufacturing of cellulose, paper and its products	100	100	96.2	97.7	3.1	1.6	0.0	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.3	0.1					
Printing and publishing house branches	100	100	94.7	97.8	4.6	1.7	0.0	0.0	0.1	0.2	0.3	0.3	0.0	0.0	0.3	0.0					
	100	100	98.6	97.5	0.8	1.3	0.0	0.3	0.2	0.5	0.1	0.1	0.0	0.0	0.3	0.3					

cont ...

Table 3. cont.

Industry	Total		National		United States		Canada		Central and South America		Europe		Japan		Others	
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
	100	100	89.5	4.2	3.7	0.1	0.1	2.2	2.8	1.2	1.3	1.2	1.3	0.3	0.3	1.9
100	100	82.3	79.6	7.0	7.5	0.3	0.2	3.5	4.8	1.8	1.6	1.1	1.1	0.7	4.1	5.5
100	100	77.9	75.5	2.5	2.5	0.0	0.0	7.5	7.4	4.1	5.5	0.0	0.0	8.0	9.2	9.2
100	100	95.7	94.5	0.3	0.5	0.1	0.1	2.2	2.6	1.5	1.8	0.1	0.1	0.2	0.4	0.4
100	100	96.1	96.0	2.1	1.7	0.0	0.0	1.2	1.7	0.3	0.3	0.0	0.0	0.3	0.3	0.3
100	100	96.1	95.5	2.0	2.1	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.2	1.2	1.2	0.7
100	100	89.3	93.7	8.8	4.5	0.1	0.1	0.7	0.6	0.7	0.7	0.1	0.1	0.3	0.3	0.3
100	100	93.3	94.8	5.5	4.2	0.0	0.0	0.4	0.5	0.6	0.4	0.1	0.1	0.2	0.2	0.0
100	100	90.8	92.0	7.8	6.4	0.2	0.3	0.5	0.7	0.3	0.2	0.2	0.2	0.4	0.1	0.0
100	100	97.3	98.6	1.9	0.4	0.0	0.0	0.0	0.0	0.8	0.8	0.1	0.1	0.0	0.0	0.0
100	100	80.3	83.2	17.6	15.1	0.7	1.0	0.9	0.5	0.0	0.0	0.4	0.1	0.1	0.1	0.1
100	100	86.2	85.7	10.4	10.1	0.5	0.6	1.2	2.1	0.7	0.7	0.8	0.8	0.3	0.3	0.1
100	100	94.3	96.0	5.3	3.6	0.0	0.0	0.2	0.2	0.2	0.0	0.8	0.8	0.0	0.0	0.0
100	100	82.0	81.8	10.8	8.2	0.3	0.1	1.1	1.3	2.0	2.4	1.1	1.1	1.5	2.7	4.6
100	100	85.2	85.0	8.8	6.2	0.3	0.1	0.7	1.3	1.1	1.1	0.2	0.2	0.0	3.5	6.3
100	100	75.0	75.0	15.2	12.5	0.2	0.0	2.0	1.3	3.8	5.3	2.9	2.9	4.8	0.9	1.1
100	100	65.3	67.0	30.2	27.4	0.9	2.3	1.5	1.7	1.7	1.4	0.2	0.2	0.2	0.2	0.1
100	100	90.7	90.5	8.6	8.0	0.4	1.0	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	100	94.4	95.3	4.8	3.1	0.4	0.9	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	100	96.3	95.9	3.6	4.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	100	94.4	94.4	4.5	4.6	0.1	0.1	0.6	0.7	0.0	0.1	0.1	0.1	0.0	0.3	0.1
100	100	91.1	88.3	4.6	6.8	0.0	0.1	3.0	2.6	0.6	1.3	0.0	0.1	0.6	0.6	0.8
100	100	67.3	69.5	32.3	29.9	0.0	0.0	0.2	0.4	0.1	0.1	0.0	0.0	0.1	0.1	0.1
100	100	46.7	44.9	24.4	28.9	12.0	7.8	5.0	5.6	4.2	3.9	5.0	5.0	6.1	2.8	2.7
100	100	81.2	80.6	16.6	17.0	0.7	0.7	1.2	1.3	0.2	0.3	0.0	0.0	0.0	0.0	0.1
100	100	77.0	77.7	19.2	19.6	0.0	0.0	2.1	1.3	1.5	1.2	0.2	0.2	0.1	0.0	0.1
100	100	84.8	81.8	12.9	15.9	0.5	0.6	1.0	1.5	0.7	0.3	0.0	0.0	0.0	0.1	0.0
100	100	53.6	56.6	41.3	36.3	0.9	3.4	1.6	1.7	2.5	2.0	0.1	0.1	0.0	0.1	0.0
100	100	88.9	87.5	9.2	8.0	0.1	0.1	0.8	1.4	0.6	2.7	0.4	0.4	0.0	0.0	0.0
100	100	52.3	51.4	30.1	24.6	1.0	2.7	15.0	18.9	1.3	2.1	0.1	0.1	0.2	0.1	0.1
100	100	87.7	89.8	5.4	5.2	0.5	0.4	0.9	2.8	3.9	0.7	0.2	0.2	0.5	1.4	0.6

Source: ENESTyC tabs 20a and 20b.

Table 4. Average distribution of manufacturing establishments' sales in 1989 and 1992 by size of establishment and sales destination (percentages)

	National		United States		Canada		Central and South America		Europe		Japan		Other	
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
Total	100	100	82.2	82.9	14.2	12.8	0.4	0.9	1.0	1.2	1.1	1.0	0.4	0.4
Large	100	100	76.7	77.8	18.7	16.6	0.6	1.3	1.4	1.6	1.5	1.3	0.3	0.3
Medium	100	100	90.1	90.1	8.0	7.9	0.3	0.1	0.6	0.7	0.6	0.7	0.2	0.3
Small	100	100	93.8	93.7	4.1	4.1	0.1	0.1	0.3	0.4	0.2	0.1	1.4	1.4
Micro	100	100	99.4	99.4	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: ENESTyC tab 21a and 21b.

Table 5. Average percentage of income devoted to the payment of acquisition and/or transfer of technology in manufacturing establishments by industry and size of establishment 1989-1992

	Total		Large		Medium		Small		Micro	
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
Total	2.5	3.1	2.5	3.0	2.5	3.9	1.8	2.4	3.9	3.8
1. Food, beverages and tobacco	2.1	2.9	2.2	3.3	2.0	2.4	1.4	2.1	2.9	2.1
2. Textiles, garments and leather industry	2.6	3.0	3.2	3.4	2.6	3.2	2.0	2.7	0.9	1.5
3. Wood industry and wood products	1.3	1.5	1.3	2.9	1.9	2.5	3.4	5.0	0.3	0.2
4. Paper and paper products editorial and printing	3.7	5.9	4.9	6.1	1.6	3.4	3.5	5.6	0.1	10.6
5. Chemical substances, coal products, rubber and plastic	2.4	2.7	2.2	2.6	2.0	2.7	2.8	2.2	7.9	6.9
6. Non-metal mineral products	3.8	5.7	4.0	5.2	3.3	10.0	4.4	6.1	2.1	1.1
7. Basic metals industry	2.3	3.3	2.3	3.1	1.9	5.2	2.1	3.1	0.8	6.4
8. Metal products, machinery and equipment	2.5	2.8	2.2	2.3	3.8	5.7	0.9	1.1	7.1	9.1
9. Other manufacturing industries	2.5	3.0	2.4	3.1	3.5	2.8	2.1	3.1	0.0	2.3

Source: ENESTyC tabs 25a and 25b.

Table 6. Percentage of workers receiving training in 1989 and 1992 by industry and size of establishment

	Trained workers														
	Total			Large			Medium			Small			Micro		
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	
Total	35.0	36.9	39.7	45.6	39.8	39.9	32.4	29.0	12.6	13.5					
1. Food, beverages and tobacco	29.2	30.1	34.6	38.8	39.9	40.5	29.5	25.6	11.3	10.1					
2. Textiles, garments and leather industry	31.8	32.5	34.4	37.1	36.4	38.7	28.9	25.7	13.6	18.4					
3. Wood and wood products	23.5	28.5	31.9	54.8	34.5	37.3	25.7	21.0	5.6	12.5					
4. Paper and paper products	31.4	30.2	32.1	32.2	33.2	34.6	32.3	32.2	25.7	19.3					
5. Chemical substances, coal derivatives, rubber and plastic	45.6	46.3	47.4	53.3	46.2	44.8	42.7	35.9	38.2	37.3					
6. Non-metal mineral products	35.2	35.0	44.8	44.9	45.1	45.7	43.4	44.7	7.8	9.8					
7. Basic metals industry	34.2	62.3	33.7	72.2	36.9	40.6	34.0	30.6	41.7	33.0					
8. Metal products, machinery and equipment	39.6	41.4	44.0	48.0	41.7	39.4	31.3	29.5	11.2	12.4					
9. Other manufacturing industries	27.0	28.3	32.8	40.0	38.7	29.3	22.4	21.0	0.0	9.8					

Source: ENESTyC tabs 173a, 137b, 279a and 279b.

Table 7. Number of manufacturing workers by industry and industrial branch, size of establishment and percentage of annual growth of manufacturing employment from 1989 to 1992

INDUSTRIAL BRANCH	Total			Large			Medium			Small			Average annual growth in percent from 1989 to 1992					
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	Total	Large	Medium	Small	Micro	
Total	2,813,169	2,994,893	1,507,240	1,523,796	433,852	465,364	520,914	568,610	351,164	437,124	2.2	0.4	2.4	3.1	8.2			
1. Food, beverages and tobacco																		
Meat industry	602,171	680,072	315,716	340,431	69,651	79,632	78,352	90,658	138,453	169,351	4.3	2.6	4.8	5.2	7.4			
Manufacturing of dairy products	24,131	27,851	7,651	8,710	6,401	7,267	6,956	7,746	3,123	4,128	5.1	4.6	4.5	3.8	10.7			
Manufacturing of canned food	46,341	56,282	21,723	24,054	7,591	9,687	6,658	6,234	12,368	16,307	7.2	3.6	9.2	11.3	10.6			
Manufacturing of cereals and other agricultural products	58,601	65,093	42,351	44,618	9,577	12,189	6,270	7,573	4,033	713	3.7	1.8	9.1	6.9	25.6			
Grinding of cereals and other agricultural products	28,663	28,717	4,179	3,537	10,243	10,451	10,717	11,643	3,525	3,087	0.1	-5.1	0.7	2.9	-4.1			
Manufacturing of bakery products	99,877	115,694	33,865	34,840	2,315	2,570	25,007	25,579	38,691	52,704	5.3	1.0	3.7	0.8	12.1			
Grinding of corn and manufacturing tortillas	69,287	76,440	0	0	0	0	1,696	1,652	67,591	74,788	3.4	0.0	0.0	-0.9	3.5			
Manufacturing of oils and edible fats	16,602	18,208	10,325	11,934	4,888	4,806	970	1,271	219	198	3.2	4.5	-0.6	10.3	-3.2			
Sugar industry	49,413	49,385	47,691	47,440	1,415	1,705	23	23	284	217	-0.0	-0.2	6.8	0.0	-7.9			
Manufacturing of cocoa, chocolate and candies	23,959	26,562	14,687	14,130	3,873	4,216	3,979	5,401	1,420	1,815	3.6	1.0	3.0	11.9	9.3			
Manufacturing of other food products for human consumption	46,531	58,007	25,605	31,531	5,160	5,406	9,016	10,374	6,751	10,697	8.2	7.7	1.6	5.0	19.5			
Manufacturing of food products for animals	10,479	13,846	1,106	1,521	3,869	4,932	4,130	6,306	1,374	1,087	10.7	12.5	9.2	17.6	-7.0			
Beverages	115,834	131,083	94,833	105,137	13,644	15,798	4,715	6,651	2,643	3,497	4.4	3.6	5.3	13.7	10.8			
Tobacco	12,453	12,904	11,502	11,979	675	605	214	208	63	112	1.2	1.4	-3.5	-0.9	25.9			
2. Textiles garments and leather industry																		
Production of hard fibres and cords	447,036	474,451	198,519	196,752	94,908	101,931	119,718	128,092	33,891	47,676	2.0	-0.3	2.5	2.3	13.6			
Spinning, weaving and finishing of soft fibres	131,047	136,616	75,618	74,663	31,223	33,721	21,760	23,873	2,447	4,358	1.4	-0.4	2.7	3.2	26.0			
Manufacturing of textile materials	26,354	26,723	15,955	15,244	3,375	4,052	4,602	4,441	2,422	2,987	0.5	-1.5	6.7	-1.2	7.8			
Manufacturing of jerseys	42,648	44,093	17,597	17,942	9,635	10,300	12,588	11,999	2,828	3,851	1.1	0.7	2.3	-1.6	12.1			
Manufacturing of garments	141,946	153,739	41,731	47,324	29,538	31,501	50,329	53,052	20,348	21,863	2.8	4.5	2.2	1.8	2.5			
Leather, furs and its derivatives industry	18,815	19,557	4,723	5,278	2,316	2,202	8,769	7,087	3,007	4,991	1.3	3.9	-1.6	-6.4	22.0			
Shoe Industry	68,234	80,205	28,738	28,073	17,164	17,536	20,241	25,535	2,092	9,060	5.8	-0.8	0.7	8.7	111.0			
3. Wood and wood products industry																		
Manufacturing of sawing and carpentry products	140,056	160,794	34,636	33,973	27,286	26,674	40,199	55,874	37,936	44,272	4.9	-0.6	-0.7	13.0	5.6			
Manufacturing of wooden packages, other wooden prod. and cork	59,094	65,028	17,754	16,093	14,253	13,454	16,702	22,851	10,386	12,630	3.3	-3.1	-1.9	12.3	7.2			
Manufacturing and repairing of wood furniture	14,611	17,789	990	1,350	2,847	2,482	4,448	4,804	6,326	9,153	7.3	12.1	-4.3	2.7	14.9			
	66,351	77,977	15,892	16,530	10,187	10,738	19,049	28,220	21,224	22,489	5.8	1.3	1.8	16.0	2.0			
4. Paper and paper products industry																		
Manufacturing of cellulose, paper and its products	142,785	159,309	54,779	56,955	32,536	34,757	32,970	36,750	22,501	30,847	3.9	1.3	2.3	3.8	12.4			
Printing and publishing house branches	58,497	60,651	31,992	32,129	14,658	15,465	9,821	10,574	2,026	2,483	1.2	0.1	1.8	2.6	7.5			
	84,288	98,658	22,788	24,827	17,877	19,292	23,149	26,175	20,475	28,364	5.7	3.0	2.6	4.4	12.8			
5. Chemical substances, coal derivatives, rubber and plastics																		
Manufacturing of basic chemical substances	330,781	337,714	168,147	164,236	68,412	73,032	79,630	82,959	14,592	17,486	0.7	-0.8	2.3	1.4	6.6			
Artificial and synthetic fibres industry	64,836	61,571	37,220	34,434	14,304	13,296	11,557	11,955	1,755	1,886	-1.7	-2.5	-2.3	1.1	2.5			
Pharmaceutical industry	15,014	14,278	14,540	13,873	0	0	451	383	23	26	-1.6	-1.5	0.0	-5.0	0.0			
Manufacturing of other substances and chemical products	43,279	46,804	27,233	29,190	9,500	10,417	5,645	6,440	902	756	2.7	2.4	3.2	4.7	-5.4			
Coque industry	8,995	9,157	3,854	3,657	1,854	1,895	2,824	2,930	463	675	3.7	2.1	0.7	4.6	14.2			
Rubber industry	36,282	34,631	20,571	19,168	4,530	5,042	9,161	8,325	2,020	2,096	-1.5	-2.3	3.8	-3.0	15.3			
Manufacturing of plastic products	98,689	100,495	33,468	30,728	24,709	27,301	34,486	35,272	6,026	7,194	0.6	-2.7	3.5	0.8	6.5			

Table 7. cont.

INDUSTRIAL BRANCH	Total						Average annual growth in percent from 1989 to 1992								
	1989		1992		Large		Medium		Small		Micro				
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	Total	Large	Medium	Small	Micro
6. Non-metallic mineral products	150,666	161,760	68,703	71,103	15,430	15,300	28,402	29,670	38,131	45,687	2.5	1.2	-0.3	1.5	6.6
Pottery and ceramics	13,826	15,187	4,030	4,280	1,206	861	2,230	1,667	6,360	8,379	3.3	2.1	-9.5	-8.4	10.6
Manufacturing of clay for construction	34,898	35,521	13,894	13,493	2,545	2,743	3,742	3,605	14,716	15,655	0.6	-1.0	2.6	-1.0	2.1
Manufacturing of glass and glass products	34,034	36,452	26,392	28,081	2,715	2,886	4,653	3,703	1,274	1,781	1.3	2.1	2.1	-6.8	13.3
Manufacturing of cement, lime, plaster and other products	66,908	74,600	24,387	25,249	8,963	8,810	17,777	20,669	15,780	19,872	3.8	1.2	-0.6	5.4	8.6
7. Basic metals industry	125,518	101,717	99,148	74,373	11,530	12,097	12,421	12,437	2,419	2,810	-6.3	-8.3	1.6	0.0	5.4
Iron and steel basic industry	91,443	76,420	71,493	56,238	9,246	9,503	9,022	8,810	1,682	1,869	-5.5	-7.1	0.9	-0.8	3.7
Basic non-iron metals	34,074	25,296	27,654	18,134	2,284	2,594	3,399	3,627	737	941	-8.6	-11.5	4.5	2.2	9.2
8. Metal products, machinery and equipment	842,288	885,446	555,662	573,321	107,004	114,298	120,541	124,006	59,081	73,820	1.7	1.1	2.3	1.0	8.3
Melting and moulding of iron and non-iron metal pieces	18,545	18,556	6,163	5,432	2,945	3,351	6,630	6,408	2,807	3,364	0.0	-4.0	4.6	-1.1	6.6
Manufacturing of other metals structures, tanks and boilers	56,290	61,359	8,029	7,618	5,809	7,325	14,372	13,045	28,080	33,371	3.0	-1.7	8.7	-3.1	6.3
Manufacturing and repairing of metal furniture	16,045	18,640	4,798	4,284	3,206	3,783	6,639	7,572	1,403	3,001	5.4	-3.6	6.0	4.7	38.0
Manufacturing of other metal products	93,323	102,744	42,494	44,333	19,897	20,648	22,532	25,232	8,401	12,531	3.4	1.4	1.3	4.0	16.4
Repairing and assembling of machinery for special uses	37,430	37,245	14,757	14,074	8,343	7,591	10,678	12,130	3,651	3,450	-0.2	-1.5	-3.0	4.5	-1.8
Repairing and assembling of machinery for general uses	72,560	73,035	29,087	27,668	13,612	15,094	21,947	20,435	7,914	9,839	0.2	-1.6	3.6	-2.3	8.1
Manufacturing and/or assembly of office, processing & computer eq.	19,272	19,224	13,525	12,132	4,112	5,509	1,510	1,464	124	120	-0.1	-3.4	11.3	-1.0	-1.1
Manufacturing and/or assembly of machinery, equipmt. & elect. app.	197,703	206,302	166,157	172,424	17,876	18,066	11,836	13,282	1,834	2,530	1.4	1.3	0.4	4.1	12.6
Manufacturing and/or assembly of radio, tv, & comm. elect.	101,290	101,497	84,602	85,152	10,361	10,354	5,799	5,574	527	417	0.1	0.2	-0.0	-1.3	-7.0
Manufacturing and/or assembly of household appliances	33,854	34,882	28,418	28,484	3,052	2,926	1,938	2,929	447	543	1.0	0.1	-1.4	17.0	7.2
Automotive industry	158,614	174,993	133,668	148,780	12,218	12,840	10,533	10,397	2,195	2,977	3.4	3.8	1.7	-0.4	11.9
Manufacturing, repairing and/or assembly of transportation equipmt.	16,833	15,437	10,914	10,375	2,656	2,532	2,750	2,028	511	502	-2.8	-1.6	-1.6	-8.8	-0.6
Manufacturing, repairing &/or assembly of inst. and precision equipmt.	20,529	21,533	13,049	12,568	2,916	4,276	3,377	3,511	1,188	1,177	1.6	-1.2	15.6	1.3	-0.3
9. Other manufacturing industries	31,869	33,632	11,930	12,651	7,096	7,642	8,681	8,164	4,161	5,174	1.8	2.0	2.6	-2.0	8.1

Source: ENESTYC tabs 137a and 137b.

Table 8. Total monthly remuneration divided by total number of permanent and casual workers by industry as of March 1992 (current pesos)

	Wage/basic salaries	Overtime	Fringe benefits	Other remuneration	Total remuneration	Total number of permanent and casual workers	Total remuneration per worker	Times the minimum wage
Total	3 310 239 931	147 959 209	724 945 188	188 666 935	4 731 811 265	2 983 412	1 465	5.0
1. Food, beverages and tobacco	639 874 363	23 928 855	126 506 556	35 224 241	825 534 016	651 266	1 267	4.4
2. Textiles, garments and leather industry	435 249 365	11 122 061	69 924 112	16 310 331	532 605 872	461 017	1 155	4.0
3. Wood industry and wood products	206 887 927	5 969 881	29 222 940	5 645 132	247 725 882	212 017	1 168	4.0
4. Paper and paper products editorial and printing	185 891 923	10 438 989	29 557 293	15 989 817	241 878 024	160 446	1 507	5.2
5. Chemical substances, coal products, rubber and plastic	472 232 034	20 500 576	122 999 544	26 123 104	641 855 259	330 392	1 942	6.7
6. Non-metal mineral products	179 008 822	11 392 917	32 793 848	13 932 554	237 128 142	151 754	1 562	5.4
7. Basic metals industry	115 467 993	5 914 193	39 479 353	6 972 450	167 833 991	93 580	1 793	6.2
8. Metal products, machinery and equipment	1 046 514 028	57 724 005	270 440 976	66 685 564	1 441 364 575	892 221	1 615	5.6
9. Other manufacturing industries	29 113 472	967 729	4 020 562	1 783 738	35 885 503	30 720	1 168	4.0

Source: ENESTyC tabs 252a, 252b, 252c and 141b.

Note: Other remuneration includes productivity, quality, attendance and punctuality bonuses, profit sharing and other social benefits like supplies, aid for house rent, aid for transport, aid for school material, aid for food, savings fund and life insurance

The daily average minimum wage represented 12.10 nuevos pesos or less than US\$4 a day (3.3 nuevos pesos for 1 dollar). A worker normally works 6 days a week or 24 days a month, so the monthly minimum wage in 1992 was 290.4 nuevos pesos.

Table 9. Percentage of manufacturing establishments by industry according to increases, decreases or no changes in the number of wage differentials, since 1989

	Total	Variation in the number of categories			Don't know
		Increased	Decreased	No change	
Total	100	19.7	1.6	70.2	8.4
1. Food, beverages and tobacco	100	17.3	1.4	75.3	5.9
2. Textiles, garments and leather industry	100	22.7	0.6	62.7	13.9
3. Wood industry and wood products	100	13.6	4.3	71.6	10.6
4. Paper and paper products editorial and printing	100	31.2	1.8	62.3	4.7
5. Chemical substances, coal products, rubber and plastic	100	29.2	3.5	66.1	1.1
6. Non-metal mineral products	100	12.2	1.2	71.3	15.3
7. Basic metals industry	100	33.8	3.3	61.9	1.0
8. Metal products, machinery and equipment	100	24.2	0.8	67.8	7.3
9. Other manufacturing industries	100	27.8	1.2	61.8	9.1

Source: ENESTyC tab 260.

Table 10. Average remuneration paid by occupation level divided by total number of workers by size of establishment as of March 1992 in current pesos

	Workers							Times the minimum wage		
	Managerial	Professional	Technical	Clerical	Supervisor	Skilled	Semi-skilled		Unskilled	Total average remunerations
Total	7 258	3 101	1 762	1 618	1 919	1 151	1 051	817	1 323	4.6
Large	12 163	4 177	2 225	2 284	2 615	1 380	1 346	1 064	1 702	5.9
Medium	9 319	4 018	2 020	1 762	2 079	1 318	1 153	917	1 509	5.2
Small	5 837	3 007	1 753	1 486	1 630	1 161	1 036	720	1 241	4.2
Micro	1 711	1 204	1 049	939	1 350	743	668	565	841	2.9

Source: ENESTyC tabs 140b and 251.

Note: The daily average minimum wage represented 12.10 nuevos pesos or less than US\$4 a day (3.3 nuevos pesos for 1 dollar). A worker normally works 6 days a week, so the monthly minimum wage in 1992 was 290.4 nuevos pesos.

Table 11. Women's average remuneration as a percentage of men's by occupation, 1992

	Workers						Total		
	Managerial	Professional	Technical	Clerical	Supervisor	Skilled		Semi-skilled	Unskilled
	47.1	64.2	90.4	76	73.9	63.3	70.6	73.1	63.3

Source: ENESTyC tabs 251 and 138b.

Table 12. Distribution of total remuneration paid to the manufacturing establishments personnel by industry and type of remuneration 1992 (percentages)

Type of remuneration	Wages/basic salaries			Overtime	Fringe benefits			Other remunerations
	Total	Supervisor	Skilled		Semi-skilled	Unskilled	Other remunerations	
Total	100	76	63.3	3	17	4		
1. Food, beverages and tobacco	100	78		3	15	4		
2. Textiles, garments and leather industry	100	82		2	13	3		
3. Wood industry and wood products	100	84		2	12	2		
4. Paper and paper products editorial and printing	100	77		4	12	7		
5. Chemical substances, coal products, rubber and plastic	100	74		3	19	4		
6. Non-metal mineral products	100	75		5	14	6		
7. Basic metals industry	100	69		4	24	4		
8. Metal products, machinery & equipment	100	73		4	19	5		
9. Other manufacturing industries	100	81		3	11	5		

Source: ENESTyC tab 252a.

Table 13. Other remuneration paid to manufacturing establishment personnel by industry and type of remuneration, 1992 (percentages)

	Total	Productivity bonus	Quality bonus	Attendance and punctuality	Other
Total	100	100	100	100	100
1. Food, beverages and tobacco	19	12	3	21	20
2. Textiles, garments and leather industry	9	17	11	8	6
3. Wood industry and wood products	3	5	5	4	2
4. Paper and paper products editorial and printing	8	9	2	10	8
5. Chemical substances, coal products, rubber and plastic	14	13	19	13	14
6. Non-metal mineral products	7	8	4	10	6
7. Basic metals industry	4	3	20	4	3
8. Metal products, machinery and equipment	35	33	33	32	38
9. Other manufacturing industries	1	1	3	0	1

Source: ENESTyC tab 255.

Note: Other social benefits include supplies, aid for house rent, aid for transport, aid for school material, aid for food, savings fund and life insurance.

Table 14. Average percentage of profits shared among manufacturing workers by industry and size of establishment in 1992 (percentages)

	Total	Large	Medium	Small	Micro
Total	8.0	9.1	8.9	8.8	7.6
1. Food, beverages and tobacco	7.3	9.0	9.1	9.0	6.8
2. Textiles, garments and leather industry	9.3	9.0	9.2	8.5	9.8
3. Wood industry and wood products	6.1	9.0	8.3	6.7	5.8
4. Paper and paper products	8.7	9.6	9.4	9.4	8.6
5. Chemical substances, coal products, rubber and plastic	9.1	9.5	7.9	9.1	9.3
6. Non-metal mineral products	6.3	9.5	9.2	8.7	5.8
7. Basic metals industry	8.6	7.9	6.7	8.9	9.2
8. Metal products, machinery and equipment	9.0	9.1	9.3	9.3	8.8
9. Other manufacturing industries	9.3	9.2	9.3	8.9	9.5

Source: ENESTyC tab 257.

Table 15. Structural percentage of employment by industry and by employment status in 1989 and 1992

	Permanent		Casual		Non-remunerated		Subcontracted		Rem. by the hour		Total	
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
1. Food, beverages and tobacco	79.3	79.3	15.3	14.7	4.6	4.9	0.8	1.0	0.0	0.1	100	100
2. Textiles, garments and leather industry	87.5	88.5	9.6	8.4	1.7	1.8	1.0	1.0	0.1	0.3	100	100
3. Wood industry and wood products	80.0	82.2	15.3	13.6	4.0	3.4	0.7	0.7	0.0	0.2	100	100
4. Paper and paper products, editorial and printing	86.6	88.9	10.9	8.8	0.9	0.7	1.6	1.6	0.0	0.0	100	100
5. Chemical substances, coal products, rubber and plastic	86.0	84.3	9.9	10.0	0.2	0.3	3.8	5.4	0.1	0.1	100	100
6. Non-metal mineral products	80.7	80.3	11.9	11.2	6.1	6.0	1.3	2.5	0.0	0.0	100	100
7. Basic metals industry	90.4	89.1	6.7	7.7	0.1	0.5	2.7	2.5	0.1	0.1	100	100
8. Metal products, machinery and equipment	85.4	84.7	11.6	12.3	1.2	1.2	1.9	1.7	0.0	0.1	100	100
9. Other manufacturing industries	84.1	83.2	13.4	12.3	2.1	2.2	0.4	2.2	0.0	0.2	100	100
TOTAL	84.2	84.0	11.9	11.7	2.3	2.4	1.6	1.9	0.0	0.1	100	100

Source: ENESTyC tabs 141a, 141b, 147 and 151

Table 16. Percentage of workers in manufacturing establishments by occupational level and employment status

Occupational level	Total		Permanent		Casual		Non-remunerated		Subcontracted	
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
Total	100	100	100	100	100	100	100	100	100	100
Managerial	4	4	3	3	0	0	51	50	2	1
Professional	4	5	5	5	1	1	1	1	6	7
Technical	4	5	5	5	1	1	0	0	7	8
Clerical	11	11	12	12	4	4	3	5	12	12
Supervisors	4	4	5	5	1	1	1	1	2	4
Skilled workers	6	6	7	6	4	5	1	1	6	5
Semi-skilled workers	18	18	19	19	14	13	11	9	18	15
Unskilled	48	48	45	45	76	75	32	33	46	49

Source: ENESTyC tabs 138a, 138b and 150.

Table 17. Percentage of manufacturing employment by industry and by employment status 1989, 1992

Employment status	Permanent		Casual		Non-remunerated		Subcontracted		Rem. by the hour		Total	
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
1. Food, beverages and tobacco	19.9	21.0	27.0	27.9	42.8	45.7	10.6	12.4	16.5	14.6	21.1	22.2
2. Textiles, garments and leather industry	16.3	16.1	12.7	10.9	12.1	11.5	9.5	8.5	29.4	44.0	15.7	15.3
3. Wood industry and wooden products	6.0	6.9	8.1	8.2	11.1	10.1	2.7	2.5	0.0	14.9	6.3	7.1
4. Paper and paper products editorial and printing	5.4	5.6	4.8	3.9	2.1	1.5	5.2	4.6	3.2	0.8	5.2	5.3
5. Chemical substances, coal products, rubber and plastic	11.9	11.3	9.7	9.7	0.9	1.3	27.3	32.3	25.0	5.4	11.6	11.2
6. Non-metal mineral industry	5.2	5.1	5.4	5.1	14.5	13.3	4.2	7.2	0.0	0.1	5.4	5.3
7. Basic metals industry	4.1	3.3	2.1	2.1	0.2	0.7	6.3	4.2	7.3	4.2	3.8	3.1
8. Metal products, machinery and equipment	30.3	29.7	29.0	31.0	15.2	15.0	33.9	27.2	18.6	14.6	29.8	29.5
9. Other manufacturing industries	1.1	1.0	1.2	1.1	1.0	0.9	0.3	1.2	0.1	1.4	1.1	1.0
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Source: ENESTyC tabs 141a, 141b, 147 and 151.