

THE STRATEGIES FOR COLLECTING  
SERVICE STATISTICS IN JAPAN

Keisuke Nyui

Statistics Bureau, Management & Coordination Agency

## Summary

1. In the past two or three decades, owing to the rise of household income as well as recent diversification of individual consumption caused by the change of household structure and so on, various kinds of service demands have been generated. As a result, the share of the tertiary industry has increased and extensive service orientation has been seen even in the primary and secondary industry. Moreover, not only service activities on the commercial basis in the market, but also service activities within an establishment and a household became active.
2. The Statistics Council, an advisory organ of the government reviewed the government statistical services to improve them as a whole and published two reports in 1985 and 1995 which recommended various measures to be tackled by the government in the future. In these recommendations, strategies to collect service statistics were included.
3. The Statistics Council's report in 1985 recommended that broad and sector-wide statistics which cover whole service industries need to be produced to respond to the macro statistical needs for grasping whole structure and trend of service industries, in order to monitor potentials and problems of each industry by comparing various industries through common survey items.
4. In response to this proposal, the Statistics Bureau of Management and Coordination Agency (SBMCA) conducted the first Survey on Service Industries in 1989 and the second one in 1994 for the purpose of obtaining the basic materials for various administrative policies. Today, the Survey on Service Industries has been playing an important role as a broad and sector-wide statistics in combination with the Survey of Selected Service Industries, detailed survey on limited service industries conducted by the Ministry of International Trade and Industry (MITI) every year since 1973.
5. The Statistics Council's report in 1995 recommended future problems as follows:
  - a. Activity-based measurement of services within an establishment and a household shall be considered in the statistical surveys conducted by ministries and agencies.
  - b. Addition of survey items such as the consignment of management services and the use of outside labour shall be considered to the Survey on Services Industries and other existing surveys on respective industrial sectors, to provide adequate measurement of service-orientated trends in business enterprises.
  - c. Improvement of the Survey of Selected Service Industries shall be considered to provide timely and accurate measurement of consumer services.
  - d. Ministries and agencies concerned shall improve the statistical measurement of activities in the diversifying information and communications sector.
  - e. Current statistics shall be steadily improved, taking into account the progress of improvement in sector-wide statistics and service statistics by sector.
6. As to the implementation of these recommendations, following achievements have been made so far.

Recommendation a. on activity-based measurement of services within an establishment and a household is currently under consideration by the promoting body which was established to promote the implementation of these recommendations. In response to recommendation b. on measurement of consignment and the use of outside labour, SBMCA plans to monitor the number of dispatched workers by enterprise which dispatches workers and by enterprise which accepts dispatched workers in the Establishment and Enterprise Survey to be conducted in 1996. Also, the Ministry of Labour (MOL) plans to monitor the conditions of consignment in the Survey on Trend of Labour and Economy to be conducted in August 1996.

7. In response to recommendation c., MITI will continue to study the possibility to conduct survey on once surveyed 13 industries by rotation including motion pictures, theatres, golf courses, amusement parks and theme parks as well as addition of new industries.

8 In response to recommendation d. on measurement of information and communications sector and e. on development of current statistics, the Ministry of Post and Telecommunications (MOPT) started the Current Survey of Communications Industries in 1995 to monitor the actual conditions on sales and employees of telecommunications carriers every month. MOPT, also, is currently in the process of compiling the Index of Communications Industries' Activities based on the Current Survey of Communications Industries for the purpose of promptly monitoring the various activities of communications industries such as postal, telecommunication, broadcasting service through an integrated index.

### **1. Development of service orientation of economy**

9. Japan had developed rapidly centering on the heavy industries after the World War II. However, in the process of economic development, emphases have been shifted from the primary and the secondary industry to the tertiary industry particularly to the service industry. The share of the tertiary industry in the nominal gross national product (GDP), has increased year by year from 51.0% in 1970 to 60.9% in 1990 (See Table 1). Today, service industry is playing an important part in the Japanese economy.

Table 1 - Trend of nominal GDP by industry (Unit: %)

|                    | 1970   | 1975   | 1980   | 1985   | 1990   |
|--------------------|--------|--------|--------|--------|--------|
| Primary industry   | 5.9    | 5.3    | 3.6    | 3.1    | 2.4    |
| Secondary industry | 43.1   | 38.8   | 37.8   | 36.3   | 36.7   |
| Tertiary industry  | 51.0   | 55.9   | 58.6   | 60.6   | 60.9   |
| (Service industry) | (12.9) | (15.7) | (16.4) | (19.0) | (18.9) |

Note: The primary industry consists of Agriculture, Forestry and Fisheries.

The secondary industry consists of Mining, Manufacturing and Construction

industry. The tertiary industry consists of Other industries, Government and Private Non-profit Institutions Serving Households.

10. There are two factors in the development of service industries. The first factor is that the rise of household income as well as recent diversification of individual consumption caused by the change of household structure such as increase of nuclear families and single households and the increase of part-time work of housewives have made individual consumption more diversified and more dependent on so-called external services such as nursing and food services. Subsequently demands for various kinds of services have been generated. Under these circumstances, ratio of service consumption expenditure in the family budget has increased from 27.0% in 1970 to 39.8% in 1985 (See Table 2).

Table 2 - Ratio of service expenditure in the family consumption (Unit :%)

|                         | 1970  | 1975  | 1980  | 1985  | 1990  | 1995  |
|-------------------------|-------|-------|-------|-------|-------|-------|
| Consumption expenditure | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Merchandise             | 73.0  | 71.7  | 67.3  | 65.2  | 63.0  | 60.2  |
| Service                 | 27.0  | 28.3  | 32.7  | 34.8  | 37.0  | 39.8  |

11. The second factor is the development of professional services for enterprises. Extensive development of service orientation has been seen even in the primary and secondary industry through increase of consignment of various works such as crop-dusting and harvest in agriculture, planning, advertisement, design, marketing, and computing in the enterprises, as well as use of dispatched labour, use of lease and rentals expansion of trade between businesses. Moreover, not only service activities on the commercial basis in the market, but also service activities within an establishment and a household have become active. Reflecting these conditions, Input Coefficients from tertiary industry has increased from 0.116 in 1970 to 0.199 in 1990, and Input Coefficients from other industries has decreased on the contrary (See Table 3).

Table 3 - Service orientation in the Input-Output Table

|   | 1970  | 1975  | 1980  | 1985  | 1990  |
|---|-------|-------|-------|-------|-------|
| Input Coefficients from all industries    | 0.530 | 0.534 | 0.549 | 0.513 | 0.488 |
| Input Coefficients from tertiary industry | 0.116 | 0.155 | 0.164 | 0.176 | 0.199 |
| Input Coefficients from other industries  | 0.414 | 0.379 | 0.385 | 0.337 | 0.289 |

## 2. Service Statistics in Japan

### 2-1 Definition of service activities based on the industrial classification

12. Definition of industry used in the statistical surveys in Japan must be based on Standard Industrial Classification for Japan (JSIC) in accordance with the Government ordinance. In JSIC, following DIVISIONs are established: DIVISIONs A-Agriculture, B-Forestry and C-Fisheries (the primary industry), DIVISIONs D-Mining, E-Construction and F-Manufacturing(the secondary industry) as well as DIVISIONs G-Electricity, Gas, Heat Supply and Water, H-Transport and Communications, I-Wholesale and Retail Trade, Eating and Drinking Places, J-Finance and Insurance, K-Real Estate, L-Services as well as M-Government, n.e.c.(the tertiary industry). DIVISION L-Services is divided into 25 major groups from Group 72-Laundry, Beauty and Bath Services to Group 96-Foreign Governments and International Agencies in Japan (See Annex 1). Various industries with different nature are included in DIVISION L-Services such as public bathhouses, foreign governments in Japan, hospitals, schools, slaughterhouses, data processing services etc., reflecting the variety of service industries.

## 2-2 Statistical structure of Service Industries

13. Statistical structure of service industries which belong to DIVISION L-Service consists of following surveys as indicated in the Diagram 1: Survey on Service Industries as well as Establishment and Business Census to investigate whole service industries. Survey of Selected Service Industries, Current Survey of Selected Service Industries, Survey on Industries Relating to Leisure and Survey on Service Industries relating to Health and Welfare which investigate selected service industries for establishments and individuals. And Survey of Medical Institutions, School Basic Survey and Survey of Research and Development which investigate selected service industries for the public. Current Survey of Selected Service Industries is utilized as basic materials for Index of Tertiary Industries' Activities which monitor the activities of whole tertiary industries.

DIAGRAM 1

14. Among these statistical surveys on service industries, the most representative ones are the Survey on Service Industries which is being conducted every five years on the whole service industries as well as the Survey of Selected Service Industries which is being conducted every year on the selected service industries.

a. Survey on Service Industries

15. In Japan, a survey to compile the designated statistics, important statistics designated by the Director-General (the state minister) of the Management and Coordination Agency is called the designated statistical survey. Survey on Service Industries is conducted as the designated statistical survey.

16. The Statistics Council proposed in “Medium and long term plans for government statistical activities” compiled in 1985 that broad and sector-wide statistics which cover whole service industries need to be produced to respond to the macro statistical needs for grasping whole structure and trends of service industries, in order to monitor potentials and problems of each industry by comparing various industries through common survey items.

17. Based on this proposal, SBMCA conducted the first Survey on Service Industries in 1989 for the purpose of obtaining the basic materials for various administrative policies, and the second Survey in 1994. The subjects of the survey are private profit establishments in the cities, towns and villages which belong to the following Major Groups in DIVISION L - Services. Non- profit establishments were excluded from the viewpoint of comparability.

**DIVISION L- SERVICES**

**Major Group**

- No.72 Laundry, beauty and bath services
- No.73 Automobile Parking
- No.74 Miscellaneous domestic and personal services
- No.75 Hotels, Boarding Houses and other lodging places
- No.76 Amusement and recreation service, except motion picture and video production
- No.77 Automobile repair services
- No.78 Machine, upholstery furniture, etc., repair services, except otherwise classified.
- No.79 Goods rental and leasing
- No.80 Motion picture and video production
- No.81 Broadcasting
- No.82 Information services and research
- No.83 Advertising
- No.84 Professional services, n.e.c.
- No.86 Miscellaneous business services

## No.87 Waste treatment services

18. Following non-profit industries in the Division L-Services were excluded from the subjects.

- No.85 Cooperative associations, n.e.c.
- No.88 Medical and other health services
- No.89 Public health Services
- No.90 Social insurance and social welfare
- No.91 Education
- No.92 Scientific research institutes
- No.93 Religion
- No.94 Political, business and cultural organizations
- No.95 Miscellaneous services
- No.96 Foreign governments and international agencies in Japan

Survey items for Survey on Service Industries are as follows:

Name and Location of establishment, Legal organization and amount of capital or funds, whether head or branch office, Year of opening the business, Type of opening, Number of persons engaged, Sales, expenses, etc. Business hours, Regular holidays, Busiest day of the week and busiest month of the year.

19. According to the results of the second survey in 1994, the number of private establishments in service industry is 1,193 thousand, 9.3% increase from 1989. Meanwhile, the number of all private establishments decreased 1.4% in five years according to the results of the Establishment Directory Maintenance Survey. In addition, the number of persons engaged in service industry is 7,861 thousand, 15.1% increase from 1989. Meanwhile, that of all private establishments increased only 4.7% in five years according to the results of the Establishment Directory Maintenance Survey. Thus, it is evident that service industry has considerably grown between 1989 and 1994 (See Table 4).

Table 4 - Number of establishments, employees and increase rate in service industry  
(Unit: thousand, %)

|                  | number of establishments |       |          | number of employees |        |          |
|------------------|--------------------------|-------|----------|---------------------|--------|----------|
|                  | 1994                     | 1989  | increase | 1994                | 1989   | increase |
| all industries   | 6,550                    | 6,640 | -1.4     | 54,366              | 51,911 | 4.7      |
| service industry | 1,193                    | 1,091 | 9.3      | 7,861               | 6,828  | 15.1     |



20. Also, part-timers and temporary employees in service industry account for 28.7% of all employees, meanwhile the average ratio of those in all industries is 16.1%, which indicates that the ratio of part-timers and temporary employees who are subject to employment adjustment is higher in service industry than in other industries.

21. There are relatively new establishments in service industry seeing that a third of establishments opened after 1985 (see Table 5).

Table 5 - Opening Year of service establishments (Unit:%)

| Total | 1985~ | 1975~84 | 1965~74 | 1955~64 | ~1954 |
|-------|-------|---------|---------|---------|-------|
| 100.0 | 33.6  | 28.8    | 19.8    | 9.8     | 7.9   |

22. Sales in 1994 of service industry was 118,722 billion yen, 46.9% increase in five years. It largely exceeded 24.8% of retail trade industry and 0.5% of manufacturing industry. Sales of service industry amounts to 80% of those of retail trade industry and 40% of shipment of manufacturing industry (See Table 6).

Table 6 - Sales and its increase rate (Unit: billion yen)

| Sales (Shipment)       | 1994      | 1989      | increase rate (%) |
|------------------------|-----------|-----------|-------------------|
| Service Industry       | 118,722.0 | 80,799.6  | 46.9              |
| Retail Trade Industry  | 143,325.0 | 114,840.0 | 24.8              |
| Manufacturing Industry | 300,523.7 | 298,893.1 | 0.5               |

#### b) Survey of Selected Service Industries

23. Needs to pay attention to statistical information for service industry emerged after the World War II, taking account of increase of service industry's share. In this context, MITI started the Survey of Selected Service Industries in 1973 for the purpose of grasping the actual status of specific service industries within its jurisdiction.

24. It is necessary to establish appropriate survey items taking account of characteristics of respective service industries on top of common survey items, for example, sales by contracting partner industries for information service industry, and membership for golf courses. Also, structure of service industries is quite changeable so that short frequency of a survey to closely monitor its trend is important.

25. Survey on Service Industries is not designed to investigate the state of specific service industry in detail but to comprehensively grasp the state of whole service industries in DIVISION L- Services. Also, the frequency of five years of Survey on Service Industries is not sufficient to respond to quick change of service industry's structure.

26. In this context, Survey of Selected Service Industries has been utilized as a precious survey to grasp the structure of important service industries in detail every year, although its scope is confined to literally selected service industries.

27. The subject service industries of Survey of Selected Service Industries have been selected in accordance with following “Medium-term plan for survey subjects” since 1991. (See Table 7) 9 or 10 service industries are selected every year based on this plan to investigate establishments or business enterprises which belong to these service industries. Industries which have already been surveyed are listed in Annex 2.

Table 7 - “Medium-term plan for survey subjects”

|       |                                  |   |
|-------|----------------------------------|---|
| (i)   | Industries surveyed annually     | Important service industries with particularly large sales and outstanding growth rate as well as deep relationship with the life of the people and other industries. Those which are important in grasping the structure of whole industries and need to be continuously monitored as basic materials for administrative policies. At present, 5 industries are being surveyed annually: Goods rental and leasing, Information services, Advertising (since 1973), Credit card institutions (since 1989), Engineering services (since 1991). |
| (ii)  | Industries surveyed periodically | Important service industries with stable industrial infrastructure and deep relationship with the life of the people and other industries but with a little less sales and growth rate than industries surveyed annually. Around 3 industries are being surveyed annually.  |
| (iii) | Industries surveyed selectively  | Industries surveyed irregularly or newly, taking into consideration their importance, growth rate, necessity and urgency for administrative policies as well as possibilities to conduct them as annual or periodical surveys. 1 or 2 industries are selected annually.   |

28. Survey items of Survey of Selected Service Industries differ according to industry. The following is an example of those of information services.

Name and Location of establishment, Location of headquarters, Legal organization and amount of capital or funds, Year of opening of the business by headquarters or branch office, Number of persons engaged in the establishment, Number of persons engaged in information services, Number of persons engaged by job classification (e.g. System Engineer, Programmer, Operator, Total annual sales of the establishment, Annual sales of information services, Annual sales by kind of business, Annual sales by counterpart industry, Annual business costs, Total annual salary, Amount of purchase of tangible

assets for business use by establishment. Number of establishments engaged in information services.

29. As an example of the results of Survey of Selected Service Industries conducted in 1994, the result of information services is provided as follows. It indicated the impact that the recent economic situations have had on the information services.

(Number of establishments)

30. As to the number of establishments by business, software business had the largest number of 3,458 (57.8%), followed by information processing business 1,482(24.8%), other businesses 918 (15.3%) and information providing business 124 (2.1%). Compared with the last year, information providing business increased 1.6%, meanwhile other businesses decreased following the last year. The component ratio of software business which accounts for around 60% decreased 1.2 point, on the other hand ratio of other businesses a little increased (See Table 8).

Table 8 - Number of establishments by business in the information services (Unit: % (ratio))

|                            | 1992                             |                        | 1993                             |                        | 1994                             |                        |
|----------------------------|----------------------------------|------------------------|----------------------------------|------------------------|----------------------------------|------------------------|
|                            | Number of establishments (ratio) | Ratio to previous year | Number of establishments (ratio) | Ratio to previous year | Number of establishments (ratio) | Ratio to previous year |
| Total                      | 6,977<br>(100.0)                 | -1.7                   | 6,432<br>(100.0)                 | -7.8                   | 5,982<br>(100.0)                 | -7.0                   |
| Software business          | 4,234<br>(60.7)                  | -1.9                   | 3,798<br>(59.0)                  | -10.3                  | 3,458<br>(57.8)                  | -9.0                   |
| Info'n processing business | 1,594<br>(22.8)                  | -1.2                   | 1,546<br>(24.0)                  | -3.0                   | 1,482<br>(24.8)                  | -4.1                   |
| Info'n providing business  | 140<br>(2.0)                     | 1.4                    | 122<br>(1.9)                     | -12.9                  | 124<br>(2.1)                     | 1.6                    |
| Other businesses           | 1,009<br>(14.5)                  | -1.9                   | 966<br>(15.0)                    | -4.3                   | 918<br>(15.3)                    | -5.0                   |

(Number of persons employed)

31. Number of persons employed in the information services in 1994 was 424,867. Excluding temporary or daily employees, it was 410,960, 7.8% decrease from the previous year and decrease for three years in a row. By job classification, programmers decreased

drastically in 1994 compared to system engineers, although inclusion of temporary or daily employees in 1994 may make it difficult to simply compare different years. The reason is thought that there is a need to secure system engineers as high-quality technicians in case demands recover, meanwhile, programmers' works dwindled due to decrease of order for programming as well as spread of package-software (See Table 9).

Table 9 - Number of persons employed by job classification in the information services  
[Unit: %(ratio)]

|   | 1992                               |                        | 1993                               |                        | 1994                               |                        |
|---|------------------------------------|------------------------|------------------------------------|------------------------|------------------------------------|------------------------|
|   | Number of persons employed (ratio) | Ratio to previous year | Number of persons employed (ratio) | Ratio to previous year | Number of persons employed (ratio) | Ratio to previous year |
| Total   | 488,469<br>(100.0)                 | - 1.0                  | 445,662<br>(100.0)                 | - 8.8                  | 424,867<br>(100.0)                 | - 4.7                  |
| Individual proprietor, Family workers, Salaried managers or directors | 13,075<br>(2.7)                    | - 3.6                  | 11,887<br>(2.7)                    | - 9.1                  | 10,585<br>(2.5)                    | - 11.0                 |
| Regular employees   | 475,394<br>(97.3)                  | - 0.9                  | 433,775<br>(97.3)                  | - 8.8                  | 400,375<br>(94.2)                  | - 7.7                  |
| Temporary or daily employees  | -                                  | -                      | -                                  | -                      | 13,907<br>(3.3)                    | -                      |
| Total   | 488,469<br>(100.0)                 | - 1.0                  | 445,662<br>(100.0)                 | - 8.8                  | 424,867<br>(100.0)                 | - 4.7                  |
| Management Sector   | 47,415<br>(9.7)                    | 5.7                    | 45,031<br>(10.1)                   | - 5.0                  | 43,245<br>(10.2)                   | - 4.0                  |
| Sales Sector  | 29,505<br>(6.0)                    | 5.8                    | 30,989<br>(7.0)                    | 5.0                    | 31,130<br>(7.3)                    | 0.5                    |
| Researcher  | 9,343<br>(1.9)                     | - 0.5                  | 8,065<br>(1.8)                     | - 13.7                 | 8,358<br>(2.0)                     | 3.6                    |
| System Engineer   | 169,137<br>(34.6)                  | 2.6                    | 161,181<br>(36.2)                  | - 4.7                  | 155,380<br>(36.6)                  | - 3.6                  |
| Programmer  | 135,606<br>(27.8)                  | - 5.4                  | 108,595<br>(24.4)                  | - 19.9                 | 92,468<br>(21.8)                   | - 14.9                 |
| Operator  | 34,339<br>(7.0)                    | - 3.3                  | 33,685<br>(7.6)                    | - 1.9                  | 37,517<br>(8.8)                    | 11.4                   |
| Keypuncher  | 31,322<br>(6.4)                    | - 9.8                  | 28,130<br>(6.3)                    | - 10.2                 | 26,300<br>(6.2)                    | - 6.5                  |
| Others  | 31,802<br>(6.5)                    | - 2.8                  | 29,986<br>(6.7)                    | - 5.7                  | 30,469<br>(7.2)                    | 1.6                    |

(Annual sales of information)

32. Annual sales of Software development/Programing which is the principal service in the information services decreased in 1994 8.6% from the previous year to 3,485.8 billion yen, due to the decrease of system development centering on the general-purpose mainframe accompanied by spread of micro-computers.

On-offline information processing decreased 4.2% from the previous year to 966 billion yen. Data entry/Key punching continued to decline due to the technological development,

such as the spread of on-line system. On the other hand, System operation management which is relatively not susceptible to business trends decreased only 0.2% to 358.5 Billion yen (See Table 10).

Table 10 - Annual sales by kind of services in the information services

(Unit: billion yen)

|                                      | 1991    | 1992    | 1993    | ratio to<br>year (%) | 1994    | ratio to<br>previous<br>year (%) | ratio to<br>previous<br>year (%) |
|--------------------------------------|---------|---------|---------|----------------------|---------|----------------------------------|----------------------------------|
| Total                                | 7,039.7 | 7,127.6 | 6,511.4 | -8.6                 | 6,177.0 | 100.0                            | -5.2                             |
| On-offline information<br>processing | 1,094.8 | 1,100.1 | 1,008.2 | -8.4                 | 966.0   | 15.6                             | -4.2                             |
| Software development<br>/Programming | 4,301.0 | 4,295.9 | 3,813.3 | -11.2                | 3,485.8 | 56.4                             | -8.6                             |
| Data entry<br>/Keypunching           | 209.6   | 201.2   | 191.4   | -4.9                 | 184.3   | 3.0                              | -3.7                             |
| Machine rental                       | 59.2    | 47.2    | 43.3    | -8.3                 | 33.2    | 0.5                              | -23.4                            |
| System operation<br>management       | 308.8   | 363.4   | 359.1   | -1.2                 | 358.5   | 5.8                              | -0.2                             |
| Database                             | 216.0   | 214.1   | 211.5   | -1.2                 | 198.8   | 3.2                              | -6.0                             |
| Research                             | 313.7   | 277.2   | 248.4   | -10.4                | 247.6   | 4.0                              | -0.3                             |
| Others                               | 536.4   | 628.5   | 639.2   | 1.7                  | 702.8   | 11.4                             | 10.0                             |

33. As to annual sales by contracting industry, those to Finance/Insurance and Mining/Manufacturing sectors which are the principal contracting industries decreased in 1994 respectively 6.8% and 5.1% from the previous year to 1,674.3 billion yen and to 1,554.7 billion yen marking decreases for two consecutive years. Also, the trade with the other business enterprises in the same industry decreased 9.6% to 824.1 billion yen, and the trade within the same business enterprise decreased 10.5% to 118.0 billion yen. On the other hand, the trade with the public service increased 4.1% following the previous years because of constant demands due to promotion of information orientation as well as system development in the government (See Table 11).

Table 11 Annual sales by contracting industry (Unit: billion yen)

|                                  | 1992               |                                  | 1993               |                                  | 1994               |                                  |
|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|
|                                  | Sales<br>(ratio)   | Ratio to<br>previous<br>year (%) | Sales<br>(ratio)   | Ratio to<br>previous<br>year (%) | Sales<br>(ratio)   | Ratio to<br>previous<br>year (%) |
| Total                            | 7,127.6<br>(100.0) | 1.2                              | 6,514.4<br>(100.0) | -8.6                             | 6,177.0<br>(100.0) | -5.2                             |
| Agriculture/Fisheries            | 46.8<br>(0.7)      | 23.8                             | 41.9<br>(0.6)      | -10.5                            | 40.4<br>(0.7)      | -3.6                             |
| Mining/Manufacturing             | 1,831.4<br>(25.7)  | 2.5                              | 1,638.2<br>(25.1)  | -10.5                            | 1,554.7<br>(25.2)  | -5.1                             |
| Wholesale/Retail                 | 672.8<br>(9.4)     | 0.4                              | 555.0<br>(8.5)     | -17.5                            | 550.1<br>(8.9)     | -0.9                             |
| Eating place                     | 147.9<br>(2.1)     | 0.4                              | 140.5<br>(2.2)     | -5.0                             | 119.8<br>(1.9)     | -14.7                            |
| Construction/Real Estate         | 1,910.5<br>(26.8)  | 1.4                              | 1,795.9<br>(27.6)  | -6.0                             | 1,674.3<br>(27.1)  | -6.8                             |
| Finance/Insurance                | 393.7<br>(5.5)     | 9.0                              | 354.5<br>(5.4)     | -9.9                             | 373.1<br>(6.0)     | 5.2                              |
| Service                          | 560.2<br>(7.9)     | 8.9                              | 584.5<br>(9.0)     | 4.3                              | 608.2<br>(9.8)     | 4.1                              |
| Public service                   | 28.9<br>(0.4)      | 1.3                              | 26.3<br>(0.4)      | -9.0                             | 23.2<br>(0.4)      | -11.8                            |
| General Consumers                | 331.1<br>(4.6)     | 21.7                             | 334.2<br>(5.1)     | 1.0                              | 291.3<br>(4.7)     | -12.8                            |
| Others                           | 1,069.2<br>(15.0)  | -7.5                             | 911.6<br>(14.0)    | -14.7                            | 824.1<br>(13.3)    | -9.6                             |
| Trade within the same industry   | 135.1<br>(1.9)     | -25.5                            | 131.7<br>(2.0)     | -2.5                             | 118.0<br>(1.9)     | -10.5                            |
| Trade within the same enterprise |                    |                                  |                    |                                  |                    |                                  |

### 2-3 Statistical structure of Transport and Communications industries

34. DIVISIONs H-Transport and Communications in JSIC account for fairly large parts in the tertiary industry. The Ministry of Transportation (MOT) and the MOPT, competent authorities of the activities of transport and communications industries provide statistical data on them by conducting various statistical surveys as well as by processing abundant administrative records. Statistical surveys such as Survey on Motor Vehicle Transport, Survey on Coastline Vessel Transport, Survey on Railway Transport are used as basic materials to compile Transport Index to comprehensively monitor both of national and international activities of transport industries. In addition, MOPT is currently in the process of compiling the Index of Communications Industries' Activities to monitor the trend of the various activities of communications industries including the post, telecommunications and broadcasting (See Diagram 2).



Diagram 2 Statistical structure of transport and communications industries

## 2-4 Indices concerning service industries

35. In Japan, various basic statistics concerning service industries are compiled as above mentioned. Based on these statistics, quantitative and price indices on the activities of service industries are compiled to be utilized for policy-making (See Table 12).

Table 12 - Index on service industries

|                                   | Index of Tertiary Industries Activities   | Transport Index   | Index of Communications Industries' Activities   | Corporate Service Price Index   |
|-----------------------------------|---|---|--|---|
| Producer                          | MITI  | MOT   | MOPT   | Bank of Japan   |
| Purpose                           | To monitor activities of tertiary industries comprehensively  | To monitor national and international activities of transport industries                          | To promptly monitor activities of communications industries such as post, telecommunications and broadcasting  | To monitor trends of service price of transactions between business enterprises |
| Beginning Year                    | 1978  | 1965  | undecided  | 1991  |
| Base Year/ Weighting Year         | 1990  | 1990  | (scheduled in 1995)  | 1990  |
| Scope                             | Electricity, Gas, Heat supply and Water, Transport and Communications, Wholesale and Retail Trade, Eating & Drinking Places, Finance and Insurance, Service, Public Service | National Transport Activities, and International Transport Activities by the Japanese enterprises | Post, Telecommunications, Broadcasting   | Price of service for enterprises provided by the tertiary industries            |
| Formula to calculate weight       | <weight> Value added in 1990 Input-Output table<br><formula> Laspeyres  | <weight> Value added and Output Value<br><formula> Laspeyres                                      | <weight> Output Value<br><formula> Laspeyres   | <weight> Turnover<br><formula> Laspeyres  |
| Basic statistics/ Basic materials | Current Survey of selected service industries,<br><br>1990 Input-Output table   | Survey on Motor Vehicle Transport, Survey on Railway Transport, Survey on Air Transport etc.      | Current Survey of Communications Industries. Annual Statistical report of Post and Telecommunications administration, Administrative records of MOPT | 1990 Input-Output table. Official Statistics, Business Statistics. Price survey |

#### PAPER 8.4

|             |  |  |                                    |  |
|-------------|--|--|------------------------------------|--|
|             |  |  | and NHK (Nippon Hoso Kyokai), etc. |  |
| Publication | Quarterly and monthly indices of the reference quarter are published two months after the end of the quarter | Monthly Index is published four months later | (Quarterly publication is planned) | Quarterly and Monthly indices of the reference quarter are published two months after the end of the quarter |

36. Among Indices above mentioned, Index of Tertiary Industries' Activities and Corporate Service Price Index were introduced at the previous Voorburg meetings. Here, I explain Index of Communications Industries' Activities further.

(Index Classification)

As indicated in Diagram 3, Index of Communications Industries Activities consists of Post Index, Telecommunications Index and Broadcasting Index as well as Total Index gained through weighted average of these Indices.

Diagram 3 - Structure of Index Classification of Index of Communications Industries'  
Activities

(Data used)

37. Index of Communications Industries' Activities is the ratio of outputs when outputs change on condition that price would not change. Therefore, calculation of the Index requires the following two data.

(i) Output volume ..... monthly

(ii) Weight (Output Value)... annually

When Output Volume is not available, substantial output (turnover/price) is adopted as a proxy.

38. Data source to compile Index of Communications Industries' Activities are the report of Current Survey of Communications Industries, the annual statistical report of Post and Telecommunications administration, the administrative records of MOPT and NHK (Nippon Hoso Kyokai) and so on. Current Survey of Communications Industries which started in April 1995 provides means to gain monthly income data by service of the telecommunication and broadcasting industries.

39. Graph of Index of Communications Industries' Activities are provided as Diagram 4~6. Diagram 4 indicates the comparison between Total Index, Post Index, Telecommunications Index, Broadcasting Index and GDP. It is evident that the growth rate of the whole communications industries, especially telecommunications industries is larger than that of GDP. Diagram 5 compares Index of Communications Industries' Activities with GDP and Index of Tertiary Industries' Activities. It shows that Tertiary Industries' Activities and GDP have not progressed so much meanwhile Communication Industries Activities has grown remarkably. Diagram 6 compares Index of Communication Industries' Activities with Business Trend (CI: Composite Index). Although Business Trend has been declining or stagnant since 1990, communication industries have been in good conditions.

Diagram 4 Trend of Communications Industries' Activities

PAPER 8.4

Diagram 5 Comparison between Index of Communication Industries' Activities, GDP  
and Index of Tertiary Industries' Activities

Diagram 6 - Communications Industries' Activities and Business Trend



## 2-4 Future Problems

40. “The Strategies for Government Statistical Services for the Coming Decade” compiled by the Statistics Council in March 1995 after one and a half year’s deliberations made following recommendations on strategies for collecting service statistics in the future to be tackled by the government statistical services in Japan.

- a. An inter-ministry meeting shall be held to consider in the medium-term activity based measurement of services in the statistical survey work conducted by ministries and agencies. Measures should be taken on the basis of the conclusions of this meeting.
- b. Addition of survey items such as the consignment of management services and the use of outside labour to the Survey on Services Industries and other existing surveys on respective industrial sectors shall be considered, to provide adequate measurement of soft- and service-orientated trends in business enterprises.
- c. Improvement in the Survey of Selected Service Industries shall be considered in order to provide timely and accurate measurement of consumer services.
- d. Ministries and agencies concerned shall improve the statistical measurement of activities in the diversifying information and communications sector by working on the necessary coordination.
- e. Current statistics shall be steadily improved, taking into account the progress of improvement in sector-wide statistics and service statistics by sector.

41. Background of these recommendations and the steps which have been taken so far are as follows:

(recommendations a. and b.)

Measurement of services activities were classified into the following 3 bases in the Councils’ 1985 report (See Diagram 7).

(i) Establishment base

Whole activities of an establishment which is rated as a service industry in accordance with the industrial classifications are surveyed including non service activities.

(ii) Activity-base in a narrow sense

Economic activities of an establishment which is rated as service industry as well as of an establishment which is not rated as service industries are surveyed (Service activities in the market)

(iii) Activity-base in a wide sense

In addition to economic activities in a narrow sense, service activities within an establishment and a household (service consumption within the same economic entity) are surveyed.

Diagram 7 - Concept on Service Activities

42. An example of statistical surveys on the Establishment base is the Survey on Service Industries which investigates the establishments rated as service industries. An example of statistical surveys on the Activity-base in a narrow sense is the Survey of Selected Service Industries. However statistical surveys on the Activity-base in a wide sense have hardly been conducted, although various kinds of service activities within the enterprises have been developed. Under these circumstances, needs are increasing to grasp the total picture of the service activities by conducting the surveys on Activity-base in a wide sense.

43. In the strategies 1995, it is required for the ministries and agencies to study necessary measures to be taken (problems to be studied, approach methods, cross-cutting issues to be coordinated etc.) by cooperating with each other. In recommendation b. addition of new survey items to the existing survey such as the consignment of management services and the use of outside labour is recommended before full-fledged study in recommendation a. is completed. In response to this recommendation, the Management and Coordination Agency plans to monitor the number of dispatched workers by enterprise which dispatches workers and by enterprise which accepts dispatched workers in the Establishment and Enterprise Survey to be conducted in 1996. Also, MOL plans to monitor the conditions of consignment in Survey on Trend of Labour and Economy to be conducted in August 1996.

(Recommendation c.)

44. In recent years, voices to call for affluent life have become stronger, on account of improvement of income standards, shortened working hours. Also, social changes such as women's participation into working forces, internationalization and ageing society lead to various kinds of service consumption provided by the health industry, leisure industry, culture industry and so-called silver industry for taking care of the elderly. Under these circumstances, improvement of the statistical surveys to measure service consumption and structural change of consumption has become necessary. In response to this recommendation, MITI surveyed the Inspection and Analysis Industry for Assisting Research and Development in the Survey of Selected Industries in 1995 as the industry to be surveyed selectively. MITI will survey Wedding Ceremony Halls as the industry to be surveyed selectively in 1996 in the same survey. Also, MITI will continue to study on the possibility to survey once surveyed 13 industries by rotation including motion picture theatres, golf course, amusement parks and theme parks as well as addition of new industries.

(Recommendation d.)

45. Today, construction of vigorous and highly information oriented society is needed where people can realise and feel affluence and can be developed in a regionally well balanced manner. Development of information and communications infrastructure to support the highly information oriented society has become essential toward the 21st century. It is expected that various types of media such as telecommunications, broadcasting, newspapers will be provided through an integrated network by the

development of multi-media in the future. Thus, there are needs to develop statistics to adequately monitor the activities of Information Services which are being developed at a rapid pace.

46. In response to this recommendation, MOPT started the Current Survey of Communications Industries in 1995 to monitor the actual conditions concerning sales and employees of Type 1 and Type 2 telecommunications carriers every month. Also, the Management and Coordination Agency is now studying addition of Software Industry to the subject of Survey of Research and Development, and it plans to conduct the Experiment Survey of Research and Development in the Software Industry in 1996 to study the problems in the survey operation.

(Recommendation e.)

47. It was recommended in the 1985 mid-term plan by the Statistics Council that current sample surveys should be developed to grasp the trend of activities of service industries centering on the principal industries. Based on this recommendation, Current Survey of Selected Service Industries have been conducted every month since 1987. This survey is being conducted to investigate the trend of management such as sales, amount of contract of selected service industries (Goods, rental and leasing, Information services, Advertising, Credit cards institutions and Engineering services) and to utilize them as materials for judging business trend (Index of Tertiary Industries' Activities) and to obtain materials to foster sound service industries.

48. The Strategies 1995 recommends that ministries concerned should develop current statistics further in order to enrich data for the derived statistics which are the materials for industrial policy-making, taking account of the conditions of development of services statistics on the sector-wide and by each sector. Current Survey of Communications Industries was started by MOPT based on this recommendation. MOPT, also, is currently in the process of compiling the Index of Communications Industries' Activities based on the Current Survey of Communications Industries as well as Annual statistical report of Post and Telecommunications administration, Administrative records of MOPT and NHK (Nippon Hoso Kyokai), etc. for the purpose of promptly monitoring the various activities of communications industries such as postal, telecommunication, broadcasting services, through an integrated index.

In the future, current surveys necessary to improve Index of Tertiary Industries' Activities concerning automobile, cellular phone, fast food etc., will be studied by the ministries in accordance with their priorities.

### **3.Conclusion**

49. Service activities are so diversified and changeable that it is difficult to statistically monitor all service activities in detail through common survey items as conducted in the manufacture or agriculture censuses or surveys. The Strategies for collecting service

statistics in Japan adopt a practical approach of combination of the Survey on Service Industries, broad and sector-wide periodical survey and the Survey of Selected Service Industries, detailed annual survey on the selected service industries. Also, various current surveys such as the Current Survey of Selected Service Industries to compile Index of Tertiary Industries' Activities and the Current Survey of Communications Industries to compile Index of Communications Industries' Activities and so on are being conducted.

However, as the Strategies 1995 suggested, there still are areas which should be studied further including measurement of service activities within an establishment and a household. At the moment, a new inter-ministry body set up by the Japanese Government for securing the implementation of the Council's recommendation is working on these areas in close relation with the Council.

# Annex 1 - Classification of Service Industry in the Standard Industrial Classification for Japan (JSIC)

## Major Group No.72 Laundry, beauty and bath services

Laundries, Fulling and dyeing plants, Barbershops, Beauty parlours, Public bathhouses, Special bathhouses, etc.

## Major Group No.73 Automobile parking

Automobile Parking

## Major Group No.74 Miscellaneous domestic and personal services

Domestic services, Photographic studios, Garment sewing services and repairs, Checkrooms, Crematories and graveyard custodians, Ceremonial occasions, etc.

## Major Group No.75 Hotels, Boarding houses and other lodging places

Hotels, Common lodging houses, Boarding houses, etc.

## Major Group No.76 Amusement and recreation services, except motion picture and video production

Motion picture theatres, Legitimate theatres and performances, Theatrical companies, Bicycle, horse, motorcar and motorboat race track operations, Public gardens, Amusement parks, Amusement and recreation facilities, etc.

## Major Group No.77 Automobile repair services

Automobile repair services

## Major Group No.78 Machine, upholstery furniture, etc., Repair services except otherwise classified

Machine repair shops, Upholstery and Furniture repair shops, Blacksmith shops, Paper hangers etc.

## Major Group No.79 Goods rental and leasing

General goods rental and leasing, Industrial equipment and machinery rental, Office machinery rental, automobile rental, etc.

## Major Group No.80 Motion picture and video production

Motion picture, video production and distribution, Motion picture and video services

## Major Group No.81 Broadcasting

Public broadcasting, Private broadcasting, Cablecasting

## Major Group No.82 Information services and research

Computer programming and other software services, Data processing and information services, News syndicates, Detective agencies and Credit bureaus

## Major Group No.83 Advertising

Advertising agencies, etc.

## Major Group No.84 Professional services, N.E.C.

Lawyers and Patent attorneys' offices, Notaries public and judicial scriveners' offices, Certified public accountants' offices, Auditors' offices, Veterinary services, Engineering and Architectural services, Commercial and Engineering design services, Authors and artists, Individual instruction places, etc.

**Major Group No.85 Cooperative associations, N.E.C.**

Agriculture, forestry and marine cooperative associations, Business cooperative associations

**Major Group No.86 Miscellaneous business services**

Stenographic, copying and duplicating services, Commodity inspection services, Surveyor certification, building maintenance services, Guard services, etc.

**Major Group No.87 Waste treatment services**

Domestic waste treatment services, Industrial waste treatment services, etc.

**Major Group No.88 Medical and other health services**

Hospitals, Clinics of medical practitioners, Dental clinics, Office of other health practitioners, Dental laboratories, Services related to health care, etc.

**Major Group No.89 Public health services**

Public health centres, Health consultation offices, Quarantine stations, except animal and plant quarantines, etc.

**Major Group No.90 Social insurance and social welfare**

Social insurance organisations, Welfare offices, Child welfare services, Welfare services for the aged, Social protection services, etc.

**Major Group No.91 Education**

Elementary schools, Lower secondary schools, Upper secondary schools, Advanced educational organisations, Kindergartens, Special training schools, Miscellaneous schools, Social educational services, etc.

**Major Group No.92 Scientific research institutes**

Research institutes for natural sciences, Cultural and social science research institutes

**Major Group No.93 Religion**

Shintoism, Buddhism, Christianity, etc.

**Major Group No.94 Political, business and cultural organisations**

Business and professional associations, Labour organisations, Non-profit cultural, Science and art organisations, Political organisations, etc.

**Major Group No.95 Miscellaneous services**

Meeting halls, Slaughterhouses, etc.

**Major Group No.96 Foreign governments and international agencies in Japan**

Foreign governments in Japan, etc.

Annex 2 Change of Subjects of Survey of Selected Service Industries