

## **Consultation Paper**

### **Plan for the 2006 Population By-census**

#### **Purpose**

This paper provides an overview and seeks comments on the various aspects of planning work being undertaken for the 2006 Population By-census (06BC).

#### **Background**

2. It is an established practice in Hong Kong to conduct a population census every ten years and a by-census in the middle of the intercensal period. Population censuses were conducted in 1961, 1971, 1981, 1991 and 2001 and population by-censuses in 1966, 1976, 1986 and 1996. Following this practice, the next population by-census will be conducted in 2006.

3. The aim of conducting population censuses/by-censuses is to obtain up-to-date benchmark information on the socio-economic characteristics of the population and on its geographical distribution. They provide benchmark data for studying the direction and trend of population changes. The data are key inputs for making projections concerning population, household, labour force and employment. Population censuses/by-censuses differ from other general household sample surveys in their sizable scale which enable them to provide statistics of high precision, even for population sub-groups and small geographical areas. Such information is vital to the Government for planning and policy formulation and important to the private sector for business and research purposes.

4. For both the 1961 and 1971 Population Censuses, all persons in the population were counted and enquired of their socio-economic characteristics. In the 1981, 1991 and 2001 Population Censuses, there was a complete headcount of all persons by age and sex whilst the detailed characteristics of households and persons were collected from a large sample. Through the use of appropriate computation methods, statistics on the size and characteristics of the population can be compiled by combining the data from the simple enumeration and the detailed enquiry.

5. A by-census differs from a census in not having a complete headcount of the population but simply focusing enquiry on the detailed characteristics of a large sample of the population. The size and characteristics of the entire population are inferred from the sample results in accordance with appropriate statistical theory.

### **Consultation**

6. Planning for the 06BC is underway. Consultation on various aspects of the 06BC started in 2003. The objective of carrying out the consultation is to collect, from both within and outside the Government, comments and suggestions that will enable the 06BC to be designed and conducted in an efficient and cost-effective manner. Consultation is a continuous process. So far, views from policy bureaux, government departments, prominent organisations, relevant faculties/departments in academic institutions and District Council Members have been sought.

7. Feedback from various parties will be studied in detail. Whether the views or suggestions will eventually be incorporated into the 06BC will depend on their extent of usefulness, their practicality, and the constraint of resource availability.

### **Sampling**

8. As in the past by-censuses, the 06BC will be conducted on a sample basis. The sampling fraction adopted was 1% in the 1966 Population By-census, 1/10 in the 1976 Population By-census and 1/7 in both the 1986 and 1996 Population By-censuses. In view of the Government's current financial situation, trimming down the resource requirements of the 06BC is considered necessary. Among various measures to be implemented is a reduction of the sampling fraction. A detailed study has been conducted on the implications. The results indicated that the precision of the survey findings will be lowered by the proposed reduction in the sampling fraction to 1/10 but will still be acceptable. Yet if the sampling fraction is reduced further to below 1/10, the precision of the estimates of some essential data items, especially those at more detailed levels, would become statistically undesirable. It is thus planned to reduce the sampling fraction from 1/7 in the 1996 Population By-census to 1/10 in the 06BC.

## **Mode of Data Collection**

9. In all the past by-censuses, data were collected by the “interviewer” method. Enumerators visited the sampled households and directed questions to each and every person in such households to complete the questionnaires.

10. While the “interviewer” method will continue to be adopted, the feasibility of collecting the 06BC data through the Internet is being explored. It is expected that only a very limited proportion of households will use the Internet and the majority will still be enumerated by personal interviews. This is associated with a number of factors including the complexity of by-census questionnaires which makes it difficult for the respondents to complete by themselves. The experiences gained by some major overseas economies indicate that up till now, the Internet mode is still a very minor means of data collection even if available.

11. Preliminary findings of a study on collecting data for the 06BC through the Internet have revealed that the estimated cost for developing and implementing a web-based data collection application is high, at \$7 million. Assuming that the proportion of households completing the questionnaires through Internet in Hong Kong reaches 5%, the average cost for enumerating a household through the Internet would be around \$440, or some four times that under the conventional “interviewer” method. As such, it does not seem to be cost-effective to collect the 06BC data via the Internet. We shall conduct further study on other electronic means such as e-form and Spreadsheet e-questionnaire.

## **Data Collection Period**

12. Since the 1981 Population Census, data collection was conducted in a 9 to 13-day period in March of the respective census/by-census years. A number of factors should be considered in deciding the data collection period of the 06BC. Significant ones are highlighted below:

*Manpower resources availability* – Considering that a large number of enumerators will be required to conduct the personal interviews, it is important to have the data collection period for the by-census scheduled at a time with secure manpower supply.

*School holidays* – The data collection work of the 06BC will require several thousand temporary field workers (comprising mainly teachers of primary and secondary schools and students of tertiary institutions) and some school premises as field centres. There were special school holidays in the 1981, 1991, 1996 and 2001 Population Censuses/By-censuses in March to facilitate the participation of teachers and students in the censuses/by-censuses and to make available schools as field centres. In the past, there was some concern about the disruption caused to the normal school calendar, even though the number of holidays in the whole school year remained unchanged. If the data collection period for 06BC is switched to the latter half of July or August 2006 which falls in the summer vacation, it will not be necessary to arrange special school holidays.

*Weather condition* – Good weather facilitates the conduct of household visits. High temperature and possibility of typhoons in July and August may affect the by-census data collection work.

*Project cost* – More household visits and more interviews can be made by each enumerator in a longer data collection period; in other words, fewer field teams and fewer field management staff are required. The amount of work relating to recruitment and training of temporary field staff will also be reduced, thus leading to saving of resources. Moreover, there is greater flexibility in lengthening the data collection period in July and August, because specially arranged school holidays are not required.

13. After careful consideration of the various factors, it is proposed to conduct the 06BC data collection work in an 18-day period from 15 July to 1 August 2006, instead of in the usual 9 to 13-day period within March as in the past censuses/by-censuses.

### **Data Topics**

14. The census/by-census data topics have to be reviewed before the conduct of each census/by-census to ensure that they remain relevant and meet users' needs. Consultation with users is an integral part in determining the by-census data topics.

15. The consultation has started last year. A total of 139 policy bureaux, government departments, prominent organisations and relevant faculties/departments in academic institutions were invited to provide views on data topics as were used in the 2001 Population Census (01C). In particular, the respondents were asked to rate each topic as “Essential”, “Desirable” or “Topics not Required” to serve as reference for determining the 06BC topics. Almost all topics in the 01C were rated by the respondents as “Essential” or “Desirable”.

16. Same as for the past censuses/by-censuses, the following factors are considered in deciding the topics for the 06BC:

- (i) *Usefulness of data* – The data should be extensively used by the Government, researchers and the public. Hence topics which are designed to cater for a very special purpose will not be included;
- (ii) *Willingness and ability of the respondents to answer* – The topics should be such that the respondents will be willing and able to provide adequate information. Questions which are likely to arouse fear or prejudice, which may be regarded as intrusion into privacy, and which are generally too difficult for the respondents to answer accurately, should be avoided;
- (iii) *Ability of the enumerators to comprehend* – The topics should be those that the enumerators can in general easily comprehend without having undergone prolonged specialised training;
- (iv) *Existence of other data source/data collection channel* – The strength of a population census/by-census lies in producing reliable statistics for small geographical areas or population sub-groups. Topics for which the data can be obtained equally well or better from other sources/by other means will not be included;
- (v) *Processing efforts* – For cost-effectiveness and timeliness of results, information provided on the topics must be amenable to data processing by simple and economical procedures. Topics which call for laborious coding and editing are not favoured;

- (vi) *Comparability of data with previous censuses/by-censuses* – Previous topics should be maintained as far as possible for studying the direction and magnitude of changes;
- (vii) *Keeping the interviewing time within reasonable length* – A population census/by-census cannot ask too many questions or questions that require detailed probing. Only relatively simple, straight-forward and fact-finding questions should be included; and
- (viii) *Recommendations of the United Nations and international practices* – The recommendations of the United Nations should be followed as far as possible.

17. At this stage, having consolidated the opinions received so far and the suggestions assessed against the criteria mentioned in paragraph 16 above, a total of 41 topics, same as those for the 01C, are proposed for the 06BC. A currently intended list of 06BC data topics is at **Annex**.

### **Advice Sought**

18. Members are invited to comment on the various aspects of planning work for the 06BC.

Census and Statistics Department  
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## Proposed data topics for the 2006 Population By-census

### *Demographic and social characteristics*

- Year and month of birth
- Sex
- Marital status
- Usual language
- Ability to speak other languages/dialects
- Nationality
- Ethnicity
- Place of birth

### *Educational characteristics*

- School attendance
- Educational attainment
  - highest level attained
  - highest level completed
- Field of education
- Place of study
- Mode of transport to place of study

### *Internal migration characteristics*

- Whereabouts at census moment
- Duration of residence in Hong Kong
- Place of residence 5 years ago

### *Economic characteristics*

- Economic activity status
- Industry
- Occupation
- Whether having secondary employment
- Earnings from main employment
- Earnings from other employment
- Other cash income
- Place of work
- Mode of transport to place of work

### *Housing characteristics*

- Type of quarters
- Type of accommodation
- Occupancy of quarters
- Number of rooms in the residence (including living / dining rooms, bedrooms, other rooms, kitchens, bathrooms / toilets)
- Number of households in quarters (derived)
- Number of occupants in quarters (derived)
- Tenure of accommodation
- Rent (including rates, government rent and management fees)
- Mortgage payment or loan repayment

### *Household characteristics*

- Type of household
- Relationship to head of household
- Whether a member of the household
- Household size (derived)
- Household composition (derived)
- Household income (derived)