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#### GOOD PRACTICES AND TAXONOMY

**Population Census and the Basic Resident Registers** - Effective use of register-based data for the Population Census -

Note by Statistics Bureau of Japan\*

#### I. INTRODUCTION

- The Statistics Bureau of Japan has no plan to introduce a register-based census. In Japan, however, the Basic Resident Registers (BRRs), which are maintained at municipal offices (cities, towns or villages) and are used as the bases for various administrative services, can be utilized for improving the quality of the Population Census.
- 2. This paper explains the outline and characteristics of the registers on population that Japanese civil authorities are maintaining. Then the quality of the BRRs, which seem most useful among the registers on population, is illustrated. Based on the information on the quality, this paper discusses how the BRRs and other register-based data are effectively used for the Population Census.

#### II. REGISTERS ON POPULATION

There are two kinds of registrations for Japanese citizens in Japan – the Family Register and the Basic Resident Registers. Besides these we have the Alien Registration for Foreigners. This section explains the characteristics and possibility to use them for statistical purposes.

#### A. The Family Register

- 4. The Family Register (*Koseki*) originated in the 7th century. They were created and updated every 6 years for the purpose of authenticating people's position in society, allocation of rice fields, tax collection, and so on. The Family Register, however, was terminated in the 11th century up to 1872, when the modern register based on residential address was produced.
- 5. In 1947, the present Family Register was created under the Family Registration Act for the purpose of recording and authenticating each person's status among his/her kin. The Family Register is maintained at each municipal office. In addition to the place of registration, the following items are registered for each person in the Family Register.

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- (b) Date of birth
- (c) Reason of registration and the date
- (d) Names of birth parents and relationship to the birth parents
- (e) Names of parents by adoption and relationship to the parents by adoption (for adopted child only)
- (f) Husband or wife (for a couple only)
- (g) For the person entered from other register record; information on the record
- (h) Other items set up by ministerial ordinance of Ministry of Justice
- 6. There are two characteristics in the Family Register. The first one is the unit for registration. In the Family Register, a couple and its unmarried child(ren), if any, whose family name is the same as the couple, are registered as a family unit. So, even if a couple is living together with their parents, each couple is registered as separate records.
- 7. The second one is the address of registration, which is called "*Honseki-chi*", or permanent domicile. It is, however, left to people's discretion where to register for the Family Register. Most people usually register at their birthplace or the place where they presently live. Furthermore it is possible to register at any place, e.g. where some celebrities live. In other words, the information from the Family Register does not reflect the actual condition of residency.
- 8. Taking this situation into account, it is not appropriate to use the Family Resister for compiling current demographic statistics, especially for the Population Census.

# **B.** The Basic Resident Registers

- 9. The Basic Resident Registers (BRRs), which are based on the Act on the BRRs, are maintained at all municipal offices in Japan. The purposes of the BRRs are as follows.
  - (a) To be used as the basis for various administrative services such as notarization of residency and electoral register
  - (b) To simplify the notification on residence
  - (c) To appropriately manage the record on residents
- 10. The Act on the BRRs stipulates that every resident in Japan should be registered at the municipal office where he/she lives. Foreigners, however, are not registered in the BRRs at this moment but are registered in the Alien Registration which will be explained later. In accordance with the amendment of the Act on the BRRs in 2009, the registration for foreigners in the BRRs will commence in about two years, the date of which will be decided in due course.
- 11. The Article 7 of the Act stipulates that the following items shall be registered:
  - (a) Name
  - (b) Date of birth
  - (c) Sex
  - (d) Relationship to the head of the household
  - (e) Information on the Family Register
  - (f) Date of residency
  - (g) Registration for electoral register
  - (h) Other items for administrative purposes such as the qualification for health insurance.
- 12. When a resident moves from one municipality to another, he/she should notify his/her change of address to both of the municipalities concerned within 14 days. The municipalities are to register the changes that are notified.

13. However, some residents who have changed their address do not always notify this to the municipal offices. As a result, when we produce statistics based on the BRRs, they do not necessarily reflect the actual population distribution of Japan. In this context the quality of the BRRs in terms of the usefulness for producing population statistics will be discussed in the section III.

#### C. The Alien Registration

- 14. The Alien Registration is maintained at each municipal office under the Alien Registration Act. The purpose of this Act is to establish fair control over aliens residing in Japan by clarifying matters pertaining to their residence and status, and through the enforcement of the registration of such aliens.
- 15. The Alien Registration Act stipulates that all aliens in Japan shall apply for registration with the mayor or head of the municipality in which his/her residence is located within 90 days of the day of landing in cases where the alien has entered Japan or within 60 days of the day of his/her becoming an alien or the day of his/her birth.
- 16. The items registered in the Alien Registration are as follows.
  - (a) Registration Number
  - (b) Date of the registration
  - (c) Name in full
  - (d) Date of birth
  - (e) Sex
  - (f) Nationality
  - (g) Domicile or residence in the country of his/her nationality
  - (h) Place of birth
  - (i) Occupation
  - (j) Passport number
  - (k) Date of issuance of the passport
  - (l) Date of landing permission
  - (m) Status of residence
  - (n) Period of stay
  - (o) Address in Japan
  - (p) Name of the head of the household
  - (q) Relationship to the head of the household
  - (r) Name, date of birth, nationality and relationship to the head of the household of the household members (except the head of the household concerned) in cases where the alien concerned is the head of the household
  - (s) Name, date of birth and nationality of the father, mother and spouse if they are in Japan (except the father, mother and spouse who are members of the household in cases where the alien concerned is the head of the household)
  - (t) Name and location of the place where the alien is employed or his/her office
- 17. When an alien has changed his/her place of residence, under Article 8 of the Alien Registration Act, he/she should apply for registration of change in the place of residence by submitting a written application for registration to the mayor or the head of the municipality in which his/her new residence is located within 14 days of the day of moving to the new place of residence.
- 18. Some foreigners, however, fail to notify the change of their residence when they move to another municipality. In addition, when a foreigner leaves Japan temporarily with written

permission of re-entry to Japan, his/her registration in the Alien Registration remains. These cause a difference between the record in the Alien Registration and the actual residency of foreigners. In fact, the number of foreigners based on the Alien Registration tends to exceed that based on the Population Census in terms of total population of foreigners in Japan.

- 19. Based on the above situation, it is difficult to use the number of persons in the Alien Registration as statistics on foreigners' population.
- 20. In the future, the system of registration of foreigners will be revised and registration of foreigners will be integrated into the system of the BRRs in about two years as mentioned above.

# III. QUALITY OF THE BASIC RESIDENT REGISTERS

- 21. In this section, we compare the population based on the 2005 Population Census and that based on the BRRs. This clarifies the characteristics and the quality of the BRRs in terms of using them for population statistics. As only Japanese citizens are registered in the BRRs at the moment, the comparison here is done on the Japanese population.
- 22. The population based on the BRRs has been released as of 31 March every year. So as to compare the population with that of the Population Census more precisely, the population based on the BRRs is adjusted to the population as of 1 October by taking simple averages of the population figures as of 31 March of the census year and those one year after.

# A. Total Population

- 23. As of 1 October 2005, the total Japanese population based on the Population Census is 126,212,489, and the population based on the BRRs is 126,962,211. The latter is 749,722 persons (0.59%) more than the former. One of the reasons for the difference is that some people go to live abroad for certain period, e.g. for half a year, without notifying it to the municipal office. (In such a case, their registration in the BRR remains.)
- 24. Table 1 shows the historical comparison of the Japanese population between the Population Census and the BRRs.

**Table 1 Japanese Population based on the Population Census and the BRRs** (as of 1 October each year)

Year	Basic Resident Registers (a)	Population Census (b)	Difference (c)=(a) – (b)	Rate of Difference (c) / (b)*100 (%)
1960	95,517,672	92,841,425	2,676,247	2.88
1965	100,019,889	98,612,693	1,407,196	1.43
1970	104,030,796	103,119,447	911,349	0.88
1975	111,546,985	111,297,712	249,273	0.22
1980	116,601,950	116,391,721	210,229	0.18
1985	120,364,177	120,328,830	35,347	0.03
1990	122,950,815	122,724,770	226,045	0.18
1995	124,784,936	124,429,920	355,016	0.29
2000	126,178,055	125,615,298	562,757	0.45
2005	126,962,211	126,212,489	749,722	0.59

25. The difference between the population based on the Population Census and that based on the BRRs had decreased until 1985 when the population based on the BRRs is only 0.03% more than that based on the Population Census. Since 1985 the difference has been increasing but the rates of difference still remain at a relatively low level.

# **B.** Regional Population

- 26. The figures of the regional population obtained from the BRRs and the Population Census show much wider gaps than the case of the total population. As mentioned above, some residents who have changed address do not always notify the municipal offices. This causes the difference between the population based on the BRRs and the actual population obtained by the Population Census.
- 27. To give a typical example, some students who change their address when they enter universities may not notify their change of address to municipal offices, and after graduation they do notify the changes when they get a job in other municipalities. This kind of cases often occurs in areas such as Kyoto-fu (Kyoto prefecture), where many universities are located. As a result, in Kyoto the number of population aged 20 to 24 in BRRs is 13 percent less than that in the 2005 Population Census. On the other hand, in Wakayama-ken (Wakayama prefecture), which is located near Kyoto and has fewer universities than Kyoto, the number of population aged 20 to 24 in BRRs is 22 percent more than that in the 2005 Population Census.
- 28. Table 2-1 and 2-2 show the difference between the number of population based on the 2005 Population Census and that of the BRRs for selected prefectures and ages that have large differences in rates.

Table 2-1 Difference between the Population Census and the BRRs – prefectures whose population based on the Population Census exceed that based on the BRRs

(as of 1 October 2005)

	Age	Kyoto-fu	Tokyo-to	Aichi- ken	Miyagi- ken	Kanagawa- ken
Population	Total	2,565,795	12,220,812	7,084,674	2,346,270	8,668,702
by the	15 - 19	127,551	517,664	364,060	129,993	404,397
BRRs (a)	20 - 24	158,569	792,934	424,050	151,429	519,468
Population	Total	2,601,616	12,328,238	7,104,589	2,348,367	8,676,185
by the	15 - 19	141,584	554,011	371,207	136,775	420,301
Census (b)	20 - 24	181,823	832,740	425,292	152,491	540,965
Difference	Total	-35,821	-107,427	-19,916	-2,098	-7,483
(c) = (a)-(b)	15 - 19	-14,033	-36,347	-7,148	-6,782	-15,904
	20 - 24	-23,255	-39,806	-1,243	-1,063	-21,498
Difference	Total	-1.38	-0.87	-0.28	-0.09	-0.09
(c)/(b)*100	15 - 19	-9.91	-6.56	-1.93	-4.96	-3.78
(%)	20 - 24	-12.79	-4.78	-0.29	-0.70	-3.97

Table 2-2 Difference between the Population Census and the BRRs – prefectures whose population based on the BRRs exceed that based on the Population Census

(as of 1 October 2005)

	Age	Wakayama-	Aomori-	Kagawa-	Miyazaki-	Ehime-
		ken	ken	ken	ken	ken
Population	Total	1,064,337	1,464,376	1,026,747	1,172,671	1,488,889
by the	15 - 19	57,614	77,817	52,253	65,914	78,512
BRRs (a)	20 - 24	56,725	76,609	54,079	61,983	77,167
Population	Total	1,030,948	1,432,727	1,006,392	1,149,820	1,461,042
by the	15 - 19	53,168	75,806	49,603	62,498	73,432
Census (b)	20 - 24	46,544	70,860	46,193	54,891	67,592
Difference	Total	33,389	31,649	20,355	22,851	27,847
(c)=(a)-(b)	15 - 19	4,446	2,011	2,650	3,416	5,080
	20 - 24	10,181	5,749	7,886	7,092	9,575
Difference	Total	3.24	2.21	2.02	1.99	1.91
(c)/(b)*100	15 - 19	8.36	2.65	5.34	5.47	6.92
(%)	20 - 24	21.87	8.11	17.07	12.92	14.17

- 29. All of the prefectures shown in table 2-1 belong to metropolitan areas, while the prefectures in table 2-2 have depopulated areas. This seems to prove that younger people, especially the people aged 20 to 24, tend to move to metropolitan areas without changing registration to the BRRs.
- 30. Based on the above situation, it is appropriate to conclude that the BRRs cannot entirely take over the role of the Population Census.

# IV. USE OF THE BASIC RESIDENT REGISTERS FOR THE POPULATION CENSUS

- 31. As mentioned above, it is difficult to use the BRRs as substitutes for the Population Census. The information in the BRRs, however, can be useful for complementing missing entries such as age, sex, etc. in the questionnaires of the Population Census when the filled out questionnaires contain only the information on names and locations because of the absence of the households.
- 32. This section explains how the Statistics Bureau of Japan has come to plan to use the information based on the BRRs to complement the 2010 Population Census scheduled in October 2010.

# A. Experiences in the 2005 Population Census

- 33. In the 2005 Population Census, the incomplete questionnaires submitted increased in number due to the deterioration of the survey environment. For example, it became more difficult for enumerators to contact households because the number of households whose members were away from home most of the time increased. This resulted in an increase of the number of questionnaires finally filled out by enumerators with only a limited number of survey items such as name, sex and the number of household members, which were obtained from the neighbors of the absent households.
- 34. In addition, the increasing recognition of privacy encouraged reluctance to answer certain questions such as the name of the establishment for which one worked, type of work, total floor space of dwelling, etc.
- 35. These situations occurred across Japan, but the degree of deterioration was remarkable in urban

areas such as Tokyo-to and Osaka-fu.

# B. Strategy for the 2010 Population Census

- 36. To cope with the issues mentioned above, the Statistics Bureau of Japan decided to adopt the following measures for the 2010 Population Census.
  - (a) The filled-out questionnaires are to be submitted in a sealed envelope. (Until the 2005 Population Census, the decision as to whether to use envelops for submitting the questionnaires was left to the discretion of the respondents.)
  - (b) The questionnaires are to be submitted from the households by mail to the municipal offices, in person to the enumerators, or through the Internet (Internet option is available only in Tokyo-to). The respondent can choose the way of submission.
- 37. By taking these measures, it becomes impossible for enumerators to check missing or improper entries to questionnaires, which used to be done in the former population censuses. So it is very important to check the entries to questionnaires at municipal offices more precisely for producing accurate statistics. In light of the present condition of the survey environment as mentioned before, it has become necessary to utilize the information based on the administrative data such as the BRRs, which are maintained at municipal offices, for supplementing the missing entries of the Population Census questionnaires.

#### C. Use of the Basic Resident Registers for the 2010 Population Census

- 38. Among the administrative registers on population mentioned in the section II, the BRRs are most useful for obtaining basic information on residents to complement the Population Census questionnaires.
- 39. The legal basis for using the BRRs for the Population Census is Article 1 of the Act on the BRRs, which stipulates that the BRRs are the bases for administrative procedures for residents. The stipulation allows municipal officials to utilize the BRRs for the Population Census. But they are to use the information in the BRRs only when actual residency is confirmed by the Population Census questionnaires.
- 40. The items in the BRRs that can be used for complementing the missing entries in the Population Census questionnaires are limited only to the basic items of a person such as sex, date of birth, relationship to the head of the household, etc. However, they are also the basic items for the Population Census and using the information in the BRRs is expected to improve the quality of the questionnaires to a respectable degree.

# D. Possibilities of using other register-based data for the 2010 Population Census

- 41. Although the BRRs are considered to be the most useful for the Population Census, the Statistics Bureau of Japan does not intend to exclude the possibilities of using other register-based data such as the Alien Registration.
- 42. If the head of a municipality considers it useful, for example, to use the Alien Register that the municipality maintains, he/she may be able to use it to complement the missing entries of the Population Census questionnaire. In this case, however, the Alien Register should be used with extreme care because of the quality of the register as mentioned in the section II.

#### V. CONCLUSION

- 43. There are a few number of register-based data on the population in Japan the Family Register, the BRRs, and the Alien Registration. As these registers are created and maintained for their primary purposes, the information recorded in the registers does not necessarily reflect the actual situation of the distribution of population and households. So, population statistics compiled from them will not have high reliability in geographic distribution.
- 44. On the other hand, the environment for field enumeration of the Population Census is deteriorating recently in Japan. This has been caused by various reasons such as the increasing number of households whose members are absent most of the time, the people's increasing awareness of privacy protection, etc. As a result the quality of the Population Census questionnaires submitted has been deteriorating especially in the urban areas.
- 45. To cope with these issues, the Statistics Bureau of Japan decided to use the data of administrative registers to complement the missing entries in the questionnaires of the 2010 Population Census. Among the registers on population, the BRRs are most useful for complementing the Population Census questionnaires. They should, however, be used with the greatest care so that the results of the Population Census precisely reflect the demographical, social and economical situation of Japan.
- 46. Although the Statistics Bureau of Japan has decided to use the data of administrative registers to complement the 2010 Population Census, this does not mean that we intend to introduce a register-based census in future as mentioned in the section I.

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