

General Information

I Census of Manufacture

1. Purpose of the Census

The Census of Manufacture (hereafter referred to as the Census) is to clarify the condition of current Japanese manufacturing.

2. Legal Framework

The Census represents a fundamental statistics under the Statistics Act (Law No. 53 of 2007) and is implemented according to the Regulations for the Census of Manufacture (Ministerial Ordinance No. 81 of the Ministry of International Trade and Industry of 1951).

3. Reference Period

The reference period of the 2012 Census is calendar year 2012 (as of December 31, 2012).

4. Scope of the Census

The Census covers all establishments located in Japan (excluding those located in the enumeration districts which includes the “restricted areas etc.”, those belonging to the government and establishments with three or less employees) and falling under [Division E - Manufacturing Industry] listed in the Japan Standard Industrial Classification (No. 618 of the Ministry of Internal Affairs and Communications issued in 2007).

“restricted areas etc.”: the restricted areas under the provisions of Article 63, paragraph 1, of the Basic Act on Disaster Control Measures (Act No.223 of 1961) as applied mutatis mutandis by replacing the terms pursuant to Article 28, Paragraph 2, of the Act on Special Measures Concerning Nuclear Emergency Preparedness(Act No.156 of 1999) regarding the Great East Japan Earthquake (disaster caused by the Tohoku-Pacific Ocean Earthquake, which struck on March 11, 2011, and the subsequent nuclear power plant accident) and planned evacuation areas designated by the Nuclear Emergency Response Headquarters.

5. Forms

Questionnaires are distributed to establishments by enumerators, except establishments designated by the Minister of Economy, Trade and Industry, that are located in the areas in which the execution of the Census was affected by the Great East Japan Earthquake, and whose headquarters have three or more establishments or have two hundred or more employees. Designated establishments receive the questionnaires directly from the Ministry of Economy, Trade and Industry.

Form A covers establishments with 30 or more employees, while Form B is for those with 29 or fewer employees in both cases excluding head offices that have no involvement in the manufacturing processing or repair of industrial products. The Census is based on entries in these forms filled by managers or administrators of applicable establishments, or representatives of the enterprises as in the case of questionnaires being sent to the headquarters.

II Report by Respective Industry (4-digit industrial classification) of the 2012 Census

1. Tabulation of Report by Respective Industry (4-digit industrial classification)

The Report by Respective Industry (4-digit industrial classification) provides findings in the Census 2012

regarding establishments with 4 or more employees by regional bureau of Economy, Trade and Industry, and by prefecture.

2. Industrial Classification for the Census

- (1) The Industrial Classification for the Census conforms in principle to the Japan standard Industrial classification. The exception is as follows.

| Industrial classification for the Census of Manufacture | Japan standard Industrial classification |
|---|--|
| 1421 Paper and machine-made Japanese paper, integrating paper (1421) and machine-made Japanese paper (1423) | 1421 Paper 1423 Machine-made Japanese paper |

- (2) The following is a list of products as mentioned elsewhere in Division 18 "plastic product manufacturing industry (except for mentioned elsewhere)".

| Product | Industry | Product | Industry |
|--|----------|--|----------|
| Furniture and fixtures | 13 | Pens, lead pencils, painting materials and stationery | 326 |
| Plastic plate making for printing | 1521 | Lacquer ware | 3271 |
| Photosensitive materials | 1695 | "Tatami" mats (straw-mats) | 3282 |
| Gloves and mittens | 2051 | Fans and lanterns (Japanese style) | 3283 |
| Refractories | 215 | Brooms and brushes | 3284 |
| Abrasive products | 2179 | Smoking accessories and supplies, except precious metals and jewelry | 3285 |
| Artificial pearls | 2199 | Umbrellas, parasols and parts | 3289 |
| Gears | 2531 | Thermos bottles | 3289 |
| Setsquares with scale | 2739 | Signboards and signs | 3292 |
| Injection cylinders | 2741 | Pallets for transportation | 3293 |
| Artificial tooth | 2744 | Models and patterns | 3294 |
| Costume jewelry, costume accessories, buttons and related products, except precious metals and jewelry | 322 | Patterns manufactured for industrial use | 3295 |
| Wigs and tresses | 3229 | Records | 3296 |
| Watchcases | 3231 | Ophthalmic goods | 3297 |
| Musical instruments | 324 | | |
| Toys and sporting goods | 325 | | |

3. Criteria for Classification of Establishments

Establishments are classified by industry with the following criteria.

(1) Common method

- i. With respect to establishments manufacturing a single type of products, the industry in which the establishments are classified is determined based on the upper four digits (class code) of the six-digit commodity number of the products.
- ii. Concerning establishments engaged in manufacturing of several types of products, the "top-down method" is applied. Firstly, the appropriate classification division (two digits) is determined based on the largest total shipment values of products. Then, the three-digit group and the four-digit class classifications are determined in the same way.

(2) Special method

In some cases, the industrial classification of an establishment is determined based on its raw materials, work process, and mechanical installations involved.

Specifically, the special method is applied to the following 11 industries classified in Division 22 "Manufacture of iron and steel" including "Iron industries, with blast furnaces", "Steel manufactured, including converters and electric furnaces and with rolling facilities", "Hot rolling", "Cold rolling", "Cold rolled steel shapes", "Steel pipes and tubes", "Re-rolled steel products", "Cold finished steel bars", "Pipes and tubes

drawing", "Wire drawing", "Miscellaneous steel materials, except made by smelting furnaces and steel works with rolling facilities, except coated steel".

4. Definition of Variables

(1) Number of establishments

The 2012 Census provides the number of establishments as of December 31, 2012. These establishments are defined as a factory, works or plant, etc., mainly engaged in the manufacture or processing of industrial products at a single location.

(2) Number of persons employed

The 2012 Census provides the number of persons employed as a total number of "sole proprietors and unpaid family workers," "regular workers" as of December 31, 2012. It excludes temporary workers.

i. "Sole proprietors and unpaid family workers" are defined as working proprietors and their families working full time for them without remuneration. Accordingly, inactive proprietors and families providing no more than casual help are not included in this definition.

ii. "Regular workers" are classified into "full-time workers," "part-time workers" and "workers supplied by other companies," and are those who fall either one of the following categories:

- a. those who are employed for an indefinite-period or for longer than a month,
- b. those who were employed for 18 days or longer during the previous and current months out of casual hires on a daily or less-than-monthly basis,
- c. those who are supplied by employment agencies, and are leased workers from a parent company, to whom the same rules as mentioned above a. and b. are applicable,
- d. those who work full time and receive monthly remuneration as directors, executives, etc., and
- e. those who are full-time family workers and receive monthly salaries or wages for work performed.

a) "Full-time workers" are employed workers who are generally called "regular employees" or "regular officials" excluding those who are dispatched to other companies.

b) "Part-time workers" are those who are generally called "part-time workers" or the like.

c) "Workers supplied by other companies" are those who are leased or supplied by other companies, or employment agencies.

iii. "Temporary workers" refer to persons other than regular workers, and who are employed on agreements shorter than a month or on daily agreements.

(3) Value of total cash wages and salaries

The value of total cash wages and salaries is defined as the total amount of basic wages, basic allowances, special allowances (year-end bonus, etc.) paid to employees among regular workers, i.e. full-time workers and part-time workers, and other allowances during 2012.

Other allowances include retirement allowances and discharged allowances for employees, payments to workers dispatched from other companies, wages for temporary workers, and payments to workers dispatched to other companies, etc.

(4) Cost of raw materials, fuels and electricity consumed, and subcontracting expenses for consigned production

Payments for annual raw materials, fuels and electricity consumed, and subcontracting expenses for production outsourcing, expenses related to outsourcing of support functions and purchases of goods for resale during 2012, including consumption tax.

i. "The cost of raw materials consumed" represents the total consumption of major raw materials, auxiliary

supplies, purchased components and parts, containers, packing materials, plant maintenance materials, consumables, etc., including coal, petroleum, etc. used as raw materials, and the value of raw materials supplied to subcontractors on consigned production.

- ii. "The cost of electricity consumed" represents total payments for power supply by vendors, excluding private power generation.
- iii. "The subcontracting expenses for production outsourcing" represent payments made and accounts payable to subcontractors for consigned production and/or processing, supplying raw materials or semi-manufactured goods to them.
- iv. "The expenses related to outsourcing of support functions" include payment regarding services such as repair/inspection/maintenance of production equipment, operation of machinery/equipment, and development of software that will be embedded in the products.
- v. "The purchases of goods for resale" are the amounts of purchases of goods which the establishment resold in the same condition as received during the reference period.

(5) Value of manufactured goods shipments

The value of manufactured goods shipments is defined as the total value of annual income in 2012 from manufactured goods shipments, receipts for production done to others, and other revenue, including internal tax on consumption and consumption tax.

- i. "Manufactured goods shipment" refers to the case where products manufactured by an establishment using its own raw materials (including products transformed by others on material-supplied subcontract) are shipped by the establishment in 2012, including the following:
 - a. Products transferred to other establishments of the same enterprise,
 - b. Consumption of own production (consumed as final products by the establishment itself), and
 - c. Shipped on consigned sales (including those shipped but unsold, but excluding those returned in 2012).
- ii. "Receipts for production done for others" represents payments received and/or receivable against production activities such as processing, transforming, assembling or fabricating of principal-owned materials as ordered during 2012.
- iii. "Other revenue" refers to receipts other than i. And ii., including the value of sale of goods purchased/received for resale in the same condition as received, receipt for maintenance service, receipt for cold storage, and sale of privately-generated surplus power.

(6) Value of manufactured goods inventory, value of semi-manufactured goods and work in progress, and value of raw materials and fuels in inventory (establishment with 30 or more employees) represent the book values of each establishment, including material-supplied outsourcing production.

(7) The value of tangible fixed assets (establishment with 30 or more employees) is based on the book value effective in 2012.

- i. "The value of acquisition of tangible fixed assets" is classified as follows:
 - a. Land,
 - b. Buildings and structures (including civil engineering and attached facilities),
 - c. Machinery and equipment (including attachments), and
 - d. Vessels, rolling stock, vehicles, tools, apparatuses, fixtures and furniture with a durable life of a year or longer, etc.

ii. "The value of increase in the construction process accounts" represents the amount debited to this account and "The value of decrease" represents amount transferred from this account to others.

iii. "The value of disposal of tangible fixed assets" represents the value of tangible fixed assets sold, removed, lost or transferred to other establishments that belong to the same enterprise.

iv. Formulas for the value of tangible fixed assets are as follows:

a. Actual value of tangible fixed assets at the end of the year =

Actual value of tangible fixed assets at beginning of the year + Value of acquisition - Value of disposal - Value of depreciation

b. Increase or decrease during the year of temporary construction accounts =

Value of increase - Value of decrease

c. Value of investment =

Value of acquisition + Increase or decrease during the year of temporary construction accounts

(8) Value of production is calculated as follows:

i. An establishment with 30 or more employees

Formula:

Value of production =

Value of manufactured goods shipments + Receipts for production done for others + (Value of manufactured goods inventory at the end of the year - Value of manufactured goods inventory at the beginning of the year) + (Value of semi-manufactured goods and work-in-progress at the end of the year - Value of semi-manufactured goods and work-in-progress at the beginning of the year)

ii. An establishment with 29 or fewer employees

Formula:

Value of production = Value of manufactured goods shipments + Receipts for production done for others

(9) Value added (gross value added) is calculated as follows:

i. An establishment with 30 or more employees

Formula:

Value added =

Value of manufactured goods shipments + (Value of inventories at the end of the year - Value of inventories at the beginning of the year) + (Value of semi-manufactured goods and work-in-progress at the end of the year - Value of semi-manufactured goods and work-in-progress at the beginning of the year) - (Internal tax on consumption (*1) + Estimated consumption tax (*2)) - Cost of raw materials, fuels and electricity consumed, and subcontracting expenses for production outsourcing - Depreciation

ii. An establishment with 29 or fewer employees

Formula:

Gross value added =

Value of manufactured goods shipments - (Internal tax on consumption + Estimated general consumption tax) - Cost of raw materials, fuels and electricity consumed, and subcontracting expenses for production outsourcing

*1: The value of internal tax on consumption excluding general consumption tax is the total tax amount paid or payable as liquor tax, tobacco tax, gasoline tax and local road tax.

*2: Estimated general consumption tax is calculated excluding the direct export, raw materials and investment of tangible fixed assets.

5. Geographical Zones

A geographical zone for each Regional Bureau of Economy, Trade and Industry is as follows.

| | |
|---|--|
| Hokkaido Bureau of Economy, Trade and Industry: | Hokkaido |
| Tohoku Bureau of Economy, Trade and Industry: | Aomori, Iwate, Miyagi, Akita, Yamagata and Fukushima Prefectures |
| Kanto Bureau of Economy, Trade and Industry: | Tokyo Metropolis, Ibaraki, Tochigi, Gunma, Saitama, Chiba, Kanagawa, Niigata, Yamanashi, Nagano and Shizuoka Prefectures |
| Chubu Bureau of Economy, Trade and Industry: | Toyama, Ishikawa, Gifu, Aichi and Mie Prefectures |
| Kansai Bureau of Economy, Trade and Industry: | Fukui, Shiga, Kyoto, Osaka, Hyogo, Nara and Wakayama Prefectures |
| Chugoku Bureau of Economy, Trade and Industry: | Tottori, Shimane, Okayama, Hiroshima and Yamaguchi Prefectures |
| Shikoku Bureau of Economy, Trade and Industry: | Tokushima, Kagawa, Ehime and Kochi Prefectures |
| Kyushu Bureau of Economy, Trade and Industry: | Fukuoka, Saga, Nagasaki, Kumamoto, Oita, Miyazaki and Kagoshima Prefectures |
| Cabinet Office, Okinawa General Bureau of Economy, Trade and Industry Department: | Okinawa Prefecture |

6. Symbols and notes

(1) Symbols used in this report are as follows:

[-]: no relevant value

[▲]: negative figures.

The symbol [X] represents confidential. When the number of respondent establishment(s) is either one or two, the data are suppressed. Some other data may be suppressed even the number of respondents is three or more, when there is a risk of the disclosure of individual information. However, the number of employees was no longer suppressed after August, 2005.

(2) The unit of value is ten thousand of yen, and fractions less than unit are rounded off.

III Special instructions

1. Any person who intends to release these figures in other publications should state the source of information as follows:

The Census of Manufacture (2012 edition) compiled by the Research and Statistics Department, Minister's Secretariat, Ministry of Economy, Trade and Industry.

2. Address your questions or inquiries on this statistics table to:

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