

INSTITUTO NACIONAL DE ESTADÍSTICA Y GEOGRAFÍA

8113, Agricultural, industrial and services machinery and equipment repair and maintenance

turnover/output, basic statistics

Session: *Commercial and Industrial Machinery Repair and Maintenance*

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*Production of basic economic statistics, turnover/output, for agricultural, industrial and services
machinery and equipment repair and maintenance, from Census and Surveys.*

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I. - Definition of service being collected

Commercial and industrial machinery repair and maintenance; according to the North American Industry Classification System (NAICS 2007), is defined as an economic unit primarily engaged in the repair and maintenance of machinery and equipment for agriculture, forestry, industrial, commercial and services, and machinery and equipment to move, lift and accommodate materials. Also includes: *e.u.p.e.* to the rectification of agricultural engine parts or industrial at the customer's request; repair and maintenance of machinery and general equipment, such as valves, pumps, fire extinguishers, sprayers, boilers; sharpening of saws and cutters for machinery and industrial equipment; welding machinery and industrial equipment, and welding of machinery and industrial equipment in combination with welding cars and trucks.

II. - Unit of measure to be collected

The *Revenues from the provision of services* is the main concept for measuring economic evolution; through the Economic Surveys and Census are collected several variables related to incomes, in short-term statistics (monthly basis), for example, capture the following:

- Days worked
- Personnel directly employed by the firm
- Personnel not directly employed by the firm
- Remunerations
- **Expenditures on goods and services consumption**
- **Expenditures not derived from the activity**
- **Revenues for services rendered and goods sold**
- **Revenues not derived from the activity**

While for structural statistics (annual basis), there are higher levels of disaggregation:

- Personnel directly employed by the firm
- Personnel not directly employed by the firm
- Remunerations
- **Expenditures on goods and services consumption**
- **Expenditures not derived from the activity**
- **Revenues for services rendered and goods sold**
- **Revenues not derived from the activity**
- Fixed assets
- Identification of suppliers and customers

And for Economic Census (every five years), among others variables:

- Participation of foreign capital
- Organization forms
- Occupied personnel
- Remuneration
- **Expenditures on goods and services consumption**
- **Expenditures not derived from the activity**
- **Revenues for services rendered and goods sold**
- **Revenues not derived from the activity**
- **The production value**
- Stocks
- Fixed assets
- Units and transport equipment
- Innovation and research

Revenues for the provision of services are defined as:

Revenues

It includes the monetary revenue obtained by this establishment during the month of reference as a result of the lending of the service and complementary activities, as well as by concept outside to its activities.

Operating revenues

It is the amount of the revenue obtained by all the services rendered and complementary activities realized by this establishment in the month of reference. The asked for concepts are:

- Revenues by the rendering of services.
- Net sales of merchandise acquired for its resale. It is the amount of the sales of merchandise realized by this establishment. To this value it must reduce to it the amount of the discounts, reductions and returns on these sales plus the expenses realized by delivery service, if there were them.
- Revenues by other concepts derived from its activities like commissions on sales; sales of rejection materials; the amount of the repair and maintenance services lent to third parties; for the services of rent of personal property and real states; by the storage; and by use of patents, marks and franchises, etcetera.

Non operating revenues

It is the amount of the revenues received by this establishment, during the month of reference, by concept outside to its activities.

Include	Exclude
Donations; third party received dividends Interests derived from financial activities Surcharges and Foreign exchange profits and subsidies.	The amount of the loans or credits received The sale of fixed assets The partner contributions (increases to the capital).

III. – Market conditions and constraints

According to the results of the 2009 Economic Census, *repair and maintenance of commercial and industrial machinery and equipment* activities, there are **11,458 establishments**, representing about **4% of the Sector 81, Other Service, except government activities**. A five-year term, establishments engaged in the repair and maintenance of commercial and industrial machinery and equipment have **increased 13%**; currently **employing about 69,841 people and generating annual revenues of 17,126,070 (thousand pesos)**. In average each establishment employs 6 people; these units are characterized by micro and small size establishments.

Main characteristics of the economic units, 2008¹

Share of economic units by economic activity sector, 2008 (percentages)

NAICS code ²	Economic units	
	Abs.	%
81, Other services, except government activities	493,337	
811, Repair and maintenance services	290,734	58.93
8113, Agricultural, industrial, commercial and services machinery and equipment repair and maintenance	11,458	3.94
81131, Agricultural, industrial, commercial and services machinery and equipment repair and maintenance	11,458	100.00
811311, Agricultural and forestry machinery and equipment repair and maintenance	766	6.69
811312, Industrial machinery and equipment repair and maintenance	9,727	84.89
811313, Materials handling machinery and equipment repair and maintenance	417	3.64
811314, Commercial and service industry machinery and equipment repair and maintenance	548	4.78

¹ Source: INEGI, 2009 Economic Census, National Results; www.inegi.org.mx

² NAICS Mexico, 2007; <http://www.inegi.org.mx/sistemas/scian/default.aspx?c=143>

**Share of total occupied personnel by economic activity sector, 2008
 (percentages)**

NAICS code	Total occupied personnel	
	Abs.	%
81, Other services, except government activities	1,212,362	
811, Repair and maintenance services	738,394	60.91
8113, Agricultural, industrial, commercial and services machinery and equipment repair and maintenance	69,841	9.46
81131, Agricultural, industrial, commercial and services machinery and equipment repair and maintenance	69,841	100.00
811311, Agricultural and forestry machinery and equipment repair and maintenance	2,474	3.54
811312, Industrial machinery and equipment repair and maintenance	59,426	85.09
811313, Materials handling machinery and equipment repair and maintenance	3,337	4.78
811314, Commercial and service industry machinery and equipment repair and maintenance	4,604	6.59

**Share of total revenues and gross value added by economic activity sector, 2008
(percentages)**

NAICS code	Total revenues from the provision of service (thousand pesos)		Census gross value added (thousand pesos)	
	Abs.	%	Abs.	%
81, Other services, except government activities	157,790,329.00		72,367,256.00	
811, Repair and maintenance services	77,860,234.00	49.34	35,213,983.00	48.66
8113, Agricultural, industrial, commercial and services machinery and equipment repair and maintenance	17,126,070.00	22.00	7,392,254.00	20.99
81131, Agricultural, industrial, commercial and services machinery and equipment repair and maintenance	17,126,070.00	100.00	7,392,254.00	100.00
811311, Agricultural and forestry machinery and equipment repair and maintenance	303,175.00	1.77	173,400.00	2.35
811312, Industrial machinery and equipment repair and maintenance	13,534,501.00	79.03	5,659,066.00	76.55
811313, Materials handling machinery and equipment repair and maintenance	1,227,900.00	7.17	694,242.00	9.39
811314, Commercial and service industry machinery and equipment repair and maintenance	2,060,494.00	12.03	865,546.00	11.71

IV. – Standard classification structure and product details/levels

The **North American Industry Classification System (2007, NAICS - Mexico)**, aims to provide a unique, consistent and updated framework for the collection, analysis and report of economic statistics, which reflects the structure of the Mexican economy. NAICS Mexico is the basis for the generation, presentation and dissemination of all economic statistics.

Sector 81, *Other services, except government activities.*

NAICS³ structure

81, *Other services, except government activities*

811, *Repair and maintenance services*

8113, *Agricultural, industrial, commercial and services machinery and equipment repair and maintenance*

81131, *Agricultural, industrial, commercial and services machinery and equipment repair and maintenance*

811311, *Agricultural and forestry machinery and equipment repair and maintenance*

811312, *Industrial machinery and equipment repair and maintenance*

811313, *Materials handling machinery and equipment repair and maintenance*

811314, *Commercial and service industry machinery and equipment repair and maintenance*

³ North American Industry Classification System, Mexico, 2007.

Product details/levels

With regard to the products of the *agricultural, industrial, commercial and services machinery and equipment repair and maintenance*, in the Economic Census were used preliminary lists of products with those obtained incomes by type of product, as an example the following table⁴. However, there have not been incorporated products on short-term statistics; we are currently evaluating the questionnaires (annually and monthly) to collect products detail.

2009, Economic Census Revenues from the provision of services by economic activity and product 2008 data (thousand pesos)		
Revenues from the provision of services		
Description	Market	
	Domestic	International
811311, Agricultural and forestry machinery and equipment repair and maintenance	13,216	0
Rectification of agricultural engine parts	13,216	0
811312, Industrial machinery and equipment repair and maintenance	5,357,878	409,294
Industrial machinery and equipment repair and maintenance	4,167,026	332,456
Mining industry	12,668	8,557
Construction industry	1,494,221	256,140
Food industry	5,500	0
Textile industry	7,844	0
Chemical industry	962,770	3,902
Metalworking industry	511,659	57,238
Electric and electronic industry	1,163,958	6,619
Others	8,406	0

⁴ Source: INEGI, 2009 Economic Census, <http://www.inegi.org.mx/est/contenidos/Proyectos/ce/Default.aspx>

V. – Evaluation of standard vs. definitions and market conditions

While the definitions for recording turnover/output presented in the questionnaires are aligned with international recommendations and the National Accounts System (NAS), due to the very particular characteristics of the repair and maintenance activities, for instance, micro and small establishments, with an average of 6 employed persons, that do not make use of accounting records to measure economic variables, it is difficult to collect data on short-term statistics, the alternative for measuring these activities has been incorporated into the surveys sample some medium and large companies and apply basic variables of persons employed, wages, incomes and expenses.

VI. – National Accounts concepts and measurement issues related to GDP measurement

For the calculation of the Gross Domestic Product (GDP), is an indirect calculation that considers the following variables, provided by the Census and economic surveys.

- Production of machinery and equipment (basic statistics: manufacturing industry).
- Turnover/output (basic statistics: maintenance and repair services).
- Employment in activities of repair and maintenance of machinery and equipment (basic statistics on employment and occupation).

VII. – Turnover/output data methods and criteria for choosing various output methods

Generation of economic statistics (input for the calculation of National Accounts) and the generation of different indicators to measure economic evolution, is performed through an Integrated Surveys System in Economic Units, based on current legislation (LSNIEG, Article 22, paragraph II).

This system of surveys in economic units carried out monthly and annually, based on sample surveys; the monthly surveys covers basic variables, as employed personnel, wages, incomes and expenses, while the annual surveys covers structural variables: fixed assets, among others.

The output of *agricultural, industrial, commercial and services machinery and equipment repair and maintenance* is measured as turnover. Data are collected for short-term and structural statistics; turnover is measured in thousands of Mexican pesos and the statistical observation unit is the establishment. At present turnover by product is not available.

VIII. - Evaluation of comparability of turnover/output data with price index practices

The collection of prices for goods and services that make up the basket of the SPPI is performed at the level of specific products, which are grouped by generic concept and each generic is assigned to a class of NAICS 2007 activity by economic origin.

The generic product is now included in the basket of the SPPI for repair and maintenance of machinery and equipment, is classified in NAICS class 811219, *Other electronic and precision equipment repair and maintenance*; this generic includes maintenance and repair of specific computers, printers, copiers, multifunction, buses, tractors, chain saws and elevators, among others.

A new basket has been considered a generic that is also called repair and maintenance of machinery and equipment, but now is classified in NAICS class 811312, *Industrial machinery and equipment repair and maintenance*, within the specific included are the repair and maintenance of:

Machinery and industrial equipment

- Thermal and industrial plants
- Construction industry
- Metalworking industry
- Chemical industry
- Food industry
- Producers of oil and natural gas
- Industrial robots

Machinery and equipment for general use

- Pumps
- Valves
- Fire extinguishers
- Sprays
- Air conditioners

Service and industrial maintenance

Others