

“The Official Statistics as the Fundamental Information Infrastructure for the Society”

- Disseminating relevant and reliable statistics to various users in a timely and user-friendly manner -

1. Introduction

In Japan, the Statistics Act was thoroughly revised in May 2007. In the Statistics Act, it is positioned as the fundamental principle of the official statistics that the official statistics is the fundamental information infrastructure for the society. And this principle is fully compatible with “Fundamental Principles of Official Statistics” adopted by the United Nations Statistical Commission. In order to realize the above-mentioned principle, it is necessary to respond to various social needs, collect and compile relevant and reliable statistics, and disseminate them in a timely and user-friendly manner.

Moreover, under harsh administrative and fiscal circumstances of recent years, the Statistics Bureau of Japan (SBJ) is facing to promote the rationalization and effectiveness of statistical operations, as well as ensuring the quality of statistics.

This paper mentions our major challenges that SBJ is tackling to improve relevance and reliability of official statistics.

2. Major challenges

(1) To increase relevance of official statistics

① To provide Statistical Frame of Establishments and Enterprises

In order to make high quality statistics with limited budget, integrating the establishment and enterprises information precisely has been an urgent issue in Japan. Under these circumstances, in the Statistics Act which was completely revised in 2007, it is stipulated that the Minister for Internal Affairs and Communications shall develop an establishment frame database. Under the Statistics Act, SBJ has been developing the database called “the Business Register”.

The main function of the Business Register is to provide population information for sample surveys. In order to provide accurate population information through the Business Register, it needs to update the information of database by regularly inputting the results of statistical surveys on establishment and enterprises, administrative data and so on. Another function of the Business Register is to reduce the burden on respondents. The Business Register maintains the number of selections of sample surveys to avoid excessive selections of samples as respondents. In additions, the Business Register has a function to generate new statistics. Each administrative organization combines and tabulates the registered and developed information in the Business Register, and new statistics are produced. In the Business Register, you can compare or analyze data in time series, and tabulate regional statistics using geographical spatial information.

Concerning the operation of the Business Register, SBJ maintain the Business Register based on the results of the Economic Census for business frame and the Economic Census for business activity. In addition, SBJ considers the usefulness of all information collected by statistical industrial surveys conducted by each ministry, and records them. Regarding administrative data, SBJ uses the commercial and cooperated registration data, under the master plan concerning the development of official statistics. SBJ has also a plan to examine how to use the administrative data such as the Labour Insurance data through inquiry with establishment and enterprises. Regarding the database recorded in private companies, SBJ will also consider the usefulness of the information as information imposing administrative data, etc. For the schedule from now, SBJ will build up the system in 2012, and will start the operational test of the Business Register to confirm all functions. The full-scale operation of the new Business Register is to be started in January 2013. Based on these operations and functions, the new Business Register will play key role in the future industrial surveys.

② To provide relevant statistics for emergency measures.

Though the Great East Japan Earthquake occurred in March 2011, and caused heavy damage in Japan, various official statistics have been used for basic information to rescue and revive stricken areas. In order to rescue and revive the stricken areas, relevant information regarding scale or range of damage is necessary. However, in the Great East Japan Earthquake, the scale of the damage was serious and it seemed that some municipalities could not afford to analyze information because staff in public offices was incapacitated and the office building had serious damage.

In the beginning of April 2011, SBJ tried to provide user-focused information timely and speedy such as producing statistical maps on population and households in the area flooded with Tsunami by compiling data of the Population Census into geographical information system and put them on the top page of SBJ's website. In order to build foundation of reconstruction, it is indispensable to make qualitative analysis of the scale and range of the damage; and for this statistics play an important role.

When a disaster happens, it is necessary to analyze statistics connecting with the actual situation of damage, and it is effective to use statistical data connected with other information using geographical information system. After the Great East Japan Earthquake, in order to capture the actual state of the damaged areas and to make the revival plan, the 2010 Census results of population and households of three prefectures (Iwate, Miyagi, Fukushima) suffered from the earthquake were released prior to other prefectures. Through our efforts response to the Great East Japan Earthquake, it is proved that official statistics is useful for emergency measure.

To improve cost effectiveness of statistical work (Optimization of operations and systems for government-wide statistical work)

Under the severe financial circumstances, each ministry of the Japanese government is trying to improve efficiency and rationalization of work and systems in order to make simple and effective governance. On the basis of "Optimization plan of statistical survey work and system", SBJ expects the reduction of expense and working hours on statistical survey tasks by using low cost ICT and by using low cost outsourcing.

In September 2002, Japanese government posted a person in charge of information technology, the same rank as the Chief Minister's secretariat, at each ministry, and CIO liaison conference consists of CIO of each ministry was set up under the IT strategy headquarters. The Building of e-Government Plan was conducted for the first time in the CIO liaison meeting. The plan was decided at the conference in July 2003. The feature of the e-government plan is that it reconsiders traditional public IT investment, stands from a view point of user, and aims to realize simple government with effective use of available budget. In the building e-government plan, positive use of IT was declared as a tool which realizes both keeping service for the people and reforming administration and national finance.

In order to realize the simple government with effective budget, cost effectiveness is to be raised by optimizing work and systems and by simplifying and rationalizing administration through using human and physical resources effectively. This involves measures such as eliminating the duplication of common works, sharing the common system of common works and similar works in each ministry, and unifying the system, and promoting outsourcing of routine tasks. The policy that corresponds to the goal was selected. The key word of the reform of work and system was “Optimizing works and system” in the 83 fields of all the areas of the government.

On the basis of this e-government plan, SBJ set up “the optimizing program planning project team” in April 2004 in order to integrate the internal system. SBJ also set up “Optimizing program working group on works and system” which was composed of each ministry as the liaison with related ministries and has been discussed for making optimal program planning. As a result of the measures, “Reform policy on works and system of statistical survey” was decided in April 2005 by the government, and “Optimizing program on work and system on statistical surveys” was adopted in of March 2006 by the government. The objectives of this action program are:

- improve public statistical services
- provide convenience of responses by survey respondents
- reduce statistical work load
- save public statistical expenditure
- centralize the statistical information systems which each ministry had operated and

maintained independently.

Under these efforts, it is expected that 1.84 billion yen will be eliminated and 479 thousand person-days will be decreased annually by this whole government program. The expected effect of the common measures by all ministries is that it will decrease 480 million yen per year and 145 thousand person-days per year.

On the basis of this optimizing program, in order to make effective system investment and effective system management, it is prescribed that each ministry should concentrate the statistical information system which had been developed and operated by each ministry, and each ministry should integrate the various common systems. It is a basic policy that each ministry uses common system as declared in the goal of building e-government plan. Each ministry’s system in the past, especially online survey system is going to be moved to the new system which is to be integrated across the whole government as the Inter-Ministry Information System for Official Statistics (IMISOS).

It is prescribed that the management of IMISOS is entrusted to the National Statistics Center (Incorporated Administrative Agency) (NSC). And, it is expected that administrative organizations should be simplified and rationalization and flexible service should be achieved through managing agency, using private employment and mortgaging public interests. The system is different from administrative organization which is apt to inflexible operation and services offered. It is expected that 90 million yen will be saved annually on the whole government by integrating IMISOS because the integration will make the following effects:

- Rationalization of system investment and control of future investment
- Simplification and rationalization of system management
- Concentration of security
- Improvement of utilization

In addition, it is expected that annual 390 million yen will be saved from mail collection expenses and enumerators cost by supporting the common circumstances for integrating online survey.

(2) To ensure participation in statistical surveys

(To provide the most appropriate multi-mode data collection)

SBJ conducts the Population Census every five years, which clarifies the status of population and households. During the field survey stage of the 2005 Population Census, there were many cases where enumerators could not collect questionnaires from households for the following reasons:

Enumerators could not have interview with households during daytime because of the increase in absentee households, such as double income household, one-person household, in accordance with diversification of life style.

Increase in households that feel they do not like enumerators to take the questionnaires which they submitted.

Therefore, in 2010 Population Census, SBJ introduced mail response method so that those households could submit questionnaires smoothly.

According to the rapid dissemination of the Internet, the online response method has been paid attention to as a method to conduct statistical surveys efficiently. The online response method is expected to have the following outcome: improvement of user's utilization and response rate, enabling the quick checking the contents of the question-

naire, decrease of field survey, and increased efficiency of data processing. Therefore, if the online response method could improve the response rate and user's utilization, it would be an effective method in the changing survey circumstances. In the 2010 Census, SBJ introduced the online response method in the Tokyo area as a model area for the first time and for introduction in the whole of Japan in the future. The number of response households for the online method was 529 thousand. The online response rate was 8.3% in the area where the online survey was conducted. As a result, it was confirmed that the online response method made some effect on the data check.

For the next 2015 Census, SBJ is considering improvement of multi mode survey methods, such as expansion of the online survey, use of administrative data, and submission method by mail and improvement in using administrative data at the phase of data check.

(Involvement of census supporters)

Next issue is the diversification of survey circumstances. In the 2005 Census, there were some cases where enumerators could not interview with households because of the increase in number of auto lock apartments, apartments with one room, etc. And also, the number of people who are likely to be absent or are foreigners, who are not able to communicate in Japanese, is increasing. Therefore, the field survey has been getting more difficult. Under these circumstances, the advance and support by the person who knows about these conditions is expected to conduct field survey smoothly and to get the accurate results without failure.

For this reason, SBJ has held the 2010 Population Census Advisory Meeting for 2010 census. The meeting has been held with participation of various parties to be involved in the census operation, such as those working in management of apartments, support for foreigners, and education. In the meeting, SBJ promoted mutual understanding with those organizations, and also set up the "Headquarters for implementation of the 2010 Population Census" with the persons who are in charge of the census. SBJ also started to hold 2010 Census Cooperative Meetings in order to keep in close contact with the economic organizations and the mass media in addition to the related bodies such as management of apartments, support for foreigners, and education. In order to improve people's cooperation for the next 2015 census, SBJ considers enlarging involvement of census supporters and experts.

(3) To improve the usability of statistical data

① To provide tailor-made tabulations and anonymized microdata under the new Statistics Act.

In order to promote the effective use of statistical data, the new framework of using statistics data has been founded by the Statistics Act in May 2007 as following to provide tailor-made tabulations and anonymized microdata for research and scientific purposes. These services were started in April 2009. SBJ has offered these services to contribute to the development of scholarly investigation and the development of higher education since the beginning.

Due to the diversification and increased needs for statistics, it has been difficult for us to response to users' needs by using only stereotyped statistical tables provided by each ministry. NSC has submitted tailor-made tabulations which make tabulation tables based on user's request receiving the entrusting from administrative organizations since April 2009. The results in FY 2011 entrusted from SBJ are as follows:

Total number of surveys submitted as tailor-made tabulation was 9 including Population Census 2, Survey on Time Use and Leisure and Activities 1, Housing and Land Survey 4, National Survey of Family Income and Expenditure 1, Family Income and Expenditure Survey 1. The number is increasing smoothly from 4 in FY 2009.

Since many quarters strongly asked to use statistics data more effectively, NSC has provided anonymized data which are compiled in such a way that individual questionnaires can not to be identified by using personal information of questionnaire, who has been entrusted from national administrative organization since 2009. The number offered from SBJ in FY 2011 was 36 including National Survey of Family Income and Expenditure 12, Survey on Time Use and Leisure and Activities 16, Employment Status Survey 7, Housing and Land Survey 1. It has increased smoothly from 21 in FY 2009.

In addition, NSC is expanding its approaches for cooperation with academic research organizations in order to promote enhancement of the system for the secondary use of official statistics and the development of academic research. The NSC has reached cooperation agreements with the organizations that approve these approaches, in order to make it possible for them to provide anonymized data as satellite offices for the NSC.

In December 2010, NSC started to cooperate with the Hitotsubashi University as an onsite use facilities. Moreover, NSC has reached cooperation agreement with the Re-

search Organization of Information and Systems (ROIS) (the Inter-University Research Institute Corporation) in March 2012. NSC will promote their services such as enhancing the range of statistical survey provided.

② To provide One-Stop-Service for statistical information and e-Survey System

Under the decentralized statistical system of Japan, each ministry provides public statistical services, whereas more convenient and generalized service was required of users. The national government established the “Portal Site of Official Statistics of Japan (e-Stat)” in April 2008 under the leadership of SBJ. The e-Stat provides a one-stop on-line service for obtaining and integrating statistical information published by all ministries on the Internet. The e-Survey system makes it possible for people and enterprises to conveniently respond via the Internet.

IMISOS consists of two kinds services. “e-Stat” and “e-Survey” are used by people; “Back Office Portal Site” provides functions for officials who are in charge of the statistical operations of ministries and municipalities. Both of them provide their services 24hours a day, 365 days a year. The number of access from users to the top page of e-Stat in FY 2011 was about 2.6 million, or about 7,100 per day. The number increased by about 545 thousand, 26.5% up from previous year. The number of statistical tables registered in e-Stat was 454 statistical surveys, about 889 thousand statistical tables, or about 75% of all statistical surveys. The number of access to e-Stat was about 51 million, or about 140 thousand per day.

3. Conclusion

This paper introduced examples how we tackled major challenges in SBJ. In order to meet the needs arising from socio-economic changes and advanced information communication technology, it is necessary for SBJ to make endless challenges for improvements of our statistical activities. SBJ will continue its efforts to provide more relevant and reliable statistics in a timely and user-friendly manner.