

## THE 1971 CANADIAN CENSUS TRACT PROGRAM

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### Introduction

In the Canadian census, Census Tracts are defined as "permanent small census statistical areas in the larger urban communities, and are as homogeneous as possible in terms of economic status and social living conditions".<sup>(1)</sup> With this definition in mind, the purpose of this paper is to demonstrate the continuing need for Census Tract information in Canada, even though new Bureau Programs will soon provide a wide range of diversified data for urban areas.

The 1971 Canadian Census Tract Program is one of several Programs within the Dominion Bureau of Statistics designed to provide users with detailed census information for different statistical areas. More specifically, this particular Program deals with such information on an intra-urban level for the larger urban communities in Canada. The Program is set up as a means of dividing eligible cities into small geographic areas having permanent boundaries. As noted in The Canadian Census Tract Manual,

"The purpose of this Program is to primarily provide a general-purpose geographical basis for the collection of local statistics, as well as meet the wide variety and increasing number of requests to those requiring such information. The scope of this Program is to prepare and publish census statistics, maps, area descriptions, and related census information for every eligible center in Canada."<sup>(2)</sup>

Some of the other 1971 Bureau Programs that are designed to provide users with census information for urban areas, are the Census Metropolitan Area Program, the Enumeration Area Program and the Geocoding Program. Each of these Programs as the Census Tract Program is developed in a different way, designed for different purposes, yet are complementary since each of these Programs satisfy different user needs, at different statistical area levels.

The scope of the present paper is to focus on the preparation and development of the 1971 Canadian Census Tract Program by presenting a summary of intercensal research and planning concerning the development of the Program; the role and co-operation of the local Census Tract committee in the development of a Census Tract proposal; the nature of the 1971 Program; and, a conclusion regarding the Program's significance, as an alternate source of urban information from the 1971 Census.

### Intercensal Research and Planning

Following the 1966 quinquennial census of Canada, the Census Division's Geography Section established a Census Tract Unit for the

first time, in order to carry out the necessary intercensal research and planning for the Canadian Census Tract Program in 1971 as well as in future censuses. The decision to create such a Unit, was prompted by two considerations: the expanding coverage of the Canadian Census Tract Program from an original two centers in 1941 to a total of twenty-eight eligible centers in 1966, as well as the increasing requests to the Bureau for detailed intra-urban information from the Canadian census.

As conceived, the specific role of this new Unit is to carry out social science research on Canada's Census Tract Program; to plan, develop and implement the 1971 Program; and, to promote this Program among various departments, agencies and urban research-orientated groups and individuals, particularly on a local basis. In 1968 the Census Tract Unit began to carry out this role by reviewing the relevant literature; by examining previous Canadian Census Tract Programs; by comparing the earlier Programs to similar intra-urban Programs; and, by consulting other Bureau and non-Bureau professionals who were familiar with Census Tract data or related information for their comments and suggestions.

As a result of this work to date, the Unit has prepared and developed its Program, and documented guidelines in a new publication entitled The Canadian Census Tract Manual,<sup>(3)</sup> similar to the American Census Tract Manual.<sup>(4)</sup> Summarized in the manual are the nature of the Canadian Census Tract Program, the role of the local Census Tract committee and the method of preparing a suitable 1971 Census Tract proposal to the Census Division's Geography Section. In previous censuses, relevant memos and detailed verbal instructions were provided to Canadian local Census Tract committees regarding the preparation of a suitable Census Tract proposal to the Bureau. A new periodic memo entitled "The Canadian Census Tract Memo", similar in idea to the "Census Tract Memo" prepared by the US Bureau of the Census, has also been initiated in order to present a summary report on the general progress and activity of all local Census Tract committees across Canada. The first issue of this Memo<sup>(5)</sup> has already been distributed.

Following the 1971 Census, the Unit will continue to carry out its original role. In particular, there will be a focus upon additional social science research on Canada's Census Tract Program, such as preparing and publishing some cross-sectional and historical socio-economic studies of Canadian cities according to city size groups. A wider promotion of the Program will also be planned in detail. In this regard, the Unit will be pleased to assist any committee, group or individual regarding Census Tract and/or related intra-urban information.

### The Role and Co-operation of the 1971 Canadian Local Census Tract Committee

A very important factor in planning the preparation and promotion of the 1971 Canadian Census Tract Program was the role of the local Census Tract committee. The role of the local committee in Canada is important because of the very nature of the Program (described in the next part of this paper), and the detailed knowledge of local conditions by the committee members. As in the past, the committees were made up of a large variety of professionals who jointly participated with the Bureau's representatives to prepare a suitable Census Tract proposal. As a general rule, the Mayor, city clerk or in most cases the city planner organized such committees at the request of the Bureau's Dominion Statistician, by inviting planners, assessors, educators, real estate specialists, transportation experts, etc., to represent the city at a local Census Tract meeting.

Once the committees were organized, meetings were arranged across Canada during the latter part of 1969 and early 1970. Prior to such meetings, copies of The Canadian Census Tract Manual and of selected 1966 Census Tract bulletins(6) were sent to each committee, as the bases for discussion. Only three urban centers, Winnipeg, Sarnia and Peterborough did not require a meeting with the Bureau's representatives regarding the 1971 Program because they did not consider it necessary to make any significant changes to their 1966 Program.

During each meeting, the Bureau's representatives explained the nature of the 1971 Canadian Census Tract Program, defined the role of the local Census Tract committee, and emphasized that the success or failure of any Census Tract Program would depend on the initiative and enthusiasm of the local committee in carrying out its role within the Program. This role was defined as follows:

- (i) "to understand the nature and objectives of the Canadian Census Tract Program;
- (ii) to assist the Census Division in the preparation and implementation of a Census Tract Program on a local basis;
- (iii) to promote locally, the use of Census Tracts as the basis of data collection by the various local municipal departments and/or agencies;
- (iv) to provide the Census Division's Geography Section with relevant information on a continuing basis, regarding the Census Tract boundaries; and,

- (v) to keep in touch with the Census Division's Geography Section regarding the success of the Program in your city."(7)

Most of the local committees accepted this role, and agreed to co-operate with the Bureau. As a result, most of the committees have submitted a 1971 Census Tract proposal, and in a few cases, also a 1971 Enumeration Area(8) proposal to the Bureau. Although it was encouraging to receive some complete and well prepared proposals from the more enthusiastic local committees interested in the availability of the 1971 Census information, most of the local committees did not follow all the instructions found in The Canadian Census Tract Manual regarding the contents of a suitable Census Tract proposal. For example, many committees did not send a current Census Tract street index as requested, a description of the boundaries of each proposed Census Tract, or the population count for each proposed tract. Such omissions delayed the review and finalization of the Census Tract proposals well into 1970.

The reason for such omissions appears to have been the wide range of interests among committee members. Many committee members, particularly those in the metropolitan areas for example, also expressed an interest in the alternate Programs, especially the Geocoding Program. Similarly, some committee members representing the smaller cities also expressed an interest in the Enumeration Area Program. In both cases, the amount of interest in alternate Programs varied depending on each committee member. Only a few committee members indicated a lack of interest in any Bureau Program.

### The Nature of the 1971 Canadian Census Tract Program

Previous to 1971, only a general description of Census Tracts was available in the various Canadian census bulletins. More detailed information however, was available upon request from the Census Division's Geography Section. In the 1971 Census, a new policy has been adopted in this regard with the decision to publish both the 1971 Canadian Census Tract definition and criteria in all Canadian Census Tract bulletins. It is also noteworthy to point out that the Canadian and American Census Tract definition and criteria are very similar.

Three sets of criteria(9) indicate the requirements for the 1971 Census Tracts defined earlier in this paper. First of all, in order to have a Program, a city must meet the criterion of eligibility. This criterion states that "each city having a minimum of 50,000 persons at the previous quinquennial or decennial census is eligible for a Census Tract Program".

If a city was eligible for a Census Tract Program, then either the criteria for the delineation of Census Tracts or the revision of Census Tracts was applied, depending on which set of criteria were appropriate. The following criteria were used for delineating new Census Tracts:

- " (i) a population between 2,500 and 8,000 except for Census Tracts in the Central Business District or Institutional Census Tracts which may have a lower population;
- (ii) an area that is as homogeneous as possible in terms of economic status and social living conditions;
- (iii) boundaries that follow permanent and easily recognized lines on the ground;
- (iv) as much as possible, a compact shape."

Similarly, the following criteria, if necessary, were used to revise established Census Tracts:

- " (i) of primary importance are the permanency of the Census Tract boundaries and the population criteria above, in this order;
- (ii) of secondary importance is the shape of the Census Tract(s) under review;
- (iii) of least importance is the homogeneity criterion."

A total of twenty-nine urban centers which should include approximately 60% of Canada's population in 1971, will have a Census Tract Program. In addition to those cities that had a 1966 Program, the cities of Guelph, Thunder Bay and Sault Ste. Marie will be added to the 1971 Program. As a result of recent changes in municipal organization in the Province of Ontario, the following cities have been combined in the 1971 Census: Kitchener and Guelph, as well as St. Catharines and Niagara Falls. Also beginning in 1971, the Census Tract Program for Canada's capital city will be identified as "Ottawa-Hull", instead of Ottawa as in the past.

As in the previous Census Tract Programs, a large variety of both published and unpublished intra-urban information will be available from the Bureau, for each participating city included in the 1971 Program. This variety will include detailed census statistics on population, housing, retail trade and service trades; a series of reference maps and diagrams portraying the 1971 Census Tracts with or without the component enumeration areas and city blocks respectively; and, area descriptions of each

Census Tract and/or enumeration area, indicating the exact boundaries of each statistical area. Conversion tables indicating the relationship between the 1971 Census Tracts and earlier Programs are also being prepared for distribution. The availability of these tables will be noted in future issues of "The Canadian Census Tract Memo".

Significant modifications to the previous numbering system have also been introduced. This new numbering system which was in a large part based upon the US Bureau of the Census' proposed revisions in their Census Tract Numbering system as found in the "Census Tract Memo No. 4", (10) will be a nationally uniform numeric system consisting of 5 digits at the most. The first three digits will represent the tract number, while the two suffix digits that can appear in later censuses will indicate tract splits. Essentially, this new revised approach facilitates the identification of the Census Tracts in the central city (e.g. Montreal), as well as the identification of the Census Tracts (if there are any) in the peripheral municipalities juxtaposition to the central city (e.g. Laval, Longueuil, etc. juxtaposition to Montreal), according to the location of these tracts in a county(s) or census division(s). A more detailed technical paper which elaborates upon the 1971 Census Tract numbering system is currently being prepared. When available for distribution, a note will appear in "The Canadian Census Tract Memo".

In each urban centre that was eligible for a 1971 Census Tract program, the local committees were strongly encouraged to co-ordinate and match local municipal statistical area information systems with the Bureau's Census Tract Program. The above innovation was generally accepted, and wherever adopted will provide a beneficial exchange of data sources between federal and municipal departments, as well as a more efficient use of the Census Tract Program on a local basis for intra-urban analysis and research.

The committees were also strongly encouraged to emphasize the major advantage of Census Tracts, namely, permanent boundaries in order to ensure the historical comparability of intra-urban information for Canadian cities. The principle was also accepted and used by the majority of the local committees. In a few cases, boundary changes were proposed and accepted, but the number of acceptable changes were kept to an absolute minimum. Changes to the previous 1966 Census Tract boundaries were permitted in exceptionally difficult or special cases such as hard to recognize former municipal limits, or the virtual disappearance of a street (previously used as a Census Tract boundary) replaced by an expressway.

## Conclusion

Historically, the Census Tract Program was significant because it was the only centralized and nationally uniform Program in Canada providing cross-sectional and longitudinal socio-economic information on a permanent intra-urban level. In 1971, even though other Bureau Programs will also provide census information for Canadian cities, the Census Tract Program will continue to be a significant Program for many users.

As such, the Census Tract Program will provide detailed information for small permanent areas. By comparison, the other Programs will generally differ in the following regards: the Census Metropolitan Area Program will also provide detailed information and at two levels, first the component municipalities and secondly, the urbanized core and surrounding fringe; the Enumeration Area Program will provide only broad census data categories (such as population data, housing data, etc.) either on summary computer tapes or print-outs; and, the Geocoding Program will provide either broad or detailed census data depending on the nature of the requests for user-specified areas.(11)

In view of the preceding, the original significance of the Census Tract Program will remain in 1971, even though alternate data sources will be available, since the other Bureau Programs are designed to meet different types of requests. As a result of the availability of alternate Bureau Programs, users will be able to choose the most appropriate Program to suit their needs. Compared to the other 1971 Programs for example, Census Tracts will be particularly suitable in analysing the new journey-to-work data, internal migration trends in the cities, as well as historical trends of various demographic and housing phenomena.

As developed to date, the Census Tract Program is simple to understand, easy to use, answers general purpose needs, and is inexpensive. Users should consider all Bureau Programs that are available, before making one or more choices.

## Footnotes

- (1) Kokich, 1969 ... George J.V. The Canadian Census Tract Manual. Canada. Dominion Bureau of Statistics, Census Division, Geography Section, 10 pages. Ottawa, July, 1969, p. 6.
- (2) Ibid., p. 3
- (3) Ibid., copies are available in English or French, upon request from the Census Tract Unit of the Census Division's Geography Section.
- (4) Bureau of the Census, 1966 ... United States. Department of Commerce. Bureau of the Census. Census Tract Manual (Fifth Edition). 83 pages. Washington, D.C., January, 1966.
- (5) DBS, 1970 ... Canada. Dominion Bureau of Statistics, Census Division. "The Canadian Census Tract Memo" No. 1, 1 page. Ottawa, December, 1970. Copies of "The Canadian Census Tract Memo" are available in English or French upon request, from the Census Tract Unit of the Census Division's Geography Section.
- (6) The 1966 Census Tract bulletins provide final 1966 Census population and housing totals by Census Tracts, comparative 1961 figures by Census Tracts, and map(s) indicating the Census Tract boundaries, for each eligible city.
- (7) Kokich, 1969, pp. 3-4.
- (8) In the Canadian Census, Census Tracts are generally larger or occasionally equal, but never smaller than an Enumeration Area. Normally, Enumeration Areas are component parts of a Census Tract. In rare cases however, one Enumeration Area may equal one Census Tract, as for example, a Census Tract demarcating a large hospital or institution.
- (9) Ibid., p. 6.
- (10) Bureau of the Census, 1963 ... United States. Department of Commerce. Bureau of the Census. "Census Tract Memo No. 4" pp. 1-5. Washington, D.C., August 9, 1963.
- (11) More detailed information on any of these Programs is available upon request from the Census Division's Geography Section.