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on Population and Housing Censuses ¹
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Study topic 1

**PREPARING FOR THE CANADIAN 2001 CENSUS:
CONSULTATION AND TESTING OF CONTENT**

Invited paper prepared by Statistics Canada ²

Introduction

1. In Canada, a census of population is conducted every five years. The next census will be held on May 15, 2001. While the core content of the census has remained relatively constant since 1971, Statistics Canada continues to make modifications to census questions in order to remain responsive to information needs as we enter the 21st century and ensure that the questions are relevant to the demand of data users. For example, questions on topics such as activity limitations, common-law unions, unpaid work and mode of transportation have been added to the census content. Revisions to national and international coding standards for labour market activity data result in up-to-date representations of the Canadian economy. The process of introducing changes to the content has achieved its greatest success when new data requirements have been recommended and developed through consultations with clients and respondents.

2. In preparing for the 2001 Census, Statistics Canada has been evaluating data needs in light of a number of considerations, always bearing in mind the need to respect the respondent's right to privacy. These include legislative requirements, availability of other sources to meet data needs, respondent burden as well as collection and processing costs. Proposed census content is being rigorously tested using a variety of methods including qualitative testing such as focus groups and in-depth discussions with respondents, a national pre-test conducted in May 1997 and a National Census Test to be held

1 The papers which are prepared for this work session will be treated in the same manner, as papers that are prepared for seminars.

2 Prepared by Rosemary Bender.

in October 1998.

The Canadian Census of Population

3. The quinquennial Canadian Census is a major undertaking, collecting information from over 30,000,000 people scattered over 9.2 million square kilometers. The census covers the entire Canadian population, which consists of Canadian citizens (by birth and naturalized), landed immigrants and non-permanent residents (persons living in Canada who have a student or employment authorization, a Minister's permit or who are claiming refugee status), together with family members living with them in Canada.

4. In May of a census year, local enumerators drop off questionnaires to over eleven million households. The respondents are required to fill out the questionnaire themselves and mail it in. A free nation-wide multi-lingual telephone service is available to respond to questions and concerns about the census. Once received by Statistics Canada, questionnaires are verified for completeness before being sent for data entry and processing. Respondents are contacted if they do not return their questionnaire or if it does not pass the edit criteria.

5. A short 2A form given to 80% of the households contains basic demographic questions such as age, sex and relationship to Person 1 and a question on the language first learned in childhood. The longer 2B form is given to the remaining 20% of respondents and has additional questions on topics such as language, education, labour market activities, income and housing.

6. About 2% of households are enumerated by interview. This method is used in remote and northern areas of Canada and on most Indian reserves. In addition, some remote northern areas are enumerated in February and March. This advance census is carried out in areas where communities disperse in the spring and migrate to their hunting and fishing grounds.

Consultation

7. Consultation for the 2001 Census content began in the Spring of 1997 with the publication of the *2001 Census Consultation Guide* and the *Geography Supplement*. This was made available to a broad range of data users, including federal, provincial, territorial and municipal governments, national associations, non-government organizations, community groups, businesses, universities and the general public. The purpose of the guide was to provide background information on the census questions, to present some major social policy issues for the 21st century and to invite discussion about future data needs.

8. Three strategies were used for the consultation process. First, working with the five Statistics Canada Regional Offices, over 65 meetings were organized across the country with participation from all sectors of the census user community. The sessions were led by the 2001 Census Content Determination team and Regional Office staff. The team also consulted with

federal interdepartmental working groups on specific topics. While comments and suggestions expressed at these meetings were recorded, participants were encouraged to provide written submissions prior to the March 31, 1998 deadline.

9. Second, brochures describing the 2001 Census consultation process were sent to the 1996 Census consultation participants and to other interested parties suggested by the Regional Offices. This resulted in a number of requests for a copy of the *Consultation Guide*.

10. The third strategy involved introducing the Internet as a way to communicate with the general public. The *Consultation Guide* is one of a number of reports that can be downloaded from Statistics Canada's Internet site. Many of the submissions on the 2001 Census content have come through the Internet. Final consultation and testing reports will be available early 1999.

Written submissions

11. The consultation process generated a large response from the data user community. About 350 written briefs were received, many touching upon a number of topics. These were combined with the reports from the consultation sessions to produce over 1,600 comments for consideration by the 2001 Census Content Determination team.

12. Over half of these comments were received from government sources (Appendix 1). Provincial and territorial government departments provided 27% of the comments, followed by federal (15%) and municipal and regional (12%) government agencies. Individuals and organizations representing the gay and lesbian community accounted for 14% of the comments, the large majority coming from individuals.

13. Most questions appearing on the census were topics of discussion in one form or another. There were also suggestions for additional or alternate census questions. Appendix 2 presents the major themes emanating from the consultation process. The largest number of comments (16%) was related to data on **families**. Most of these requested expanding the concept of the family used by the census to include same-sex couples. About the same number of comments (ranging from 8% to 6%) were received on the following topics: housing, labour market activities, ethnocultural variables, household activities, postcensal surveys, education and immigration/citizenship.

14. A few submissions addressed issues and concepts that are beyond the scope of a census. While they provided Statistics Canada with invaluable feedback on data user needs, they either represented a response burden, a potential threat to privacy or confidentiality, a substantive cost or a logistic problem in collection. Some requests were judged to be more appropriate for data collection by survey. Others indicated gaps in Statistics Canada's overall statistical system that warrant further consideration. Examples of these are suggestions for changes to the labour market activities and education modules. Statistics Canada must consider the

census' strength for producing small area data compared with the capabilities of its surveys for providing more depth to complex multi-disciplinary topics such as labour and education. While existing census questions are being reviewed to ensure continued relevancy, government policies and programs in these areas presently benefit from a number of Statistics Canada surveys such as the *Labour Force Survey*, the *Survey of Labour and Income Dynamics* and the *General Social Survey*.

Qualitative Testing

15. Before new questions or modifications to previously asked questions can be included in the 2001 Census, they first undergo extensive qualitative (cognitive) testing. Two qualitative techniques are used in Canada to test the content and design of census questionnaires: focus groups and in-depth interviews. Focus groups measure the general reaction of the population to a new concept, to a new question or to the design and format of the questionnaires. In a typical session, about ten persons are invited to participate in a group discussion. Experts from Statistics Canada observe the proceedings from behind a one-way mirror. The participants are asked to fill out one or more versions of a census test questionnaire. The moderator then leads the group in discussion, drawing out valuable information on how respondents react to questions, how they interpret them and how they respond to instructions.

16. As the title suggests, in-depth interviews held with a single participant allow the moderator to go into much more depth on a particular topic. Without the presence of others, the participant usually feels more comfortable in expressing his or her opinion. The moderator can examine in more detail the causes behind a respondent's difficulty in answering a question and can pursue any noticeable signs such as hesitancy and excessive page turning.

17. Over the past two years Statistics Canada has conducted qualitative tests in centers across Canada on the topics listed below. In many instances the wording of questions and the instructions on the census questionnaires have been modified based on the results of qualitative testing. The following sections on statistical testing often refer to these results.

18. Six main tests touched upon the following topics:

- Inclusion of the Aboriginal Identity question on the short 2A census questionnaire instead of on the long 2B questionnaire.
- 2A questionnaire format and order of questions. Questions on coverage and on common-law and marital status were also examined.
- Expanding the definition of census families to include same-sex couples.
- Ethnocultural, immigration and language.

- Mobility, education, household activities, labour market activities and place of work. Instructions for the telephone help-line were also examined.
- Health and Activity Limitations Survey filter questions.

Statistical Testing

Two statistical tests are being conducted to quantitatively assess the effectiveness of new or modified questions for the 2001 Census. The data are analyzed for reliability and comparability over time and compared with other sources. All telephone calls received by the telephone help-line are monitored and evaluated to judge where problems consistently occur. Follow-up interviews with respondents are also conducted to discuss any concerns about the questions and the questionnaire.

National Pre-Test

19. A national statistical pre-test of the short form 2A questionnaire was conducted in May 1997. The test took the form of a voluntary mail out/mail back survey. Persons who did not complete their questionnaire were contacted by telephone. The final response rate was 72%.

20. The pre-test had two main parts. The first part involved 4,800 households. One objective was to test various formats of the 2A questionnaire. In particular, a leaflet-style questionnaire was tested for possible optical scanning operations. Decisions have since been made not to use optical scanning for data capture for the 2001 Census. Also, respondents indicated in cognitive testing a preference for the traditional booklet format, finding it more professional. At the same time, a sequential ordering of the questions was tested as opposed to the present matrix format. While response rates for the latter were somewhat higher, Statistics Canada will not test the sequential format on the longer 2B questionnaire due to budgetary considerations. Thus the formats for the upcoming National Census Test and the 2001 Census will be the same as for the 1996 Census.

21. A second objective was to improve the coverage steps on pages 2 and 3 of the census questionnaires. On these pages, respondents are asked to identify and list the members of their household. The design and wording of these pages were simplified to make it easier for the respondent to identify whom to include and whom not to include. These modifications tested well and will be included in the upcoming National Census Test.

22. For the second part of the pre-test, 3,000 households were selected among the immigrant population to test placing the Aboriginal identity question on the short 2A instead of on the long 2B questionnaire. The pre-test indicated serious difficulties with this question both in terms of high non-response rates and response errors. The lack of related ethnocultural information on the 2A precludes using the edit and imputation system to resolve these problems. Also, in qualitative testing both Aboriginal and non-Aboriginal respondents questioned the presence of the Aboriginal identity question on the 2A.

National Census Test

23. A much larger statistical test of the 2A and 2B questionnaires will be conducted on October 20, 1998. The National Census Test (NCT) will involve 77,000 households in thirteen sites selected across Canada. All households in the enumeration areas chosen within these sites will receive a census test questionnaire. The location of the sites was based on both operational and content considerations. As the NCT is also testing questionnaires for the Census of Agriculture, several agricultural areas have also been included as test sites.

24. For the first time since the 1970's, the NCT will test census collection operations in addition to testing the content and format of the census questionnaire. Statistics Canada is planning to introduce a major change in the collection procedures for the 2001 Census to address concerns over the privacy of the information collected. Despite the measures in place to ensure privacy and confidentiality of the data on the questionnaires, some respondents have objected to having their personal and sensitive information reviewed by neighbours or friends working as local part-time census enumerators.

25. Thus, Statistics Canada will test a new centralized edit procedure for the 2B census form. As with previous censuses, all questionnaires will be delivered to the households by the census enumerators. With the new method however, respondents receiving the long form will be required to mail their completed forms to a central office for editing and follow-up. Enumerators will contact respondents only if they do not return the questionnaire. In order to ensure sufficient volume from the survey to test operational procedures, a single centralized office in Toronto will be used for the NCT.

26. The NCT will also be testing the content of the 2A and 2B questionnaires. This involves looking at new questions and modifications to existing questions. One third of the households will be given a short 2A form, one third will receive a long 2B.1 form and the other third will receive a long 2B.2 form. The two versions of the long form allow for testing of additional questions. Of course, only a few of the proposed changes will find their way onto the 2001 Census questionnaire.

Content Changes in the National Census Test

27. In comparison to the 1996 Census, the 1998 NCT includes eight additional questions. The new questions as well as suggested modifications to existing questions are the result of consultation, qualitative testing and the national pre-test. The additional questions include: fertility, religion, birthplace of parents, language of schooling, language of work, other languages spoken at home, birthplace of grandparents and place of highest certificate, diploma or degree. Most are not totally new questions in the sense that they have been part of previous censuses or national statistical tests.

28. The following sections present some of the changes to the census content

that were considered for the NCT.

Coverage Module

29. Qualitative testing has demonstrated that the first questions on population coverage are a considerable source of confusion and frustration for the respondents. Changes to the coverage module include modifications to the instructions, to the order of the steps and to the examples used. Under the heading *Whom to include*, the instructions have been moved to the beginning of the questionnaire in order to increase visibility. The instructions themselves have been modified to introduce a minimum six-month period for permit holders and to clarify certain coverage problems, particularly those related to landed immigrants, absent spouses, students and children in joint custody.

30. Immediately following the section *Whom to include*, a new section entitled *Do not include* combines instructions for households whose members are exclusively foreign residents or temporary residents. In previous censuses, these instructions were placed immediately after the listing of household members, causing much confusion. Thus, all instructions pertaining to the population universe have been placed at the start of the coverage module, before respondents list the members of their household. The nomenclature of the steps has also been changed to letters instead of numbers to avoid confusion with the question numbers.

Basic Population Information Module

Order of Questions and Relationship to Person 1

31. Results from qualitative testing suggest that the questionnaires may be more respondent-friendly if the relationship to Person 1 question is moved from the beginning to the end of the basic population information series. Taking up half a page, this question is the most complex in terms of questionnaire design and is intimidating to respondents in a self-enumeration environment. In a matrix format, the respondents are asked to indicate the relationship between Person 1 (usually head of the household) and each member of the household (i.e. spouse, son-in-law, boarder , ...).

32. Moving this question down has some advantages. Respondents begin with questions they have often seen before (sex, date of birth), giving them time to become familiar with the matrix format of the questionnaire. Questions on marital status and common-law status follow, defining concepts which are then found in relationship to Person 1.

33. The disadvantage of this approach is the possible impact on the response rates and the order of listing of the household members for the relationship to Person 1 question, which is the key variable for the derivation of data on families. These aspects will be closely monitored in the analysis of test results.

Blended families

34. Blended families are becoming more frequent in Canada, creating new

family relationships such as step-parents and half-siblings. Statistics Canada recognizes the requirement for information on the changing nature of the family and is currently collecting data on blended families using other vehicles such as the *Survey of Labour and Income Dynamics* and the *General Social Survey*. However, both qualitative and quantitative testing have shown that the relationship to Person 1 question in a self-enumeration environment is not a good vehicle for producing quality data on blended families. It has also been Statistics Canada's experience that interviewer driven social surveys are much more amenable for obtaining information on family relationships, not only with Person 1, but between all members of the household. Thus, the NCT will not be testing the measurement of blended families.

Same-sex couples

35. Consultation and qualitative testing have indicated an increasing relevance of same-sex couples in the concept of family data given recent legislative changes and judicial decisions in Canada. For example, certain government legislation and programs have been changed to recognize same-sex couples as spouses including family law and entitlement to employee health and death benefits.

36. Expanding the concept of the *census family* to include same-sex couples is being examined in the NCT. Three approaches are being tested using different questionnaires. On one version, the definition of common-law used in the relationship to Person 1 and the common-law status question is expanded to include same-sex couples. Information from the sex question will be required to differentiate between opposite-sex and same-sex couples. A second version has a write-in space for persons wishing to identify same-sex couples in the relationship to Person 1 question. This is explained in the instructions where the term "same-sex partner" is listed among the examples for the *other* category. On a third questionnaire, the relationship to Person 1 question includes *same-sex partner* as a specific category.

Marital Status

37. As in many other countries, the institution of marriage in Canada is experiencing significant social changes. Many couples today opt for living together without any formal arrangements. Under certain conditions this is referred to as *common-law* and the union is recognized by many of Canada's social and economic programs and statutes.

38. The census measures the legal marital status of individuals. Persons living common-law must identify their marital status as single, married (separated), divorced or widowed. A separate question measures common-law relationships. Qualitative testing has shown some confusion when respondents are asked for their marital status, particularly with respect to the *never married (single)* response category. As a result, the upcoming NCT will change the category slightly to *never legally married (single)*.

Sociocultural Information Module

Ethnic Origin

39. The ethnic origin question has caused some difficulties among respondents and data users. Used by ethnocultural communities and by government programs on multiculturalism, its purpose is to obtain data on the ethnic or cultural origins of a person's ancestors. Other than Aboriginal persons, most people can trace their origins to their ancestors who first came to North America. Analysis of census data and qualitative testing have shown that many respondents confuse ancestry with citizenship or nationality. Studies have also shown that respondents often change their answer from one census to the next. Finally, an increasing number of respondents report multiple ethnic origins. This adds to the complexity of the analysis and interpretation of the published results.

40. In recent censuses, an increasing number of respondents have indicated "Canadian" as their ethnic or cultural origin. In one version of the NCT questionnaire, the ethnic origin question is being replaced by a question on birthplace of grandparents in order to evaluate it as a source of ethnocultural information, to test respondent reaction to the absence of the ethnic origin question and to review the impact on other questions such as that on visible minorities.

Activity Limitations Module

41. Questions on activity limitations are used as filters to identify the target population for the postcensal Health and Activity Limitations Survey (HALS). This survey, conducted in the months following a census, provides an in-depth examination of the socio-economic characteristics of persons with activity limitations.

42. The 1991 HALS showed that slightly more than 50% of the HALS population with disabilities were respondents who did not report any activity limitations in the census, but who did indicate limitations when asked the initial HALS selection questions. These respondents referred to as false negatives, represent about 6% of the total census population and it requires substantial resources to identify them for the postcensal survey. Reducing these false negatives would significantly reduce the costs of future HALS surveys.

43. In trying to determine the cause of the false negatives, qualitative testing of the 1996 Census filter questions found that some of the terminology was perceived to have negative connotations, and that the choice of responses was too restrictive. To soften the questions, the NCT is eliminating negative terms such as "handicaps", "disabilities", "chronic", and "long term". Also, the notion of degree has been introduced, allowing people to respond *Yes, sometimes* or *Yes, often* as opposed to simply *Yes*.

44. The questions themselves have also changed, focusing on the limitations of the activity rather than on the limitations of the person. The first question identifies those who have difficulty doing certain activities on a daily basis. The second question asks if a physical or mental condition or a health problem reduces the amount of activity a person can do. There is not

always a direct relationship between difficulties in accomplishing certain tasks and in the reduction of a person's activities and thus both questions are necessary.

Household Activities Module

45. In the 1996 Census, Canadians were asked for the first time the number of hours they spend doing unpaid household activities in three areas: housework (including yardwork, shopping and home budgeting), caring for children and caring for seniors.

46. From the consultation, support for a question on household activities is divided. Some data users, including women's organizations and some government departments, support the questions on household activities. They also request expanding the module to include volunteer work. Others do not feel that the census is the proper vehicle for measuring unpaid work, stating that Statistics Canada surveys conducted through interviews are more suitable for topics such as this that require more than one or two questions to properly define the concept. This is quite apparent from the qualitative testing. Respondents have difficulty estimating the time they spend doing unpaid work. Moreover, the three categories of household activities overlap, rendering the task of estimation more difficult.

47. Researchers have suggested replacing the response categories with a write-in box. This would allow more detailed analysis of unpaid work than is possible with the 1996 Census results, such as average number of hours worked per week. In qualitative testing, participants were provided with both response categories and a write-in box. While they found the write-in option more problematic, most respondents nevertheless answered the question. Thus both options will be retained for the NCT and their distributions will be compared statistically.

Income Module

48. Requests for more detailed information on income have been received from a number of government and non-government organizations. In particular, they would value separate questions on social assistance, provincial supplements and income tax. This information would serve to analyze income inequality, income less transfers and income after tax. Some of these sources have also requested that Statistics Canada obtain information on income directly from Revenue Canada income tax records. Advantages to the concept of accessing tax records include a substantial reduction in respondent burden, lower non-response rates, improvements in data quality and a reduction in long term collection and processing costs. It would also present an opportunity to obtain more detailed data on social assistance, provincial supplements and income tax. There are however a number of important issues that must be addressed before this can be implemented in a census. The foremost concerns are confidentiality and privacy. Other issues relate to methodological and technical feasibility considerations. Future plans include consultation and testing in this area.

Conclusion

49. Consultation, qualitative testing and statistical tests are laying the groundwork for the Canadian 2001 Census of population. The final decision on content options will be taken once Statistics Canada has completed analysis of the results of the National Census Test and conducted further qualitative testing and consultation with data users including federal, provincial and territorial agencies. The 2001 Census questionnaire is scheduled to be approved by the Canadian federal Cabinet in Spring 2000.

Appendix 1**2001 Canadian Census Consultation****Number of Comments by Type of Organization**

Source of Comments	Frequency	Percentage
Provincial and Territorial Governments	454	27 %
Federal Departments and Agencies	243	15 %
Gay and Lesbian Individuals and Organizations	226	14 %
Municipal and Regional Governments	204	12 %
Academic and Professional Associations	130	8 %
Advisory Committees/Working Groups	71	4 %
Multicultural and Immigrant Groups	63	4 %
Private Industry	56	3 %
Social Policy Development Groups	49	3 %
Women's Organizations	37	2 %
Aboriginal Associations	34	2 %
Private Citizens	27	2 %
Language Rights Group	22	1 %
Social Service Organizations	16	1 %
Religious Organizations	14	1 %
Labour Unions	7	0.5 %
Grand Total	1653	100 %

Appendix 2

2001 Canadian Census Consultation

Number of Comments by Topic

Census Topic	Frequency	Percentage
Family	269	16 %
Housing and Shelter Costs	139	8 %
Labour Market Activities	138	8 %
Ethnocultural	129	8 %
Household Activities	122	7 %
Postcensal Surveys	121	7 %
Education	111	7 %
Citizenship and Immigration	104	6 %
Language	83	5 %
Age, Sex and Marital Status	62	4 %
Mobility	54	3 %
Place of Work and Mode of Transportation	53	3 %
Aboriginal Peoples	50	3 %
Income	46	3 %
Religion	42	3 %
Fertility	27	2 %
New Population Categories	27	2 %
Other	76	5 %
Grand Total	1653	100 %