

## Directions

### I Census of Manufactures

#### 1. Purpose of the Census

The Census of Manufactures (hereafter referred to as the "Census") is intended to determine current developments of manufacturing industry in Japan.

#### 2. Legal Framework

The Census represents designated statistics survey (Designated Statistics No. 10) based on the Statistics Law (Law No. 18 of 1947) and is implemented according to the Regulations for the Census of Manufactures (Ordinance No. 81 of the Ministry of International Trade and Industry of 1951).

#### 3. Date of Survey

The date of survey of the 2002 Census is December 31, 2002.

#### 4. Scope of the Census

The Census covers all establishments (excluding those belonging to the government) falling under [Division F - Manufacturing Industry] listed in the Standard Industrial Classification for Japan (2002 Announcement No. 139 of Management and Coordination Agency). The Census is conducted on all establishments in years ending with 0, 3, 5 and 8 of the Western calendar year. For other years, the Census covers establishments with 4 or more employees.

#### 5. Method of Survey

For the purpose of the Census, the Census of Manufactures Form A applies to establishments with 30 or more employees (except head offices not directly engaged in manufacturing, processing or repair of industrial products), while Form B applies to those with 29 or fewer employees (except head offices not directly engaged in manufacturing, processing or repair of industrial products). The Census is based on entries in these forms filled by managers or administrators of applicable establishments.

#### 6. Publication

The 2002 Census compiles its findings by "industry", "commodity", "city, town and village", "industrial district", "industrial site and water", and by "enterprise".

The Report by Commodity tallies up goods manufactured and processed by establishments with 4 or more employees by commodity. The Report by Industry classifies establishments with 4 or more employees by the Standard Industrial Classification for Japan according to their major activities and tallies up major items surveyed by industry. The Report by City, Town and Village tallies up findings on major items surveyed with regard to establishments with 4 or more employees by city, town and village. The Report by Industrial District tallies up findings on major items surveyed with regard to establishments with 4 or more employees by prefecture and by industrial district. The Report by Industrial Site and Water tallies up findings on survey items concerning industrial site and water, with regard to establishments with 30 or more employees, representing the status of the use of industrial site and industrial water. The Report by Enterprise tallies up findings of survey with regard to establishments with 4 or more employees by establishment after recompiling them by enterprise.

## II Report by Industry of the 2002 Census

### 1. Tabulation of Report by Industry

The Report by Industry tallies up findings in the Census of Manufactures Form A and B of the 2002 Census of establishments with 4 or more employees.

### 2. Industrial Classification for the Census

The industrial classification for the Census was revised in 2002.

(1) The Industrial Classification for the Census conforms in principle to the Standard Industrial Classification for Japan.

Industrial classification for the Census of Manufactures		Standard industrial classification for Japan	
1521	Paper and machine-made Japanese paper, integrating paper (1521) and machine-made Japanese paper (1523)	1521 1523	Paper Machine-made Japanese paper

(2) Inside classification "19 plastic product manufacturing industry (except for mentioned elsewhere)." About mentioned elsewhere, it is as follows.

Product	Industry	Product	Industry
Furniture	1499	Musical instruments	3221-3229
Plastic plates	1641	Toys, gears for toys, and bearings for toys	3231
Photographic films, including dry plates	1795	Dolls	3232
Footwear and findings	2022	Sporting and athletic goods	3234
Luggage	2161	Office supplies	3241-3249
Small leather cases	2171	Costume jewelry and costume accessories	3251
Handbags	2172	Buttons	3253
Gears, except gears for watches, clocks and toys	2675	Wigs of human hair	3255
Bearings, except bearings for watches, clocks and toys, ball bearings and roller bearings	2675	Lacquer ware	3261
Bearings (ball and roller bearings)	2694	Straw-mats "tatami"	3272
Resistors for distribution boards	2713	Japanese-style fans	3273
Capacitors, except for telecommunication equipment	2719	Brooms and brushes	3274
Resistors and capacitors for telecommunication equipment	2914	Umbrellas, parasols and parts	3275
Ophthalmic goods	3161	Smoking accessories and supplies	3277
Gears and bearings for watches and clocks	3171	Thermos bottles	3278
Watch cases	3172	Signboards and signs	3292
		Pallets for transportation	3293
		Models and patterns	3294
		Pattern manufactured for industrial use	3295
		Records	3296

### 3. Criteria for Classification of Establishments

Establishments are classified by industry with the following criteria of classification.

#### (1) Common method

With respect to establishments manufacturing a single type of products, industry is classified based on upper four digits of the six-digits commodity number.

On the other hand, concerning establishments engaged in manufacturing of two or more types of products, total shipment values of products sharing the upper two-digits number (major group) are compared, and final two-digits major group classification is collectively represented by the product registering the largest shipment value. Then, three-digits group and four-digits industry classifications are determined in the same way as for two-digits major group classification to come up with the final industrial classification.

#### (2) Special method

Other than the above, in some cases, industrial classification is determined based on raw materials, work process, and mechanical installations involved.

Such industries are represented by 11 industries classified in "the major group 23 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. Items of Statistical Tables

##### (1) Number of establishments

The 2002 Census represents the number of establishments as of December 31, 2002.

These establishments cover factories, works, plants, etc. engaged in manufacture or processing of industrial products in individual sites.

##### (2) Number of employees

The 2002 Census represents a total number of regular workers, sole proprietors and unpaid family workers as of December 31, 2002.

"Regular workers" refer to persons who:

- a. are employed on the indefinite or longer than-a-month labor contract,
- b. 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. are dispatched by temporary employment agencies, and are loaned workers from a parent company, to whom the same rules mentioned above (a,b) are applicable,
- d. work full time and receive monthly remuneration as directors, executives, etc., and
- e. are the family of a solo proprietor and work for him, earning monthly salaries or wages.

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

"Temporary employees" refer to persons who are employed on the shorter than a month or daily labor contract.

##### (3) Annual monthly average number of regular workers

Average number of regular workers at the end of each month during 2002.

##### (4) Value of total cash wages and salaries

Total amount of salaries (basic wages plus allowances), special allowances (year-end bonus, etc.) paid to regular workers and other allowances during 2002.

Other allowances include retirement allowances and severance pay on advance notice to regular employees, and wages paid to casual or daily hires.

##### (5) Value 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 consigned production during 2002, including consumption tax.

"The value of raw materials consumed" represents total consumption on 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.

"The value of electricity consumed" represents total payments for power supply by vendors, excluding private power generation.

"The subcontracting expenses for consigned production" represent payments made and accounts payable to subcontractors for consigned production and/or processing, supplying raw materials or semi-manufactured goods to them.

##### (6) Value of manufactured goods shipments

Total value of annual income in 2002 from manufactured goods shipment, Processing fees received, Repair fees received, Shipments for scraps and salable refuse from manufacturing process, etc., including internal tax on consumption and consumption tax.

"Manufactured goods shipment" refers to the case where products manufactured by an establishment using its own raw materials (including material-supplied subcontract processing) are delivered by the establishment in 2002, including the following.

- a. Products delivered to other establishments owned by the same enterprise,
- b. Private consumption (consumed by the establishment as end products), and
- c. Shipped on consigned sale (including those shipped but unsold, but excluding those returned in 2002).

"The value of manufactured goods shipments" represents ex-factory shipment price, with following exceptions.

- a. Tax-included ex-factory shipment value in case internal tax on consumption and consumption tax are levied, and
- b. Ex-factory shipment value, less sales discounts or allowances applicable.

"The value of processing fees received" represents payments received and / or receivable against manufacture of end products using client-owned raw materials or against processing or treatment of products or semi-manufactured products owned by the client, during 2002.

"The value of other receipt" refers to proceeds from cold storage, advertisement, sale of privately-generated surplus power, etc.

(7) Value of manufactured goods inventory, Value of Semi-manufactured goods and work in progress, and Value of raw materials and fuels in inventory represent the book values of each establishment, including material-supplied consigned production.

(8) The value of tangible fixed assets is based on the book value effective in 2002.

"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.

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

"The value of elimination of tangible fixed assets" represents the Value of tangible fixed assets sold, removed, lost or transferred to other establishments which belong to the same enterprise.

Formulas relating to the Value of tangible fixed assets are as follows:

- a. Actual value of tangible fixed assets at end of the year = Actual value of tangible fixed assets at beginning of the year + Value of acquisition(\*1) - Value of elimination - Value of depreciation.
- b. Increase or decrease during the year of Temporary construction accounts = Value of increase - Value of decrease
- c. Value of investment (\*2) = Value of acquisition + Increase or decrease during the year of Temporary construction accounts

\*1: Value of acquisition represents the total amount of Land, Buildings and structures, Machinery and equipment, and Others.

\*2: As items relating to the value of tangible fixed assets of establishments with 29 or fewer employees were not surveyed, they are not represented.

(9) Value of contracts and payments based on a lease contract

"The lease" represents rental transactions in which users use items as longer than one year, and it is almost impossible to cancel or change the agreement during contracts.

"The value of lease contracts" represents value of lease items contracts with lease documents delivered concerning fresh lease in which such items were supplied, founded and completed examination from January to December in 2002, including consumption tax.

"The value of lease payments" represents total amount of monthly payments as lease items use from January to December in 2002, including consumption tax. Accordingly those included lease payments paid in the

year with contract for lease items before 2001.

(10) Value of production

As values of production were surveyed establishment with 30 or more employees, they are calculated and represented as follows:

Formula:

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

(11) Value added (Gross value added) is calculated as follows:

Formula:

Value added = Value of production (\*1) - (internal tax on consumption (\*2) + estimated consumption tax (\*3)) - Value of raw materials, fuels and electricity consumed, and subcontracting expenses for consigned production - Value of depreciation

An establishment with 30 or more employees

Calculating based on the above formula. (An "internal tax on consumption + estimated consumption tax" was "domestic consumption tax" until 2000.)

An establishment with less than 29 employees

(1) From 1998 to 1999

(a) An establishment with 10 to 29 employees

Formula:

Value added = Value of manufactured goods shipments - domestic consumption tax  
- Value of raw materials, fuels and electricity consumed, and subcontracting expenses of consigned production - Value of depreciation

(b) An establishment with 4 to 9 employees

Formula:

Gross value added = Value of manufactured goods shipments - domestic consumption tax  
- Value of raw materials, fuels and electricity consumed, and subcontracting expenses of consigned production

(2) 2000

(a) An establishment with 10 to 29 employees

Formula:

Value added = Value of production - domestic consumption tax - Value of raw materials, fuels and electricity consumed, and subcontracting expenses of consigned production  
- Value of depreciation

(b) An establishment with 4 to 9 employees

Formula:

Gross value added = Value of manufactured goods shipments - domestic consumption tax  
- Value of raw materials, fuels and electricity consumed, and subcontracting expenses of consigned production

(3) 2001 or later

(a) An establishment with 4 to 29 employees

Formula:

Gross value added = Value of manufactured goods shipments - domestic consumption tax  
- Value of raw materials, fuels and electricity consumed, and subcontracting expenses of consigned production

\*1: Value of production = Value of manufactured goods shipments + (Value of manufactured goods inventory at end of the year - Value of manufactured goods inventory at beginning of the year) + (Value of semi-manufactured goods and work in progress at end of the year - Value of semi-manufactured goods and work in progress at beginning of the year)

\*2: The value of internal tax on consumption is the total tax amount paid or payable as liquor tax, tobacco tax, gasoline tax and local road tax.

\*3: Estimated consumption tax is calculated excluding the direct export.

(12) Per-unit Value of Manufactured goods shipments, Value added, and Total cash wages and salaries

An establishment with 30 or more employees

- a. Value of Manufactured goods shipments per employees =  $\{(Value\ of\ manufactured\ goods\ shipments) - (Internal\ tax\ on\ consumption)\} / \{(Annual\ monthly\ average\ number\ of\ regular\ workers) + (Number\ of\ solo\ proprietors\ and\ unpaid\ family\ workers)\}$
- b. Value added per employees =  $(Value\ added) / \{(Annual\ monthly\ average\ number\ of\ regular\ workers) + (Number\ of\ solo\ proprietors\ and\ unpaid\ family\ workers)\}$
- c. Cash wages and salaries, per employees in regular workers =  $(Basic\ wages\ plus\ allowances\ and\ special\ allowances\ to\ employees\ in\ regular\ workers) / (Number\ of\ employees\ in\ regular\ workers)$

An establishment with 4 to 29 employees

- a. Total cash wages and salaries, per employees =  $(Total\ cash\ wages\ and\ salaries) / \{(Number\ of\ regular\ workers) + (Number\ of\ solo\ proprietors\ and\ unpaid\ family\ workers)\}$
- b. Value of Manufactured goods shipments per employees =  $\{(Value\ of\ manufactured\ goods\ shipments) - (Internal\ tax\ on\ consumption)\} / \{(Number\ of\ regular\ workers) + (Number\ of\ solo\ proprietors\ and\ unpaid\ family\ workers)\}$
- c. Gross value added per employees =  $(Gross\ value\ added) / \{(Number\ of\ regular\ workers) + (Number\ of\ solo\ proprietors\ and\ unpaid\ family\ workers)\}$

(13) Refer to the annexed Census of Manufactures Forms for details.

## 5. The Figures of Establishments with 3 or fewer Employees at Reference Tables

The Census is conducted on establishments with 4 or more employees in years ending with other than 0, 3, 5 and 8 of the Western calendar year. As establishments with 3 or fewer employees were not surveyed, they are estimated and represented as follows.

## (1) Items of estimation

Such items are represented by 5 items of Number of establishments, Number of employees, Total cash wages and salaries, Value of raw materials, fuels and electricity consumed, and subcontracting expenses for consigned production, and Value of manufactured goods shipments.

## (2) Method of estimation

Number of establishments and Number of employees

The items are estimated by the Preparatory Survey Directory.

Total cash wages and salaries, Value of raw materials, fuels and electricity consumed, and subcontracting expenses for consigned production, and Value of manufactured goods shipments

The figures are estimated by multiplying increase or decrease rate during the year of findings of items with regard to establishments with 4 to 9 employees by value of establishments with 3 or fewer employees, by prefecture and by industry (four-digits) over last year. Then, these figures add for three-digits group and two-digits major group, afterward come up amount of Whole Country.

With respect to establishments of 3 or fewer employees, Specified Industry (See Annex 1.) used survey data, marked [ ] in Reference Tables by industry. Prefectures of one's own surveyed with regard to establishments of 3 or fewer employees, used survey data, marked [ ] in Reference Tables by major group and prefecture. Such prefectures is represented of "Gifu" Prefecture.

## 6. Representation

- (1) In case industry under the group covers a single classification, the group and the industry are collectively represented under the title of the applicable group.
- (2) In the Outline of this Report, the names of industries are sometimes represented by abbreviation.

Formal name of manufacture		Abbreviation	Formal name of manufacture		Abbreviation
09	Manufacture of food	Food	23	Manufacture of iron and steel	Iron & steel
10	Manufacture of beverages, tobacco and feed	Beverages	24	Manufacture of non-ferrous metals and products	Non-ferrous metals
11	Manufacture of textile mill products	Textile	25	Manufacture of fabricated metal products	Fabricated metal
12	Manufacture of apparel and other finished products made from fabrics and similar materials	Apparel	26	Manufacture of general machinery	General machinery
13	Manufacture of lumber and wood products	Lumber	27	Manufacture of electrical machinery, equipment and supplies	Electrical machinery
14	Manufacture of furniture and fixtures	Furniture	28	Manufacture of information and communication electronics equipment	Information machinery
15	Manufacture of pulp, paper and paper products	Paper & pulp	29	Manufacture of electronic parts and device	Electronic parts
16	Publishing, printing and allied industries	Printing	30	Manufacture of transportation equipment	Transportation equipment
17	Manufacture of chemical and allied products	Chemical	31	Manufacture of precision instruments and machinery	Precision instruments
18	Manufacture of petroleum and coal products	Petroleum	32	Miscellaneous manufacturing industries	Miscellaneous
19	Manufacture of plastic products	Plastic			
20	Manufacture of rubber products	Rubber			
21	Manufacture of leather tanning, leather products and fur skins	Leather			
22	Manufacture of ceramic, stone and clay products	Ceramic			

## 7. Symbols and Notes

- (1) In this statistical table, the symbol [-] is used where there is no relevant value, and the numerical symbol [0] represents fractions of a unit rounded off, and the symbol [ ], negative figures. The symbol [ ] represents figures relating to one or two establishments. Relevant figures are intentionally represented by this symbol to keep individual applicants business secrets confidential to the public. With respect to establishments of three or more, too, numerals relating to three or more factories are represented by this symbol are treated in the same way.
- (2) Values are represented in millions of yen and fractions less than a unit were rounded off, and in thousands of yen with regard to figures in [5. Statistical Table per Establishment and per Employees].

## III Special Instructions

1. If these statistical figures are utilized on a chronological basis, it should be noted that the number of manufacturing establishments was identified and amended through the 1998 Census.
2. In the disaster area resulting from the volcanic eruption of Miyake Island, Tokyo, there is no objective establishment.
3. Any person who intends to release these figures in other publications should state the source of information as follows:

The Census of Manufactures (2002 edition) compiled by the Research and Statistics Department, Economic and Industrial Policy Bureau, Ministry of Economy, Trade and Industry.

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

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