

Use of Administrative Records for Producing Official Statistics in Japan

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Abstract

Japanese official bodies have been maintaining a number of different kinds of administrative records, from which a number of statistics are produced and disseminated. On the other hand, statistical surveys including censuses have served as major sources for producing various official statistics that are not obtained by administrative records directly. However, recent changes in the survey environment such as increased difficulty in gaining the cooperation of the public for statistical surveys has resulted in the deterioration of the quality of statistics that were produced by such means. In this context, it becomes more and more important and effective to utilize administrative records for official statistics produced by statistical surveys, especially in light of maintaining and improving their quality as well as reducing the burden on respondents, though statistical surveys cannot simply be replaced by administrative records. This presentation will describe recent movements with regard to the use of administrative records in official statistics in Japan. It first introduces the stance on the use of administrative records in the re-engineering of the Japanese statistical system including the revision of the Statistics Act and the decision of the Master Plan Concerning the Development of Official Statistics. Following this, it describes an overview of the present situation in using administrative records for official statistics with a few concrete examples. This will be followed by concluding remarks along with some lessons learned. Please note that all portions on opinions in the paper attribute to personal views of the authors.

Key Words: Master Plan, quality of statistics, response burden, Statistics Act

1. Reform of Statistical System in Japan ~Establishment of “Master Plan Concerning the Development of Official Statistics”~

Under the decentralized statistical system of Japan, a Master Plan Concerning the Development of Official Statistics by the national government (hereinafter referred to as “Master Plan”), in order to comprehensively and systematically promote measures concerning the development of official statistics based on Article 4 of the Statistics Act (hereinafter referred to as “the Act”), was decided by the Cabinet in March 2009. The Master Plan specifies basic concepts concerning the development of official statistics, the orientation of approach, necessary measures, etc. for about five years.

The Master Plan sets “Use of Administrative Record Information, etc.” in “Efficient Production of Statistics” as one of the “Matters Necessary for Promoting the Development of Official Statistics.”¹ The term “administrative record information” is defined as “*information produced or acquired by officials of administrative organs in the course of their duties.....to utilize organizationally, and recorded in administrative documents.*” Some examples of the use of administrative record information described in the Master Plan are as follows:

- In the Economic Census, it is necessary to conduct reviews on using information

¹ Article 2, paragraph (10) of the Act

regarding establishments covered under labor insurance and employment insurance.

- In the Financial Statements Statistics of Corporations by Industry, it is necessary to conduct reviews on the application of data from financial statement reports.
- When formulating survey plans, investigation and reviews will be conducted in advance regarding whether administrative record information exists and on the effects of use of such information.

Under Article 55 of the Act, the Minister of Internal Affairs and Communications may request the heads of administrative organs to report on the situation of the enforcement of the Master Plan and shall compile those reports and publicize them every year. Related organs mainly centering on the Ministry of Internal Affairs and Communications (hereinafter referred to as “MIC”) have just begun drawing up the second phase of the Master Plan.

The above matters were based on the fact that the Act was thoroughly revised for the first time in 60 years. The revised Act was established and promulgated in 2007 and has been fully enforced since April 1, 2009. The pillars of the revision are: i) the establishment of the Master Plan, ii) the foundation of the Statistics Commission, iii) the promotion of use of statistical data, iv) the enhancement of confidentiality protection, v) the promotion of use of administrative record information.

Among the above pillars, “v) the promotion of use of administrative record information” is the one to enhance the accuracy and rationalization in producing statistics and to promote alleviation of the burdens on respondents bearing in mind the increase of response burdens.

In concrete terms, one of the standards for approving statistical surveys by the MIC when administrative organs intend to conduct them is that *the fundamental statistical survey/general statistical survey is reasonable and appreciated in terms of statistical techniques.*² And one of the viewpoints in examining the adequateness with regard to the above standard is the necessity of conducting the survey, that is, *whether they can make use of existing statistics or methods other than statistical surveys*³ for producing statistics [1].

2. Current situation on the use of administrative record information for producing official statistics

Official statistics in Japan can be roughly divided as follows:

- a) Survey Statistics- those based on results of statistical surveys or censuses
- b) Statistics derived from notifications, registers or administrative records which are collected as needed for regular duties in administrative organs without conducting statistical surveys
- c) Processed Statistics- those based on results of reprocessing of existing statistics

In Japan, administrative records are mostly used for the above statistics or be published as public data. The number of such statistics is large. To comprehend the current situation of administrative organs’ official statistics made from administrative

² Article 10, paragraph (2) and Article 20, paragraph (1) of the Act

³ Underlined by the author

records, MIC has conducted a survey and published it. The outline of the survey is as follows.

(1) Statistics constantly made from administrative records

In fiscal 2011, fourteen administrative organs including the Ministry of Health, Labour and Welfare (hereinafter referred to as “MHLW”)(e.g. Employment Referrals for General Workers), MIC (e.g. Report on Internal Migration) and the Ministry of Land, Infrastructure and Tourism (hereinafter referred to as “MLIT”) (e.g. Road Statistics) produced one hundred fifteen statistics derived from administrative records (at least once a year or every month or every day, periodically); the number of produced statistics increased by six from the previous fiscal year (Table 1).

Table 1 Statistics derived from administrative records constantly [2] (statistics)

	FY2010	FY2011
MHLW	16	19
MIC	18	18
Ministry of Agriculture, Forestry and Fisheries	16	16
MLIT	14	13
Others	45	49
TOTAL	109	115

*The basic survey on which this report was based has been conducted since 2010 (the same shall apply hereinafter).

(2) Statistical surveys having already made use of administrative records

Seven administrative organs including MHLW, MLIT, the Ministry of Agriculture, Forestry and Fisheries (hereinafter referred to as “MAFF”) and the Ministry of Economy, Trade and Industry (hereinafter referred to as “METI”) have already made use of administrative records for producing statistics such as developing population information, etc. in thirty six statistical surveys (the number of surveys has increased from the previous year by six) (Table 2).

Table 2 Statistical surveys having already made use of administrative records, etc. [2] (survey)

	FY2010	FY2011
MHLW	11	14
MLTI	6	7
MAFF	5	5
METI	4	5
MIC	3	3
Others	1	2
TOTAL	30	36

Among the above thirty six statistical surveys, there are i) twenty four surveys that make use of administrative records for developing population information and grasping new survey object candidates (e.g. the Economic Census for Business Activity, Monthly Labor Survey, etc.), ii) nineteen surveys for producing questionnaires based on information acquired as administrative

records (e.g. Survey of Medical Institutions, Survey of Medical Care Activities in Public Health Insurance, etc.), and iii) two surveys for supplementing missing values (e.g. Population Census, etc.) (Table 3).

However, we can only make supplementary use of information of the Basic Residence Register which consists of the register of information on residences in municipalities, for producing statistics from the Population Census. The reason for this is as follows.

In the Population Census, a person is enumerated at the place where he or she usually lives by census takers. The term “usually live(s)” is defined as those persons who have lived or who are going to live for three months or more at their respective households at the census date. Topics to be surveyed are natural attributions such as “Name,” “Sex” and “Year and month of birth” as well as social and economic attributions including “Education,” “Dwelling” and “Employment.”

On the other hand, as for the Basic Residence Register, the information to be registered are only “Name,” “Sex,” “Date of birth,” “Place of residence,” etc. There are some cases where residents move to different municipalities or abroad without submitting a notification of moving out to municipality offices.

Table 3 Statistical surveys having already made use of administrative records, etc. (breakdown by intended purpose) [2]

	(survey)	
	FY2010	FY2011
For grasping survey objects (Developing population information, etc.)	21	24
For producing statistics	15	19
For supplementing missing values	2	2
TOTAL	30	36

* As surveys used for different purposes are respectively attributed in each purpose, their totals sometimes differ.

Among the above thirty six surveys, i) nineteen surveys are ones whose survey-conducting organs and information-possessing organs are identical (e.g. Survey of Medical Institutions, etc.), ii) seventeen surveys are ones whose survey-conducting organs and information-possessing organs are non-identical (e.g. the Economic Census, etc.); almost half of the surveys’ conducting organs and information-possessing organs are non-identical (Table 4).

Table 4 Statistical surveys having already made use of administrative records, etc. (breakdown by organ) [2]

	(survey)	
	FY2010	FY2011
Surveys whose survey-conducting organs and information-possessing organs are identical	17	19
Surveys whose survey-conducting organs and information-possessing organs are non-identical	13	17
TOTAL	30	36

In addition, six organizations have started considerations on using administrative records in eight statistical surveys. On the other hand, there are some cases where usage of administrative records has not proceeded due to regulations of law or delay of computerization.

With regard to statistical tables from tax data that could be produced based on the format of tailor-made tabulations, the Ministry of Finance, the National Tax Agency and METI have conducted reviews on the possibility of using them for statistics based on the Master Plan since 2009; however, they found that it would not be easy to earmark a budget for computerizing under the current harsh financial circumstances, though they need more computerizing in order to make use of tax data for conducting statistical surveys.

Furthermore, the Minister of Internal Affairs and Communications is developing an establishment framework database (hereinafter “Database”) by utilizing questionnaire information pertaining to fundamental statistical surveys, questioning juridical persons and other organizations or through other methods, for the purpose of the reduction of the burden on respondents of statistical surveys⁴. The completed Database is used for producing population information lists, etc. Also, administrative records are used for developing the Database.

The Database, however, still has some issues such as the fact that the unit of labor insurance information, which is an administrative record used as one of the data sources, does not equal that in the Database, thus, it is sometimes difficult to grasp new opening and abolishment of establishments. [3]

3. Lessons learned

In Japan, administrative records have already been used as a valuable data source for a long time. Though the contents of administrative records are generally very detailed, for some of them, the coverage or units are sometimes not equal to the ones needed for producing statistics. Thus, they have some issues when used for producing other statistics, especially in terms of quality. Administrative records, therefore, cannot simply take the place of existing statistics, such as the Population Census or Economic Census, by themselves. Rather, they should play a supplementary or subordinate role.

In addition, it is hard to switch them over to the usage for producing statistics due to the current increased awareness on the protection of personal information.

⁴ Article 27 of the Act

On the other hand, some administrative data are not allowed to be used for other purposes due to regulations of law such as tax data. Even though fully computerized personal or enterprise data systems are to be put in place in the future, their usages might be limited to only purposes of tax or pension, etc. In the case of administrative records that have not been computerized, as it will cost much money to record them on magnetic media in order to facilitate usage for producing statistics, it might be difficult to use administrative records.

In order to prompt the further use of administrative records for producing statistics, it is still required to reinforce relative parties' understanding and strengthen cooperation between survey-conducting organs and information-possessing organs in a more active manner.

References

- [1] Office of Director-General for Policy Planning on Statistical Standards, MIC (1999), "The Text-tracing Manual for the Statistics Act (Japanese only)".
- [2] Office of Director-General for Policy Planning on Statistical Standards, MIC (2012), "The Report on Implementation of the Statistics Act, 2011 (Japanese only)".
- [3] Takahashi, M (2012), "Renovation of the Japanese Business Register", *presented at the 23rd Meeting of the Wiesbaden Group on Business Registers-International Roundtable on Business Survey Frames*, Washington, D.C., September 17-20, 2012.