

**For discussion on
5 January 2009**

LEGISLATIVE COUNCIL PANEL ON FINANCIAL AFFAIRS

Plan for the 2011 Population Census

Purpose

This paper provides an overview of and seeks Members' views and comments on the planned approach for conducting the 2011 Population Census (11C).

Background

2. Population censuses were conducted in Hong Kong in 10-year intervals in 1961, 1971, 1981, 1991 and 2001 and population by-censuses were conducted in the middle of the intercensal period in 1966, 1976, 1986, 1996 and 2006. The next population census will be conducted in 2011.

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 makes it feasible to provide statistics of high precision, even for population sub-groups and small geographical areas. Such information is vital to Government for planning and policy formulation and important to the private sector and academia for business and research purposes.

Consultation

4. Planning for the 11C is underway. Consultation on various aspects of the 11C started in mid-2008 with a view to ensuring that the 11C will be designed and conducted in an efficient and cost-effective manner. It is an on-going process involving District Councils, relevant faculties/departments in academic institutions, prominent organisations and relevant government

bureaux and departments. Feedback from the various parties is being studied in detail. We will take into account the views received in planning the 11C having regard to their feasibility, impact on the efficiency and cost-effectiveness of conducting the population census, and relevant resource constraints.

5. We set out below the approach we plan to adopt for conducting 11C. Members' views are welcome.

Planned Approach for conducting the 2011 Population Census

Sampling Scheme

6. All population censuses conducted since 1981 comprised a complete enumeration of all persons on their basic characteristics such as age and sex and a large sample on the detailed characteristics of households and persons. The 11C will adopt the same approach. 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 detailed enquiry.

7. Following international practices, there will be two types of questionnaires: the 'short form' for the simple enumeration and the 'long form' for the detailed sample enquiry in 11C. According to the experience of conducting the 2006 Population By-census which was a sample enquiry on detailed characteristics of the population, a sampling fraction of one-tenth of the population could provide the required precision for statistical inference. Accordingly, the sampling fraction for the detailed sample enquiry for 11C is preliminarily set to be one-tenth of the population.

Means of Data Collection Approach

8. In the past population censuses, data were collected basically by face-to-face interviews, where enumerators visited all households to interview persons therein one by one. Following the advancement of technology and changing lifestyle of the Hong Kong people, and to be in line with the latest recommendation of the United Nations, we will make available new and additional means for data collection from the households in the 11C through delivery of questionnaire by post and via the internet for self-enumeration. This proposed arrangement is backed by positive experiences of other countries/territories which indicate that the "self enumeration" approach is becoming one of the most important means of data collection in population censuses.

Data Collection Period

9. 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. The Population Censuses and by-censuses were conducted in March of the relevant year when the census/by-census period, which normally lasted 9 to 13 days, were declared school holidays. For the first time since 1981, the 2006 Population By-census was extended to an 18-day period and conducted during school summer holidays from 15 July to 1 August 2006.

10. For the 11C, the following key factors should be considered in deciding the data collection period:

- (a) *Mode of data collection* – Whilst the introduction of the multi-modal data collection approach as mentioned in paragraph 8 above will be more cost-efficient, it is expected that it will take time for households in general to accept and adopt such means and hence we still need to plan for sufficient manpower supply to conduct face-to-face interviews with a large number of households. For cases requiring face-to-face interviews, enumerators will visit the quarters and provide assistance to complete the questionnaires during the field operation period.
- (b) *School holidays* – The data collection work of the 11C will require many temporary field workers (mostly teachers and students as in the past censuses/by-censuses) and some school premises as field centres. In the past, there were some concerns from different sectors on the declaration of school holidays in March to facilitate the population censuses/by-censuses because of disruption to the normal school calendars. In this regard, we have adopted a new approach in the 2006 Population By-census by conducting the data collection work in the school summer holidays in July-August and achieved very satisfactory results. This has avoided disruption to school calendar and we were able to secure a large number of enumerators during the summer period.
- (c) *Weather condition* – The experience of the population by-census in 2006 indicates that high temperature and possibility of typhoons in the summer months may affect the census data collection work. For the 11C, a longer data collection period would help provide a reasonable time buffer to ensure completion of the census operation even in bad weather in the summer period.

(d) *Cost effectiveness* – The number of households in Hong Kong has increased continuously over the years. It is projected that the number of households will increase by 15% between 2001 and 2011. The introduction of the multi-modal data collection approach as mentioned in paragraph 8 above is, among others, an initiative to re-engineer the census operation for productivity gain. Under this approach, new systems for handling postal returns and supporting self-enumeration on the Internet will be developed. A reasonably long operation period will provide respondents with extra options and convenience through the optimal use of the new systems.

11. The adoption of a longer data collection period coupled with the new multi-modal data collection approach will increase the chance of contacting the households successfully during the holiday season in the summer. We plan to promote postal return and self-enumeration on the Internet in the first part of census period, whereas the more costly interviewer method will be arranged at the latter part of the census period for the remaining households. This staggered arrangement over a longer data collection period is considered more flexible and cost-effective.

12. After due consideration of the various key factors, it is preliminarily proposed to conduct the 11C data collection in a 45-day period, tentatively set from 19 June (Sunday) to 2 August 2011 (Tuesday). Exact dates will be decided upon finalisation of the census plan.

Data Topics

13. The census/by-census data topics are reviewed before the conduct of each census/by-census to ensure that they remain relevant and meet users' needs. We have conducted user consultation for 11C which started in May 2008. More than 160 organisations were invited to provide views on the usefulness of the 2006 Population By-census (06BC) data topics. The respondents were asked to rate each topic as "Essential", "Desirable" or "Topics not Required" to serve as reference for determining the 11C topics. Almost all topics in the 06BC were rated by the respondents as "Essential" or "Desirable".

14. Same as the past censuses/by-censuses, the following factors are considered in deciding the topics for the 11C:

(a) *Usefulness of data* – The data should be extensively used by Government, researchers and the public. Hence topics which are for a very special purpose but may not be extensively used will not

be included in the large-scale population census;

- (b) *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, prejudice, or unwarranted concern as intrusion into privacy, and those which are generally too difficult for the respondents to answer accurately should be avoided;
- (c) *Ability of the enumerators to understand* – The topics should be such that the average enumerators can easily comprehend both the questions and the answers without having to undergo prolonged specialised training;
- (d) *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. These statistics generally cannot be tapped from other sources. To ensure efficient use of resources for such large-scale population census, topics for which the data can be obtained equally well or better from other sources/by other means will not be included in the 11C;
- (e) *Processing efforts* – For cost efficiency and timeliness of results, answer to the questions must be amenable to data processing by simple and cost affordable procedures. Topics which call for laborious coding and editing are not favoured;
- (f) *Comparability of data with previous censuses/by-censuses* – We will maintain previous topics as far as possible in order to study the direction and progress of changes;
- (g) *Keeping the interviewing time within reasonable length* – A population census/by-census cannot cover too many questions or questions that require detailed probing. Only relatively simple, straight-forward and fact-finding questions should be included; and
- (h) *Recommendations of the United Nations and international practices* – The recommendations of the United Nations and international standards should be followed as far as possible. For instance, data topics on geographical and internal migration characteristics (e.g. place of usual residence, duration of residence);

demographic characteristics (e.g. age, sex, marital status); educational characteristics (e.g. educational attainment); and economic characteristics (e.g. occupation, industry) are recommended as census topics.

15. A number of topics were proposed by the respondents in the consultation. Amongst the proposed topics, some are already available in other survey vehicles (e.g. hours of work, spending on major activities), some can be extracted from administrative records (e.g. age of building), while some are conceptually complicated and/or sensitive (e.g. value of assets, cohabitation) in which census is not the appropriate avenue for collecting such information. The topic on “disability” has also been raised by some respondents. Currently a dedicated survey¹ on “disability” conducted via General Household Survey is already in place. In view of this, we will take into account factors such as stakeholders’ interests, the sensitivity nature of the questions concerned and possible impact on overall response rate etc. in considering the feasibility and desirability of including a few questions on disabilities in the 11C.

16. At this stage, having consolidated the views received so far and taking into account the factors mentioned in paragraph 14 above, a total of 41 data topics are proposed for the 11C. The recommended list of data topics (at Annex) is basically the same as that of the 2006 Population By-census, but with suitable refinements to classification. Further desktop research and question development will be carried out with a view to extending the data coverage and enhancing data quality.

Computer Systems and Services

17. The 11C is a large scale and complex project demanding heavy support of computer systems to ensure the smooth and effective operation of the census. To tie in with the planning for 11C, we have started a feasibility study for the supporting computer systems and web applications in June 2008 which will be completed by early 2009. Interim study results indicate that to support the 11C operation, some systems have to be newly developed and some of the existing systems (covering 12 computer sub-systems and four web applications of the 2006 Population By-census) would require major enhancements or even overhaul. They include design and development of

¹ This is a territory-wide survey on persons with disabilities and chronic diseases. The latest round was conducted during November 2006 to December 2007 to estimate the total number and prevalence rate of persons with selected types of disability and chronic diseases. It also collected information on the basic profiles of persons with disabilities and chronic diseases as well as information about the carers of those persons.

computer systems in areas such as: supporting integrated multi-modal data collection approach; providing a one-stop approach for respondents to complete the e-questionnaires; deploying more information technology solutions for handling enquiries, fieldwork monitoring; and quality control.

18. It is preliminarily estimated that the computer equipment and services for the 11C project will incur a non-recurrent cost of some \$87 million over a five-year period from 2009-10 to 2013-14. The estimated cost covers development of computer systems to support pre-census preparation work, census operation (e.g. electronic reporting) and post-census activities (e.g. data processing, statistical analysis and data dissemination). Our plan is to seek funding approval from the Legislative Council Finance Committee in around mid-2009.

Advice Sought

19. Members are invited to note the content of this paper and their views and comments on the planned approach for conducting 11C are welcome.

Census and Statistics Department
December 2008

Proposed data topics⁽¹⁾ for the 2011 Population Census

Demographic and social characteristics

1. Year and month of birth
2. Sex
3. Marital status
4. Usual language
5. Ability to speak other languages/dialects
6. Nationality
7. Ethnicity
8. Place of birth

Educational characteristics

9. School attendance
10. Educational attainment (highest level attended)
11. Educational attainment (highest level completed)
12. Field of education
13. Place of study⁽²⁾
14. Mode of transport to place of study

Internal migration characteristics

15. Whereabouts at reference moment
16. Duration of residence in Hong Kong⁽³⁾
17. Place of residence 5 years ago

Economic characteristics

18. Economic activity status
19. Industry
20. Occupation
21. Whether having secondary employment
22. Earnings from main employment
23. Earnings from secondary employment
24. Other cash income⁽⁴⁾ (including cash income from rent)
25. Place of work
26. Mode of transport to place of work

Housing characteristics

27. Type of quarters
28. Type of accommodation
29. Occupancy of quarters
30. Number of rooms in the residence (including living / dinning rooms, bedrooms, other rooms, kitchens, bathrooms / toilets)
31. No. of households in quarters (derived)
32. No. of occupants in quarters (derived)
33. Tenure of accommodation
34. Rent (including rates, government rent and management fees)
35. Mortgage payment or loan payment

Household characteristics

36. Type of household
37. Whether a member of the household
38. Relationship to other member of the household
39. Household size (derived)
40. Household composition (derived)
41. Household income (derived)

Notes: (1) Aside from the above, the 2011 Population Census also covers data topics on population coverage (i.e. ‘Total amount of time spent in Hong Kong in the past 6 months’, ‘Total amount of time that will be spent in Hong Kong in the coming 6 months’, ‘Usual accommodation in Hong Kong at present’, and ‘If not usually living in Hong Kong, whether usually living in the mainland of China or in Macao; and reason for usually living outside Hong Kong’). The data topics ‘Mortgage payment or loan repayment’, ‘Other cash income’ and ‘Number of rooms in the residence’ include more than one data item.

(2) More detailed breakdowns on “Place of study outside Hong Kong” especially in the mainland of China will be considered.

(3) More detailed breakdowns on the time spent in Hong Kong will be considered.

(4) More detailed breakdowns to facilitate in-depth study on income distribution will be considered.