

Experience in Conducting the 2005 Population Census and Policy for Improving the Next Census

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I Experience in Conducting the 2005 Population Census

1. Outline of the 2005 Population Census

Japan's Population Census has been conducted every five years since 1920, and the 2005 Census was the eighteenth. The 2005 Census was administered by the Statistics Bureau of the Ministry of Internal Affairs and Communications in the following way:

(1) Legal basis

The Statistics Law and the Population Census Ordinance

(2) Date of the Census

As of zero hour of the first of October of the Census year, that is the Christian calendar year ending with zero or five.

(3) Coverage

All the persons are enumerated that usually live in the territory of Japan (the de jour concept). Persons usually living in Japan are defined as such if they have lived or are going to live for three months or longer in Japan.

(4) Topics investigated

The Population Census investigates 22 topics in the Christian calendar years ending with zero when a large scale Census is conducted, and 17 topics in the years ending with 5 when a simplified Census is conducted. The 2005 Census was a simplified one, and investigated 12 topics for the household members, and 5 topics for the household.

(5) Census organization

Statistics Bureau --- Prefectures --- Municipalities --- Supervisors --- Enumerators --- Households

(6) Supervisors and enumerators

Supervisors: about 90,000 (supervise the enumerators and examine entries on the questionnaire forms)

Enumerators: about 830,000

The supervisors and enumerators are part-time employees of the central government, and are appointed as such by the Minister of Internal Affairs and Communications on the recommendation of the municipalities concerned.

(7) Enumeration

The Census questionnaire forms are distributed by the enumerator to all the households residing in the Enumeration District he/she is assigned to, filled in by the households, and collected by the enumerator (self-enumeration).

(8) Data processing and release of results

Data processing is performed according to the following procedures: (i) registration and storing of the questionnaire forms, (ii) data capture by OCR, (iii) coding according to the industrial and occupational classifications, (vi) data editing, (v) tabulation, and (vi) certifying the statistical tables produced.

The schedule for the release of the results of the 2005 Population Census is as follows:

- Preliminary counts of the population by sex and those of the households from the Summary Sheets: December 2005
- Results of the one percent sample tabulation: June 2006
- Final counts on the population, households, dwellings were released in October 2006.
- Statistics on employment status, distribution of persons engaged in economic activities by industry or by occupation and so forth will be released from now on.

The released data are disseminated not only by publication, but also through the Internet, and some are provided in conjunction with geographical maps using GIS.

2. Measures taken for and operation of the 2005 Population Census

(1) Measures taken for the 2005 Population Census

In conducting the 2005 Population Census, the following measures were taken to ensure public cooperation and hence the coverage of the Census.

a. Confidentiality of personal information

In the 2005 Population Census, taking into consideration the greater sensitivity to privacy of households, for the first time ever envelopes were distributed to every household to contain the filled-in questionnaire form(s) for submission to the enumerator. Moreover, at the allover enforcement of the Act on the Protection of Personal Information in April 2005, all possible efforts were made to guide persons engaged in the Census to secure the confidentiality of information on individuals. One such measure was improvement and distribution to the enumerators of the Personal Information Confidentiality Protection Manual, which details considerations for the protection of confidentiality.

b. Measures for areas where enumeration was feared to be difficult

In the 2000 Population Census, cases were reported in which enumerators were not able to gain access to households living in apartment buildings equipped with self-locking systems at the entrance, mostly in urban areas. To address this issue, efforts were made to amplify requests for cooperation in the Census to the caretakers of apartments and

to the organizations concerned, at both central and local levels.

c. Improved publicity

Especially, as it was likely that many members of the younger generation would be unaware of the Population Census, publicity aimed at younger people was intensified, by producing posters specially targeting them, and by using such new media as the Internet, cellular phones and street displays.

(2) Operation of the 2005 Population Census

Generally speaking, the 2005 Population Census was successfully conducted with no significant trouble, but the following problems were observed:

- a. An increase in cases where enumerators were not able to contact households because they were away from home.
- b. An increase in cases where households did not cooperate in completing the questionnaire.
- c. Some enumerators reported trouble with certain households.
- d. Reluctance to answer certain topics such as the Name of the Establishment for which One Works, Type of Work, Total Floor Space of Dwelling, etc. was noted.

Due to the above problems, the percentage of the households that “ended up being enumerated by hearing” from their neighbors more than doubled to 4.4% from 1.7% recorded in the 2000 Population Census.*

* When the enumerator is not able to contact the household and cannot collect the filled-in questionnaire form(s) because they were away from home, etc., he/she is instructed to enumerate the household by hearing, i.e. to get name and sex information concerning the household members from the neighbors. At the same time, such households enumerated by hearing are asked to send back the original form(s) by mail to the municipal office. Households that “ended up being enumerated by hearing” are those who fail to do so within a certain period of time.

The factors underlying these problems can be identified as follows:

- a. People’s consciousness of privacy is increasing year by year.
- b. Double harness households or single households who tend to be away from home are increasing.
- c. An increase in households that live in apartment buildings equipped with self-locking systems at the entrance
- d. It is becoming more difficult to interview households as they are cautious about endangering security.
- e. An increasing number of the younger generation do not understand the meaning of the Census. The meaning of Census topics and people’s obligation to comply with the Census are not well known and thus understanding of the intent of the Census and the methodologies of the Census do not penetrate.

- f. The communities which used to recommend their citizens as Census enumerators have weakened, resulting in difficulty recruiting enumerators.

Strategies for the 2010 Population Census

The above problems were reported in the 2005 Population Census, and the view expressed that drastic measures should be taken to solve them. Especially, the failure to enumerate households directly may affect the accuracy not only of the results of the Census, but also other related statistics, and therefore needs to be remedied. The Statistics Bureau of Japan set up a Council of academics and specialists on the Population Census of Japan in January 2006 to analyze the problems with the 2005 Census and their causes and to improve the enumeration methodologies etc., for the 2010 Census. The Council made the following Report in July 2006:

1. Basic characteristics of the Population Census

The Report reconfirms that the Population Census is a fundamental statistical enumeration to produce statistics on the population and households; i.e. that the results are used as basic information not only in various administrative tasks including the demarcation of electoral districts of the House of Representatives and the allocation of Local Allocation Tax, but also in research, education, business and so on; and that it provides statistical information shared by people as common property that forms the infrastructure of democracy. The Report then stated that the Population Census should be conducted as a complete and field enumeration.

(1) Complete enumeration

Recently, a few countries like France have developed what could be described as a rolling census, which enumerates people not all at once, but successively over a certain period of time. However, the United Nations Principles and Recommendations describe as basic features of the population census (a) individual enumeration, (b) universality within a defined territory, (c) simultaneity and (d) defined periodicity, and state that the population census needs to be conducted for all the people of the country universally and simultaneously.

Japan needs to have the Population Census conforming to these basic principles in order to secure international comparisons amidst socio-economic globalization.

The Report reaffirms that the Population Census needs to be conducted as a complete enumeration because its results are used for the following objectives:

- a. To produce the national sampling frame for sample surveys on persons and households, and benchmark figures for ratio estimation, allowing the conduct of sample surveys efficiently and effectively, and to produce consistent estimates; and
- b. To produce statistics for smaller areas than cities, towns and villages.

(2) Field enumeration

A few Northern European countries have developed a register-based population census, in which a register of residents made by integrating related administrative

databases plays a vital role. These countries have the following common features:

- a. Individual administrative records have been given common identification codes, and can be linked to each other.
- b. There exists a consensus among the public regarding the integration of individual items of administrative information.
- c. The population size is small.

The Report says that it may be feasible in Japan to obtain certain information from administrative information as the register of residents and other administrative databases are well organized, but that the Population Census should be conducted as a field enumeration because the administrative information as a whole cannot be a substitute for data obtained from the field enumeration of the Census for the following reasons:

- a. Administrative information is limited in content.
- b. The common identification codes essential to link different types of administrative information do not exist. Linking individual records by name etc. will not bring about good results.
- c. It is considered difficult under current circumstances to obtain a national consensus regarding the integration of items of individual information.

2. Issues to be improved in the 2010 Population Census

The Council proposed the improvements from A to H below after discussion taking into consideration the problems and the factors underlying them from the four basic perspectives:

- a. The Census should obtain people's understanding and cooperation.
- b. The Census enumeration should be conducted smoothly.
- c. The Census work should be efficient, and the quality of the enumerators upgraded as a whole.
- d. The results should be accurate and reliable.

(Modification of the distribution and collection of the questionnaire forms)

- A. The questionnaire forms should be distributed directly to households by the enumerators, in principle, unless it is very difficult to do so. In such exceptional cases, forms may be put into the mailbox, etc.

The practice that the enumerator visits the households one by one to distribute the questionnaire forms should be maintained for the following merits:

- a. When the enumerator distributes the questionnaire forms, he/she checks the occupancy of the dwellings and makes up a list of households residing in the enumeration district. This procedure allows omissions and duplications to be eliminated, and hence the enumeration to be conducted accurately.
- b. The visit and distribution by enumerator may provide households with more of an incentive to fill in and submit the questionnaire forms.

- B. The questionnaire forms should be collected by mail in principle. Submission of the forms by the Internet, to the enumerator, or to the municipal office may be permitted if the household wishes to do so. When the questionnaire forms are not submitted within a certain period of time, the enumerator should visit the households concerned to collect the questionnaire forms as a follow up survey.

The mail-back method has been chosen as the standard method so that the forms can be collected in such a way that the enumerator avoids seeing the households to the extent possible, because this eliminates privacy concerns and alleviates enumerators' workloads.

- C. Difficulties in census taking are anticipated in the following areas, for which intensive measures will be taken such as the appointment of experienced enumerators after grasping the particular conditions of those areas one year before the Census date when the enumeration districts are established:
- a. Areas where there are many apartment buildings equipped with self-locking systems at the entrance to which enumerator access tends to be restricted.
 - b. Areas where there are many one-room apartments or apartments with no caretaker, where it is difficult to know whether the rooms are really inhabited or not, or how they are used.
 - c. Areas home to large numbers of foreign-born people who have difficulties speaking Japanese.

(Thorough protection of confidentiality of personal information and obtaining public confidence in the enumerators)

- D. In order to obtain the confidence of the public in enumerators, penalty clauses need to be added to prevent people pretending to be Census enumerators with the intention of obtaining personal information.

(Recruitment of fewer but more qualified enumerators by improving the efficiency of their work)

- E. While the total number of enumerators will be reduced by reviewing the enumeration methodologies and improving the efficiency of the enumerators, more or better enumerators will be placed in areas where difficulties in census taking are anticipated.

Part of the approach to improving the efficiency of the enumerator's work will be to use administrative information as well as IT to draw up a preprinted List of Households and Detailed Map of the Enumeration District.

The communities which used to recommend their citizens as Census enumerators have weakened, especially in urban areas, and the enumerator's work has increased due to the worsening of the so called census and survey environment. These factors have resulted in difficulty in recruiting enumerators. At the same time, the associated increase in the number of Census enumerators may have lowered their quality as a whole, and caused various troubles with households. All this

necessitates a review of the enumeration methodologies, an improvement in the efficiency of the census enumerator's work, and hence a reduction in the total number of enumerators.

- F. The other approach may be to employ the dynamism and know-how of the private sector in the following fields:
 - a. Using private call centers to deal with inquiries, claims etc.
 - b. Entrusting building management companies with the enumeration work for such areas as apartment buildings equipped with self-locking systems at the entrance.

(Obtaining public understanding of and cooperation in census taking)

- G. It may be necessary to announce much more explicitly and intensively in publicity for the Census that people are obliged to complete the Population Census. Moreover, violations of this obligation such as disrupting census taking should be punished strictly according to well established criteria.

(Review of the topics to be investigated and methodologies by which questionnaires are to be completed)

- H. The topics investigated in the Population Census have been determined very carefully from such viewpoints as people's response burden, administrative demands, users' needs and international comparability, and must not be judged only from the viewpoint of household reluctance to respond to them. Therefore, topics such as "Name of the Establishment for which One Works", "Type of work" "Total area of floor space of dwelling" etc., to which households are likely to be reluctant to respond, should not be abolished, but maintained by developing better choices and methodologies for completion after analyzing the factors causing people's reluctance.

Efforts toward Realization of the Strategies

Realizing the strategies shown in Section will require examination by field observation and analysis by experts. At the same time, it will be essential to seek overall consensus not only among Census related personnel, but also among the public at large regarding the new methodologies to be developed. The Statistics Bureau of Japan will launch the following actions i) – iii) in order to develop better methodologies, and to consolidate organizational and legal affairs to support these methodologies.

i). Pilot surveys

Several pilot surveys will be conducted to examine the following issues in the field:

- a. Effectiveness of the new Census methodologies;
- b. Development of a system at central and local government level to deal with the new methodologies;
- c. Alleviation of the enumerator's workload; and
- d. Extent to which the review of Census topics and the development of new methodologies for completion of questionnaires may affect the results of the Census.

- ii). Discussion Group in charge of implementing new methods and drafting a plan for the next census

A Discussion Group consisting of experts will design the pilot surveys, analyze their results, and discuss planning of the 2010 census from an expert viewpoint in a concrete manner.

- iii). Consultation Body

In order to obtain public understanding of and cooperation in the Population Census, and to establish a system which will facilitate smooth and accurate census taking, it will be important to inform the public of the status of the review, and seek overall consensus not only among Census related personnel, but also among the public at large regarding the new methodologies.

In this context, a Consultation Body will be set up consisting of various strata of the community such as local governments, users, academic societies, consumer associations, the media, and apartment managers.

The time schedule for the major events for the 2010 Population Census is as follows:

In fiscal 2006	Setting up of Discussion group in charge of implementing new methods and drafting a plan for the next census and the Consultation Body
July 2007	
– October 2009	Three Pilot Surveys
October 2010	Population Census