



Statistics Canada

1996 Census Handbook

Reference

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responsible for Statistics Canada

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Agriculture and Agri-Food Canada: page 169

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Regional Reference Centre - Quebec Region: pages 22, 23

Village News: pages 170, 179

This publication is a reference tool designed to provide both new and experienced users with the information they need to properly understand and interpret data from the 1996 Census of Population. It contains a brief history of census-taking in Canada, and it describes the many activities involved in conducting a census, from content determination to dissemination of products and services provided by the database. It also covers subjects such as data quality, confidentiality and the variety of ways in which census data are used. In addition, there is also a section on the Census of Agriculture: its activities, cycle, and products and services.

What's new

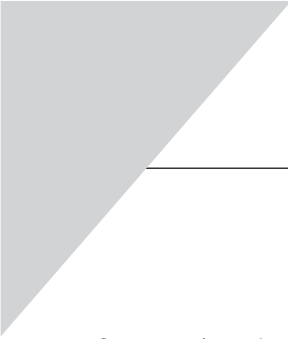
There are some new features in the *1996 Census Handbook*:

- in addition to providing a historical overview of census-taking in Canada, Chapter 1 describes the changes that have been made in the census, including the introduction of self-enumeration and sampling and various changes in the date of the census, and it summarizes the most important modifications made since the 1991 Census;
- information for users on how to obtain census data is presented in a single chapter;
- the quiz (Part 3) included in the last two versions of the Census Handbook has been replaced by a series of review exercises to help readers assess their knowledge and understanding of the census;
- to help readers find what they want more easily, the general index has been replaced with a subject index, in which entries are grouped under various topics or subject areas; therefore, if the reader doesn't know the term or expression used in the census, he or she can consult a detailed alphabetical list of subjects.

How to use the *1996 Census Handbook*

To help users find their way around, this publication includes:

- a table of contents;
- a list of acronyms;
- a list of tables; and,
- a subject index.



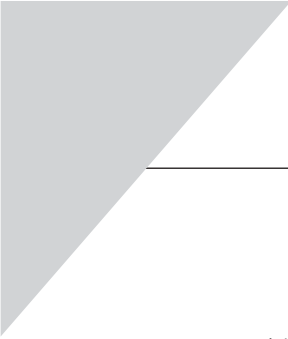
Introduction

For reference, there is also a copy of the 1996 Census long questionnaire in the pocket inside the back cover.

For more information about the 1996 Census, refer to the *1996 Census Dictionary* or the *1996 Census Catalogue*, or contact the Statistics Canada Reference Centre nearest you (see list provided in Part 1, Chapter 10).

List of Acronyms

APS	Aboriginal Peoples Survey
BDFD	Block-face Data File
BSTs	Basic Summary Tables
CA	Census Agglomeration
CAHL	Census of Agriculture Help Line
CAR	Census Agricultural Region
CCS	Census Consolidated Subdivision
CD	Census Division
CHL	Census Help Line
CMA	Census Metropolitan Area
CPP	Canada Pension Plan
CSD	Census Subdivision
CT	Census Tract
DBF	Digital Boundary Files
DCF	Digital Cartographic File
DDE	Direct Data Entry
DLI	Data Liberation Initiative
DPL	Designated Place
DQM	Data Quality Measurement
EA	Enumeration Area
E & I	Edit and Imputation
ER	Economic Region
FED	Federal Electoral District
FSA	Forward Sortation Area
FTP	File Transfer Protocol



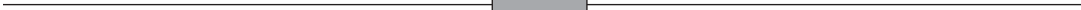
Introduction

GIS	Geographic Information System
GIS	Guaranteed Income Supplement
HALS	Health and Activity Limitation Survey
IPS	Information on our Products and Services
LDU	Local Delivery Unit
LFS	Labour Force Survey
NCT	National Census Test
NIM	New Imputation Methodology
OASP	Old Age Security Pension
PCA	Primary Census Agglomeration
PCCF	Postal Code Conversion File
PCFRF	Postal Code and Federal Riding File
PCMA	Primary Census Metropolitan Area
POS	Progress of Seeding
PUMF	Public Use Microdata File
PW	Postal Walk
QAL	Query Area Library
QPP	Quebec Pension Plan
SIC	Standard Industrial Classification
SNF	Street Network File
SOC	Standard Occupational Classification
SPIDER	System for Processing Instructions from Directly Entered Requirements
SSNF	Skeletal Street Network File
UA	Urban Area
VR	Visitation Record



Part

1



Census of Population

A Brief History

1.1 Census-taking: Ancient Beginnings

The practice of taking a census (from the Latin word *recensere*, which means **to revise** and *censere* which means **to assess**) dates back to the dawn of civilization. History records that Moses counted the children of Israel in the 15th century B.C. and that censuses were taken centuries earlier in Babylon (3800 B.C.), China (3000 B.C.) and Egypt (2200 B.C.). The methods

First census of New France

The results of Jean Talon's first census showed that the total population of New France in 1666 (excluding Aboriginals and royal troops) was 3,215 – 2,034 males and 1,181 females. There were 1,019 married people and 528 families and households.

employed in ancient censuses were rudimentary, and the goals were short-term – for example, to conscript young men for military service, or to enable rulers to impose taxes on their subjects.

The government of New France has the honour of being the first to take

what we would call a *modern* census. That first census was conducted just as the colony of New France was getting established; in fact, one of its aims was to help the young colony take root.

1.2 Taking Stock of the Colony

Jean Talon played a major role in the development of census-taking in the New World. He was sent to New France as Intendant of Justice, Police and Finance for Canada, Acadia, the island of Newfoundland and other French lands in North America. King Louis XIV instructed Talon to take appropriate steps to expand the colony so that it would quickly become self-sufficient and capable of supplying products needed for the growth of French industry; to accomplish this, he had to settle the country, develop agriculture and trade, and establish manufacturing industries. Realizing that he would need reliable statistics if he was going to organize the colony and foster its development, Talon took a census shortly after he arrived in New France. He did much of the data collection personally, visiting settlers throughout the colony in 1666.

Talon conducted his first census by the so-called *de jure* (by right) method, which counts people at their usual place of residence and not where they happen to be on Census Day (*de facto*). He recorded settlers' names, on a specific date, and collected information on age, sex, marital status, and occupation or trade. In 1666, a second survey allowed him to gather more data with a census of livestock and cleared land.

In all, 36 censuses were conducted under French rule, the last of them in 1739. More questions were added, covering subjects such as buildings and houses, agricultural and

industrial production, and even — because of the frequent threats to peace in those days — weapons. After the British took over, regular censuses gave way to a series of less detailed surveys, though full censuses were conducted in 1765, 1784 and 1790. After 1817, censuses were held at

Did you know that...

In 1667, the population of New France was 3,918. There were 3,107 head of livestock and 11,448 arpents of land under cultivation.

more regular, though different, intervals in New Brunswick, Nova Scotia, Upper Canada and Lower Canada. There was an annual census of Upper and Lower Canada between 1824 and 1842.

The content of those censuses varied widely, but after 1827, they generally covered a wide range of topics. Later, as a result of the *Census Act of the United Provinces* (1847 amendment), a census was conducted in February and March of 1848 and again exactly two years later. On August 30, 1851, royal assent was given to a new law requiring regular censuses, starting in 1851-52 and continuing in 1861 and every tenth year thereafter. Thus, 1851 would appear to mark the beginning of Canada's decennial census.

1.3 An Established Tradition

The rebellions of 1837 and the widespread demand for an elected government with representation based on population size led to the passage of the *British North America Act* in 1867. Under sections 8 and 51 of the Act, the census was to provide population figures that would be used to determine the number of representatives each province would have in the House of Commons. Electoral district boundaries were also to be adjusted on the basis of census counts. Consequently, in order for each Member of Parliament to be able to represent the population of a specific area, population counts had to be broken down by specific geographic area. With respect to the census, the *British North America Act's* key impact lay in the fact that it influenced



A Brief History

the decision to standardize the *de jure* method and to conduct a census on a set date every 10 years for specific geographic units. In other words, the decision was made to continue the tradition established by Jean Talon.

Thus the first census taken under the *British North America Act* was in 1871. The questions were essentially the same as in the 1851 and 1861 Censuses.

1.4 A Set Date

Although the census is conducted on a set date – a specific point in time – the day of the census has varied over the years. Several factors enter into the choice of a date, and changes that have occurred – some due to data collection requirements, others to shifts in customs – have been designed to ensure respondents' full participation in the census and to improve coverage and data quality.

Under the *Census Act* of May 12, 1870, the census was to be conducted by May 1 of each census year, except in certain hard-to-reach areas, which were to be covered in July. Accordingly, the census was held in April until 1911, when the date was moved to June 1. This change was made to avoid the poor road conditions and unfavourable weather that hampered enumeration in earlier months. Holding the census in June was also advantageous from the standpoint of collecting agricultural data, since farmers would know by then exactly how many acres of land they had seeded. The date was set as early as possible in June so that the census could be taken before people headed for summer destinations.

As time went by, however, it became clear that the first day of the month was moving day for a large number of households. In addition, June 1 sometimes fell on a weekend, when many respondents were away. To reduce the amount of follow-up made necessary by these movements, Census Day was shifted again in 1981, this time to the first Tuesday in June.

As the 1996 Census approached, the date changed once more, moving backward to the second Tuesday in May (May 14, 1996). Today, many of the households that move in a given year do so in late June. Pushing the census date ahead to mid-May meant that the questionnaires would be dropped off and mailed back during the same month, which lowered the risk that they would be lost in a move. In addition, follow-up of non-returns would take place in June, before most people go on vacation; this would keep costs down and produce better coverage and data quality.

1.5 Self-enumeration

Every Census of Canada up to and including the 1966 Census was conducted by interview. Census representatives went door to door interviewing respondents and writing down their answers in census booklets. In 1971, however, there was a major change in the collection method. To improve data quality and address growing concerns about privacy, respondents were asked for the first time to complete the census questionnaire themselves (self-enumeration). By letting people fill in the form at their convenience on Census Day, Statistics Canada hoped to obtain more accurate results. Respondents could also consult their personal documents for information needed to answer certain questions. Moreover, self-enumeration eliminated errors of interpretation by census representatives and improved the accuracy of answers to sensitive questions. This method has been used since 1971 for 98% of the Canadian population.



1.6 Sampling

In the 1996 Census, 80% of households received a short questionnaire containing seven questions, while 20% were given the 55-question long form. This method of gathering detailed data from a sample of households (rather than all households) was first employed in the 1941 Census of Canada. Housing data were collected from every tenth household in order to provide information about post-war housing problems and solutions for them. Sampling proved to be an effective collection method, yielding high-quality data while reducing costs and response burden. As a result, it was used again in 1951; this time, the sample was

A Brief History

expanded to one household in five in order to obtain greater geographic detail. The sample has been set at one in five ever since, except in 1971 and 1976, when it was one in three.

Figure 1 Milestones in the History of the Census

- | | |
|------|--|
| 1666 | First census in New France. The total population was 3,215, excluding Aboriginals and royal troops. |
| 1739 | Last census under French rule. |
| 1767 | The census of Nova Scotia adds religion and ethnic-origin variables. |
| 1817 | The census of Nova Scotia adds place-of-birth variables. |
| 1831 | The first census in what would become western Canada was taken in the Assiniboine. |
| 1851 | With the enactment of legislation requiring censuses in 1851, 1861 and every tenth year thereafter, the decennial census is born. |
| 1870 | First census of British Columbia and Manitoba. |
| 1871 | First census of Canada after Confederation. The questionnaire was produced in both English and French, as it has been in every census since. |
| 1905 | The census office becomes a permanent part of the government. |
| 1906 | A quinquennial census is taken in Manitoba, Saskatchewan and Alberta. |
| 1911 | The census is moved from April to June to avoid poor weather and road conditions and to improve the accuracy of crop acreage data. |
| 1918 | The Dominion Bureau of Statistics is established with the enactment of the 1918 <i>Statistics Act</i> . |
| 1941 | The census is moved for this year only to June 14 to avoid conflicting with the first Victory Bond campaign. Sampling is used for the first time; the questions concern housing. |
| 1956 | The first nation-wide quinquennial census is conducted. |
| 1971 | For the first time, most respondents complete the questionnaire by themselves (self-enumeration). The Dominion Bureau of Statistics becomes Statistics Canada. A new <i>Statistics Act</i> requires that a census of population and agriculture be conducted every five years. |
| 1986 | The census contains a question on activity limitations, which is later used to form a sample for the first postcensal survey on activity limitations. |
| 1991 | The question on common-law status is asked for the first time. |
| 1996 | For the first time, the census collects information about unpaid housework and mode of transportation to work. |

1.7 Decennial Census, Quinquennial Census

National censuses have been conducted at 10-year intervals since 1851, except in the provinces of Manitoba, Saskatchewan and Alberta, where they have been taken every five years since 1906. However, in 1956 it was decided a national census should be taken every five years. The five-year census would provide a better means of measuring the pace of economic growth and urbanization. Under the *Statistics Act* of 1971, it became a statutory requirement to conduct a nationwide census every five years.

The term *decennial* refers to censuses held at the beginning of each decade, in years ending in **1** (1971, 1981, 1991), while the word *quinquennial* is used to describe censuses taken at mid-decade, in years ending in **6** (1976, 1986, 1996).

Under the *Statistics Act* of 1971, the Dominion Bureau of Statistics, established under the *Statistics Act* of 1918, became known as Statistics Canada.

1.8 Scope of the 1996 Census

While the need for historical data suggests that the questions asked in a national census should always be the same, the fact is that some changes have to be made between censuses to meet new data requirements or reflect changes in society itself. The same dilemma arises prior to each census: maintain the historical continuity of census data, or keep pace with the country's social, cultural and economic development. This is why various changes have been

made in the census over the years, such as in its terminology and definitions.



1.8.1 In other words

For example, in the 1891 questionnaire, respondents were asked to indicate their relationship to the *head of family*. Up to and including 1971, the head of family or household was defined as the husband rather than the wife, the parent where there was only one parent living with unmarried children, or any member of a group sharing a dwelling equally. Because respondents expressed growing opposition to the use of the word *head*, due to its sexist, paternalistic connotations, the definition was rewritten for the 1976 Census. The questionnaire for that census stated that the *head of household* was either the husband **OR** the wife. Head-of-household

A Brief History

data and household data by characteristics of the head were produced and disseminated in 1976 using the new definition.

In 1981, there was no reference to *head of household* in the census questionnaire. Relationships between household members were defined on the basis of the person who completed the questionnaire for the rest of the household, known as *Person 1*.

Between 1871 and 1911, the census asked questions about *infirmities*. The questions were not included in the 1921 and 1931 censuses. In 1941 and 1951, there was a supplementary questionnaire for blind and deaf-mute people.

The subject did not reappear in the census for 30 years, and when it did, the terminology had changed. A question on *activity limitations* was added in 1986. Respondents were asked to state if they were limited in their activities because of a physical disability, a mental disability or a chronic health problem. This question was used to prepare a sample of respondents for the first postcensal Health and Activity Limitation Survey, conducted later in 1986.

1.8.2 A reflection of its time

The census questionnaire is a sign of the times in that its content reflects the concerns of the period in which it was developed. For example, housing has been covered in every census, but not always in the same way over the past 18 censuses.

As of 1871, there was a question on dwelling type. In 1921 and 1931, questions on tenure and number of rooms were added. Also in 1931, families were asked if they owned a radio; the purpose of this question was to measure the extent to which this important invention was being used in Canada. As mentioned earlier, a sample survey of housing was conducted in 1941. There were only two housing questions in the 1966 Census – one on dwelling type and the other on tenure (owner or renter). In 1971, however, increased interest in housing led to the addition of questions on such topics as utilities (source of running water, drainage of waste water), heating systems, and principal fuel used to heat the dwelling, cook food and heat water. Respondents were also asked if anyone in the household owned a vacation home (cottage) and if their dwelling had a refrigerator, freezer, washing machine, automatic dryer, and black-and-white or colour television set. In the 1981 Census, questions on condominiums and the condition of dwellings (whether repairs were needed) were asked for the first time.

As questions were added to the census over the years to meet new requirements, some questions on subjects of decreasing importance were dropped. For this reason, questions relating to dwelling characteristics, such as primary heating system and principal fuel used for heating, were not included in the 1991 and 1996 Censuses.

1.8.3 Summary of changes since 1991

One of the major changes introduced for the 1996 Census was the elimination of a question on temporary residents; i.e. Step 7 on the 1991 questionnaire (persons who stayed here overnight) was absent from the 1996 version. In addition, no enumeration was done in soup kitchens in the 1996 Census.

A privacy statement was developed, and printed on the Forms 2A and 2B drop-off/return envelopes. A confidentiality statement was also included in Guide 9B and on page 6 of Form 2A.

One of the key changes in the questionnaire itself was to put information previously included in Guide 9A on page 6 of Form 2A; Guide 9A was not published in 1996. In addition, the household-maintainer and tenure questions were removed from Form 2A in 1996, which decreased the total number of questions on the short questionnaires from nine in 1991 to seven in 1996. Since these two questions are asked every ten years, the fertility and religion questions were dropped from Form 2B in 1996, while four new questions were added: Aboriginal self-reporting (Question 18), population group (19), household activities (30) and mode of transportation to work (44).

Significant changes were made in the following questions:

- Question 17 (ethnic origin) was an open question in 1996 – respondents were instructed to write in their answer instead of checking the appropriate box – and *Canadian* was added along with other groups as examples;
- Question 16 from 1991 was split into two questions in 1996: Question 20 (Indian Band/First Nation) and Question 21 (Registered or Treaty Indian);
- Question 23 (mobility – place of residence 5 years ago) was a combination of Questions 21 and 22 from 1991;
- Question 27 in 1996 dealt with school attendance during the previous eight months; the period was nine months in 1991;
- the response options in Question H1 (household maintainer) were altered: in 1996, the person who pays the rent, etc., was to be identified by person number rather than by name. The choices were Persons 1 to 6, a person identified in another questionnaire for this dwelling, or a person who does not live here.

Chapter 4 contains a full description of the questionnaire and provides further details about each question.

A Brief History

1.9 The Census and the Law

The census is the most fundamental source of information about our country and our society. The data it produces are required by a multitude of statutes and regulations (for a list, see Appendix A).

The *British North America Act* of 1867 provided for the redistribution of each province's seats in the House of Commons based on the results of the 1871 Census and each subsequent decennial census. The mandate given to the census in the *BNA Act* was replaced by a series of



statutes, which in turn were superseded by the *Statistics Act* of 1970. The latter states:

“A Census of Population of Canada shall be taken in the month of June in the year 1971, and every fifth year thereafter in a month to be fixed by the Governor in Council.”

Census data are important not only for determining the number of seats in Parliament but also for setting the boundaries of federal

electoral districts (FEDs). The *Electoral Boundaries Readjustment Act* states that decennial census data are to be used to redefine FED boundaries.

Federal transfer payments to the provinces and territories also count on population estimates which are based on population counts from the census, as required by the *Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act*. The census collects data under the authority of more than 80 pieces of legislation, including the *Unemployment Insurance Act*, the *Canadian Charter of Rights and Freedoms*, the *Official Languages Act*, the *Old Age Security Act*, the *Student Loans Act*, and the *Immigration Act*.



Under the *Statistics Act*, every Canadian household is required to complete a census questionnaire. There are penalties for refusing to take part in the census and for intentionally reporting false information. Refusal cases are forwarded to the Department of Justice, which is responsible for laying charges under the Act.

DID YOU KNOW THAT... ?

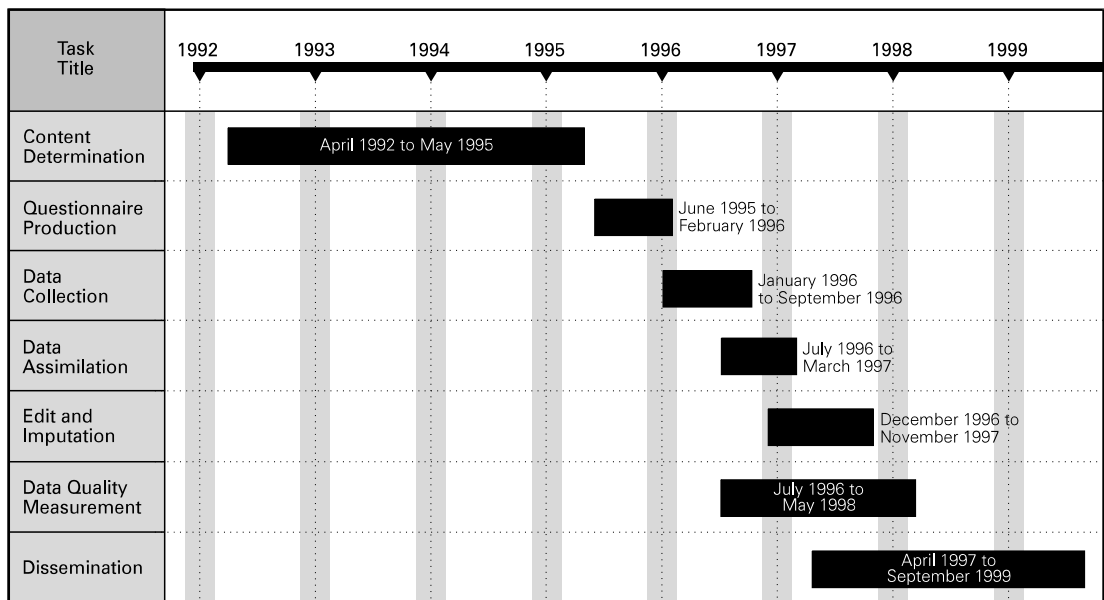
- ▶ The results of the 1871 Census were published in five bilingual volumes in 1873. They were compiled by 35 to 50 clerks unaided by machines. The total population enumerated in the first four Canadian provinces (Nova Scotia, New Brunswick, Quebec and Ontario) was 3,689,257.

Taking a Census

2.1 Introduction

The dissemination of census results is the culmination of a multi-stage process that begins long before Census Day. The census is a unique undertaking on a vast scale, and it has its own special problems. Collecting information from some 29 million people scattered over 9.2 million square kilometres is a daunting challenge. Although censuses are conducted only once every five years in Canada, the census cycle extends over a number of years, as Figure 2 shows.

Figure 2 1996 Census Timetable*



* This timetable is only showing time of intense activities of each task.

2.2 Content Determination

Before each census, Statistics Canada reviews and analyses statistical needs during the census content determination stage. This stage includes extensive consultations aimed at gathering the opinions and comments of data users and other interested parties across Canada concerning the nature and quantity of the information they would like to find in the census database. Statistics Canada has to make sure that the content of the census complies with legislative requirements and meets users' data needs.

The 1996 Census content determination team was responsible for acting as a focal point for consultations, testing and approval of census content, managing the user consultations, coordinating and directing content and questionnaire testing, and obtaining approval for the final census content. Accordingly, the team sought out opinions and recommendations concerning the content of the 1996 Census, collected information about social and economic issues known to be of serious concern to major users, and determined where the data gaps were.

2.2.1 User consultations

To facilitate the user consultations, a consultation guide was prepared and distributed to over 1,000 potential census data users and organizations. The guide, which was divided by subject (concepts, questions, data release timetable), highlighted the issues to be discussed. Interested parties were invited to submit their suggestions in writing to Statistics Canada.



For the 1996 Census, Statistics Canada received a total of 166 written submissions containing over 1,500 comments from more than 1,100 groups and organizations in the public and private sectors. In addition, two international conferences were held, one on the collection of ethnic origin data and the other on the value of unpaid work data.

Taking a Census

2.2.2 Testing program

In this part of the content determination process, all the new questions and possible changes in the questionnaire were tested. Testing for the 1996 Census served a number of purposes, including measuring the effectiveness of new questions, new wording, collection methods and the census guide, and gauging the potential impact of these changes on census costs, data comparability and respondent burden.

The tests were both qualitative and quantitative, and involved 50 focus group sessions, 216 in-depth interviews and the National Census Test (NCT), held on November 8, 1993. The NCT was administered to a sample consisting of about 14,700 occupied dwellings drawn from the households that participated in the Labour Force Survey approximately two years before the NCT date. A further 3,950 dwellings were added to the sample to enhance the coverage of visible minorities and the Aboriginal population in urban areas. The 1993 NCT helped test eight new variables relating to family, language of education, working language, Aboriginal identity, visible minorities, unpaid work, mode of transportation used to travel to work, and type of industry.

At the same time, cognitive research was conducted to determine how questionnaire design and layout influence respondents' reactions and, consequently, data quality. Comments were gathered concerning the wording of questions, the instructions provided in the questionnaire and the guide, the size of the print, the census logo, the use of colour and shading, and the impact of boldface and italics.

2.2.3 Recommendations and content approval

All the comments received during the consultations and all the results obtained from testing were reviewed thoroughly. In preparing recommendations concerning the content of the 1996 Census, various factors were taken into account, including legislative and constitutional requirements, users' needs, historical comparability, relevance of new questions, space available in the questionnaire, respondent burden and costs.

Consultations on the 1996 Census Content

- 990 organizations
- 70 meetings
- 167 memoranda
- About 1,500 comments
- 2 international conferences
- 21 focus groups on ethnic origin, visible minorities and the Aboriginal population
- 11 focus groups on unpaid work
- 6 focus groups on the family/relationship to Person 1
- 6 focus groups on coverage, place of work and mobility status

As a result of this exercise, many questions were left on the questionnaire in order to track social, cultural and economic trends. Changes retained were those which testing showed would produce highly useful, quality data without increasing the respondent burden.

As required by the *Statistics Act*, the Chief Statistician of Canada submitted recommendations regarding the census questionnaire content to the Cabinet for approval. Once approved by the Governor in Council, the questions were spelled out in an Order in Council and published in the *Canada Gazette, Volume 1*, on August 12, 1995.

2.3 Questionnaire Production

Questionnaires play a central role in the collection process in several respects. They are responsible for the image that Statistics Canada projects to the public, the quality of the data obtained, and the efficiency and effectiveness of data collection and processing.

Producing questionnaires that satisfy the requirements for collection, processing and communications and designing a final version that is respondent-friendly is a challenge. To get an idea of the difficulty, simply consider the physical constraints: space is limited on the questionnaire, which in turn limits the number, length and complexity of the questions that can be asked. Instructions and examples for respondents also have to be included on the form.

Did you know that...

The census questionnaires, guides and envelopes are printed on recycled paper. In addition, vegetable-based ink produced from renewable resources is used instead of petroleum-based ink.

Content determination is merely the first in a series of steps: layout and design of questionnaires and reference material, typesetting, editing, coordination of contracts for printing questionnaires and inserting them in packages, product quality control, and monitoring of the delivery of more than 100 million documents produced. Also, addresses and

Taking a Census

bar codes had to be printed on the 350,000 questionnaires destined for use within the centralized edit collection site (see section 2.4.1, *Collection Methods*).

The following are a few examples of the many types of questionnaires, booklets, envelopes and other items produced:

Short Questionnaire (Form 2A)

- given to four fifths of all households in mail-back enumeration areas;
- contains seven questions: name, relationship to Person 1, date of birth, sex, legal marital status, common-law status and first language learned in childhood.

Long Questionnaire (Form 2B)

- given to every fifth household in mail-back enumeration areas;
- contains 55 questions, including the seven questions on Form 2A as well as questions on labour force activity, income, education, activity limitations, citizenship, housing, ethnic origin, and so on.

For reference, a copy of Form 2B is included inside the back cover of this publication.

Population Questionnaire (Outside Canada) (Form 2C)

- used to enumerate Canadians posted abroad, such as federal and provincial public servants, members of the Armed Forces, and their families; also used to enumerate Canadian citizens outside Canada who ask to be included in the census;
- identical to Form 2B, except that there are no housing questions.

Northern and Reserves Questionnaire (Form 2D)

- used to enumerate households in northern areas and most Indian reserves;
- identical in content to Form 2B, except for the addition of band housing in the tenure question and for the adaptation of examples to questions on respondents in northern areas and on Indian reserves.

Individual Census Questionnaire (Form 3)

- used to enumerate persons in non-institutional collectives such as hotels, motels and rooming houses;
- identical in content to Form 2B, except that there are no housing questions;
- also used for private households whose members (lodgers, for example) wanted to record their responses on separate forms.

The census questionnaires were produced in both official languages of Canada. The questions were also translated into 49 non-official languages (including 12 Aboriginal languages) for people who understand neither English nor French, in Braille and also available on audio cassette. For persons with reading difficulties, questionnaires were produced in alternative formats, such as large print and diskette.

2.4 Data Collection

This stage of the census process ensured that each of the 10.9 million dwellings in Canada was enumerated. The census covers the entire Canadian population, which consists of Canadian citizens (by birth and naturalized), landed immigrants and non-permanent residents together with family members who live with them in Canada. Non-permanent residents are persons living in Canada who have a Minister's permit or student or employment authorization, or who are claiming refugee status.

The census also counts Canadian citizens and landed immigrants who are temporarily outside the country on Census Day. This includes persons aboard Canadian merchant and government vessels, federal and provincial public servants and their families, and members of the Armed Forces and their families. Because people outside the country are enumerated, the Census of Canada is considered a modified *de jure* census.

2.4.1 Collection methods

To ensure the best possible coverage, the country is divided into small geographic areas called enumeration areas (EAs). Each census representative is responsible for at least one EA. The optimal number of households in an EA ranges from 125 in rural areas to 440 in urban areas. In the 1996 Census, there were 49,361 enumeration areas in Canada, and 38,000 people engaged in collecting the data.

a) Self-enumeration

In 1996, census representatives dropped off census questionnaires at approximately 98% of households. These households were asked to complete the questionnaire themselves on May 14, and mail it in.



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A new procedure known as **centralized edit** was tested in 10 federal electoral districts in Eastern Ontario. Prior to Census Day, questionnaires were mailed to 350,000 households in the urban area of the test region. In the rural area, questionnaires were dropped off by census representatives. The questionnaires were completed by the households and returned by mail. Instead of being directed to a census representative, as in the rest of the country, they were forwarded to the centralized edit district office. If the results of this test are satisfactory, the procedure will be used for most households across the country in the 2001 Census.

b) Interview

Roughly 2% of households were enumerated by interview; in other words, a census representative visited the household and completed the questionnaire during an interview. This method was used in remote and northern areas, and on most Indian reserves. It was also used in the town centres of large urban areas, where residents are more difficult to enumerate. In addition, some remote northern areas were enumerated in February and March of 1996. This advance census was carried out in areas where communities disperse in the spring and migrate to their hunting and fishing grounds.



2.4.2 Collection support

To support collection activities, an extensive communications program was established to make Canadians aware of the census and the importance of taking part in it. In addition, to respond to people's questions and concerns about this vast undertaking, the Census Help Line (CHL), a free, nation-wide, multilingual service, was available to all respondents. The toll-free number was printed in the census questionnaire and the guide accompanying the long questionnaire. The number was also mentioned in numerous advertisements run by the communications program. Statistics Canada has provided this service in every census since 1971. The number of calls answered by the CHL has grown with every census; in 1996, there were 386,000 calls from all across Canada, compared with 280,000 in 1991.

2.4.3 Census Communications Project

The mission of the Census Communications Project was to carry out activities to make all Canadians aware of the census date, promote the importance of the census and encourage people to take part in it. These activities must be cost-effective while at the same time upholding Statistics Canada's positive, non-partisan image. For 1996, the public message was simple: *Count Yourself In!* The program explained to the Canadian people why the census was important in their community, neighbourhood, city, town, village or province, and how respondent participation and the end use of census data were related. People were also informed that participation was mandatory under the law, and that Statistics Canada, by law, had to protect respondents' confidentiality.

The 1996 Census Communications public relations program had five components: sponsorship, media relations, education, paid advertising and special groups. Together, these components provided an effective means of ensuring that every respondent knew about the upcoming census.

a) Sponsorship

The sponsorship component enlisted the voluntary support of corporations, associations, federal and provincial governments and other organizations. To promote the census, these sponsors included the census message in their regular correspondence and day-to-day communications with employees and clients. More than 350 million messages were sent to respondents as a result of this program.

b) Media relations

Because the census is news, the media were instrumental in getting the census message out to the Canadian people on a daily basis before, on and after Census Day. Through interviews with Statistics Canada spokespersons, editorials and stories, the 1996 Census received extensive coverage in the media.

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c) Education

This component focussed on educational activities for elementary and secondary students. The *1996 Census teacher's kit*, which contained various types of materials illustrating how and why censuses are conducted, was made available on request to teachers across the country; about 12,000 kits were distributed free of charge. Special activities were developed for students of English and French as second languages, and also for adult learners. This aspect of the education component was aimed at students whose parents had difficulties with English and French. The idea was to show them how to complete the census questionnaire so that if necessary, they could respond for their households.

d) Paid advertising

The national advertising campaign started on May 11, 1996, peaked on May 14 and continued through May 15 to mid-June with various messages related to *It's Not Too Late*. Specific campaigns were mounted in areas where questionnaire returns were slower.

e) Special groups

Specific efforts were made to reach people who need special communications assistance, such as the elderly, the disabled and illiterate adults, and groups who had a high undercoverage rate in 1991, including people aged 18 to 30, immigrants, non-permanent residents and Aboriginal peoples. The census

message was adapted in an effort to address the particular concerns of these groups. For example, Statistics Canada obtained the assistance of organizations that work with the elderly, immigrants and ethnic groups in publicizing the toll-free CHL number and distributing special census materials: audio cassettes in English and French for visually impaired people; census questionnaires in large print and on diskette (to be completed) for visually or physically handicapped people; and census questionnaires translated into non-official languages.



2.5 Data Assimilation

This part of the census process involved capturing, editing and coding the information recorded on questionnaires. The objective was to build a database that would lend itself to more sophisticated types of processing. There were three main components in data assimilation:

- regional processing;
- head office processing;
- automated coding.

2.5.1 Regional processing

All questionnaires from completed enumeration areas (EAs), along with maps and visitation records, were shipped from the field collection units to the regional processing sites. Statistics Canada contracted out the pre-capture and direct data entry work to Revenue Canada.

a) Pre-capture operations

In regional processing, the questionnaires were manually prepared for direct data entry. The following four operations are completed at the seven Revenue Canada centres:

- 1) Reception and logging. This task included two separate activities: logging the information about EAs shipped by census representatives; and developing and implementing an automated bar coding control system to track the progress of operations in each EA.
- 2) Coding of economic variables. Write-in responses for economic variables (industry/occupation questions) were coded. This was the largest task in the pre-capture process.
- 3) Sequencing, labelling and batching. In this task, EA batching control cards are created through an automated control system using bar coding, recording the number and types of questionnaires in an EA.
- 4) Assembly and shipping. The questionnaires, visitation records and other materials were shipped, after direct data entry, to head office for further processing.

b) Direct data entry

This step consisted of the following tasks:

- reception and logging of EA boxes from pre-capture operations;
- keying of data from census questionnaires and EA batch control cards;
- verification of keying accuracy by rekeying data from a sample of questionnaires; quality control was performed by comparing the two sets of data;

Taking a Census

- electronic transmission of data from Revenue Canada's regional data centres to its head office in Ottawa and loading of data onto cartridges for delivery to head office.

2.5.2 Head office processing

The head office processing (HOP) team was responsible for receiving, checking and storing the questionnaires, visitation records and cartridges. This part of the process involved a series of manual and automated operations that applied structural edits to the data. The HOP team also prepared a data file containing final population and dwelling counts for dissemination. This operation was divided into three major tasks:

- a) Reception, registration and storage: When data from each enumeration area arrived at the head office, they were recorded using an on-line system. The captured data were tested for readability, and back-up copies were made. Data for the collective dwelling listing file for Canada were also compiled at this stage.
- b) Data analysis: The data underwent a series of structural edits (matching questionnaire types and household types; cross-checking numbers of questionnaires and numbers of people enumerated) to ensure that they met established quality standards. Inconsistencies were checked and corrected with a sophisticated microcomputer application. When all checks were completed, the data were reformatted and forwarded for automated coding, and edit and imputation.
- c) Special processing: A number of studies were conducted during this operation to ensure that Canadians living outside Canada on Census Day (people aboard coast guard, Canadian Armed Forces and Canadian-registered merchant vessels, and diplomatic and military personnel) were enumerated.



2.5.3 Automated coding

Automated coding matched the write-in responses that were captured during direct data entry against an automated reference file/classification structure containing a series of words or phrases and corresponding numerical codes. Specially trained subject-matter experts and coders reviewed all unmatched responses (responses that could not be matched to a reference file/classification structure and therefore were not coded) and assigned the proper numerical code after examining responses from other questions and other members of the household. Automated coding was applied to write-in responses for the following items on the long questionnaire:

- relationship to Person 1;
- home language;
- non-official languages;
- first language learned in childhood;
- place of birth;
- citizenship;
- ethnic origin (ancestry);
- population group;
- Indian Band/First Nation;
- place of residence 1 year ago;
- place of residence 5 years ago;
- major field of study;
- place of work.

Once all responses were coded numerically, the data were sent to edit and imputation.

2.6 Edit and Imputation

The data collected in any survey or census contain omissions or inconsistencies. These errors can be the result of respondents answering the questions incorrectly or incompletely, or they can be due to errors generated during processing. For example, a respondent may be reluctant to answer a question, may fail to remember the right answer or may misunderstand the question. Census staff may code responses incorrectly or may make other mistakes during processing.

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The questionnaires underwent an initial manual edit during collection. Field staff reviewed them for missing responses or unacceptable multiple responses. Such problems were resolved by contacting the respondents and obtaining the required information. In addition, some



basic structural edits were done in HOP, where the questionnaires and the visitation records were referred to as necessary.

The final clean-up of the data was fully automated. It involved applying a series of detailed edit rules which identified missing or inconsistent responses. These missing or inconsistent responses were corrected by changing the values of as few variables as possible through imputation. Imputation was

done using either a “deterministic” or a “minimum change hot deck” method. For deterministic imputation, errors were corrected by inferring the appropriate value from answers to other questions. For minimum change hot deck imputation, a record was selected that had a number of characteristics in common with the record in error. Data from this “donor” record were borrowed and used to change the minimum number of variables necessary to resolve all the edit failures.

Two different automated systems were used to carry out this processing. The NIM (New Imputation Methodology) performed edit and imputation for the basic demographic characteristics such as age, sex, marital status, common-law status and relationship to Person 1. In previous censuses, an automated system called CANEDIT was used for these variables. The NIM allowed more extensive and exact edits to be used than were possible under CANEDIT. It performed minimum change hot deck imputation. The SPIDER (System for Processing Instructions from Directly Entered Requirements) was used to process the other census variables. SPIDER performed both deterministic and hot deck imputation. The NIM may be extended for future censuses to process additional variables.

Data on age, sex, marital status, mother tongue and relationship to Person 1 are collected from all Canadians. However, the bulk of the information gathered in the census comes from a 20% sample of the population. Weighting is used, after edit and imputation, to apply the information supplied by the sample to the whole population.

The weighting method produces fully representative estimates from the sample data. In 1996, weighting was done by a method known as calibration or regression estimation. Calibration estimation starts with initial weights of approximately 5 and then adjusts them by the smallest possible amount needed for agreement between the sample estimates (e.g., number of males, number of people aged 15 to 19) and the actual population counts.

Weighting was the last processing stage before final production of the 1996 Census databases, on which all publications, tables and custom products are based.

2.7 Data Quality Measurement

Throughout the census-taking process, every effort was made to ensure that the results would be of superior quality. The data quality measurement stage was intended to determine the overall quality of the census data. While rigorous quality standards were set for collecting and processing the data, and activities such as the communications program helped reduce non-response, it was impossible to eliminate all errors. Consequently, the quality of the data was measured in order to provide users with information about the reliability of the data, to improve data quality in future censuses, and to adjust the official census data. For more information on this subject, see Chapter 7.

2.8 Dissemination of Products and Services

a) Developing a product line through market sector profiles

The entire census product and service line was subjected to a re-evaluation in 1991, with user consultations conducted on an unprecedented scale. Over 3,000 organizations from every economic sector participated in Statistics Canada's efforts to assess and determine new product features, content, prices, media and formats. User feedback was instrumental in the complete restructuring of the shape and content of the 1991 Census product and service line. The results have been monitored and evaluated since their implementation. Throughout the 1991 cycle, comments were gathered from various points of sale. Consultation remained ongoing with key sectors such as federal government departments, provincial and territorial representatives, libraries and secondary distributors. Nine separate market sectors were identified for 1996, and separate marketing approaches developed for each.

In preparation for 1996, each potential market sector for census data was analysed; their needs were identified, their media preferences ascertained and their data applications examined to see if we were, in fact, providing them with the maximum benefits from our data. This exercise concluded:

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- More information was required in various electronic media. Even the library sector – which cautioned that they needed support to handle the shift from paper to electronic products – indicated a preference for the increased accessibility and flexibility of dealing with information electronically. In order to facilitate this transition, a series of key publications has been kept, that is, publications which are most in demand by the libraries.
- The pricing structure we had used in the past was inconsistent and, for some specific products, uncompetitive with our nearest competitors.
- Information at subprovincial levels was required at a much earlier date.

In response to these findings, a marketing strategy was developed which linked products and services to each identified market profile to ensure that their individual needs were being adequately met. Pricing and licensing for each market was set, in order to help users meet their own objectives and mandates. Among the public sector markets, one-on-one contact was established with federal, provincial and territorial representatives, not only to promote the products and services, but to keep these clients informed of appropriate data opportunities. For other sectors, regional offices have been treated as points of sale, responsible for implementing the promotion and advertising strategies that would be best suited to clients in their market areas. An appropriate pricing structure was established based on market trends, with a view to maximizing access to information. Promotional and publicity efforts have been made an integral part of the business cases developed for each point of service.

b) Marketing of products and services

All marketing efforts related to the 1996 Census – whether they are based in Ottawa or one of our 10 regional reference centres across Canada – work in partnership to ensure that the largest number of people possible are aware of the full potential of the census database. This is achieved, in part, by:

- planning and coordinating the releases of census data and specific products;
- developing a market sector approach to the promotion of the census database;
- maintaining contact with and providing services to previous census clients, as well as those who supplied financial sponsorship to the census collection activities;
- providing sales support and training workshops to new and existing users of census data.

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For the first time, clients will be able to obtain information free of charge on the Internet through Statistics Canada's Web site: <http://www.statcan.ca>. Information relative to each data release is made available to the public through many outlets, especially the media. Each release of data is summarized and published with some analysis in *The Daily*, which is still provided in a printed format for the census, as well as through its regular distribution on the Internet. Members of Parliament and senators receive *The Daily* directly; letters indicating release highlights, briefing sessions and lecture presentations are provided through deputy ministers to other government departments. Ten official releases are scheduled between April 1997 and June 1998.

DID YOU KNOW THAT... ?

- ▶ The estimated total cost of the 1996 Census, after adjustment for inflation and population growth, was only slightly higher than the cost of the 1991 Census – \$30.75 per household, compared with \$30.32 in 1991. These figures are expressed in 1995 dollars.

Confidentiality

Canada owes the success of its statistical system to a long-standing co-operation involving Statistics Canada, the population of Canada, its businesses and governments. Accurate and timely statistical information could not be produced without this continued co-operation and goodwill. Statistics Canada makes every effort to ensure that the confidentiality of the responses is maintained in all aspects of its operations.

Personal responses provided on the census questionnaire are kept strictly confidential because the *Statistics Act* requires that all identifiable information be kept confidential. Other government departments and agencies are not permitted access to census information about individuals.

When hired, Statistics Canada employees are screened for reliability and made aware of the confidential nature of the materials they will handle. All employees, including interviewers, are sworn to secrecy under the *Statistics Act*, which prescribes penalties if an employee were to disclose or knowingly cause to be disclosed personal information. Penalties include a fine of up to \$1,000, imprisonment for up to six months, or both.

Physical access to confidential information is controlled at all times. Only a restricted number of employees have access to completed questionnaires, ensuring that only those who operationally need to will actually see a completed form. Security relating to respondent data is of the highest priority.

Respondents are asked to write their name, address and telephone number on the census form. This information, however, is not entered in the Statistics Canada's database. In fact, the information is requested for data quality reasons. Names are only requested to ensure that each person is counted once and only once. The telephone number is needed by the Census

Representative; if the questionnaire has not been answered completely, he or she can call back. The address is required for different reasons. For instance, people are enumerated according to their place of residence on Census Day. The address is needed to ensure that, in cases where more than one questionnaire has been completed for a household, all replies are processed together.

Unless interviewed by a census representative, which was the case



for approximately 2% of the population, respondents were asked to fill in the census questionnaire and return it by mail, in envelopes provided for this purpose. Special arrangements were made with Canada Post Corporation to classify the yellow census envelopes as “personal contact items”. Questionnaires could only be received by the Census Commissioner or a designated representative.

After the yellow census envelopes, containing the completed forms, were delivered by Canada Post Corporation, they were always handled by Statistics Canada employees or bonded carriers. Security precautions included special wrapping procedures to protect against torn packages and placing seals on shipping containers to reduce the risk of having someone tamper with the documents.

Statistics Canada is allowed, by law, to use the answers to a census questionnaire for statistical purposes only. A database is created — again, with no names, address or telephone numbers — from which the figures provided to the public are retrieved.

In all products released, procedures are applied to prevent the possibility of associating statistical data with any identifiable individual: the data are randomly rounded and they are suppressed for certain geographic areas. Random rounding is a method whereby all figures in a tabulation, including totals, are randomly rounded (either up or down) to a multiple of “5”, and in some cases “10”. This technique provides strong protection against direct, residual or negative disclosure, without adding significant error to the census data. However, figures on population counts only are not rounded since they provide no information on the characteristics of these populations. Area suppression results in the deletion of all characteristic data for geographic areas with populations below a specified size. All data for standard and non-standard geographic areas with a total population of less than 40 persons are suppressed. If the data contain an income distribution, those areas with a population below 250 persons are suppressed. For postal code geography, the three-character Forward Sortation Areas (FSAs) will be suppressed using the 40-person rule. For the six-character Local Delivery Units (LDUs), a 100-person suppression rule will be used. In all cases, suppressed data are included in the appropriate higher aggregate subtotals and totals.

The release of specialized products, such as public use microdata files or small area data, are subject to special scrutiny by formal review groups.

For the 1996 quinquennial Census only, agreement has been reached with the National Archives to destroy the questionnaires once Statistics Canada no longer requires them for its operational needs. The decision to destroy the questionnaires is based on the lack of funds available for microfilming the records and, from an archival perspective, the greater importance being placed on retaining questionnaires from the decennial census.

Confidentiality

Respondents can rest assured that all the answers provided on the census questionnaire are kept strictly confidential and will remain so.

DID YOU KNOW... ?

- ▶ 21,000,000 write-ins are coded by 133 coders in Automated Coding; if the same operation were done manually in the same time frame, 850 coders would be required.

4.1 Introduction

The best starting point for a census data user is probably the questionnaire itself. Familiarity with question wording, response categories and accompanying instructions is helpful in understanding the results of any survey. It is particularly important in the case of the census because most respondents answer the questionnaire themselves (self-enumeration), relying on their own interpretation and understanding of the questions.

This section describes each step in the census questionnaire. It also contains a figure of all census questions since Confederation.

As noted in section 2.3, five questionnaires were used to enumerate the Canadian population in the 1996 Census. The two most important ones were the short questionnaire (Form 2A) and the long questionnaire (Form 2B) in mail-back enumeration areas. The former was bilingual and was distributed to 80% of households, while the latter had two separate English and French versions and was distributed to 20% of households. In dropping off long questionnaires, census representatives were to ensure that each household could respond in the official language of its choice: if they were able to contact a member of the household, they were to give out the version in the respondent's preferred official language; if not, they were to drop off both versions.

Forms 2A and 2B provided enough space for up to six household members. Larger households had to use additional questionnaires.

Form 2A – Short Questionnaire

There were seven questions in the 1996 Form 2A. The two housing questions (household maintainer and tenure) included in the 1991 short questionnaire were dropped from the 1996 version, but they were included in the Form 2B.

Question	Content
1	Name
2	Relationship to Person 1
3	Date of birth
4	Sex
5	Marital status
6	Common-law status
7	First language learned in childhood

Form 2B – Long Questionnaire

Form 2B contained the seven questions from the short questionnaire, as well as 48 others. One in every five private households received a Form 2B, except in northern areas, remote areas and Indian reserves. In those areas, all households completed a long questionnaire (Form 2D) since sampling was unlikely to provide accurate data for such small populations.

Since these two questions are asked every ten years, the 1991 questions on religion and fertility were dropped for 1996. Questions asked for the first time in the 1996 Census are shown in bold.

Question	Content
1	Name
2	Relationship to Person 1
3	Date of birth
4	Sex
5	Marital status
6	Common-law status
7	Activity limitations
8	Long-term disability
9	Knowledge of English and French
10	Knowledge of languages other than English or French
11	Home language
12	First language learned in childhood
13	Place of birth
14	Citizenship
15	Landed immigrant status
16	Year of immigration
17	Ethnic origin
18	Aboriginal self-reporting
19	Population group
20	Indian Band or First Nation
21	Registered Indian
22	Mobility – Place of residence 1 year ago
23	Mobility – Place of residence 5 years ago
24	Highest level of elementary or secondary schooling
25	Years of schooling (university)
26	Years of schooling (other)
27	School attendance

Census Questions

28	Degrees, certificates and diplomas
29	Field of specialization
30	Household activities
31	Number of hours worked
32	Work absence
33	New job arrangements
34	Recent job search
35	Availability for work
36	Last date of work
37	Name of employer
38	Kind of business
39	Kind of work
40	Most important duties
41	Class of worker (employee, self-employed, etc.)
42	Incorporation status
43	Place of work
44	Mode of transportation to work
45	Weeks worked in 1995
46	Full-time or part-time work
47	Income in 1995
H1	Household maintainer(s)
H2	Tenure
H3	Number of rooms and bedrooms
H4	Period of construction
H5	Need for repairs
H6	Yearly payments
H7	Shelter costs - Renter
H8	Shelter costs - Owner

Other census forms

Census representatives used a number of other forms in the 1996 Census. For example, the **Visitation Record (VR)** was used to list all households and dwellings in an enumeration area by address or physical description, and the number of usual residents. The VR provided control totals that were used to check whether all dwellings and households had been enumerated.

Form 1A, **Collective Dwelling Record**, was used by census representatives to list individuals in hospitals and jails. Answers to the seven basic population questions were taken from the administrative records of these institutions and copied on a 2B form.

Census Questions

Figure 3 Census Questions Since Confederation

	First time in census (before 1971)	1971	1976	1981	1986	1991	1996
Demographic Characteristics							
Name	1871	X	X	X	X	X	X
Relationship to Person 1	1891	X	X	X	X	X	X
Date of birth	1871	X	X	X	X	X	X
Sex	1871	X	X	X	X	X	X
Marital status	1871	X	X	X	X	–	–
Legal marital status	–	–	–	–	–	X	X
Common-law status	–	–	–	–	–	X	X
Mobility – Place of residence 1 year ago	–	–	–	–	–	X	X
Mobility – Place of residence 5 years ago	1961	X	X	X	X	X	X
Number of moves since previous census	–	X	–	–	–	–	–
Date of first marriage	1941	X	–	X	–	–	–
Number of children ever born	1941	X	–	X	–	X	–
Ethno-cultural and Language Characteristics							
Knowledge of official languages	1901	X	–	X	X	X	X
Knowledge of non-official languages	–	–	–	–	–	X	X
Home language	–	X	–	X	X	X	X
Mother tongue	1901	X	X	X	X	X	X
Place of birth	1871	X	–	X	X	X	X
Place of birth of parents	1891	X	–	–	–	–	–
Citizenship	1901	X	–	X	X	X	X
Landed immigrant status	–	–	–	–	–	X	X
Period/year of immigration	1901	X	–	X	X	X	X
Ethnic origin	1871	X	–	X	X	X	X
Aboriginal status (self-perception)	–	–	–	–	X	–	–
Registered Indian status	–	–	–	–	–	X	X
Indian Band/First Nation	–	–	–	–	–	X	X
North American Indian, Métis, Inuit (self-reporting)	–	–	–	–	–	–	X
Population group (Visible minority)	–	–	–	–	–	–	X
Religion	1871	X	–	X	–	X	–

Census Questions

	First time in census (before 1971)	1971	1976	1981	1986	1991	1996
Activity Limitations							
At home	-	-	-	-	X	X	X
At school	-	-	-	-	X	X	X
In other activities	-	-	-	-	X	X	X
Long-term disabilities or handicaps	-	-	-	-	X	X	X
Schooling							
Highest level of elementary or secondary schooling	1941	X	X	X	X	X	X
Years of schooling (university)	-	-	X	X	X	X	X
Years of schooling (other)	-	-	X	X	X	X	X
School attendance	1871	X	X	X	-	X	X
University degrees	-	-	X	X	X	X	X
Completion of full-time vocational course (3 months or more)	-	X	-	-	-	-	-
Province of elementary or secondary (or outside Canada)	-	X	-	-	-	-	-
Field of specialization	-	-	-	-	X	X	X
Household Activities							
Hours doing unpaid housework last week	-	-	-	-	-	-	X
Hours caring for children without pay last week	-	-	-	-	-	-	X
Hours providing unpaid care to seniors last week	-	-	-	-	-	-	X
Labour Market Activities							
Actual hours worked last week	1951	X	X	X	X	X	X
Usual hours worked each week	1911	X	-	-	-	-	-
Last date of work	-	X	-	X	X	X	X
Industry	1901	X	-	X	X	X	X
Occupation	1871	X	-	X	X	X	X
Class of worker	1891	X	-	X	X	X	X
Weeks worked in reference year	1911	X	-	X	X	X	X
Full-time/part-time work	-	X	-	X	X	X	X
Temporary lay-off/absent from job	-	X	X	X	X	X	X
New job to start in four weeks or less	-	-	X	X	X	X	X
Looked for work	1961	X	X	X	X	X	X
Availability for work	-	-	X	X	X	X	X
Incorporation status	-	X	-	X	X	X	X

Census Questions

	First time in census (before 1971)	1971	1976	1981	1986	1991	1996
Journey to work							
Place of work	–	X	–	X	X	X	X
Mode of transportation to work	–	–	–	–	–	–	X
Income							
Income in year previous to census year	–	X	–	X	X	X	X
Wages and salaries	1901	X	–	X	X	X	X
Net non-farm self-employment income	–	X	–	X	X	X	X
Net farm self-employment income	–	X	–	X	X	X	X
Family allowances	–	X	–	X	X	X	X
Federal Child Tax Credits	–	–	–	–	X	X	X
Old Age Security (OAS) and Guaranteed Income Supplement (GIS)	–	X	–	X	X	X	X
Benefits from Canada or Quebec Pension Plan (CPP/QPP)	–	X	–	X	X	X	X
Benefits from Unemployment Insurance	–	X	–	X	X	X	X
Other income from government sources	–	X	–	X	X	X	X
Interest and dividends	–	X	–	X	X	X	X
Other investment income	–	X	–	X	X	X	X
Retirement pensions, superannuation, annuities	–	X	–	X	X	X	X
Other money income	–	X	–	X	X	X	X

Census Questions

	First time in census (before 1971)	1971	1976	1981	1986	1991	1996
Family and Household							
Agricultural operator	–	–	–	–	–	X	X
Household maintainer(s)	–	–	–	X	X	X	X
Household head	1941	X	X	–	–	–	–
Family head	1921	X	–	–	–	–	–
Tenure (owned/rented)	1921	X	X	X	X	X	X
Tenure (condominium)	–	–	–	X	X	X	X
Tenure (band housing)	–	–	–	–	–	X	X
Presence of mortgage	1941	X	–	X	X	X	X
Who holds first mortgage	–	X	–	–	–	–	–
Shelter costs – Renter	1941	X	–	X	X	X	X
Payment of reduced rent (e.g., government subsidized housing)	–	X	–	–	–	–	–
Automobiles available for personal use	1941	X	–	–	–	–	–
Vacation home ownership	–	X	–	–	–	–	–
Major home appliances	1931	X	–	–	–	–	–
Yearly payments	–	X	–	X	X	X	X
– electricity	–	X	–	X	X	X	X
– oil, coal, wood, etc.	–	X	–	X	X	X	X
– gas	–	X	–	X	X	X	X
– water	–	X	–	X	X	X	X
– shelter costs – Owner	–	–	–	X	X	X	X
• mortgage	–	–	–	X	X	X	X
• property taxes	–	–	–	X	X	X	X
• condominium	–	–	–	X	X	X	X
• condominium fees	–	–	–	–	–	X	X

Census Questions

	First time in census (before 1971)	1971	1976	1981	1986	1991	1996
Dwelling							
Number of rooms	1941	X	–	X	X	X	X
Number of bedrooms	–	X	–	–	–	X	X
Number of bathrooms	–	–	–	X	–	–	–
Period of construction	1941	X	–	X	X	X	X
Condition of dwelling	–	–	–	X	–	X	X
Type of dwelling	1941	X	X	X	X	X	X
Value of dwelling	1941	X	–	X	X	X	X
Number of dwellings in the building	1941	X	–	–	–	–	–
Garage	–	X	–	–	–	–	–
Piped running water in dwelling	1941	X	–	–	–	–	–
Bath or shower	1941	X	–	–	–	–	–
Use of flush toilet in building	1941	X	–	–	–	–	–
Unoccupied dwelling, reason for	–	–	X	–	X	–	–
Seasonal/marginal dwellings	–	–	–	X	X	X	X
Length of occupancy	1941	X	–	X	–	–	–
Source of water supply	–	X	–	–	–	–	–
Method of sewage disposal	–	X	–	–	–	–	–
Principal type of heating equipment	1941	X	–	X	X	–	–
Principal fuel used for:							
– cooking	–	X	–	–	–	–	–
– heating	1941	X	–	X	X	–	–
– water heating	–	X	–	X	–	–	–

Census Questions

	First time in census (before 1971)	1971	1976	1981	1986	1991	1996
Coverage							
Did you leave anyone out?	–	X	–	X	X	X	X
Household roster	–	X	–	–	–	X	X
Number of temporary residents	–	X	–	X	X	X	X
Number of usual residents	–	X	–	X	X	X	X
Other							
Wartime service	1951	X	–	–	–	–	–

Census Guide

For the 1996 Census, the respondent's guide that used to accompany the short questionnaire was replaced with explanations printed in the questionnaire itself. The removal of the housing questions freed up enough space for this information on the form. The long questionnaire was accompanied by a 31-page guide that explained each step and each question in the census and the reasons for including each question.

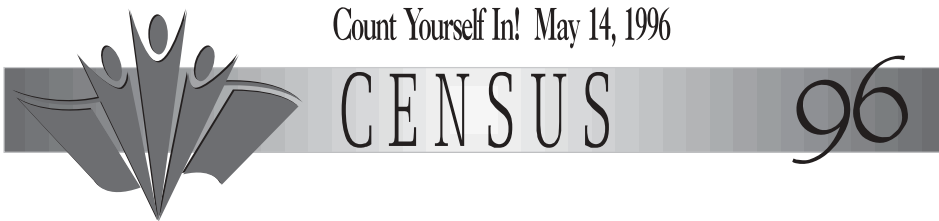
A copy of Guide 9B is provided in the pocket inside the back cover.

Census Questions

1996 CENSUS QUESTIONNAIRE

Ce questionnaire est disponible en français ☎ 1 800 670-3388

OFFICE USE ONLY	Prov.	FED No.	EA No.	VN	CCD	2 <input type="checkbox"/> B <input type="checkbox"/>	Forms 3 1.
	Hhld No.	Form type 3	No. of persons	Questionnaire No. of	TD 1	UD <input type="checkbox"/> FR <input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/>	
						DC <input type="checkbox"/> TR <input type="checkbox"/> Coll. <input type="checkbox"/>	



A message about the census

For over 300 years, the census has painted a picture of our people and the places in which we live. The information collected on May 14, 1996, will help all of us prepare for the future. The census provides information needed by community groups, businesses, and governments to develop plans for education and training, new products and services, housing for seniors, health care services, and many other programs that are important to all of us.

By law, Statistics Canada must take a census every five years, and every household must fill in a census form. And by law, no one, except employees of Statistics Canada, is allowed to see the personal information you provide.

Please fill in your census form and mail it back on May 14, 1996.

Thank you for your co-operation.

Ivan P. Fellegi
Chief Statistician of Canada

This information is collected under the authority of the *Statistics Act*, R.S.C. 1985, c. S-19, and must be provided by law. **CONFIDENTIAL WHEN COMPLETED**

<p>STEP 1</p>	<p>Begin here by printing your address</p>			<p>Need Help? Please see the Guide or call us free of charge: 1 800 670-3388</p> <p>TDD/TTY users call: 1 800 303-9633</p>
	No. and street or lot and concession	Apt. No.		
	City, town, village, Indian reserve	Province / territory		
	Postal code	Area code	Telephone number	

The questionnaire provided respondents with the following information:

- the confidentiality of the questionnaire when completed;
- the authority under which the census is conducted;
- the purpose of the census and Statistics Canada's commitment to keeping the information supplied by respondents confidential, as stated in the Chief Statistician's message;
- the requirement to provide information.

Also, there was an area on the front cover used for questionnaire tracking information, including an address and a unique numerical identifier for each household. In addition, the cover had a number of small boxes labelled with abbreviations or symbols. Census representatives used the boxes to indicate that the dwelling in question was *unoccupied* (UD), for example, or that the dwelling was *marginal* or *seasonal* (M) or *under construction* (DC) or if all occupants were foreign residents (FR) or all temporary residents (TR). They were also required to enter the type of dwelling (TD):

1. Single-detached house
2. Semi-detached house
3. Row house
4. Apartment or flat in a detached duplex
5. Apartment in a building that has five or more storeys
6. Apartment in a building that has fewer than five storeys
7. Other single-attached house
8. Mobile home
9. Other movable dwelling

STEP 1

Statistics Canada needed the respondent's address to make sure that every household had been counted once and only once. The telephone number was needed so that the respondent could be contacted if any information was missing from the questionnaire.

STEPS 2 TO 5

These steps were essential to ensure accurate enumeration of Canada's population. They were intended to help respondents determine who they should list in their questionnaire. They also helped Statistics Canada ascertain whether everyone who should have been enumerated in a given household had actually been counted.

Census Questions



List below all persons who usually live here as of May 14, 1996, even if they are temporarily away on business, at school or on vacation.

STEP 2

Don't forget to include yourself!




- **Begin the list with an adult** followed, if applicable, by that person's spouse or common-law partner and by their children.
- Continue with all other persons who usually live here. Children should be listed immediately after their parent(s).

	Family name	Given name	Initial
Person 1			
Person 2			
Person 3			
Person 4			
Person 5			
Person 6			
Person 7			
Person 8			
Person 9			
Person 10			

If you need more space, use the "Comments" section on page 32.



BE SURE TO INCLUDE

- **everyone who usually lives here**, including newborn babies, room-mates, boarders and live-in employees;
- **sons or daughters who live somewhere else while attending school** but return to live here for part of the year;
- **children in joint custody** who live here most of the time (if they spend equal time with each parent, include them if they are staying here on May 14, 1996);
- persons from another country who live in Canada and have **work, student or Minister's permits, or persons claiming refugee status**, and family members living with them;
- persons who usually live here but are now in an **institution** (such as a home for the aged, a hospital or a prison), if they have been there **less than six months**;
- persons staying here on May 14, 1996, who have **no usual home elsewhere**.

 STEP 3	<p>Did you leave anyone out of Step 2 because you were not sure the person should be listed?</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> • other relatives living here; • a student away at school; • a lodger who has another home; • a person who has moved recently; or • a member of this household who is away in an institution. 	<p><input type="text" value="00."/></p> <p><input type="radio"/> No</p> <p>01 <input type="radio"/> Yes → Print the name of each person left out and the reason.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Name</td></tr> <tr><td style="padding: 2px;">Reason</td></tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Name</td></tr> <tr><td style="padding: 2px;">Reason</td></tr> </table> <p style="font-size: small;">If you need more space, use the "Comments" section on page 32.</p>	Name	Reason	Name	Reason
Name						
Reason						
Name						
Reason						
 STEP 4	<p>Are ALL PERSONS in this household:</p> <ul style="list-style-type: none"> • government representatives of another country and their families; <p>OR</p> <ul style="list-style-type: none"> • members of the Armed Forces of another country and their families; <p>OR</p> <ul style="list-style-type: none"> • residents of another country visiting Canada, for example, on a business trip or on vacation? 	<p><input type="radio"/> No → Continue with Step 5</p> <p>02 <input type="radio"/> Yes → Do not complete this questionnaire. Mail it in the enclosed postage-paid envelope.</p>				
 STEP 5	<p>If ALL PERSONS in this household are staying here temporarily and have a usual home somewhere else in Canada, enter the total number of persons in this box</p>	<p>03 <input style="width: 40px;" type="text"/> → Do not complete this questionnaire. Mail it in the enclosed postage-paid envelope.</p>				

STEP 6

This step determined whether any member of the household was a farm operator. It ensured that all agricultural holdings were counted for the Census of Agriculture.

 STEP 6	<p>Does anyone in this household OPERATE an agricultural operation?</p> <p><i>Agricultural operations include: ranches, farms, feedlots, hobby farms, greenhouses, mushroom houses, nurseries, Christmas tree farms, fur farms, horse farms, game farms; beekeeping, sod, fruit and maple syrup operations, etc.</i></p>	<p>04 <input type="radio"/> No</p> <p>05 <input type="radio"/> Yes</p>
 STEP 7	<p>In Question 1 on the next page, copy the names from Step 2.</p>	<p>HOUSEHOLDS WITH MORE THAN SIX PERSONS</p> <p>If there are more than six persons in this household, enter the first six on this questionnaire and continue on a second questionnaire. If you do not have a second questionnaire, note this in the "Comments" section on page 32. A Statistics Canada representative will contact you.</p>

Census Questions

BASIC POPULATION DATA

Questions 1 to 6 on the long form concern the members of the household. They were designed to collect data that will provide statistical information about the demographic characteristics of the population, family size, the number of children in lone-parent families and the number of persons living alone. This information is used to plan numerous social programs, such as Old Age Security, and the Child Tax Benefit. It is also used to analyse community requirements for day care facilities, schools and senior citizens' homes.

Question 1: Name

While names are not entered in the census database, respondents were asked to provide the name of each household member to ensure that no one was left out or counted twice.

Question 1 contained the same instruction concerning the order of names as in the 1991 long questionnaire, along with a reminder to respondents to answer each question for each member of their household.

1. NAME In the spaces provided, copy the names in the same order as in Step 2 . Then answer the following questions for each person.	PERSON 1		PERSON 2	
	Family name		Family name	
	Given name	Initial	Given name	Initial

Question 2: Relationship to Person 1

The response categories for this question were nearly the same as in 1991, except for the addition of *grandparent of Person 1*, which in 1991 was among the examples of *other* related persons.

<p>2. RELATIONSHIP TO PERSON 1</p> <p>For each person usually living here, describe his/her relationship to Person 1.</p> <p><i>Mark or specify one response only.</i></p> <p><i>Stepchildren, adopted children and children of a common-law partner should be considered sons and daughters.</i></p> <p><i>If none of the choices apply, use the "Other" box to indicate this person's relationship to Person 1.</i></p> <p><i>Examples of "Other" relationships to Person 1:</i></p> <ul style="list-style-type: none"> • <i>cousin</i> • <i>niece or nephew</i> • <i>son's common-law partner (common-law daughter-in-law)</i> • <i>lodger's husband, wife or common-law partner</i> • <i>lodger's son or daughter</i> • <i>room-mate's daughter or son</i> • <i>employee</i> 	<p>01.</p> <p>01 <input checked="" type="radio"/> PERSON 1</p>	<p>02.</p> <p>02 <input type="radio"/> Husband or wife of Person 1</p> <p>03 <input type="radio"/> Common-law partner of Person 1</p> <p>04 <input type="radio"/> Son or daughter of Person 1</p> <p>05 <input type="radio"/> Son-in-law or daughter-in-law of Person 1</p> <p>06 <input type="radio"/> Grandchild of Person 1</p> <p>07 <input type="radio"/> Father or mother of Person 1</p> <p>08 <input type="radio"/> Father-in-law or mother-in-law of Person 1</p> <p>09 <input type="radio"/> Grandparent of Person 1</p> <p>10 <input type="radio"/> Brother or sister of Person 1</p> <p>11 <input type="radio"/> Brother-in-law or sister-in-law of Person 1</p> <p>12 <input type="radio"/> Lodger or boarder</p> <p>13 <input type="radio"/> Room-mate</p> <p>Other – <i>Specify</i></p> <p>14 <input style="width: 150px; height: 20px;" type="text"/></p>
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The relationships between household members enable Statistics Canada to determine how many people belong to census families and economic families and, in general, to analyse living arrangements in households. The data collected by this question are required to assess the need for federal, provincial and municipal programs in areas such as family income support, day care facilities, support for people with disabilities and senior citizens living alone, and support for lone-parent families.

Census Questions

Question 3: Date of birth

The 1996 question was identical to the question asked in 1991.

The *age* variable is derived from this question. This indirect method of determining the age of respondents provides more accurate information than asking respondents to indicate their age on Census Day. The distribution of the population by age is especially important in gauging the need for specific services such as elementary and secondary schools. Age information is also used to make forecasts regarding the major transitions in the lives of Canadians, such as joining the labour market, starting a family and retiring.

<p>3. DATE OF BIRTH Enter day, month and year.</p> <p><i>Example:</i> If this person was born on the 23rd of February 1954, enter</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Day</td> <td style="text-align: center;">Month</td> <td style="text-align: center;">Year</td> </tr> <tr> <td style="text-align: center;">23</td> <td style="text-align: center;">02</td> <td style="text-align: center;">1954</td> </tr> </table> <p><i>If exact date is not known, enter best estimate.</i></p>	Day	Month	Year	23	02	1954	<p>Date of birth</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Day</td> <td style="text-align: center;">Month</td> <td style="text-align: center;">Year</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">1 [] []</td> </tr> </table>	Day	Month	Year	15	[]	1 [] []
Day	Month	Year											
23	02	1954											
Day	Month	Year											
15	[]	1 [] []											

Question 4: Sex

This variable plays an important part in population estimates. To keep population estimates and indexes accurate, Statistics Canada needs accurate periodic census data on the distribution of the population by sex. The data are also required in order to break down other census data by sex, not only for the entire population but also for subgroups such as elderly women, immigrant women, and lone-parent families headed by women.

<p>4. SEX</p>	<p>16 <input type="radio"/> Male 17 <input type="radio"/> Female</p>
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Question 5: Legal marital status

Although the word legal was not used in the title of Question 5 in the 1996 questionnaire, respondents were asked to state their legal marital status: legally married (and not separated), separated, but still legally married, divorced, widowed, or never married (single). Marital status data, along with data on relationship to Person 1 and common-law status data, are needed to produce family data. They are an important indicator of change in social institutions and customs. They can also be used to generate a breakdown of families by the marital status of the parent and, when combined with the census economic variables, to measure the economic well-being of families.

5. MARITAL STATUS

Mark one circle only.

- 18 Legally married (and not separated)
- 19 Separated, but still legally married
- 20 Divorced
- 21 Widowed
- 22 Never married (single)

Question 6: Common-law status

The question was the same as in 1991, but a note was added in 1996 to explain the meaning of *common-law* (two people who live together as husband and wife but who are not legally married to each other). The data collected by this question are used to track changes in family structure and family relationships and to gauge the prevalence of cohabitation in different parts of the country. Common-law data and legal marital status data are combined to obtain de facto marital status data. These latter data are therefore comparable to those of previous censuses.

6. Is this person living with a **common-law** partner?

Common-law refers to two people who live together as husband and wife but who are not legally married to each other.

- 23 Yes
- 24 No

This was asked as a separate question for the first time in 1991. Common-law data from the 1986 and 1981 Censuses were obtained from responses to the relationship to Person 1 question.

Census Questions

ACTIVITY LIMITATIONS

Questions 7 and 8 collected information about the number of Canadians with mental or physical disabilities and with chronic illnesses that limit their activities. Data on persons with disabilities are used in developing and managing transportation, housing, communications, employment equity and other programs.

Except for their position in the questionnaire (they were numbers 18 and 19 in the 1991 questionnaire), these questions remained unchanged in the 1996 Census.

Question 7: Activity limitations

ACTIVITY LIMITATIONS	07.
<p>7. Is this person limited in the kind or amount of activity that he/she can do because of a long-term physical condition, mental condition or health problem:</p> <p>(a) at home?</p> <hr/>	<p>01 <input type="radio"/> No, not limited</p> <p>02 <input type="radio"/> Yes, limited</p>
<p>(b) at school or at work?</p> <hr/>	<p>03 <input type="radio"/> No, not limited</p> <p>04 <input type="radio"/> Yes, limited</p> <p>05 <input type="radio"/> Not applicable</p>
<p>(c) in other activities, for example, in transportation to or from work, or in leisure time activities?</p>	<p>06 <input type="radio"/> No, not limited</p> <p>07 <input type="radio"/> Yes, limited</p>

Question 8: Long-term disability or handicap

<p>8. Does this person have any long-term disabilities or handicaps?</p>	<p>08 <input type="radio"/> No</p> <p>09 <input type="radio"/> Yes</p>
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LANGUAGE

Questions 9 to 12 were intended to gather mother tongue data and information on the languages understood and used by Canadians in the various parts of the country. The data are used, for example, in administering programs that protect the rights of Canadians under the *Canadian Charter of Rights and Freedoms*. The four language questions were the same as in 1991.

Question 9: Knowledge of English and French

The response categories for this question were unchanged from 1991. They indicate whether the respondent and other members of the household can conduct a conversation in English only, French only, both English and French, or neither Canada's official languages. The information derived from this question is used to measure the need for language training and services in both official languages.

LANGUAGE	
<p>9. Can this person speak English or French well enough to conduct a conversation?</p> <p>■</p> <p><i>Mark one circle only.</i></p>	<p>10 <input type="radio"/> English only</p> <p>11 <input type="radio"/> French only</p> <p>12 <input type="radio"/> Both English and French</p> <p>13 <input type="radio"/> Neither English nor French</p>

Question 10: Knowledge of other languages

This question was asked for the first time in 1991. The results will indicate how many Canadians can conduct a conversation in languages other than English or French. The data collected provide a good indication of people's language skills at the time of the census, regardless of their mother tongue or the language they used at home.

<p>10. What language(s), other than English or French, can this person speak well enough to conduct a conversation?</p> <p>■</p>	<p>14 <input type="radio"/> None</p> <p>OR</p> <p><i>Specify other language(s)</i></p> <p>15 <input type="text"/></p> <p>16 <input type="text"/></p> <p>17 <input type="text"/></p>
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Census Questions

Question 11: Home language

This question has been included in the census since 1971. The information is used to study linguistic assimilation in Canada and to evaluate federal programs aimed at helping linguistic minorities maintain their heritage. The data are also used to determine which official language new immigrants learn and how that choice varies by province of residence.

<p>11. What language does this person speak most</p> <ul style="list-style-type: none"> ■ often at home? 	<p>18 <input type="radio"/> English</p> <p>19 <input type="radio"/> French</p> <p style="text-align: center;">Other – Specify</p> <p>20 <input style="width: 100%;" type="text"/></p>
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Question 12: First language learned in childhood

The purpose of this question was to find out what language the respondent first learned at home in childhood. The information is used, for example, in administering programs that protect the rights of Canadians under the *Canadian Charter of Rights and Freedoms*.

<p>12. What is the language that this person first learned</p> <ul style="list-style-type: none"> ■ at home in childhood and still understands? <p><i>If this person no longer understands the first language learned, indicate the second language learned.</i></p>	<p>21 <input type="radio"/> English</p> <p>22 <input type="radio"/> French</p> <p style="text-align: center;">Other – Specify</p> <p>23 <input style="width: 100%;" type="text"/></p>
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SOCIOCULTURAL INFORMATION

Questions 13 to 21 collected data needed to produce a social and cultural profile of Canada's population. For example, the questions provided information about population movements, citizenship, immigration and ethnic diversity.

Question 13: Place of birth

The response categories for Canadian provinces and territories were the same as in 1991. For places of birth outside Canada, however, the respondent was required in 1996 to specify the country in all cases. The response boxes for the six countries most commonly reported as places of birth in previous censuses were removed in 1996.

SOCIO-CULTURAL INFORMATION	
<p>13. Where was this person born?</p> <ul style="list-style-type: none"> ▪ <i>Mark or specify one response only, according to present boundaries.</i> 	<p>13.</p> <p>Born in Canada</p> <p>01 <input type="radio"/> Nfld. 07 <input type="radio"/> Man.</p> <p>02 <input type="radio"/> P.E.I. 08 <input type="radio"/> Sask.</p> <p>03 <input type="radio"/> N.S. 09 <input type="radio"/> Alta.</p> <p>04 <input type="radio"/> N.B. 10 <input type="radio"/> B.C.</p> <p>05 <input type="radio"/> Que. 11 <input type="radio"/> Yukon</p> <p>06 <input type="radio"/> Ont. 12 <input type="radio"/> N.W.T.</p> <p>Born outside Canada</p> <p>Country – Specify</p> <p>13 <input type="text"/></p>

The answers to this question are particularly important in developing and evaluating immigration policy. They are the only source of information about Canada's immigrant population. Place-of-birth data also permit analysis of life time interprovincial migration of the Canadian-born population.

Census Questions

Question 14: Citizenship

Citizenship is a complex subject. For example, some people born in Canada, such as the children of foreign diplomats posted to Canada, are not Canadian citizens. Others are Canadians by birth even though they were born abroad; this is the case for any child born abroad whose parents are Canadian citizens.

One of the benefits of citizenship is the right to vote. Consequently, all levels of government need citizenship data for purposes such as election planning. The data are also used to plan citizenship courses and programs.

In 1996, the citizenship question was changed to allow respondents to specify their country(ies) of citizenship.

<p>14. Of what country is this person a citizen?</p> <ul style="list-style-type: none"> ▪ Indicate more than one citizenship, if applicable. 	<p>14 <input type="radio"/> Canada, by birth</p> <p>15 <input type="radio"/> Canada, by naturalization</p> <p>Other country – Specify</p> <p>16 <input style="width: 100px; height: 15px;" type="text"/></p>
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Questions 15 and 16: Landed immigrant status/Year of immigration

The answers to the questions on landed immigrant status (Question 15) and year of immigration (Question 16), when combined with citizenship data, provide information about the non-immigrant population (Canadian citizens by birth), the immigrant population (landed immigrants) and the non-permanent resident population (refugee claimants and holders of student authorizations, employment authorizations and Minister's permits). The data can also be used to study immigration trends.

The questions remained unchanged from 1991, except that the definition of *landed immigrant* was added to Question 15.

<p>15. Is this person now, or has this person ever been, a landed immigrant?</p> <ul style="list-style-type: none"> ▪ <i>A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities.</i> 	<p>17 <input type="radio"/> No → Go to Question 17</p> <p>18 <input type="radio"/> Yes</p>
<p>16. In what year did this person first become a landed immigrant?</p> <p><i>If exact year is not known, enter best estimate.</i></p>	<p>Year</p> <p>20 <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/></p>

Question 17: Ethnic origin

While the ethnic origin question remained the same as in 1991, the response categories were changed for 1996. Instead of a list of response boxes for the ethnic origins most frequently reported in the last census, Question 17 provided a series of examples to help respondents write in their answer(s). For the first time, *Canadian* was included as one of the examples.

This question provides information about ethnic and cultural diversity in Canada's population and the characteristics of members of ethnic and cultural groups in Canada. The data are also needed for the purposes of the *Multiculturalism Act* and the *Canadian Charter of Rights and Freedoms*.

<p>17. To which ethnic or cultural group(s) did this person's ancestors belong?</p> <ul style="list-style-type: none"> ■ For example, <i>French, English, German, Scottish, Canadian, Italian, Irish, Chinese, Cree, Micmac, Métis, Inuit (Eskimo), Ukrainian, Dutch, East Indian, Polish, Portuguese, Jewish, Haitian, Jamaican, Vietnamese, Lebanese, Chilean, Somali, etc.</i> 	<p style="text-align: center;"><i>Specify as many groups as applicable</i></p> <p>21 <input style="width: 100%;" type="text"/></p> <p>22 <input style="width: 100%;" type="text"/></p> <p>23 <input style="width: 100%;" type="text"/></p> <p>24 <input style="width: 100%;" type="text"/></p>
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Question 18: Aboriginal self-reporting

Prior to 1991, the Aboriginal population was identified through the ethnic origin question, which related primarily to respondents' ancestral origins. Question 18, new for 1996, was designed to collect information that would distinguish between Aboriginal identity and Aboriginal ancestry.

<p>18. Is this person an Aboriginal person, that is,</p> <ul style="list-style-type: none"> ■ North American Indian, Métis or Inuit (Eskimo)? <p><i>If "Yes", mark the circle(s) that best describe(s) this person now.</i></p>	<p>19.</p> <p>01 <input type="radio"/> No</p> <p>02 <input type="radio"/> Yes, North American Indian</p> <p>03 <input type="radio"/> Yes, Métis</p> <p>04 <input type="radio"/> Yes, Inuit (Eskimo)</p> <p style="text-align: right;">Go to Question 20</p>
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Census Questions

Question 19: Population group

This new question was introduced to collect precise data about visible minorities in support of employment equity programs. Combined with other census variables, the data indicate the status of visible minorities in such areas as employment, income, education and housing.

19. Is this person:

- Mark or specify more than one, if applicable.

Note:

This information is collected to support programs which promote equal opportunity for everyone to share in the social, cultural and economic life of Canada.

05 White

06 Chinese

07 South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)

08 Black (e.g., African, Haitian, Jamaican, Somali)

09 Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)

10 Filipino

11 South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)

12 Latin American

13 Japanese

14 Korean

Other – Specify

15

Questions 20 and 21: Indian Band or First Nation/Registered Indian – Treaty Indian

In 1991, respondents who marked the *yes* circle in the Registered Indian question were asked to specify which Indian Band or First Nation they belonged to. The 1996 Census had two separate questions to collect information about membership in Indian Bands or First Nations (Question 20) and Registered Indians and Treaty Indians (Question 21). The data are required in order to administer the *Indian Act*, the *Employment Equity Act*, and related employment programs.

<p>20. Is this person a member of an Indian Band/First Nation?</p>	<p>16 <input type="radio"/> No</p> <p>17 <input type="radio"/> Yes, member of an Indian Band/First Nation</p> <p style="padding-left: 40px;"><i>Specify Indian Band/ First Nation (for example, Musqueam)</i></p> <p>18 <input style="width: 100px; height: 15px;" type="text"/></p>
<p>21. Is this person a Treaty Indian or a Registered Indian as defined by the <i>Indian Act</i> of Canada?</p>	<p>19 <input type="radio"/> No</p> <p>20 <input type="radio"/> Yes, Treaty Indian or Registered Indian</p>

Census Questions

INSTRUCTION FOR REMAINING QUESTIONS

At this point, as in previous censuses, respondents were advised that all remaining questions, because of their subject-matter (e.g. employment), were to be answered only by people aged 15 and over. In the 1996 questionnaire, this instruction was made much more visible, and a reminder was printed on all subsequent pages.

MOBILITY

Information on mobility provides migratory statistics. Migration is an important factor in measuring population growth in the various parts of the country. It also acts as a mechanism used by the labour market to smooth out income and employment disparities between regions. Migration data play a key role in producing accurate population estimates, needed for the *Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act*.

Questions 22 and 23: One-year mobility/Five-year mobility

The two questions on five-year mobility in the 1991 questionnaire were merged into one question for the 1996 Census. The one-year mobility question, first asked in 1991, was included in the 1996 questionnaire.

MOBILITY	
<p>22. Where did this person live 1 year ago, that is, on May 14, 1995?</p> <p><i>Mark one circle only.</i></p> <p>Note: Some large cities are made up of smaller cities or towns called municipalities. Where applicable, identify the municipality rather than the larger city, for example, Dorval rather than Montréal, Scarborough rather than Toronto, St. Albert rather than Edmonton, Saanich rather than Victoria.</p>	<p>25.</p> <p>01 <input type="radio"/> Lived at the same address as now</p> <p>02 <input type="radio"/> Lived at a different address in the same city, town, village, township, municipality or Indian reserve</p> <p>03 <input type="radio"/> Lived in a different city, town, village, township, municipality or Indian reserve in Canada</p> <p style="text-align: center;"><i>Specify below</i></p> <p style="text-align: center;">City, town, village, township, municipality or Indian reserve</p> <p>04 → <input style="width: 100%;" type="text"/></p> <p style="text-align: center;">Province/territory</p> <p>→ <input style="width: 100%;" type="text"/></p> <p>05 <input type="radio"/> Lived outside Canada</p> <p style="text-align: center;"><i>Specify name of country</i></p> <p>06 → <input style="width: 100%;" type="text"/></p>
<p>23. Where did this person live 5 years ago, that is, on May 14, 1991?</p> <p><i>Mark one circle only.</i></p> <p>Note: Some large cities are made up of smaller cities or towns called municipalities. Where applicable, identify the municipality rather than the larger city, for example, Dorval rather than Montréal, Scarborough rather than Toronto, St. Albert rather than Edmonton, Saanich rather than Victoria.</p>	<p>07 <input type="radio"/> Lived at the same address as now</p> <p>08 <input type="radio"/> Lived at a different address in the same city, town, village, township, municipality or Indian reserve</p> <p>09 <input type="radio"/> Lived in a different city, town, village, township, municipality or Indian reserve in Canada</p> <p style="text-align: center;"><i>Specify below</i></p> <p style="text-align: center;">City, town, village, township, municipality or Indian reserve</p> <p>10 → <input style="width: 100%;" type="text"/></p> <p style="text-align: center;">Province/territory</p> <p>→ <input style="width: 100%;" type="text"/></p> <p>11 <input type="radio"/> Lived outside Canada</p> <p style="text-align: center;"><i>Specify name of country</i></p> <p>12 → <input style="width: 100%;" type="text"/></p>

Census Questions

SCHOOLING

Questions 24 to 29 collected information on the education and training of Canadians and their specific job skills. The first three questions dealt with level of schooling, and Question 27 asked about school attendance over the previous eight months (the period was nine months in 1991). Questions 28 and 29 covered degrees, certificates and diplomas and field of specialization. All the questions were the same as in 1991.

Schooling data indicate whether there are enough people with the education, training and skills needed in specific industries. The information is also used to develop training programs to meet future labour requirements and programs to encourage people to pursue or upgrade their education. The data are collected under the authority of the federal *Student Loans Act* in particular.

Question 24: Highest level of elementary or secondary schooling

EDUCATION	
<p>24. What is the highest grade (or year) of secondary (high school) or elementary school this person ever attended?</p> <p><i>Enter highest number (1 to 13) of grades or years, excluding kindergarten.</i></p>	<p>31.</p> <p>01 <input type="text"/> ◀ Number (1 to 13) of grades or years of secondary and/or elementary school</p> <p>OR</p> <p>02 <input type="radio"/> Never attended school or attended kindergarten only</p>

Question 25: Years of schooling (University)

<p>25. How many years of education has this person completed at university?</p>	<p>03 <input type="radio"/> None</p> <p>04 <input type="radio"/> Less than 1 year (of completed courses)</p> <p>05 <input type="text"/> ◀ Number of completed years at university</p>
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Census Questions

Question 26: Years of schooling (Other)

26. How many years of schooling has this person ever completed at an institution **other than** a university, a secondary (high) school or an elementary school?

Include years of schooling at community colleges, technical institutes, CEGEPs (general and professional), private trade schools or private business colleges, diploma schools of nursing, etc.

06 None

07 Less than 1 year
(of completed courses)

08 ◀ Number of completed years at community colleges, trade schools, CEGEPs, etc.

Question 27: School attendance

27. In the past **eight months** (that is, since last September), was this person attending a school, college or university?

Include attendance at elementary or secondary schools, business or trade schools, community colleges, technical institutes, CEGEPs, etc., for courses which can be used as credits towards a certificate, diploma or degree.

Mark one circle only.

09 No, did not attend in past eight months

10 Yes, full time

11 Yes, part time, day or evening

Census Questions

Question 28: Degrees, certificates and diplomas

28. What certificates, diplomas or degrees has this person ever obtained?
-

*Include all qualifications obtained from **secondary** (high) schools, or trade schools and other postsecondary educational institutions.*

Mark as many circles as applicable.

37.

- 01 None → **Go to Question 30**
- 02 Secondary (high) school graduation certificate or equivalent
- 03 Trades certificate or diploma
- 04 Other non-university certificate or diploma (obtained at community college, CEGEP, technical institute, etc.)
- 05 University certificate or diploma **below** bachelor level
- 06 Bachelor's degree(s) (e.g., B.A., B.Sc., LL.B.)
- 07 University certificate or diploma **above** bachelor level
- 08 Master's degree(s) (e.g., M.A., M.Sc., M.Ed.)
- 09 Degree in medicine, dentistry, veterinary medicine or optometry (M.D., D.D.S., D.M.D., D.V.M., O.D.)
- 10 Earned doctorate (e.g., Ph.D., D.Sc., D.Ed.)

Question 29: Field of specialization

29. What was the major field of study or training of this person's **highest** degree, certificate or diploma (**excluding** secondary or high school graduation certificates)?

For example, accounting, carpentry, civil engineering, history, legal secretary, welding.

Major field of study or training

11

OR

12 This person's highest qualification is a secondary (high) school graduation certificate

The answers to these questions help planners of human resources and education programs to gauge the extent of illiteracy in Canada, plan the implementation of literacy and upgrading programs, evaluate continuing education programs, and assess vocational training needs.

Census Questions

HOUSEHOLD ACTIVITIES

The household activities question, included in the census for the first time in 1996, was developed to measure the contribution of unpaid work to the Canadian economy. The question was designed to give a fuller and more complete picture of both the market and non-market components of Canadian society.

Question 30: Household activities

Answers to this new question provide information about the time Canadians spend doing housework, maintaining their homes, and caring for children and the elderly. Combined with other census variables, the data are used to analyse the time spent on those activities and to study regional variations.

HOUSEHOLD ACTIVITIES	43.
<p>Note: Last week refers to Sunday, May 5 to Saturday, May 11, 1996.</p> <p><i>In Question 30, where activities overlap, report the same hours in more than one part.</i></p> <p>30. Last week, how many hours did this person spend doing the following activities?</p> <p>(a) Doing unpaid housework, yard work or home maintenance for members of this household, or others.</p> <p><i>Some examples include: preparing meals, doing laundry, household planning, shopping and cutting the grass.</i></p>	<p>01 <input type="radio"/> None</p> <p>02 <input type="radio"/> Less than 5 hours</p> <p>03 <input type="radio"/> 5 to 14 hours</p> <p>04 <input type="radio"/> 15 to 29 hours</p> <p>05 <input type="radio"/> 30 to 59 hours</p> <p>06 <input type="radio"/> 60 hours or more</p>
<p>(b) Looking after one or more of this person's own children, or the children of others, without pay.</p> <p><i>Some examples include: bathing or playing with young children, driving children to sports activities or helping them with homework, and talking with teens about their problems.</i></p>	<p>07 <input type="radio"/> None</p> <p>08 <input type="radio"/> Less than 5 hours</p> <p>09 <input type="radio"/> 5 to 14 hours</p> <p>10 <input type="radio"/> 15 to 29 hours</p> <p>11 <input type="radio"/> 30 to 59 hours</p> <p>12 <input type="radio"/> 60 hours or more</p>
<p>(c) Providing unpaid care or assistance to one or more seniors.</p> <p><i>Some examples include: providing personal care to a senior family member, visiting seniors, talking with them on the telephone, and helping them with shopping, banking or with taking medication.</i></p>	<p>13 <input type="radio"/> None</p> <p>14 <input type="radio"/> Less than 5 hours</p> <p>15 <input type="radio"/> 5 to 9 hours</p> <p>16 <input type="radio"/> 10 hours or more</p>

LABOUR MARKET ACTIVITIES

Questions 31 to 46 collect information about paid work done by people aged 15 years and over. The data are used to develop education and training programs, forecast employment trends, plan efficient transportation and commuting systems, and devise plans of action to help employers create jobs across Canada.

Except for a new question on mode of transportation to work (Question 44), all the questions are the same as in 1991. The wording of Questions 31, 34 and 36 was modified slightly for 1996 to make it clear to respondents that these questions referred to paid work.

Question 31: Hours worked for pay or profit

LABOUR MARKET ACTIVITIES	
<p>31. Last week, how many hours did this person spend working for pay or in self-employment?</p> <p>Include:</p> <ul style="list-style-type: none"> • working directly towards the operation of a family farm or business without formal pay arrangements (e.g., assisting in seeding, doing accounts); • working in his/her own business, farm or professional practice, alone or in partnership; • working for wages, salary, tips or commission. 	<p>17 <input type="radio"/> None → Continue with the next question</p> <p>OR</p> <p>18 <input type="text"/> ← Number of hours (to the nearest hour)</p> <p>→ Go to Question 37</p>

Question 32: Work absence

<p>32. Last week, was this person on temporary lay-off or absent from his/her job or business?</p> <p>■</p> <p>Mark one circle only.</p>	<p>49.</p> <p>01 <input type="radio"/> No</p> <p>02 <input type="radio"/> Yes, on temporary lay-off from a job to which this person expects to return</p> <p>03 <input type="radio"/> Yes, on vacation, ill, on strike or locked out, or absent for other reasons</p>
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Question 33: New job arrangements

<p>33. Last week, did this person have definite arrangements</p> <p>■ to start a new job within the next four weeks?</p>	<p>04 <input type="radio"/> No</p> <p>05 <input type="radio"/> Yes</p>
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Census Questions

Question 34: Recent job search

- 34.** Did this person look for paid work **during the past four weeks**?

For example, did this person contact a Canada Employment Centre, check with employers, place or answer newspaper ads?

Mark one circle only.

06 No → **Go to Question 36**

07 Yes, looked for full-time work

08 Yes, looked for part-time work (less than 30 hours per week)

Question 35: Availability for work

- 35.** Could this person have started a job **last week** had one been available?

Mark one circle only.

09 Yes, could have started a job

10 No, already had a job

11 No, because of temporary illness or disability

12 No, because of personal or family responsibilities

13 No, going to school

14 No, other reasons





The data are used to design regional development projects for areas with weak economies. They also help public service managers to develop human resources education and training programs and plan the required facilities. The information is also needed for income support programs such as Employment Insurance and provincial social assistance.

Question 36: Last date of work

The data provided by this question are used to study factors such as seasonal work in relation to total labour supply and to analyse the recent work experience of people who were not in the labour force during reference week.

- 36.** When did this person **last work for pay or in self-employment**, even for a few days?

Mark one circle only.

- 15 In 1996  Continue with the next question
- 16 In 1995  Continue with the next question
- 17 Before 1995  Go to Question 47
- 18 Never  Go to Question 47

Census Questions

Questions 37 and 38: Name of employer/Kind of business

These two questions provide information about the industries of respondents. The data are also used to analyse the country's economic and industrial structure and growth. Managers of industrial support programs need industry data in order to estimate regional productivity measures and analyse industry support requirements.

<p>Note: Questions 37 to 44 refer to this person's job or business last week. If this person held no job last week, answer for the job of longest duration since January 1, 1995. If this person held more than one job last week, answer for the job at which he/she worked the most hours.</p> <p>37. For whom did this person work?</p>	<p>55.</p> <p>Name of firm, government agency, etc.</p> <p>01 <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Section, plant, department, branch or division</p> <p>02 <input type="text"/> <input type="text"/> <input type="text"/></p>
<p>38. What kind of business, industry or service was this?</p> <p><i>Give full description. For example, wheat farm, trapping, road maintenance, retail shoe store, secondary school, temporary help agency, municipal police.</i></p>	<p>Kind of business, industry or service</p> <p>03 <input type="text"/> <input type="text"/> <input type="text"/></p> <p>04 <input type="text"/><input type="text"/><input type="text"/></p>

Questions 39 and 40: Kind of work/Most important duties

These questions are used to determine the occupations of respondents. Combined with other census variables, the data help government planners assess current and future labour supply and demand. With this information, they are able to develop vocational, secondary and postsecondary training programs and assemble the labour pools needed to meet requirements. The data are also essential in order to manage and evaluate federal training and retraining programs, such as the Employment Insurance training program.

<p>39. What kind of work was this person doing?</p> <p><i>For example, janitor, medical lab technician, accounting clerk, manager of civil engineering department, secondary school teacher, supervisor of data entry unit, fishing guide. (If in the Armed Forces, give rank.)</i></p>	<p>Kind of work</p> <p>05 <input type="text"/></p>
<p>40. In this work, what were this person's most important duties or activities?</p> <p><i>For example, cleaning buildings, analysing blood samples, verifying invoices, coordinating civil engineering projects, teaching mathematics, organizing work schedules and monitoring data entry systems, guiding fishing parties.</i></p>	<p>Most important duties or activities</p> <p><input type="text"/></p> <p><input type="text"/></p> <p>06 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>

Census Questions

Questions 41 and 42: Class of worker/Incorporation status

The data derived from these questions provide a better understanding of the extent of self-employed work in various industries and occupations, as well as the kinds of remuneration that paid and self-employed workers receive in different occupations. This information is particularly important to managers responsible for small business development because it helps them understand the role of small businesses and the economic characteristics associated with a high incidence of self-employment. The questions also supply data on the number of self-employed workers who have incorporated their business or farm.

<p>41. In this job or business, was this person mainly:</p> <p><i>Mark one circle only.</i></p>	<p>61.</p> <p>01 <input type="radio"/> working for wages, salary, tips or commission? → Go to Question 43</p> <p>02 <input type="radio"/> working without pay for his/her spouse or another relative in a family farm or business? → Go to Question 43</p> <p>03 <input type="radio"/> self-employed without paid help (alone or in partnership)?</p> <p>04 <input type="radio"/> self-employed with paid help (alone or in partnership)?</p>
<p>42. If self-employed, was this person's farm or business incorporated?</p> <p>■</p>	<p>05 <input type="radio"/> No</p> <p>06 <input type="radio"/> Yes</p>

Question 43: Place of work

Since many Canadian workers have to commute between home and work, the data from this question provide a clearer understanding of commuting and its impact on the lives of people in urban areas. Place-of-work data are useful for identifying requirements for transportation services and selecting locations for public services such as schools, hospitals, day care centres and recreational facilities. They also help urban transportation planners at all levels of government to analyse traffic patterns and assess transportation network requirements with a view to improving existing transportation systems.

43. At what address did this person usually work?

Example:

365 Laurier Ave. West

Number _____ ↑

Name _____ ↑

Type _____ ↑

Direction _____ ↑

If direction (e.g., North, South, East or West) is a part of the street address, please include it.

If street address is unknown, specify the building or nearest street intersection.

Note:
Some large cities are made up of smaller cities or towns called municipalities. Where applicable, identify the municipality rather than the larger city, for example, Dorval rather than Montréal, Scarborough rather than Toronto, St. Albert rather than Edmonton, Saanich rather than Victoria.

07 Worked at home (including farms)
Go to Question 45

08 Worked outside Canada
Go to Question 45

09 No fixed workplace address
Go to Question 44

10 Worked at the address specified below:

Specify complete address

Street address (see example)

11 →

City, town, village, township, municipality or Indian reserve

12 →

Province/territory

→

Postal code

13 →

Census Questions

Question 44: Mode of transportation to work

This question was first asked in the 1996 Census. It was added primarily to meet the needs of users such as transportation planners and engineers, transportation boards and market analysts. The data will be used in planning urban growth and transportation networks in urban, suburban and rural areas and in analysing the environmental impact and energy consumption associated with transportation.

44. How did this person **usually** get to work?

*If this person used more than one method of transportation, **mark the one used for most of the travel distance.***

67.

- 01 Car, truck or van – as driver
- 02 Car, truck or van – as passenger
- 03 Public transit (e.g., bus, street car, subway, light rail transit, commuter train, ferry)
- 04 Walked to work
- 05 Bicycle
- 06 Motorcycle
- 07 Taxicab
- 08 Other method

Questions 45 and 46: Weeks worked in 1995/Full-time or part-time work

The same questions were asked in the 1991 Census. The data they provide, when combined with other variables such as employment income, occupation and schooling, are needed to identify the factors responsible for employment income disparities between regions and between groups.

Furthermore, the availability of seasonal or part-time work may be a determining factor in the labour force participation of women, people with disabilities and heads of lone-parent families. The data from these questions are used in assessing the incidence of seasonal and part-time work in these groups and to design and evaluate programs to expand part-time and full-time job opportunities where desirable.

<p>45. In how many weeks did this person work in 1995?</p> <p>▪</p> <p><i>Include those weeks in which this person:</i></p> <ul style="list-style-type: none"> • was on vacation or sick leave with pay; • worked full time or part time; • worked for wages, salary, tips or commission; • was self-employed; • worked directly towards the operation of a family farm or business without formal pay arrangements. 	<p>09 <input type="radio"/> None → Go to Question 47</p> <p style="text-align: center;">OR</p> <p>10 <input type="text"/> ← Number of weeks</p>
<p>46. During most of those weeks, did this person work full time or part time?</p> <p>▪</p> <p><i>Mark one circle only.</i></p>	<p>11 <input type="radio"/> Full time (30 hours or more per week)</p> <p>12 <input type="radio"/> Part time (less than 30 hours per week)</p>

Census Questions

INCOME

Income data are an important indicator of the economic well-being of Canadians: men, women, young people, senior citizens, families and households. They are the only source of small area information about the incomes of individuals. Data derived from this question are used to carry out detailed studies of income levels in specific groups, families and households and to draw comparisons between groups. They also provide information on sources of income (employment income, government transfers, investment income and so on), which is used to analyse income composition and the percentage distribution by source for different groups. In addition, the data are needed to develop and evaluate income support programs such as pension plans, Employment Insurance and social assistance.

Question 47: Income in 1995

The question in 1996 was the same as in 1991, except that headings were added to make it clearer to respondents which income sources related to the response categories: paid work, self-employment, income from governments, other income. Detailed instructions were provided on pages 22 to 27 of the Guide to help respondents answer the income questions.

The instructions may be of interest to data users because they explain each type of income reported in each category.

Census Questions

INCOME IN 1995	
<p>47. During the year ending December 31, 1995, did this person receive any income from the sources listed below?</p> <ul style="list-style-type: none"> • Answer "Yes" or "No" for all sources. • If "Yes", also enter the amount, in case of a loss, also mark "Loss". • Do not include Child Tax Benefit. 	<p>73.</p>
<p>PAID EMPLOYMENT:</p> <p>(a) Total wages and salaries, including commissions, bonuses, tips, etc., before any deductions</p>	<p>Dollars Cents</p> <p>01 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>02 <input type="radio"/> No</p>
<p>SELF-EMPLOYMENT:</p> <p>(b) Net farm income (gross receipts minus expenses), including grants and subsidies under farm-support programs, marketing board payments, gross insurance proceeds</p>	<p>03 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>05 <input type="radio"/> No 04 <input type="radio"/> Loss</p>
<p>(c) Net non-farm income from unincorporated business, professional practice, etc. (gross receipts minus expenses)</p>	<p>06 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>08 <input type="radio"/> No 07 <input type="radio"/> Loss</p>
<p>INCOME FROM GOVERNMENT:</p> <p>(d) Old Age Security Pension, Guaranteed Income Supplement and Spouse's Allowance from federal government only (provincial income supplements should be reported in (g))</p>	<p>09 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>10 <input type="radio"/> No</p>
<p>(e) Benefits from Canada or Quebec Pension Plan</p>	<p>11 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>12 <input type="radio"/> No</p>
<p>(f) Benefits from Unemployment Insurance (total benefits before tax deductions)</p>	<p>13 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>14 <input type="radio"/> No</p>
<p>(g) Other income from government sources, such as provincial income supplements and grants, refunds of GST, provincial tax credits, workers' compensation, veterans' pensions, welfare payments (Do not include Child Tax Benefit.)</p>	<p>15 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>16 <input type="radio"/> No</p>
<p>OTHER INCOME:</p> <p>(h) Dividends, interest on bonds, deposits and savings certificates and other investment income, such as net rents from real estate, interest from mortgages</p>	<p>17 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>19 <input type="radio"/> No 18 <input type="radio"/> Loss</p>
<p>(i) Retirement pensions, superannuation and annuities, including those from RRSPs and RRIFs</p>	<p>20 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>21 <input type="radio"/> No</p>
<p>(j) Other money income, such as alimony, child support, scholarships</p>	<p>22 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>23 <input type="radio"/> No</p>
<p>TOTAL INCOME FROM ALL OF THE ABOVE SOURCES</p>	<p>24 <input type="radio"/> Yes ▶ <input type="text"/> <input type="text"/></p> <p>26 <input type="radio"/> No 25 <input type="radio"/> Loss</p>

Census Questions

HOUSING

Questions H1 to H8 were asked in order to assess the current state of the housing stock and evaluate future housing needs. The data collected by these questions are used in administering numerous programs provided for under the *National Housing Act* and the *Canada Mortgage and Housing Corporation Act*, including mortgage loan insurance programs, new homeowner insurance programs, land management programs and housing assistance programs for Aboriginals, victims of family violence and people with disabilities.

The two housing questions included in the 1991 short questionnaire (Form 2A) were removed from the 1996 version; they appeared as Questions H1 and H2 in the 1996 long questionnaire (Form 2B), given to only 20% of Canadian households. All housing questions were the same as in 1991.

Question H1: Household maintainer(s)

The household maintainer concept is important in identifying the economic relationships between families and relatives who are dependants or maintainers. When combined with Question 2 data (Relationship to Person 1), this question provides an overview of the complex lifestyles in families. For example, the data indicate whether elderly people share a dwelling with their children and, if so, which family unit pays all or most of the maintenance costs.

Since 1991, respondents have been allowed to report more than one maintainer in their household. The response categories for this question were modified in 1996. Instead of having respondents write in the name(s) of the maintainer(s), as they did in 1991, respondents simply marked the appropriate response box(es): Persons 1 to 6, a person listed on another questionnaire for this dwelling, or a person who does not live here.



Answer Questions H1 to H8 about this dwelling.

STEP 8

A **dwelling** is a separate set of living quarters with a **private entrance** from the outside or from a common hallway or stairway inside the building. This entrance should not be through someone else's living quarters.

79.

H1. Who pays the rent or mortgage, taxes, electricity, etc., for this dwelling?



If more than one person contributes to such payments, mark as many circles as apply.

- 01 Person 1
 02 Person 2
 03 Person 3
 04 Person 4
 05 Person 5
 06 Person 6
 07 A person who is listed on another questionnaire for this dwelling
 08 A person who does not live here

Census Questions

Question H2: Tenure

The data from this question are used to estimate the value of owner-occupied and renter-occupied housing stock. They are also useful in evaluating government housing initiatives and federal and provincial housing programs.

H2. Is this dwelling:

Mark one circle only.

10 owned by you or a member of this household (even if it is still being paid for)?

11 rented (even if no cash rent is paid)?

Question H3: Number of rooms and bedrooms

The ratio of the number of rooms and bedrooms in a dwelling to the size of the household provides a measure of overcrowding, which is an important indicator of housing conditions and quality of life. When combined with other census variables, the data can provide information about various geographic areas or groups such as low-income earners, new immigrants, senior citizens and lone-parent families.

H3. (a) How many rooms are there in this dwelling?

12 ◀ Number of rooms

Include kitchen, bedrooms, finished rooms in attic or basement, etc.

Do not count bathrooms, halls, vestibules and rooms used solely for business purposes.

(b) How many of these rooms are bedrooms?

13 ◀ Number of bedrooms

Question H4: Period of construction

Dwelling age is a significant factor in determining the adequacy of housing stock. The data from this question provide information about the life cycle of residential buildings, new housing needs, rapid growth areas and areas in need of renovation. The data are also used to develop and evaluate housing renovation and renewal programs, such as Canada Mortgage and Housing Corporation's Emergency Repair Program and Residential Rehabilitation Assistance Program, and to allocate funds to areas with the most urgent needs.

H4. When was this dwelling originally built?

Mark the period in which the building was completed, not the time of any later remodelling, additions or conversions. If year is not known, give best estimate.

- | | |
|---|------------------------------------|
| 14 <input type="radio"/> 1920 or before | 19 <input type="radio"/> 1981-1985 |
| 15 <input type="radio"/> 1921-1945 | 20 <input type="radio"/> 1986-1990 |
| 16 <input type="radio"/> 1946-1960 | 21 <input type="radio"/> 1991-1995 |
| 17 <input type="radio"/> 1961-1970 | 22 <input type="radio"/> 1996 |
| 18 <input type="radio"/> 1971-1980 | |

Question H5: Need for repairs

Although the data collected by this question are based on the owner's or renter's subjective assessment, they provide some indication of needed repairs. The information also serves as a reference point against which to measure the effectiveness of government programs to repair and renovate the housing stock.

H5. Is this dwelling in need of any repairs?

Do not include desirable remodelling or additions.

- 23 No, only **regular maintenance** is needed (painting, furnace cleaning, etc.)
- 24 Yes, **minor repairs** are needed (missing or loose floor tiles, bricks or shingles, defective steps, railing or siding, etc.)
- 25 Yes, **major repairs** are needed (defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings, etc.)

Census Questions

Questions H6 to H8: Yearly payments and shelter costs

Data on household expenditures for public and municipal services, rent or mortgage payments, and property taxes are used to estimate shelter costs. The latter data, when broken down by geographic area, type of dwelling or household income, are useful in developing, administering and evaluating housing, welfare and public services programs.

Question H6: Yearly payments

H6. For this dwelling, what are the YEARLY payments (last 12 months) for: (a) electricity?	02 <input type="radio"/> None	Dollars Cents 04 <input type="text"/> <input type="text"/> per year
	03 <input type="radio"/> Included in rent or other payments	
(b) oil, gas, coal, wood or other fuels?	05 <input type="radio"/> None	Dollars Cents 07 <input type="text"/> <input type="text"/> per year
	06 <input type="radio"/> Included in rent or other payments	
(c) water and other municipal services?	08 <input type="radio"/> None	Dollars Cents 10 <input type="text"/> <input type="text"/> per year
	09 <input type="radio"/> Included in rent or other payments	

Question H7: Shelter costs – Renter

H7. For RENTERS only: What is the monthly rent paid for this dwelling?	11 <input type="radio"/> Rented without payment of cash rent	Dollars Cents 12 <input type="text"/> <input type="text"/> per month

Question H8: Shelter costs – Owner

H8. For OWNERS only, answer parts (a) through (f):

(a) What are the total regular **monthly** mortgage or loan payments for this dwelling? 13 None
Go to part (c) OR 14

Dollars	Cents

 per month

(b) Are the property taxes (municipal and school) included in the amount shown in part (a)? 15 Yes → Go to part (d)
16 No

(c) What are the estimated **yearly** property taxes (municipal and school) for this dwelling? 17 None OR 18

Dollars	Cents

 per year

(d) If you were to sell this dwelling now, for how much would you expect to sell it? 19

Dollars

(e) Is this dwelling part of a registered condominium? 20 Yes → Continue with part (f)
21 No → Go to Step 9

(f) What are the **monthly** condominium fees? 22 None OR 23

Dollars	Cents

 per month

Census Variables

5.1 Introduction

As we saw in Chapter 4, there were 55 questions in the 1996 Census questionnaire. Yet the *1996 Census Dictionary* (Catalogue No. 92-351-XPE) lists over 200 variables. The explanation for this discrepancy is that some questions yield a number of variables, and some variables are derived from the responses to a number of questions.

A variable can be thought of as a subject about which information can be retrieved from the census database. There are *direct* variables and *derived* variables. For example, the question on sex has two response categories – male and female. These categories correspond exactly to the information in the database. For this reason, sex is said to be a **direct variable**. In Question 3, on the other hand, respondents are asked to provide the date of birth of each household member. The answers to the question are used to calculate the ages of respondents on Census Day, and it is this information that is stored in the database. Age is referred to as a **derived variable** because the information in the database is not what was asked for in the question.

This chapter provides an overview of census variables and what they can be used for. Detailed definitions of the variables are presented in the *1996 Census Dictionary*. Also included in the *Dictionary* is information about the historical comparability of census data and the difficulties that may arise in using these data.

Census variables are grouped into the following categories:

- counts and demographic data;
- ethnic origin;
- population group;
- place of birth, citizenship and immigration;
- language;
- Aboriginal peoples;
- schooling;
- household activities;
- labour force;
- income;
- families and households;
- housing;
- institutions and other collectives;
- disability.

When it comes to creating new census variables, the possibilities are virtually endless. The variables described in this chapter are simply the most common ones. With a knowledge of the census questions, their response categories and how census variables work, users can compute or derive variables that meet their needs.

5.2 Universes

The census is divided into four universes (sets):

- population (i.e. persons);
- families;
- households;
- dwellings.

A household may consist of one person or a number of related or unrelated persons sharing the same dwelling. Families are groups of persons within a household. There are two types of

families: census families and economic families. There may be more than one family in a household, but only related persons living in the same dwelling can form a family.

A household includes all persons living in the same dwelling. Hence there are as many private households as occupied private



dwellings. Households and dwellings are variables belonging to two distinct universes; households relate to people, while dwellings have to do with the structures they live in.

Census Variables

5.3 Counts and Demographic Data

The census counts the number of people and dwellings by geographic area. Population and dwelling counts are the first results to be released, about 11 months after Census Day.

Population counts are used to realign federal electoral district boundaries following each decennial census. They also play a part in determining revenue transfers under the *Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act*.

The objective of the 1996 Census was to count:

- all Canadian citizens and landed immigrants with a place of residence in Canada;
- all Canadian citizens and landed immigrants posted to military bases or diplomatic missions in other countries;
- all Canadian citizens and landed immigrants at sea or in port aboard Canadian-registered merchant vessels;
- all non-permanent residents.

Persons in the second and third categories may also have a place of residence in Canada, but they need not be associated with a dwelling to be counted. The goal of the census is to count



people at their usual place of residence; for most Canadians, this presents no difficulties. Problems can arise, however, when a person cannot be associated with a dwelling that fits the concept of *usual place of residence*, or when a person is associated with more than one dwelling in Canada. In the former case, the person is enumerated where he or she stayed

on the night preceding Census Day; this could be a hotel, an institution, or the home of friends, to name a few examples. The latter case includes families who maintain two residences, and students living away from their parents' home. Instructions on whom to include were provided in Step 2 on the census questionnaire.

In short, the population counts for a community include all Canadian citizens, landed immigrants and non-permanent residents whose usual place of residence is in that community, regardless of where they happened to be on Census Day. The counts also include all Canadian citizens, landed immigrants and non-permanent residents who are staying in the community and have no usual place of residence elsewhere in Canada.

Linking people to a usual place of residence has implications for data users. For instance, in areas where resorts or large work camps are located, the demand for essential services is high on a per capita basis (i.e. in relation to the census-based usual resident population) because services must be provided to a large temporary population.

5.3.1 Non-permanent residents

In 1991, for the first time, the Census of Population covered both permanent and non-permanent residents of Canada. Non-permanent residents are persons who hold a student or employment authorization or a Minister's permit, or persons claiming refugee status. Prior to 1991, only permanent residents of Canada were included in the census (the only exception was the 1941 Census). Non-permanent residents were considered foreign residents and were not counted.

Today, non-permanent residents make up a growing segment of the Canadian population. Their presence can affect the demand for government services such as health care, education, employment programs and language training. Incorporating non-permanent residents into the census has facilitated comparisons with provincial and territorial statistics (marriages, divorces, births and deaths), which include this group. Moreover, the definition of non-permanent residents brings Canada's census closer to the United Nations recommendation that long-term residents (persons living in a country for one year or longer) should be enumerated.

Total population counts as well as counts for all variables have been affected by the new population universe that has been in place since the 1991 Census. Users must exercise caution when comparing 1996 and 1991 data with previous census results, especially in geographic areas with large concentrations of non-permanent residents (i.e. the major census metropolitan areas in Ontario, Quebec and British Columbia).

Despite considerable effort, enumeration of the non-permanent resident population may be affected by factors such as language barriers, reluctance to complete a government questionnaire or difficulty understanding the reasons for participating. Non-permanent residents can be identified only through the long questionnaire, which is completed by 20% of Canadian households.

Census Variables

5.3.2 Age, sex, marital status and common-law status

The age structure of the Canadian population has changed over time. Data showing this shift are needed to adjust the allocation of resources for education, day care centres, health care, pension plans and many other social services. The data are also essential in order to maintain the accuracy of population estimates.

Sex data are used to study the composition of the population as a whole and of subgroups such as the elderly, the unemployed and lone-parent families. For example, when combined with income and schooling data, the sex variable reveals the extent of the wage gap between men



and women. It is also useful in the development and evaluation of affirmative action programs and programs to increase the proportion of women in non-traditional occupations.

Marital status is an important variable in tracking the evolution of social attitudes and institutions. Recent census results have shown that the assumptions of family stability on which many social

programs and services were based must now be re-examined. Furthermore, data on marital status, combined with economic and family data, have proved useful in analysing the economic difficulties encountered by lone-parent families.

Major changes relating to common-law status must be taken into account in studies of family and household structures. Data concerning this phenomenon, which can be linked to other variables, indicate that common-law has become more prevalent in recent years.

5.3.3 Mobility

Mobility data have been collected in every Canadian census since 1961 (with the exception of 1966). This variable provides information about the origin and destination of Canadians who move, as well as the age, sex, education, occupation, mother tongue and other characteristics of movers and non-movers. This information is useful to business and governments at all levels for the purpose of planning future housing, education and social service needs and assessing markets. Mobility data are also used in producing population

estimates and projections for the provinces and territories and for census divisions and census metropolitan areas.

There are two types of mobility data in the 1996 Census: place of residence 5 years ago, and place of residence 1 year ago. Each type of data separates the population into two groups: (a) non-movers; and (b) movers (people who have changed dwellings during the period specified: 5 years or 1 year). Movers are further divided into non-migrants (people who remained in the same census subdivision when they moved) and migrants (people who moved to a different census subdivision). Migrants are classified as either internal migrants or external migrants, depending on whether they lived inside or outside Canada during the period specified: 5 years or 1 year.

The data on migrants are available for either origin or destination and, in the case of international migration, for country of origin. In-migration, out-migration and net migration can be computed for a given area by cross-tabulating with other variables, such as age, sex, marital status, mother tongue, occupation, industry and level of schooling.

5.4 Ethnic Origin

With one exception (1891), decennial censuses since 1871 included a question on the “origins” of respondents. The purpose of the ethnic origin question is to collect data on the ethnic or cultural ancestral roots of the Canadian population.

Comparability of ethnic origin data between the 1996 Census and previous censuses has been affected by several factors including changes in the question wording, format, examples, instructions and data processing, as well as by the social environment at the time of the census.

Although the wording of the ethnic origin question in the 1996 Census was the same as that of 1991, the format changed. The 1991 Census question included 15 mark-in categories and two write-in boxes. The 1996 question did not include any mark-in categories and respondents were required to write in their ethnic origin(s) in four write-in boxes.

In 1996, the ethnic origin question gave 24 examples which were based mainly on the frequency of single ethnic origin counts from the 1991 Census. Because “Canadian” was the fifth largest most frequently reported response in 1991, it was listed as an example in the ethnic origin question. The presence of “Canadian” in the 1996 Census is likely to affect ethnic origin response patterns.

As a result of changing immigration patterns and increasing diversity in Canada, modifications are made to the specific ethnic groups and categories captured at each census. In 1991 and 1996, several ethnic origins were added to the list of origins captured in 1986 where

Census Variables

sufficient counts were obtained. These changes have affected the composition of some ethnic categories. In particular, users should be aware of changes made to Aboriginal, Arab, African/Black, Asian, Eastern European, French and Latin/American/South American ethnic groups and categories.

In addition to the factors discussed above, the measurement of ethnicity is affected by changes in the social environment in which the questions are asked and changes in the respondent's understanding or views about the topic. Awareness of family background or length of time since immigration can affect responses to the ethnic origin question, as can confusion with other concepts such as citizenship, nationality, language or cultural identity. Ethnic origin response patterns may be influenced by both social and personal considerations. The choices that respondents make can affect ethnic origin counts and impact comparability of data between censuses.

Summary tabulations will be available for:

- single and multiple responses for all ethnic origins and ethnic categories;
- single responses for selected ethnic origins and categories, and multiple response categories for British, French and Canadian origins;
- selected multiple response combinations of other ethnic origins.

In the past, census ethnic origin data were used by governments and ethnic groups to identify Canada's visible minority population. However, in 1996, visible minorities are counted in a separate question.

5.5 Population Group

This question provides information about visible minority population in Canada which is required for programs under the *Employment Equity Act* (1986). According to this Act, visible minorities are persons (other than Aboriginal persons) who are non-Caucasian in race or non-white in colour.

The 1996 Census was the first time a population group question was asked in the census. Prior to 1996, data on visible minorities were derived from responses to the ethnic origin question, in conjunction with other ethno-cultural information, such as language, place of birth and religion. Information on visible minorities obtained from the 1996 population group question is, therefore, not directly comparable to derived minority data produced in previous censuses.

In the 1996 population group question, response categories included 10 mark-in circles and one write-in box. Respondents were asked to mark or specify one or more of the following: White, Chinese, South Asian (e.g., *East Indian, Pakistani, Punjabi, Sri Lankan*), Black (e.g., *African, Haitian*,

Jamaican, Somali), Arab/West Asian (e.g., *Armenian, Egyptian, Iranian, Lebanese, Moroccan*), Filipino, South East Asian (e.g., *Cambodian, Indonesian, Laotian, Vietnamese*), Latin American, Japanese, Korean, Other – *Specify*.

The mark-in response categories listed, with the exception of “White”, were based on the visible minority groups identified by the *Employment Equity Technical Reference Papers*, published by Employment and Immigration Canada in 1987, and used for federal employment equity programs. After “White”, population groups were listed in order of the frequency (largest number) of visible minority counts derived from the 1991 Census. In 1996, a note on the census questionnaire informed respondents that this information is collected to support programs which promote equal opportunity for everyone to share in the social, cultural and economic life of Canada.

5.6 Place of Birth, Citizenship and Immigration

The *place of birth* variable has more than 200 categories. Comparing province of residence with province of birth for people born in Canada yields “lifetime” interprovincial migration estimates. The place of birth and citizenship questions in combination with other cultural, social and economic variables are a unique source of data on the immigrant population in Canada. Other data sources, such as Citizenship and Immigration Canada registration records, provide data on international migration streams, but yield no information about the immigrant population living in Canada on Census Day.

Citizenship is a legal concept, and the data reflect the changes that have occurred over time in Canada’s citizenship laws. In addition, a person in Canada may hold dual or multiple citizenship. Changes introduced by the *Citizenship Act* of February 1977 may affect the immigrant population’s propensity to acquire Canadian citizenship. Thus, historical comparisons must take changes in statutes and regulations into account.

The technique used to identify the immigrant population in 1996 and 1991 was different from the one used in 1981 and 1986. At that time, the immigrant population was defined as consisting of all persons who were not Canadian citizens by birth. In 1991 and 1996, a direct question on landed immigrant status was used to identify the immigrant population. Persons who answered *yes* to this question were considered immigrants to Canada.

Data on year or period of immigration can be used to study groups of immigrants who came to Canada at a particular time. With this information, historical analysis can be performed; for example, the effects of world events and changes in Canadian immigration policy on the size and composition of the immigrant population can be explored. Year of immigration in

Census Variables

combination with year of birth yields a variable, known as *age at immigration*, that is useful in studying differences in adaptation and integration among Canadian immigrants.

In 1996 and 1991, the census included both permanent and non-permanent residents of Canada. Non-permanent residents are persons who hold a student or employment authorization or a Minister's permit, or persons claiming refugee status at the time of the census. Prior to 1991, only permanent residents of Canada were covered by the census (the only exception was the 1941 Census).

The non-permanent resident population is identified from responses to the citizenship and landed immigrant status questions. Persons who are not Canadian citizens and answered *no* to the landed immigrant status question are considered to be non-permanent residents.

5.7 Language

The Census of Canada complies with United Nations recommendations concerning language questions. It contains questions on mother tongue (first language learned at home and still understood), language spoken at home, and knowledge of official languages (English and French) and non-official languages. Every member of the population is asked the first question; the remaining questions are answered by one household in five.

The mother tongue question has existed in its current form since the 1941 Census. Section 23 of the *Canadian Charter of Rights and Freedoms* refers to the “first language learned and still understood” in connection with minority language educational rights. The data on mother tongue serve several purposes, including analysis of the distribution of the population by language group.



The 1996 Census provides information about some 140 languages and language families.

The question on language spoken at home, which has been asked since 1971 (except in the 1976 Census), yields data

that can be used to analyse current language usage in Canada. Coupled with the mother tongue question, it also provides a way of measuring language transfer and retention. A language transfer is said to have taken place when a person reports as his/her home language a language that is different from his/her mother tongue.

Two questions on language knowledge were asked in 1996. The first one, which has been asked in every census since 1901, deals with knowledge of the official languages, English and French. The data from this question are used primarily to study bilingualism, but also to track changes in the number of persons who cannot carry on a conversation in English or French. The second question, on knowledge of non-official languages, was asked for the first time in the 1991 Census questionnaire in order to round out the linguistic profile of Canada's population. Cross-referencing this variable with other language variables results in better measurement of the usage of the various non-official languages in Canada and provides a more precise indication of the level of language retention and transfer affecting each one.

The demolinguistic information supplied by the census includes one more variable: first official language spoken. Derived from the responses to the questions on knowledge of official languages, mother tongue and language spoken at home, this variable is used by the federal government in the official languages regulations pertaining to communications with and services to the public.

5.8 Aboriginal Peoples

The 1996 Census contained three separate questions aimed at identifying Aboriginal peoples. The first of these was a self-reporting question which asked the respondent if he/she was an Aboriginal person, that is, North American Indian, Métis or Inuit. The purpose of this question was to give respondents a chance to identify themselves as Aboriginal persons. It was known from the results of the 1991 Census and the 1991 Aboriginal Peoples Survey (APS) that respondents who identify as Aboriginal persons represent only a subset of all persons who have some Aboriginal ancestry; therefore the 1996 question on self-reporting is designed to produce counts comparable to those from the APS. All persons who reported themselves as Aboriginal on this question are included in the Aboriginal population.

The second question aimed at identifying Aboriginal peoples was one which asked respondents whether or not they were members of an Indian Band or First Nation. For those persons who answered yes, a second part to this question asked them to give the name of the Indian Band or First Nation to which they belonged. These people are also included in the Aboriginal population.

Finally, there was a question which asked the respondent whether or not he/she was a Registered Indian or a Treaty Indian (registered under the *Indian Act* of Canada). Those persons who indicated they were Registered or Treaty Indians are also included in the Aboriginal population.

Census Variables

5.8.1 Aboriginal self-reporting

The Aboriginal self-reporting question was asked for the first time in the 1996 Census. It asked the respondent if he/she was an Aboriginal person, that is North American Indian, Métis or Inuit. The 1996 question is designed to produce counts of persons who identify themselves as Aboriginal persons comparable to those from the 1991 Aboriginal Peoples Survey.

5.8.2 Member of an Indian Band or First Nation

The 1996 Census repeated a question that first appeared in the 1991 Census aimed at identifying members of Canada's 608 Indian Bands/First Nations. In 1991, this question was the second part of a two-part question, the first part being a question on registration under the *Indian Act* of Canada. In 1996, the question on registration is separate, and follows the question on Band membership. The Band/First Nation membership question first asked respondents if they were members of a Band or First Nation, then for those persons who answered yes, a second part to this question asked them to give the name of the Indian Band or First Nation to which they belonged.

5.8.3 Registered or Treaty Indian

The Registered Indian question was introduced for the first time in 1991, and appeared in a slightly modified format in 1996. Its purpose is to identify Registered and Treaty Indians (registered under the *Indian Act* of Canada). Previous censuses used the ethnic origin question to identify the Registered Indian population. For example, the 1961 and 1971 Censuses had response categories that included Native Indian: band member or non-band member; the 1981 Census had status or Registered Indian and non-status Indian; and the 1986 Census introduced an Aboriginal status question to identify the Registered Indian population, but data quality problems prevented the release of the data. Published counts of the 1986 Aboriginal population were based on the ethnic origin question, and did not distinguish between Registered Indians and non-status Indians.

5.9 Schooling

The first three questions, Questions 24 to 26, serve to determine the level of schooling of the Canadian population. Question 27 identifies those who are currently attending school either full time or part time. Questions 28 and 29 identify accreditation received and field of specialization.

Educational and job-related training planners require these data to assess the need for academic upgrading and basic literacy programs in Canada, to plan the delivery of such programs, to assess the labour market for continuing education programs (particularly

important in the renewal and upgrading of skills of the working population) and to assess the need for vocational training programs and determine the availability of educational facilities. Data obtained from the school attendance question, when combined with other census data, provide valuable information on the characteristics of full-time and part-time students in postsecondary education, continuing education and academic upgrading.

Economic planners at all levels of government have emphasized the need for data concerning the educational characteristics and attainment of Canadians in order to assess the effectiveness of the education system, examine relationships between education and employment, occupation, industry and income, forecast occupational imbalances and guide immigration policies.

Labour market analysts require census data on level of schooling to determine the return of education on labour productivity. Analysis of labour supply and its flexibility requires data on school attendance, educational attainment, labour force participation, migration, and field of specialization. Finally, census information allows labour market analysts to evaluate whether income level and availability of jobs influence the choice of specialization of Canadians.

Program managers responsible for employment equity programs require 1996 Census level of schooling data to assess access to educational opportunities for the four designated groups: persons with disabilities, Aboriginal peoples, visible minorities and women. From this information, training programs can be designed, and their effectiveness evaluated. Definition and participation in non-traditional occupations require current data on both the educational qualifications and the fields of specialization of designated group members. Level of schooling data also play a significant role in the analysis of income disparities between designated group members and the total population.

The introduction of new technologies is creating new jobs and changing the way we perform old ones. Information about the educational attainment of Canadians is more important than ever to evaluate our adjustment to these changes. The design of cost-effective programs for upgrading the skills of Canadians to facilitate their transition to new industries and new technologies requires detailed knowledge of present educational attributes and their geographic distribution.

Field of specialization data (Question 29) introduce a new dimension into labour market models and improve the analysis and forecasting of occupational distributions. This analysis is necessary to develop and implement appropriate immigration and labour policies and programs. It also enables policy makers to anticipate and respond to the economically motivated migration of Canadians from one part of the country to another or outside of Canada.

Census Variables

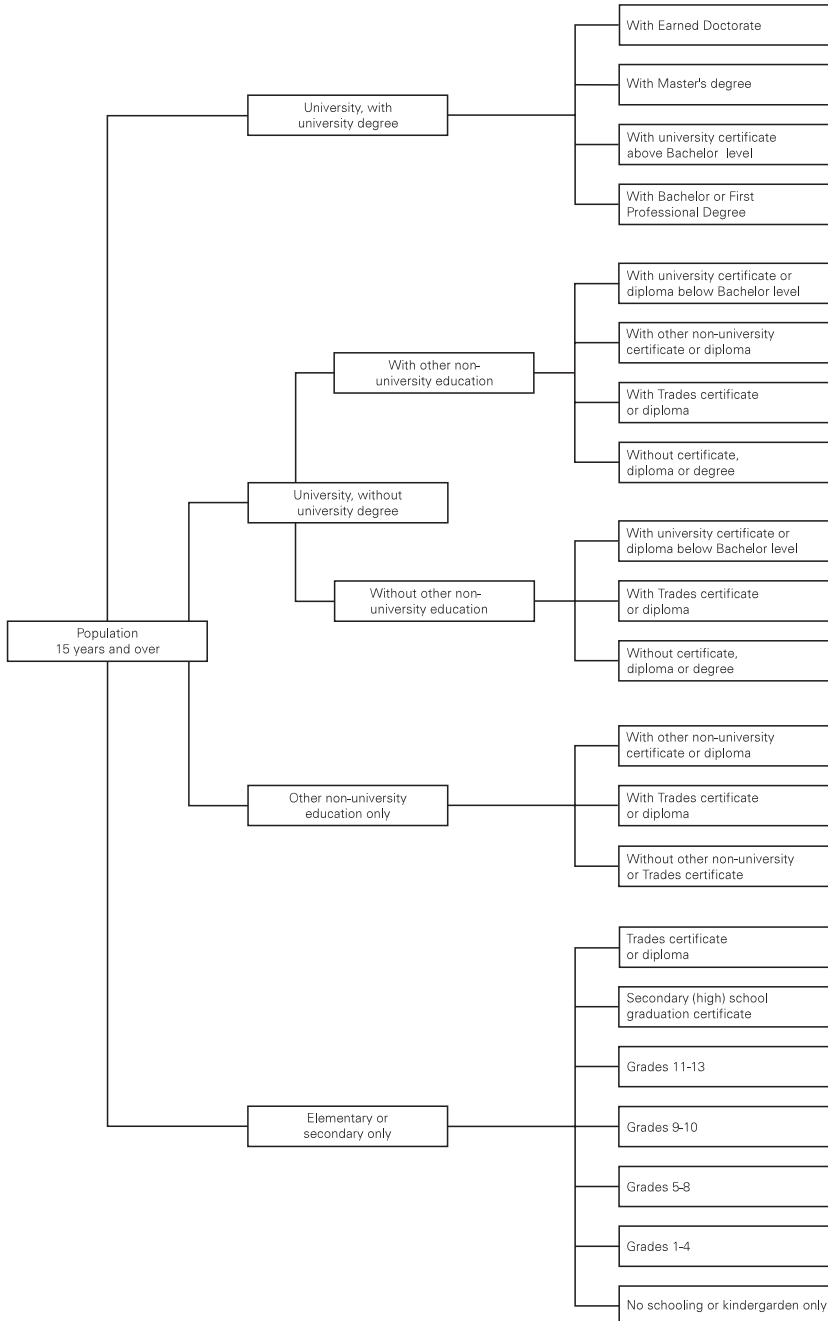
In particular, the development of high technology industries and the rate of technological change require more detailed information on qualifications than can be obtained from Questions 24, 25, 26 and 27 alone. The emergence of these new technologies and the decline of old ones create a need for the retraining of people from one occupational category, or set of skills, to another. Census data can assess the magnitude of the need for retraining and guide the delivery of such programs.

In considering regional development opportunities, census information on education enables federal and provincial agencies to look beyond the present occupations of the labour force to their potential occupations after retraining. Only a survey of the magnitude of the census can provide both the spatially specific data necessary for regional development policies and the degree of detail regarding fields of specialization for target groups within the Canadian population necessary for national and regional labour market and occupational forecasting models.

The variable *highest level of schooling* is derived from the years of schooling questions and the question on degrees, certificates and diplomas. Figure 4 shows the resulting categories.



Figure 4 Highest Level of Schooling Hierarchy



5.10 Household Activities

A new three-part question was asked of respondents in the 1996 Census, dealing with hours spent in the week preceding Census Day on (a) unpaid housework, (b) looking after children without pay and (c) providing unpaid care or assistance to seniors.



Hours spent by the respondent on unpaid housework also include hours spent on unpaid yard work or home maintenance. Some examples of these activities include preparing meals, doing laundry, washing dishes, shopping for groceries and cutting the grass.

Hours spent looking after children without pay include hours spent caring for the respondent's own children or someone else's children.

Some examples of unpaid care to seniors include providing personal care, and helping with shopping, banking, or taking medication. Seniors were defined in the 1996 Census Guide as all persons 65 years of age and over and some individuals close to 65 suffering from age-related infirmities.

Respondents were instructed not to include hours spent doing voluntary work for a non-profit or religious organization, charity, or community group in any of the three parts of the new census question.

On the other hand, hours of overlapping unpaid activities were to be reported in each part of the question that was applicable. For example, a respondent who spent one hour preparing a meal while looking after his/her children was instructed to report one hour of unpaid housework and one hour of unpaid childcare.

5.11 Labour Force

5.11.1 Labour market activities

Labour market activities data from the census can be divided into three groups:

- labour force activity data for the week preceding Census Day (or the “census reference week”);
- data relating to work activity in the calendar year preceding the census year;

- job characteristics, which describe a person's current position or one of longest duration held in the year and a half preceding Census Day.

5.11.2 Labour force activity

Labour force activity data divide the population 15 years and over (excluding institutional residents) into the following three categories: employed, unemployed and not in the labour



force. These categories are divided into more detailed groupings. For example, the employed are divided into those who worked and those who had a job but were absent in the week preceding Census Day; for persons not in the labour force, one can distinguish between those who had worked since January 1, 1995, and those who had never worked or who had worked prior to January 1, 1995 only (see Figure 5).

The census definitions of employed, unemployed and not in the labour force are similar to those used for the Labour Force Survey (LFS), the source of the monthly unemployment rate and other labour force data. The LFS produces current labour market data.

The census can provide detailed cross-

tabulations of labour, job characteristics, or other census variables not collected in the LFS, and for small geographic areas.

The following should be noted:

- a) Persons who did any work for pay or in self-employment (one hour or more) in the reference week are employed. So are those who had a job from which they were absent for reasons such as vacation, illness, a labour dispute, maternity leave, and personal or family responsibilities.
- b) "Work for pay or in self-employment" is any activity done in exchange for pay or with the intention of making a profit. It includes "unpaid family work", which is defined as work done without pay in a farm or business owned by a related member of the same household. It does not include unpaid household activities or voluntary work.

Census Variables

- c) Persons are unemployed if they are not employed during the reference week but are searching for a job, waiting for recall from a temporary lay-off or waiting to begin a new job that will start within the next four weeks. Also, to be counted as unemployed, a person must be available for work in the reference week.
- d) The employed and the unemployed together make up the labour force. The unemployment rate is the unemployed as a percentage of the labour force. The participation rate is the labour force as a percentage of the population 15 years and over. The employment-population ratio is the employed as a percentage of the population 15 years and over.
- e) The category “not in the labour force” includes anyone who does not satisfy the definition of the employed or unemployed, and is thus not part of the labour force. For example, persons in this category include students, homemakers, retired persons, and persons who could not work because of a long-term illness or disability.

5.11.3 Work activity

Work activity provides information on the work experience in 1995 of persons 15 years and over, whether or not they were active during the census reference week. Data on the number of weeks worked for pay or in self-employment in 1995, and whether these weeks were mostly full time or part time, were recorded. The term “full-year, full-time worker” is used in the census to describe people who worked 49 to 52 weeks on a full-time basis in 1995.

5.11.4 Job characteristics

Job characteristics were collected for persons who worked anytime during the 17-month period from January 1, 1995, to the census reference week. Job characteristics include industry, occupation and class of worker.

- a) **Industry** describes the economic sector of the employer, for example, manufacturing, or retail trade. These descriptions are assigned a code from the Standard Industrial Classification (SIC), which contains over 300 basic categories with higher level “roll-ups” such as major groups and divisions.

The 1996 Census industry data are available classified according to the 1980 SIC. On the basis of the 1980 SIC, 1996 industry data are comparable to 1991 and 1986.

- b) **Occupation** describes the kind of work performed by Canadians. The 1996 occupation data are only available classified according to the 1991 Standard Occupational Classification (SOC). The 1991 SOC contains over 500 unit groups which roll up to 139 minor

groups, 47 major groups and 10 broad categories. Occupation data were coded to the 1991 SOC for the first time in 1991. Therefore, only occupation data from 1991 and 1996 can be directly compared.

- c) The third job characteristic, **class of worker**, distinguishes between people who work for others (paid workers), those who work for themselves, and unpaid family workers. Traditionally, owners of incorporated businesses have been treated as paid workers (since they are technically employees of their own business), but some data users prefer to have them grouped with the remaining self-employed, i.e. those who have not been incorporated. Census data users can decide which presentation is appropriate for their needs.

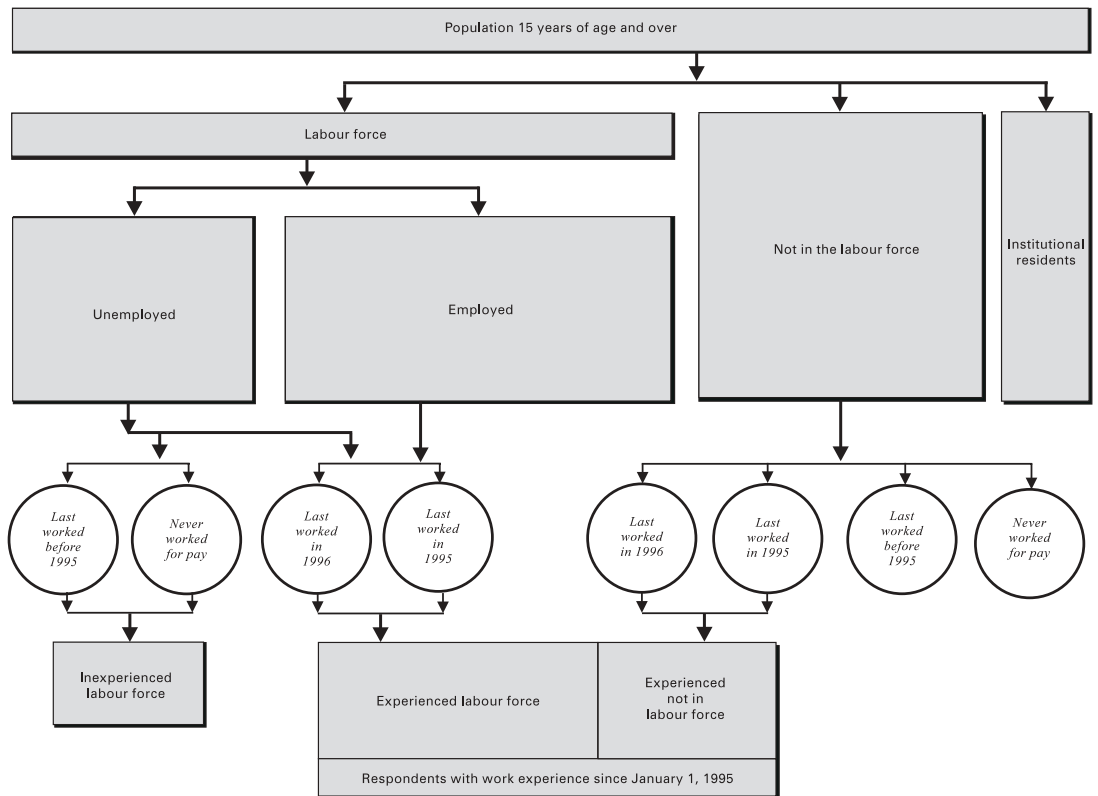


For analysing data on industry and occupation, data users can define the target population in different ways:

- the employed;
- the experienced labour force, i.e. persons who have worked in the past 17 months and who are currently employed or unemployed;
- those who have worked in the past 17 months, regardless of whether they were in the labour force in the reference week.

Census Variables

Figure 5 Population and Labour Force Activity Components, 1996



Note: The terms "work" and "worked" refer to work for pay or in self-employment.

Caution should be exercised when relating industry and occupation to variables such as 1995 work activity and 1995 employment income. If, for example, a person has changed jobs, the occupation and industry data reported for the reference week may differ from those for which the respondent reported work activity and income for 1995.

5.11.5 Place of work

A large proportion of the Canadian labour force commutes between home and work. Data on place of work are being used increasingly to get a clearer picture of the commuting phenomenon and its impact on urban life and to measure the need for public services such as transportation facilities, schools, hospitals, day care centres and recreational facilities. The data

are also used in analysing local and regional commuting patterns, public transportation requirements and energy consumption. They are of particular importance in the study of the differential growth rates of industrialization within regions and the dispersion and decentralization of industry from the core to the periphery of major urban areas.



This variable is defined as the usual place of work of non-institutional residents aged 15 and over who have worked since January 1, 1995. It usually relates to the job held by the individual in the week prior to Census Day. However, if the person had not worked that week but had worked at some time since January 1, 1995, the information relates to the job held longest during that period.

In the 1996 Census, place-of-work data were coded to the submunicipal level (i.e. block-faces and enumeration area representative points). The Place of Work question contains four categories of response:

- worked at home: respondent worked at his/her place of residence;
- worked outside Canada: respondent worked outside the country;
- worked at usual place of work: respondent worked at a specific location;
- no fixed workplace address: respondent worked at different locations.

Census Variables

5.11.6 Mode of transportation

In the 1996 Census, a new question on mode of transportation was asked for the first time in order to provide planners with a better understanding of the commuting habits of the employed labour force. Future censuses should be able to confirm shifts between public and private transportation and changes in the popularity of cycling and walking to work.



Responses were coded into one of eight categories of usual mode of transportation to work:

- car, truck or van, as driver;
- car, truck or van, as passenger;
- public transit;
- walked to work;
- bicycle;
- motorcycle;
- taxicab;
- other method.



5.12 Income

The *1996 Census Dictionary* lists numerous income variables relating to individuals, families and households. Analysis of census income data can be undertaken in a number of ways:

- a) Since the census database contains the actual income of individuals, families and households, users can define income classes for an analysis of income distributions and income inequality.
- b) Summary measures such as average and median incomes can easily be obtained for different segments of the population.
- c) Detailed analysis can be undertaken for specific groups. (For example, a 1991 Census analysis focusing on family incomes revealed that the average share of government transfer payments in family income nearly doubled between 1970 and 1990.)
- d) As is the case with income groups, individuals or families can be divided into equal groups such as quintiles or deciles and their comparative position can be analysed. This approach was adopted in a study of the changing incomes of families between 1970 and 1990.
- e) The role played by various sources of income can be analysed by examining the income composition of a given group – women, the elderly, husband-wife families, etc. Alternatively, one can look at the major source of income, which identifies the source, or combination of sources, that accounts for most of a person's or family's income; this variable shows that, compared with less than 10% for all families, the major source of income of over one-half of the families in the lowest decile in 1990 was government transfer payments.
- f) Financial returns to education and training and the comparative earning position of men and women can be analysed by examining employment income for various education and occupation groups. (For example, a 1991 study showed that the average earnings of young, single women working full year, full time were 85.7% of those of men of the same age. In comparison, married women, aged 55 to 64, earned only 57.2% of that of men with similar age and work activity.)
- g) Income status of families, unattached individuals or population in selected regions of the country can be analysed in relation to Statistics Canada's low income cut-offs.

Census Variables

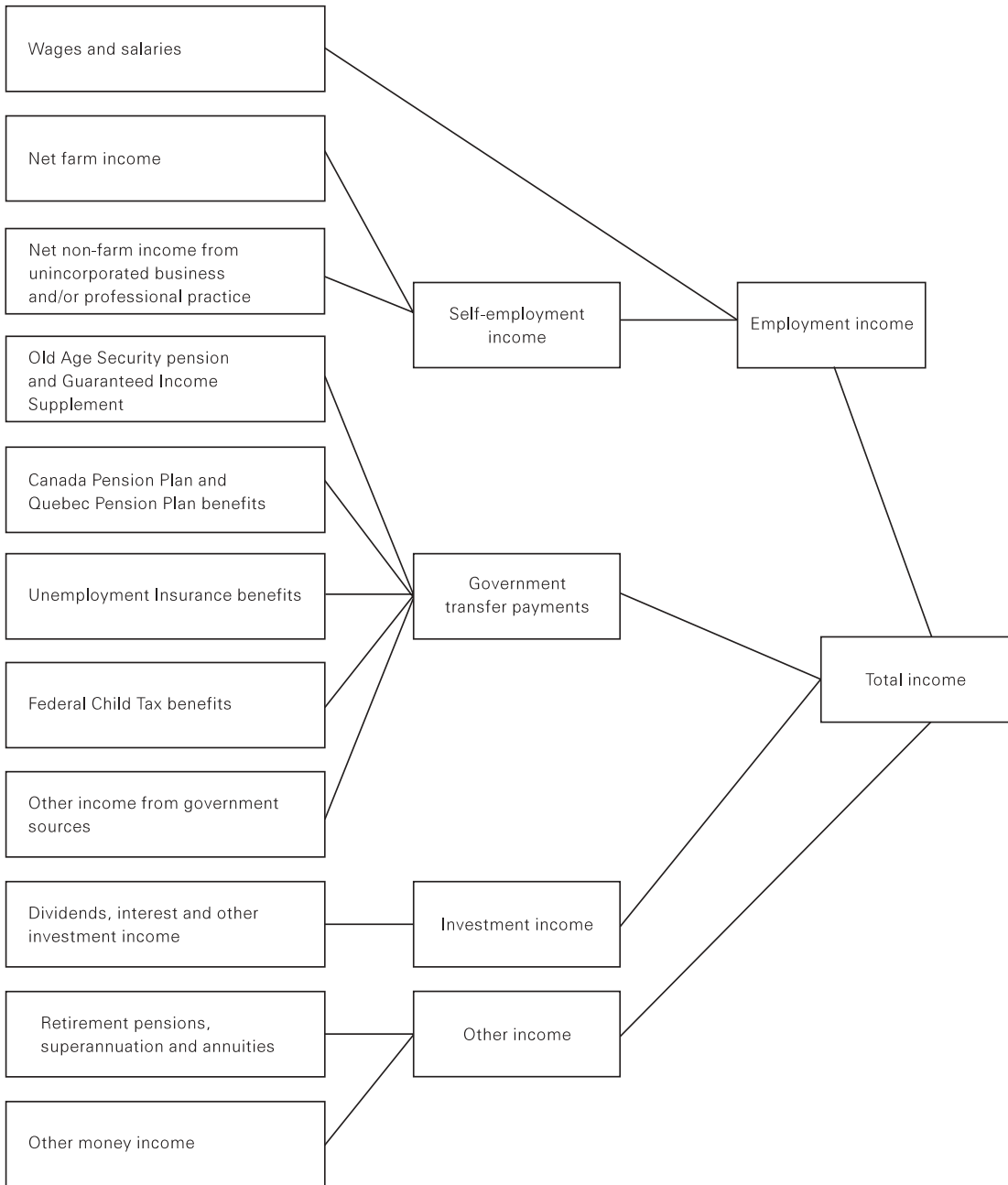
Users of census income statistics must also decide:

- Is the unit of analysis individuals, families or households?
- Will the existing concept be used or does it need to be redefined?
- Will income statistics from previous censuses or other sources be compared?

Census income data can be tabulated for individuals, census families, economic families and households. Users also have the flexibility to define their own analytical unit. They also have several income concept options at their disposal: total income, total income excluding one or more sources, earnings, joint income or earnings of spouses, and so on.

Once conceptual and coverage differences have been accounted for, income data from different censuses can be compared by converting them into comparable (constant) dollars. The Survey of Consumer Finances provides a useful source of intercensal income estimates.

Figure 6 Income Components in 1995



Census Variables

5.13 Families and Households

Family and household data are important in understanding a population's socio-economic and cultural characteristics. Canadian families have undergone rapid changes in the past few decades, and census data provide a statistical base for studying those changes.

Users of family and household data may encounter the following problems:

- a) Family and household variables can seem cumbersome; it is very difficult to translate complex human relationships into tables. Users should consult the *1996 Census Dictionary* (Catalogue No. 92-351-XPE) and keep in mind the broad objectives underlying the family and household variables.
- b) Users often want to analyse family and household data together with characteristics pertaining to individuals. Except for the income question, none of the census questions relating directly to individuals can be aggregated into family or household responses.



Statistics Canada does not aggregate family data by mother tongue, for example. However, special tabulations based on user-defined methods can be produced. For instance, one could tabulate families by the mother tongue of one family member, such as the spouse or lone parent. The same thing can be done at the household level using the primary household maintainer. One could also select a variable such as census family status, whose unit of measurement is individuals rather than families. This variable shows the individual's situation within the family - spouse, common-law partner, never-married son or daughter, and so on. Such a variable can be cross-tabulated quite easily with mother tongue, which is also an **individual** characteristic.

People living in the same dwelling are considered a census family only if they meet the following conditions: they are spouses or common-law partners, with or without never-married sons or daughters at home, or a lone parent with at least one son or daughter who has never been married. The census family includes all blood, step- or adopted sons and

daughters who live in the dwelling and have never married. It is possible for two census families to live in the same dwelling; they may or may not be related to each other.

An economic family, on the other hand, includes all persons related by blood, marriage, common-law or adoption living in the same dwelling. For example, a brother and a sister living together or a mother and her separated daughter sharing a dwelling would constitute an economic family but not a census family.

The household is the broadest concept, encompassing all persons living in the same dwelling, whether they are related or not. Figure 7 shows the relationship between households, economic families and census families.

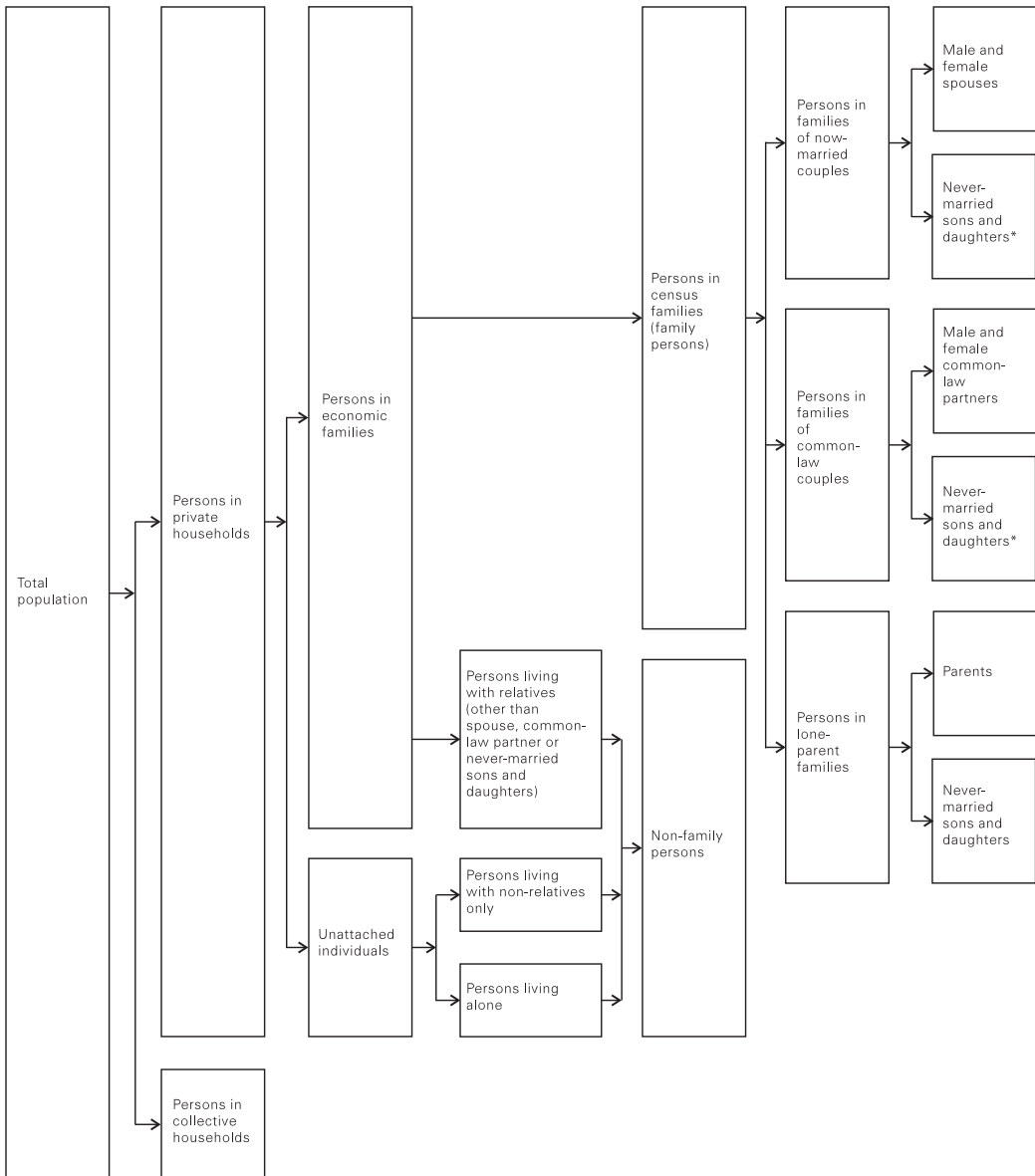
With the general decline in household size, there is a growing interest in the problems and advantages of living alone. Figure 7 shows that there are three ways of defining a target population for a study of this issue. The narrowest definition would be *persons living alone* – in other words, one-person households. The second option is *unattached individuals*, which includes persons living alone and persons living with others to whom they are not related; these other people could also be unattached individuals, or they could constitute an economic family. The third and least restrictive option is *non-family persons*, which includes unattached individuals and persons who live with relatives but are not part of a census family.

The full range of census variables for families and households is described in the *1996 Census Dictionary*. One of those variables will be covered in greater detail here: income stands apart from the other variables because it lends itself to analysis based on individuals, families or households. If income data are used to study aspects of employment, the individual is the appropriate unit. In an analysis of economic well-being, on the other hand, the family is important. The decision whether to use the economic family concept or the census family concept usually depends on the assumptions made regarding income sharing.

A number of variables listed in the *1996 Census Dictionary* under the *household* category refer not only to the individuals composing a household but also to the structure they live in. They include all variables related to shelter costs – annual payments for electricity, other energy, and water; gross rent and monthly cash rent; annual property taxes, monthly mortgage payments and condominium fees; owner's major payments (average monthly shelter costs) and condominium ownership. Users interested in housing data should keep this source of data in mind.

Census Variables

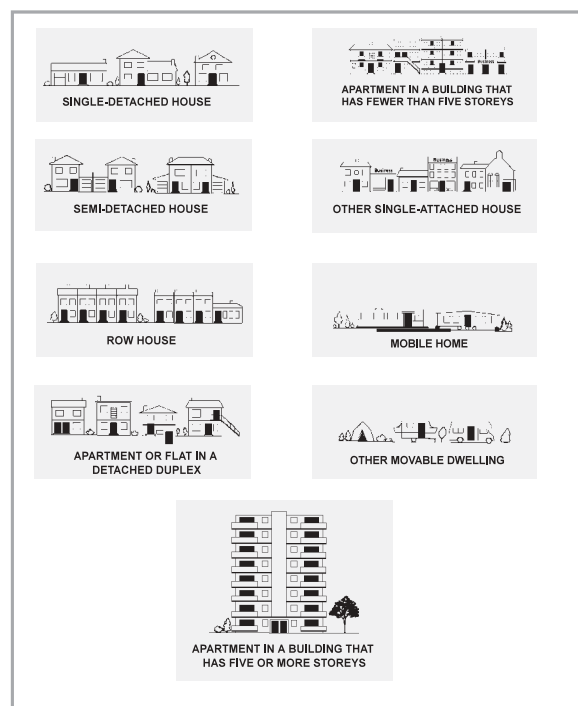
Figure 7 Economic and Census Family Membership and Family Status



* May or may not be present.

5.14 Housing

The census counts dwellings for two main purposes. The first is to associate people with a spatial unit; otherwise it would be impossible to enumerate people once and only once. The second objective is to publish counts of the dwellings themselves along with information about dwelling characteristics.



A dwelling is a separate set of living quarters with a private entrance from the outside or from a common hallway or stairway inside the building. The entrance should not be through someone else's living quarters.

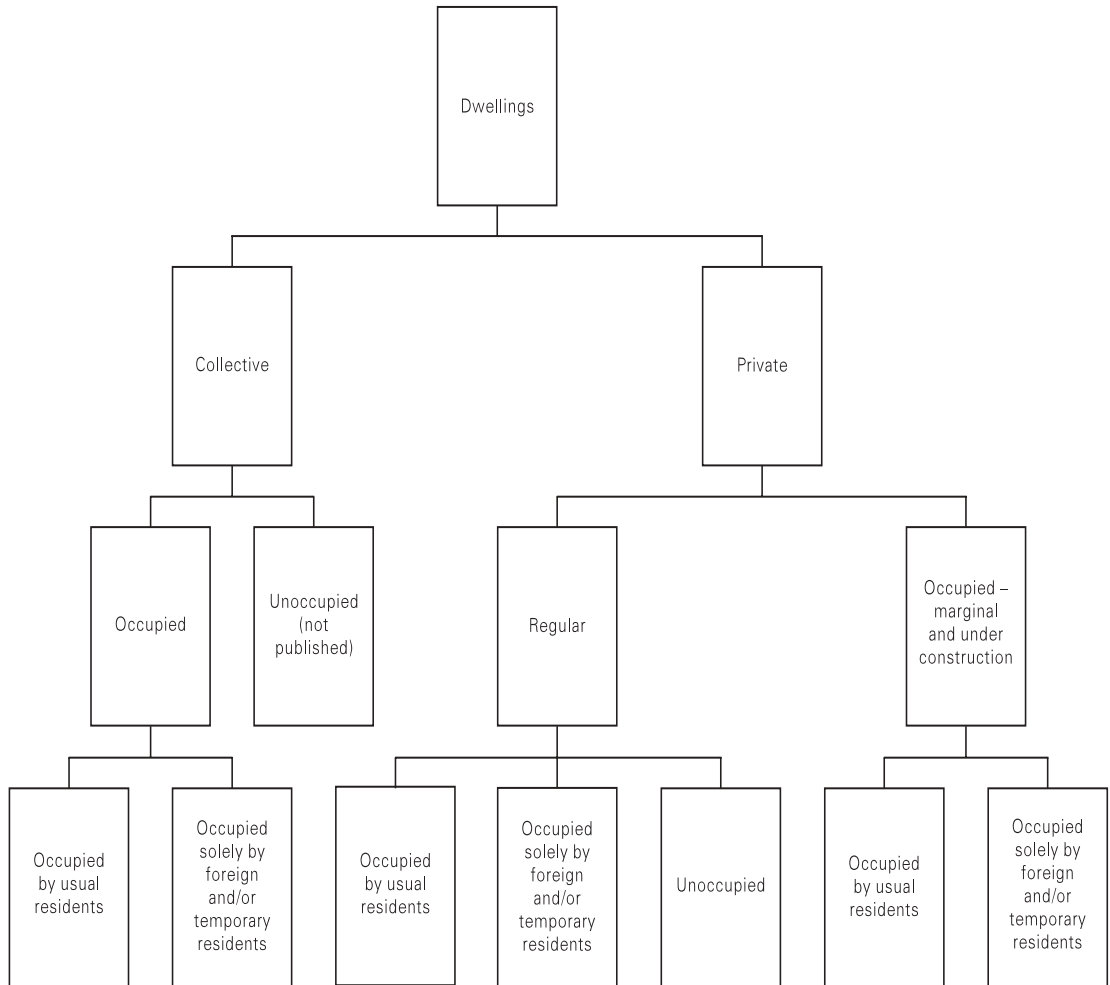
The *1996 Census Dictionary* contains descriptions of a range of housing variables that can be used to characterize the housing market at fine levels of geographic detail. Since the questions on household maintainer and tenure that appeared in the 1991 short questionnaire (Form 2A) were removed from the 1996 version, all housing information for 1996 is based on sample data. The database also holds information on structural type, period of

construction and condition of dwelling; these variables are essential in order to evaluate the quality of Canada's housing stock and assess the need for neighbourhood improvement programs. In addition, these variables and others, such as number of rooms, number of bedrooms, and value of dwelling, are used by municipal planners, provincial housing ministries, developers, construction companies and real estate firms.

Figure 8 shows the complete classification of dwellings as well as the progression from the census questionnaire definition to the definition underlying housing stock estimates. The first step in the progression is the distinction between collective and private dwellings; data on dwelling characteristics are collected only for occupied private dwellings. A collective dwelling is a set of living quarters occupied by 10 or more people unrelated to the reference person (Person 1), or any other set of living quarters that can be clearly identified as communal (rooming houses), institutional (jails, hospitals) or commercial (hotels) in nature, regardless of the number of occupants.

Census Variables

Figure 8 The Dwelling Universe



As shown in Figure 8, private dwellings are divided into two categories: *regular* and *occupied marginal or under construction*. A regular dwelling is suitable for permanent year-round living; marginal dwellings (including cottages not suitable for year-round use) and dwellings under construction are listed only if occupied. Dwellings whose occupants are foreign or temporary residents are listed but no data on dwelling characteristics are collected, whether they are regular dwellings or not.

5.15 Institutions and Other Collectives

The census also provides counts of collective dwellings by type. *Institutional collectives* include children's group homes and orphanages, chronic care hospitals, nursing homes, senior citizens' homes, hospitals, psychiatric institutions, treatment centres and institutions for the physically handicapped, correctional and penal institutions, young offenders' facilities and jails.

Non-institutional collectives include hotels, motels and tourist homes, lodging and rooming houses, school residences and residences for training centres, YM/YWCAs, missions and hostels, campgrounds and parks, work camps, religious establishments, Hutterite colonies, military camps, merchant and coast guard vessels, naval vessels and other collectives.



The *1996 Census Dictionary* provides a definition for every type of institutional and non-institutional collective dwelling.

The distinction between institutions and other collectives may seem ambiguous. For example, halfway houses operated by private companies are considered rooming or boarding houses, while government-run halfway houses that provide special services such as care for drug addicts or alcoholics or rehabilitation of persons released from a penal institution are deemed to be institutions.

Like private dwellings, collectives may be occupied by usual or temporary and foreign residents. In addition, institutional collectives may be occupied by institutional residents, live-in staff or both. This is reflected in the information collected by the census, as Figure 9 shows.

Census Variables

Figure 9 Institutional and Non-institutional Collectives

Type of collective dwelling	Type of resident		Type of census data collected
Institutional	Institutional resident (in care or custody)	Usual resident (has no usual residence elsewhere OR has been in an institution for six months or longer)	Information contained on Form 2A
		Temporary resident (has a usual residence elsewhere AND has been in an institution for less than six months) or foreign resident	Information contained on Form 1A Name, usual address
	Resident staff (has no usual residence elsewhere)	Information contained on Form 2B, except housing	
Non-institutional	Usual resident	Information contained on Form 2B, except housing	
	Temporary resident or foreign resident	Information contained on the first part of Form 3 Name, usual address	

5.16 Disability

In 1996, two disability questions were asked. Question 7 was a three-part question which asked if the person was limited in activities at home, school or work, or in other activities.

Question 8 asked if the person had any long-term disabilities or handicaps. These questions include **long-term** physical conditions, mental conditions, health problems, disabilities or handicaps that have lasted or are expected to last **six months or more**.

The disability question was added to the census for the first time in 1986 to provide a sample frame to enable the conduct of the postcensal Health and Activity Limitation Survey (HALS). The same question was used in 1986, 1991, and 1996; however, in 1991 and 1996, the question was split and presented as two questions.

The HALS was the primary source of disability data in 1986 and 1991 since this survey provided a better identification of the target population of persons with disabilities than the census alone. Questions 7 and 8 were included in the 1996 Census to provide a means of carrying out a postcensal survey in 1996. However, the HALS was not undertaken in 1996 due to a lack of funding and budget constraints.

Disability data from the 1996 Census will be available upon special request only. Comparisons of 1986 and 1991 disability data from the HALS and from the census indicated that there are major differences between the two data sources. Furthermore, the 1996 Census data have not been edited or imputed and should be used with caution.

DID YOU KNOW THAT ...



- ▶ The respondent's guide that accompanied the short questionnaire (Form 2A) in previous censuses was not printed in 1996, which saved some 215,460 kg of paper.

6.1 Introduction

The planning of a census begins several years before the actual Census Day. The data collection operation is an enormous and complex one that involves almost 38,000 census representatives who ensure that every household in Canada receives a census questionnaire and that every questionnaire is edited for completeness and returned to Statistics Canada. The work is organized by subdividing the entire land mass of Canada into small geographic areas called **enumeration areas** (EAs). A census representative is responsible for the enumeration of



each EA. Statistics Canada generates approximately 50,000 maps, including one of each EA for each census representative, before data collection can begin.

In order to define the EA boundaries, the boundaries of other geographic areas such as federal ridings, municipalities, and other areas for which census data are published, must be well

defined. Provincial authorities and planning boards provide the necessary information which is then amalgamated with census requirements. EAs are defined to lie entirely within these other geographic areas. In this way, data for other geographic areas can be calculated by adding up the data for each of the component EAs. The EAs are geographically coded to easily identify each of the different geographic areas in which they are located and this geographic coding is used throughout the processing of the data.

Once collection and processing have been completed, data are disseminated for geographic levels ranging from Canada-wide totals to individual communities and small neighbourhoods. Hence, defining Canada's geographies for the purpose of conducting a census becomes an integral part of the process as it forms the basis from which data about Canadians can be collected, captured, monitored, disseminated and analysed.

Statistics Canada uses a very accurate and detailed geographic structure that makes it possible to obtain information for many different geographic areas. Data from the 1996 Census are available for numerous **standard** geographic areas, as well as for **non-standard** or user-defined areas.

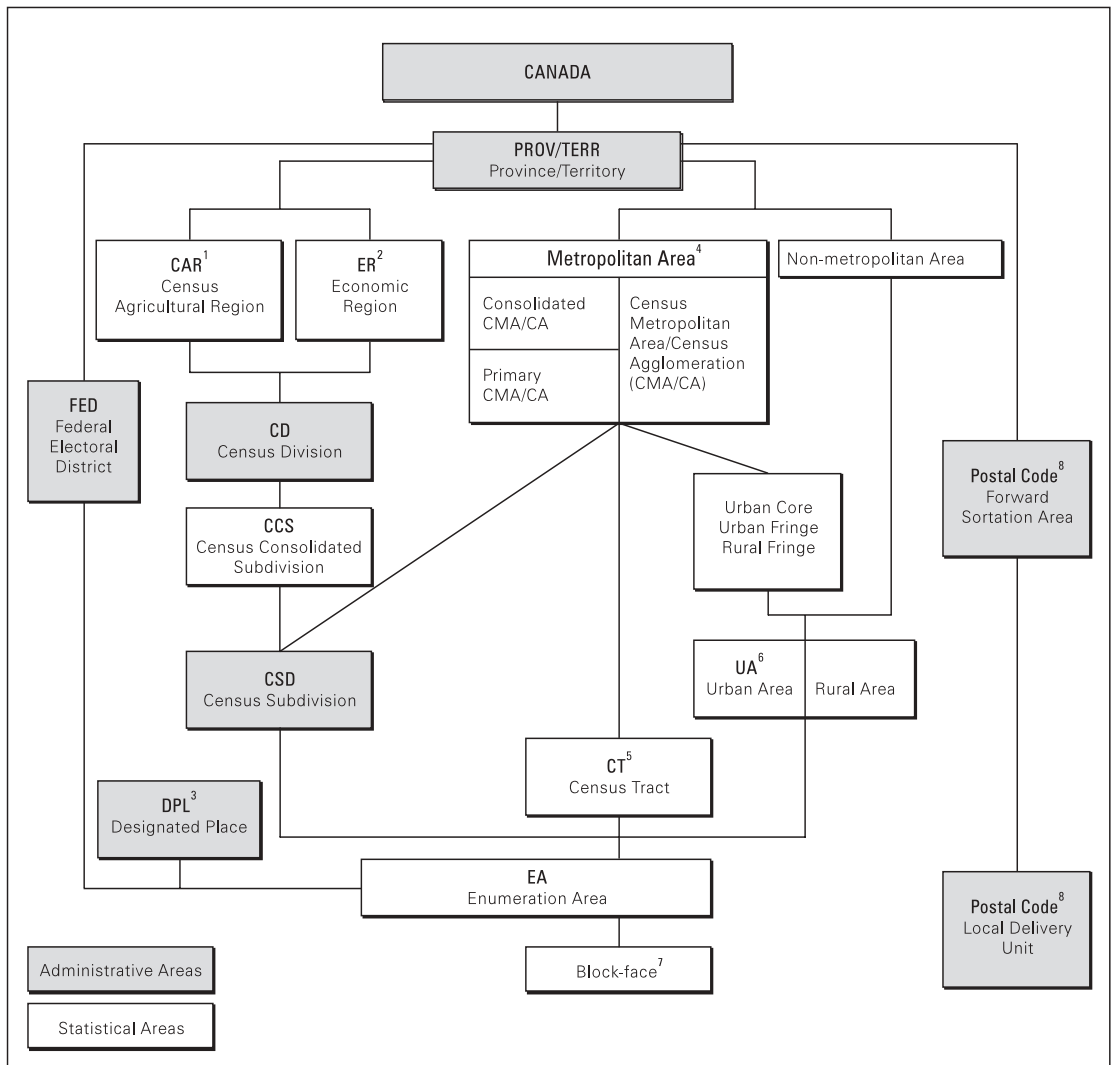
6.1.1 Standard geographic areas

Figure 10 presents the hierarchy of standard geographic areas and Figure 11 shows their distribution by province and territory. Standard geographic areas are of two types: administrative/legislative and statistical. Administrative areas are defined, with a few exceptions, by federal and provincial statutes and are adopted for purposes of the census. Statistical areas are defined by Statistics Canada for the purposes of producing census data and complementing the structure of administrative regions. The enumeration area is the smallest geographic area and together, all 49,361 1996 Census enumeration areas cover the entire country. In addition, enumeration areas are defined to respect the boundaries of all other standard geographic areas. Thus, they can be added together or “aggregated” to create any of the other standard geographic areas. For example, enumeration areas can be aggregated into the 5,984 census subdivisions (municipalities) or the 4,223 census tracts.

Although shown and treated as part of the geographic hierarchy, the postal code is not, strictly speaking, a census geographic area. There is no exact relationship between postal codes and enumeration areas; however, for the first time in any census, the postal code was captured as provided by the respondent on all 1996 Census questionnaires. This makes it possible to tabulate census data by postal codes which in turn makes it possible to relate data by administrative records to data from the census. For example, a business could tabulate the number of its customers by postal code from its own administrative records. Then, by comparing the population counts for the same postal codes, the business could estimate its penetration of the total market.

Census Geography

Figure 10 Hierarchy of National, Metropolitan and Postal Code Geographic Units, 1996



¹ Census agricultural regions in Saskatchewan are made up of census consolidated subdivisions.

² Economic regions in Ontario are made up of municipalities (census subdivisions).

³ Currently there are no designated places in Prince Edward Island, Quebec, Yukon Territory and Northwest Territories.

⁴ Five CMA/CA cross provincial boundaries.

⁵ All CMA/CA and only CAs with urban core population of 50,000 or more at the previous census have census tracts.

⁶ Five UAs cross provincial boundaries.

⁷ Only in areas covered by street network files (SNFs).

⁸ The postal code is captured as provided by the respondent on all the questionnaires for 1996. Although shown and treated as part of the geographic hierarchy, strictly speaking, it is not a geographic unit and, therefore, there is no exact relationship between postal codes and enumeration areas.

Census Geography

Figure 11 Geographic Units by Province and Territory, 1996 (as of January 1997)

Geographic unit	CANADA		Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.
	1991	1996												
Federal electoral district (1987 RO*)	295	295	7	4	11	10	75	99	14	14	26	32	1	2
Federal electoral district (1996 RO*)	N/A	301	7	4	11	10	75	103	14	14	26	34	1	2
Economic region	68	74	4	1	5	5	16	11	8	6	8	8	1	1
Census agricultural region	77	78	3	-	5	4	13	5	12	20	8	8	-	-
Census division	290	288	10	3	18	15	99	49	23	18	19	28	1	5
Census consolidated subdivision	2,630	2,607	87	68	52	148	1,143	518	128	302	73	82	1	5
Census subdivision	6,006	5,984	381	113	110	283	1,599	947	298	970	467	713	35	68
Designated place	N/A	828	77	-	59	172	-	38	52	166	252	12	-	-
Census metropolitan area	25	25	1	-	1	1	<u>6</u>	<u>10</u>	1	2	2	2	-	-
Census agglomeration	115	112	4	2	4	<u>5</u>	<u>27</u>	<u>32</u>	3	<u>7</u>	<u>9</u>	21	1	1
Primary census metropolitan area	12	11	1	-	-	-	<u>3</u>	<u>5</u>	-	-	2	1	-	-
Primary census agglomeration	21	22	1	-	-	-	6	11	-	-	3	1	-	-
Census tract	4,068	4,223	41	-	75	69	1,108	1,799	158	99	386	488	-	-
Urban area	893	929	44	7	39	<u>38</u>	<u>228</u>	<u>266</u>	<u>43</u>	<u>63</u>	<u>103</u>	97	2	6
Enumeration area	45,995	49,361	1,236	267	1,511	1,393	11,684	16,469	2,050	2,844	4,746	6,880	111	170
Street network file (number of CSDs)	342	344	2	-	3	16	114	113	10	5	4	77	-	-
Block-face ¹	763,626	817,734	5,068	-	9,707	17,110	187,563	330,658	35,024	21,375	79,954	131,275	-	-
Forward sortation area ²	1,368	1,477	32	7	58	44	383	515	63	45	137	187	3	5
Postal code ²	652,826	680,910	7,073	2,737	18,864	16,144	175,885	244,909	22,821	20,778	64,530	105,801	864	504

Note: Underlined numbers indicate that those CMAs, CAs, PCMs and urban areas crossing provincial boundaries are counted in both provinces.

* Representation Order

¹ Preliminary numbers.

² Counts derived from the December 1991 and from the July 1996 Postal Code Conversion File.

6.1.2 User-defined areas

Census data can also be produced for areas other than the standard geographic areas, that is, for user-defined areas. These are of two types: first, if the user's areas match the boundaries of any of the standard geographic areas, they can be created by aggregating the component standard geographic areas; and second, if the user's areas do not match any of the standard geographies, they can be created by a process unique to Statistics Canada called the Geocoding Service. Subsection 6.3.1 describes the Geocoding Service in more detail.

Brief descriptions of the various standard geographic areas are provided in the next section.

6.2 The Hierarchies of Standard Geographic Areas

The census organizes the dissemination of data based on hierarchies of standard geographic areas. The hierarchies and their interrelationships are depicted in Figure 10. There is a national hierarchy where each level of geographic area covers the entire country, a metropolitan (urban) hierarchy where each level of geographic area applies only for urban centres, and a postal code hierarchy for the convenience of users requiring census data by postal code geography. The geographic hierarchies include several levels, some of which nest completely within the next larger level and others that do not. By “nest”, it is meant that adding all smaller units within a larger unit leaves no part uncovered nor does it result in any overlap. Some levels appear in more than one hierarchy.

Understanding the hierarchies and their interrelationships is important for accurate data retrieval from census databases. The hierarchies are implicit in the geographic codes used to access census data and it is usually necessary to use the codes from two or more levels in the hierarchy to ensure the exact geographic units of interest are obtained.

Definitions, historical boundary changes and descriptions of available maps are covered more thoroughly in the other reference products, including the *1996 Census Dictionary* (Catalogue No. 92-351-XPE), the *Standard Geographical Classification Manual, Volume I* (Catalogue No. 12-571-XPB) and Statistics Canada's electronic catalogue, *IPS* (Information on our Products and Services).

6.2.1 The national hierarchy of geography

The top level in the national hierarchy is Canada and the bottom level is the enumeration area (EA). The EA is defined to respect all higher levels in the hierarchy and is therefore often referred to as a “building block”. In between these two levels, there are provinces and territories and many subprovincial levels which are described in more detail below.

The constitutional basis for the census originates from the requirement to apportion federal electoral representation based on population counts. Thus, one of the levels in the national hierarchy is the **federal electoral district** (FED), the federal Member of Parliament's riding. Enumeration areas are defined to respect the FED boundaries and the FEDs add together to form provinces and territories.

Many provinces are already divided into official areas for regional and local government purposes. Most of us are familiar with terms such as counties, regional districts, regional municipalities, municipalities, townships and Indian reserves when referring to these subprovincial administrative areas.

Census division (CD) is the general term applied to areas established by provincial law which are intermediate geographic areas between the municipality and the province levels. Census divisions represent counties, regional districts, regional municipalities and other types of provincially legislated areas. In Newfoundland, Manitoba, Saskatchewan and Alberta, provincial law does not provide for these administrative geographic areas. Therefore, census divisions have been created by Statistics Canada in cooperation with these provinces for the dissemination of statistical data. In the Yukon Territory, the census division is equivalent to the entire territory.

Census subdivision (CSD) is the general term applying to municipalities (as determined by provincial legislation) or their equivalent (for example, Indian reserves, Indian settlements and unorganized territories). In Newfoundland, Nova Scotia and British Columbia, the term also describes geographic areas that have been created by Statistics Canada in cooperation with the provinces as equivalents for municipalities for the dissemination of statistical data.

According to the national hierarchy, enumeration areas add together to form CSDs, and CSDs, in turn, add together to form census divisions. The CDs form provinces and territories. Two additional levels are defined in the national hierarchy to facilitate special data analysis. A special aggregation of census subdivisions called **census consolidated subdivision** (CCS) provides a level of geography between the CSD and CD which facilitates data analysis. In the rural context, the CCS is a grouping of smaller municipalities, usually contained within a larger municipality. For instance, a town located within a surrounding township will be grouped together with the township to form a CCS. In urban areas, CCSs are formed by contiguous groupings of CSDs. A principal user of the CCSs is the Census of Agriculture.

Agricultural data programs also use subprovincial aggregations called **census agricultural regions**, also known as crop districts in the Prairie provinces. Census agricultural regions are made up of groups of adjacent census divisions. In Saskatchewan, census agricultural regions are made up of groups of adjacent census consolidated subdivisions, but these groups do not necessarily respect census division boundaries.

There is another level in the national hierarchy that is used primarily for the dissemination of economic data. An **economic region** is a grouping of complete census divisions (with one exception in Ontario). Prince Edward Island and the two territories each consist of one economic region. Economic regions are used to analyse regional economic activity.

A new level in the national hierarchy has been identified for the 1996 Census, but it does not nest with higher levels in the hierarchy. **Designated places** refer to areas created by provinces to provide services and to structure fiscal arrangements for submunicipal areas which are often within unorganized areas. The concept of a designated place generally applies to small communities for which there may be some level of legislation, but where the communities fall below the criteria established for municipal status, that is, they are “submunicipal” or unincorporated areas. Provincial governments require census data in order to administer grants and/or services to designated places. Prior to 1996, Statistics Canada facilitated the retrieval of census data by delineating these areas at the **enumeration area** level only. The increasing demand from provinces for population counts by designated places led to their recognition as a new dissemination geography for the 1996 Census. Statistics Canada relies on provincial authorities to identify those areas to be defined as designated places and to provide adequate boundary descriptions or maps. As a result, the areas recognized as designated places may not represent all places having the same status within a province.

6.2.2 The metropolitan hierarchy of geography

Most of Canada’s vast land area is sparsely populated and, with each passing decade, a greater proportion of the total population is found in urban settings. In fact, more than 70% of Canada’s population lives in urban centres with a population of 10,000 or greater. Based on certain rules with respect to population and density, all land is defined by Statistics Canada as either urban or rural.

Urban-focused economies tend to expand beyond official municipal or even county boundaries in terms of shopping trips and commuter travel. As a result, Statistics Canada has created groupings of municipalities, or **census subdivisions**, in order to encompass the area under the influence of a major urban centre. Specific guidelines are used to group municipalities that are closely interconnected due to people working in one municipality and living in another. The resulting geographic units are called **census metropolitan areas** (CMAs) for larger urban centres (100,000 or more in their urban core in the previous census) and **census agglomerations** (CAs) for smaller urban centres (with an urban core of at least 10,000 but less than 100,000 in the previous census).

Beginning with the 1986 Census, the CMA/CA concept was further refined to accommodate the cases where the area of influence of one CMA or CA continues to expand to nearby CAs.

When this happens, Statistics Canada forms a larger **consolidated census metropolitan area** or **consolidated census agglomeration** and identifies the individual components as **primary census metropolitan areas** (PCMAs) and **primary census agglomerations** (PCAs). Thus, in some CMAs, there will be a PCMA and at least one PCA. For instance, the Edmonton CMA in Alberta is composed of the Edmonton PCMA, the Leduc PCA and the Spruce Grove PCA. Note that although Edmonton CMA is consolidated, we call it a CMA.

Within CMAs and CAs, land is designated as being part of an **urban core**, an **urban fringe** or a **rural fringe**. Certain rules with respect to population and density are used to make the urban designations. Outside CMAs and CAs, land is also designated as **urban area** using the same rules. Land not designated “urban” is considered **rural area**.

Users often need data for areas that are smaller than a municipality. As a result, Statistics Canada created **census tracts** (CTs) to equal neighbourhood-like areas of 2,500 to 8,000 people (preferably close to 4,000) within all CMAs and CAs that contain an urban core with a population of 50,000 or more in the previous census. The CT boundaries generally follow permanent physical features such as major streets and railway tracks and attempt to approximate cohesive socio-economic areas. One unique feature of CTs is that their boundaries are generally held constant from one census to the next, so that CTs are comparable over time. A subsequent census may split a CT, but normally it can be easily aggregated to equal earlier boundaries. This characteristic, however, means that CTs do not necessarily follow CSD or CD boundaries. This lack of nesting occurs most frequently when neighbouring municipalities adjust their boundaries between censuses. Only at the external outline of a CMA or a CA does a CT boundary have to follow that of a CSD or CD. In practice, however, there are few cases of CTs not nesting perfectly within CSDs and CDs.

CTs have had a long history of being the unit of choice for analysing neighbourhoods since data have been readily available for them (and for a long time, they were the only submunicipal data released in readily available form).

6.2.3 Postal code system

The postal code system is a geographic system designed by Canada Post solely to facilitate the delivery of the mail. It is quite different from the geographic systems used by Statistics Canada.

The **postal code** system is hierarchical in that it builds from small units of location (often a block-face in urban centres) to a larger territory. The familiar six-character alphanumeric postal code is a reflection of that hierarchy. The first three characters refer to the **forward sortation area** (FSA) which, in urban areas, is about the size of four to six census tracts. The last three characters are the **local delivery unit** (LDU) which, in urban areas, is often

equivalent to a block-face (normally one side of a city street between two consecutive intersections). There are many LDUs in each FSA. In areas with carrier delivery, groupings of LDUs form the carrier's delivery route, called a postal walk (PW), which is larger than an EA but smaller than a CT. Unlike census geography, which is "frozen" for five years, postal geography is constantly changing.

6.3 Non-standard or User-defined Geographic Areas

Standard geographic areas are used to organize and disseminate census data. In many cases, the standard geographic areas satisfy data user requirements for census data tabulations; however, there are also many users who want data tabulated for geographic areas that are not in the standard geographic hierarchies as depicted in Figure 10. Examples are school districts, health zones and sales regions.

There are two basic types of such non-standard or "user-defined" geographic areas: 1) areas which are simple aggregations of standard geographic areas, and 2) areas which do not match the standard geographic areas at all. An example of the first type could be sales regions for a census metropolitan area where the sales regions are made up of one or more of the component municipalities. Examples of non-standard user-defined areas include market areas, school districts, transportation and utility corridors.

6.3.1 Geocoding Service

When clients want census data tabulated for non-standard geographic areas, they may turn to the Geocoding Service. Clients work with Statistics Canada personnel to draw their custom areas on Statistics Canada maps. Statistics Canada converts ("digitizes") the user-defined boundaries to its required file format for processing using specialized computer software. The resultant files (called query area boundaries) are stored on computer disks for subsequent census data retrievals and tabulations. With the increased use of geographic information system (GIS) software, some clients may already have their user-defined boundaries in a digital format. If these digital files meet Statistics Canada's requirements and can be converted to Statistics Canada's required format, the digitization process may be bypassed. However, depending on the source from which the client's digital boundaries were created, there may be additional work required to match the client's boundaries to Statistics Canada's geographic base before the query area boundaries can be created.

The Geocoding Service is provided after each census by first defining small geographic units which can be used as building blocks to estimate user-defined areas. The small geographic units are **block-faces** (generally, one side of a city block) within the larger urban centres of Canada, and enumeration areas elsewhere. A point (x,y) called a **representative point** is

calculated for every enumeration area in Canada and for every block-face where they are defined. With the geocoding system, census data collected from households within a particular EA or along a particular block-face are linked to the corresponding representative point. Census data for the user's defined areas are then retrieved by first identifying the representative points which fall within the user-defined boundaries and then tabulating the data associated with the identified representative points. If the user-defined area cuts across one of the building blocks, all of the data for that building block are assigned to the area in which the representative point is located.

6.3.2 Query Area Library

Once a user-defined area has been coded, it is stored on the Statistics Canada computer in the Query Area Library (QAL). Areas in the library can be recalled at any time by the original client to produce a wide range of tabulations. QALs are associated with the census year in which they were created. Clients can request historical census data tabulations for their user-defined areas, or use their query areas produced in a previous census for current census tabulations. The Geocoding Service facilitates these types of requests; however, changes in the geographic infrastructure and geocoding concepts may implicate additional processing and/or quality limitations when interpreting the results.

6.3.3 Uses of geocoding

For market research, geocoding can be used to assess the market potential of an area, to locate important market segments, and to help select an efficient retail site. Geocoding can also help in choosing locations for telephone exchanges and banks, and radio and television stations. Oil, hydro and gas utilities use information retrieved from geocoded areas to predict demand and plan distribution.

Municipal governments use geocoding to forecast the needs of their communities. For example, tabulations on the number and distribution of school-aged children in a neighbourhood are useful for planning the location of new schools and school districts as well as for routing school buses. Data on variables such as age, ethnic origin, language, occupation and income can be obtained for geocoded districts to help determine school curricula or adult education and recreation programs.

Urban planning applications include optimising the location of city services and facilities, planning mass transit, and analysing land values, housing data and potential urban renewal areas.

In academic studies of economic and social issues, geocoding can be used to define areas where special populations are concentrated – ethnic, language or income groups, for example.

6.3.4 Confidentiality

To ensure confidentiality, only population and dwelling counts are available for individual block-faces.

6.3.5 Coverage of the geocoding program

When the Geocoding Service was introduced in 1971, 14 large urban centres, representing approximately 35% of the population of Canada, were covered by area master files, now called Street Network Files. Geocoding could be done at the block-face level for these areas. This coverage rose to over 50% for the 1981 Census and to approximately 61% for the 1991 Census. In 1996, coverage increased to 62% of the population.

6.4 Geographic Products

The maps and geographic databases required to collect and process census data are the source for the geographic products that are disseminated.

Traditional paper **reference maps** are available that show boundaries of geographic areas to assist users of census data in relating the data to locations on the ground. The geographic areas for which maps are available include enumeration areas, census subdivisions, census divisions, census tracts, census metropolitan areas, census agglomerations and federal electoral districts.

These boundaries and others such as urban areas, designated places and census consolidated subdivisions are also available in digital format as **Digital Cartographic Files** and **Digital Boundary Files** which can be used with commercial mapping software and geographic information systems (GISs).

Street Network Files are another digital product available for 344 of Canada's urban municipalities. These files contain streets and other visible physical and cultural features (such as hydrography, railroads, pipelines) and attribute information (for example, street and hydrographic names, and address ranges for streets with assigned addresses). Streets and addresses are updated to reflect the information collected on Census Day – May 14, 1996. In combination with the user's appropriate software, the Street Network Files are useful for route planning, delivery services and mapping.

Statistics Canada offers several products related to postal code geography. Most postal area boundaries and routes have very little correspondence with census boundaries even though they usually build up from the same base in urban areas (the block-face). In addition, the many delivery complexities, such as post office boxes, community mail boxes (“superboxes”),

heavy volume mail users and rural routes, make it difficult to always be able to fit postal geography into Statistics Canada's geography or vice versa. To assist postal geography users, Statistics Canada has created a linkage file called the **Postal Code Conversion File (PCCF)**. The PCCF indicates in which EA (or EAs) each postal code (FSA-LDU) is located, where possible. It also shows the representative point or representative points for the postal code, based on the block-face or the EA information. The PCCF facilitates the analysis, with data coded by census geography, of information that is coded by postal codes. Users should keep in mind that postal geography and census geography do not match perfectly. The **Postal Code and Federal Riding File (PCFRF)** shows postal codes and their corresponding federal electoral districts. A Digital Cartographic File of forward sortation area boundaries that have been derived from the postal code information provided on census questionnaires is a new product for the 1996 Census.

Finally, a new and improved version of a geographic reference product called **GeoRef** is available for 1996. It includes population and dwelling count data for all the standard geographic areas and also has software that allows users to explore all the links in the geographic hierarchies described above.

7.1 Introduction

Statistics Canada, as a professional agency in charge of producing official statistics, has the responsibility to inform users of the concepts and methodology used in collecting and processing its data, the quality of the data it produces, and other features of the data that may affect their use or interpretation.



Data users must first be able to verify that the conceptual framework and definitions that would satisfy their particular data needs and uses are the same as, or sufficiently close to, those employed in collecting and processing the data. Users then need to be able to assess the degree to which error in the data restricts the use of these data.

The measurement and assessment of data quality, however, is a complex undertaking. There are several dimensions to the concept of quality, many potential sources of error and often no comprehensive measures of data quality. A rigid requirement for comprehensive data quality measurement for all Statistics Canada products would not be achievable given the present state of knowledge. Emphasis must, however, be placed on describing and quantifying the major elements of quality.

7.2 Errors in Census Data

The accuracy of a statistical estimate is a measure of how much the estimate differs from the correct or “true” figure. Departures from true figures are known as errors. Although this term does not imply that anyone has made a mistake, some degree of error is the inevitable result of decisions taken to control the cost of the census. This is an important point, since many kinds of errors can be anticipated and controlled by building special procedures into the census. The more resources put into these procedures, the tighter the control and the lower the degree of error in the data. However, there is a point at which the benefits of a further reduction in error are too minor to justify the expense.

The significance of error to the data user depends very much on the nature of the error, the intended use of the data and the level of detail involved. Some errors occur more or less at random and tend to cancel out when individual responses are aggregated for a sufficiently large group. For example, some people may overestimate their income while others underestimate it. If there is no systematic tendency for people to err in either direction, then overestimates by some individuals will more or less offset underestimates by others in the group. The larger the group, the closer the average reported income is likely to be to the true value. On the other hand, if many people forget a source of income, the result will be a general tendency to understate total income. In this case, the average reported income will be lower than the true average. Such systematic errors are far more serious a problem for most users than random errors: the bias they cause in the data persists no matter how large the group, and is very difficult to measure.

7.3 Sources of Error

Errors can arise from many sources, but can be grouped into a few broad categories: coverage errors, non-response errors, response errors, processing errors and sampling errors.

7.3.1 Coverage errors

The census attempts to count every Canadian resident on Census Day. Census representatives (CRs) make a list of all dwellings in their enumeration area and drop off a census questionnaire at each dwelling. The householder is asked to list all usual residents of the dwelling by following the Step 2 guidelines on the questionnaire. Mistakes can occur in this task. The CR may misjudge the location of the enumeration area boundaries and miss certain dwellings. A household may be missed because it is inside what looks like a single dwelling or on a road not marked on the enumeration area map. The CR may fail to drop off a questionnaire at an occupied dwelling because it appears to be vacant.

Householders may misunderstand the Step 2 guidelines and not list all the usual residents of the dwelling; for example, a family member temporarily away from home at school or in a hospital could be left out. A family maintaining two residences could be missed at both because of confusion about where they should be counted. Such situations could also lead to double-counting or “overcoverage”, although this is less prevalent than “undercoverage”, which occurs when individuals or households are missed.

7.3.2 Non-response errors

Sometimes it proves impossible to obtain a complete questionnaire from a household, even though the dwelling was identified as occupied and a questionnaire was dropped off. The household members may be away over the entire census period or may refuse to complete the form. In most cases, the questionnaire is returned but information is missing for some questions or individuals. Census representatives edit the questionnaires and follow up on missing information. The CR’s work is in turn checked by both a supervisor and a quality control technician. Nevertheless, some non-response is inevitable and, although certain adjustments for missing data can be made during processing, some loss of accuracy is inevitable.

7.3.3 Response errors

A response may not be entirely accurate. The respondent may have misinterpreted the question or may not know the answer, especially if it is given for an absent household member. Occasionally, a response error may be caused by the Census Representative when following up for a missing response or when recording items such as the structural characteristics of a dwelling.

7.3.4 Processing errors

After collection has been completed, questionnaires are sent to the regional processing sites. Some of the write-in entries on the form are numerically coded. Mistakes can occur in coding, especially when the written information is ambiguous, incomplete or difficult to read. The coded information and the remaining write-ins are key-entered onto a computer file. Keying errors can occur despite rigorous quality checks on each key operator’s work.

Census data files are sent to Ottawa, where the remaining write-ins are coded with the assistance of a computer. Since additional coding mistakes can occur, all the data undergo a series of computer checks to identify missing or inconsistent responses. Responses are created or “imputed” for missing or unacceptable information. The computer cannot, of course, impute a correct response every time, but when results are tabulated for sufficiently large

geographic areas or subgroups of the population, imputation errors will more or less cancel out.

7.3.5 Sampling errors

Some census questions are asked of all Canadian residents, but most of the cultural and economic information is obtained from a sample of one in five households. The information collected from these households is “weighted” to produce estimates for the whole population. The simplest weighting procedure would be to multiply the results for the sampled households by five, since each household in the sample represents five households in the total population. The actual weighting procedure is much more complex, but similar in principle.

Naturally, the results of the weighted sample differ somewhat from the results that would have been obtained from the total population. The difference is known as sampling error. The actual sampling error is of course unknown, but it is possible to calculate an “average” value.

If several samples of the same size were selected using a random process similar to that used in the actual census, the weighted results would tend to vary around the true result for the total population. The “standard error” is a measure of the average size of this variation. Fortunately, it is not necessary to actually generate a number of samples to estimate the standard error for the census; it can be estimated from the single sample actually taken.

7.4 Data Quality Measurement

To allow data users to assess the impact of errors and to improve our own understanding of how and where errors occur, a number of data quality studies have been conducted for recent censuses. For the 1996 Census, special studies examine errors in coverage, sampling and content (i.e. non-response, response and processing).

7.4.1 Coverage errors

Three studies address coverage errors. First, a sample of dwellings listed by census representatives as vacant are revisited to establish how many were in fact occupied on Census Day. Estimates are obtained of the total number of households and persons missed in this way, and the census results are adjusted.

The remaining two studies provide estimates of gross undercoverage and overcoverage, but are not the basis for corrections of census results. The **Reverse Record Check** estimates gross undercoverage by identifying a sample of people before the census, and then checking census

questionnaires to see if these people were enumerated. The sample was selected from 1991 Census returns, from birth and immigration registrations and from people identified as missed in the 1991 Reverse Record Check.

The census also includes a study to measure gross overcoverage. The **Overcoverage Study** contains three components. The first and main component is the *Automated Match Study* which attempts to match all the household in the census database against each other; the detected matches are classified to strata and a sample of matches within each stratum is verified against census questionnaire information to confirm overcoverage. The second component is the *Reverse Record Check* which collects all the addresses where a selected person may have been enumerated; each address is verified in order to detect multiple enumeration. The third component is the *Collective Dwelling Study* which verifies if a person enumerated in a collective dwelling, like a hospital, may have been enumerated at a private dwelling where the person used to live.

7.4.2 Content errors

A number of studies evaluate the quality of data for each question. Response rates, edit failure rates and a comparison of estimates before and after imputation are among the data quality measures used. Tabulations from the 1996 Census are also compared with corresponding data from past censuses and from other surveys and administrative sources. Detailed cross-tabulations are checked for consistency and accuracy. Some of these checks are conducted prior to the release of census data in a process known as certification; more detailed studies take longer.

7.4.3 Sampling errors

As mentioned earlier, it is possible to calculate standard errors for sample variables. In addition, studies evaluate sampling and weighting procedures.

7.5 Dissemination of Data Quality Information

Census data quality information is disseminated in two ways. All census products include a section on data quality that examines sources of errors and provides cautionary notes for users. In some cases, estimates of the magnitude of errors are given – for example, estimates of sampling error. Information is also published in the **1996 Census Technical Reports** series that summarizes the results of data quality studies.

7.6 1996 Census Data Quality Problems

Many of the 1996 Census data quality studies were still in progress at the time this publication was printed. However, one data quality problem had already been identified.

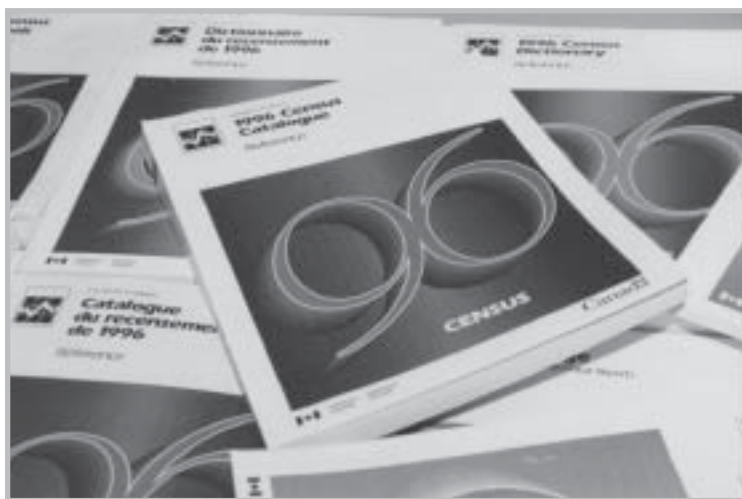
In certain cases, census representatives were refused access to many Indian reserves, or it was found that the quality of the data was unacceptable. In the absence of acceptable data for these reserves, they have been omitted from the census database. A list of these reserves with the population and dwelling counts from the 1981 and (where available) 1986 and 1991 Censuses is provided in each product.

DID YOU KNOW...?

- ▶ If all write-ins processed during Automated Coding were entered on an adding machine tape, one after the other, the length of tape required would be equivalent to 120 times the height of the CN Tower in Toronto.

8.1 Introduction

Dissemination of 1996 Census data began less than a year after Census Day, i.e. in April 1997. The data are disseminated in different ways and in various forms. This chapter provides a description of the products and services developed for the 1996 Census and



the various media on which they are available. Other sources such as the *1996 Census Catalogue* (Catalogue No. 92-350-XPE), the Talon site on the Internet and, specifically, Information on our Products and Services (IPS) contain detailed information about the full range of 1996 Census products and services (see Chapter 10, “How to obtain census data”).

8.2 What’s New

Output media: In response to customer requests, the number of electronic products offered by the census has increased substantially. Key products, however, continue to be available in paper form for specific market sectors. Statistics Canada has concentrated on CD-ROM products, which hold both data and reference information and contain presentation software to make census data easier to use.

For the first time, customers can access information, including complete and detailed information on all census products, their release date and costs, free of charge by visiting Statistics Canada’s Web site on the Internet (see Chapter 10.4).

Small area data available sooner: Census data at smaller levels of geography is available much sooner than in previous years. On each release day, profile data is available for areas at the community levels (census subdivisions and census divisions) and, one month later, data for areas as small as census tracts, enumeration areas and forward sortation areas follow.

New information was collected in 1996: Census results will be published for the first time on unpaid household activities, place of work for all levels of geography, mode of transportation to work and population group.

Geography products: Not only has the quality of many of the maps used for the release of census data been improved, a map series on federal electoral districts has been reintroduced. *GeoRef*, the Windows-based electronic tool which provides population and dwelling counts for all levels of geography and allows clients to explore the links between different levels of geography, has also been improved with the addition of enumeration area reference lists.

Also, as part of the standard product line, Basic Summary Tables and Area Profiles will be available for forward sortation areas, which represent the first three characters of the postal code. Data for the full postal code can be obtained as a custom service, subject to confidentiality restrictions.

Revised price structure: The pricing of 1996 Census products and services has been reviewed. Some prices have been lowered, including those for several geographic products.

8.3 Products and Services of the 1996 Census of Population

Many census products and services are based on 1996 Census variables described in previous chapters. These products are supported by reference documents and geographic tools designed to make the data easier to use. The complete line of products and services is divided into five categories:

- reference products;
- geographic products;
- standard data products;
- analytical products;
- custom services.

8.3.1 Reference products

The 1996 Census has six reference products: four are general reference, and two are geographic reference. They are intended to support the use of census data products and services.

i) General reference products

1996 Census Preview of Products and Services

This publication is designed to provide a first look at the range of products and services available to clients. It contains information on release time frames, media choices, prices and levels of geography available for each product.

1996 Census Catalogue

This publication provides detailed information about 1996 Census products and services, how to obtain them, release dates, prices, media and available geographic units.

1996 Census Dictionary

The *Dictionary* contains definitions of all 1996 Census concepts, terms, variables and geographic units. These definitions help customers to properly understand and interpret census data. The *Dictionary* also supplies information about comparability among earlier censuses.

1996 Census Handbook

This product provides a non-technical overview of the entire census process, from content determination to products and services. It also discusses issues such as data quality and confidentiality and gives examples of census data applications.

Figure 12 Overview of 1996 Census Products and Services

<p>Reference products</p> <ul style="list-style-type: none">> General<ul style="list-style-type: none">PreviewCatalogueDictionaryCensus HandbookTechnical Reports> Geographic<ul style="list-style-type: none">GeoRefReference maps <p>Geographic products</p> <ul style="list-style-type: none">> Digital Boundary File and Digital Cartographic File> Street Network File> Skeletal Street Network File> Postal Code Conversion File> Postal Code and Federal Riding File> Block-face Data File <p>Standard data products</p> <ul style="list-style-type: none">> Population and dwelling counts> The Nation series> Area Profiles> Basic summary tables> Dimensions series> Public Use Microdata Files <p>Analytical products</p> <ul style="list-style-type: none">> Articles in various Statistics Canada publications and professional statistics and demography journals <p>Custom data products and services</p> <ul style="list-style-type: none">> Custom cross-tabulations> Semi-custom profiles <p>Custom Geography Products and Services</p> <ul style="list-style-type: none">> Geocoding Service> Geography Custom Services> Geography Custom Mapping

1996 Census Technical Reports

These documents provide detailed information about the quality of 1996 Census data and help users determine to what extent they can use the data to meet their needs. Subjects covered in the reports include the concepts and components of census variables, collection and coverage, regional office and head office data assimilation and processing, edit and imputation, quality evaluation and comparability with previous censuses.

ii) Geographic reference products

GeoRef

GeoRef is a powerful data retrieval and tabulation tool. It provides 1996 population and dwelling counts for all geographic units except postal codes, as well as all the geographic reference information a user of census data might need, including geographic names and codes. It also helps customers explore the relationships among the standard geographic units. The 1996 version of *GeoRef* contains additional information previously found in publications that have since been discontinued, such as the correspondence between 1996 and 1991 enumeration areas (equivalent enumeration areas), reference lists of the enumeration areas that make up larger geographic units (enumeration area reference lists) and titles of enumeration area reference maps to make maps of specific enumeration areas easier to find.

Reference maps

Census reference maps show the geographic units of the census and identify their boundaries so that users can relate census data to physical locations. The following reference maps have been produced for the 1996 Census:

- Census Divisions/Census Subdivisions
- Census Metropolitan Areas/Census Agglomerations/Census Tracts
- Federal Electoral Districts (1987 Representation Order)/Enumeration Areas
- Enumeration Areas in large urban centres, small urban centres and rural areas

Figure 13 Reference Products

	Preview	Dictionary	Catalogue	Handbook	Technical Reports	Reference Maps	GeoRef
Major Characteristics	<ul style="list-style-type: none"> Information for users and potential users on the direction for the 1996 product line and services 	<ul style="list-style-type: none"> Definition of census concepts and geographies Provides historical comparability of variables 	<ul style="list-style-type: none"> Description of census products and services Contains prices, release dates and content of all census products 	<ul style="list-style-type: none"> Non-technical overview of the complete census process from content determination to the dissemination of products and services Discusses each census question and compares the 1996 questions with questions from previous censuses 	<ul style="list-style-type: none"> Detailed information on variables including definitions, explanations on concepts, collection, edit and imputation, data quality and historical comparability 	<ul style="list-style-type: none"> Show census geographic areas Used to locate boundaries for most standard geographic areas 	<ul style="list-style-type: none"> Software tool which provides the links between all standard levels of geography Includes population and dwelling for all standard geographic areas, as well as many other attributes Includes all previously printed EA reference lists
Media	<ul style="list-style-type: none"> Publication Internet 	<ul style="list-style-type: none"> Publication 	<ul style="list-style-type: none"> Publication 	<ul style="list-style-type: none"> Publication 	<ul style="list-style-type: none"> Publication 	<ul style="list-style-type: none"> Pre-printed, mass produced for CTs and above EA maps are print-on-demand 	<ul style="list-style-type: none"> CD-ROM
Availability	4th quarter of 1996	1st quarter of 1997	4th quarter of 1997	3rd quarter of 1997	Beginning in 4th quarter of 1998	2nd quarter of 1997	2nd quarter of 1997
Price	Free	\$25	\$15	\$25	\$25	Minimum order: \$60	\$60
New for 1996						<ul style="list-style-type: none"> Pre-printed maps will be produced using digital files and computer – assisted processes for the first time EA maps for large urban areas have been completely redesigned FED/EA maps are new for 1996 	<ul style="list-style-type: none"> New simpler design New information: <ul style="list-style-type: none"> same previous census counts 1991 EA to 1996 EA correspondence EA reference maps lists CD/CSD and FED/EA reference lists

8.3.2 Geographic products

Statistics Canada offers the following seven geographic products:

Digital Boundary Files (DBFs) and Digital Cartographic Files (DCFs)

Geographic boundaries are available in digital form for all standard geographic units, from province and territory to enumeration area. With the proper geographic information system (GIS) or mapping software, these files provide a framework for analysis and computer-assisted mapping. They can also be used to generate new geographic units by aggregating standard units.

Digital Boundary Files (DBFs) give the *official* boundaries used in the 1996 Census. The boundaries run through bodies of water in a straight line rather than follow the shoreline. This feature may hamper the use of DBFs in mapping applications that require realistic representation of shorelines.

Digital Cartographic Files (DCFs) also provide standard geographic unit boundaries, but these boundaries have been altered to follow the shorelines of all land masses including major islands. DCFs also contain a second cartographic layer for lakes and some rivers and estuaries. This water layer provides reference points that are useful for mapping or simply showing boundaries. In 1996, there is a new DCF for enumeration areas, a DCF for federal electoral districts (1996 Representation Order) and a DCF for forward sortation areas based on postal codes taken from 1996 Census questionnaires.

Figure 14 Geographic Products

	Digital Boundary Files (DBFs)	Digital Cartographic Files (DCFs)	Street Network Files (SNF)	Skeletal Street Network Files (SSNF)	Postal Code Conversion Files (PCCF)	Postal Code Federal Riding Files (PCFRF)	Block-face Data Files (BFDF)
Major Characteristics	<ul style="list-style-type: none"> ▶ Reflect all "official" boundaries used for census collection ▶ More suited to the sophisticated GIS user 	<ul style="list-style-type: none"> ▶ Created from DBFs by "clipping" in shoreline to make boundaries look more realistic ▶ Used for mapping data 	<ul style="list-style-type: none"> ▶ Includes all roads, railways and other network features for most large urban centres, as well as street names and address ranges ▶ Used for route planning and site location, etc. 	<ul style="list-style-type: none"> ▶ "Thinned-out" street network files with less detail (no address range) ▶ Used as a reference layer for thematic mapping 	<ul style="list-style-type: none"> ▶ Provides a correspondence between all standard geographic areas and the 6 character postal code, thus providing the link to census data ▶ Provides x, y points for mapping approximate location of postal codes (often used to show customer locations) 	<ul style="list-style-type: none"> ▶ Provides a correspondence between federal ridings and the 6 character postal code based on the 1996 Representation Order 	<ul style="list-style-type: none"> ▶ Provides the population and dwelling counts for all block-faces in large urban centres as defined by the SNF ▶ Provides street name and address range for each block-face, as well as the geographic code for the standard areas where the block-face is located ▶ Provides the x, y coordinates of the block-face representative point for mapping
Media	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette ▶ MapInfo and ARC/INFO export formats 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette ▶ MapInfo and ARC/INFO export formats 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette ▶ MapInfo and ARC/INFO export formats 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette ▶ MapInfo and ARC/INFO export formats 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Diskette
Availability	2nd quarter of 1997	2nd quarter of 1997	4th quarter of 1997	4th quarter of 1997	4th quarter of 1997	4th quarter of 1997	4th quarter of 1997
Price	Minimum: \$100 Maximum: \$10,000	Minimum: \$100 Maximum: \$10,000	Minimum: \$200 Maximum: \$20,000	Minimum: \$100 Maximum: \$2,900	Minimum: \$120 Maximum: \$9,000	\$2,900 for Canada	Minimum: \$100/centre Maximum: \$300/centre
New for 1996		<ul style="list-style-type: none"> ▶ EA DCFs available for the first time ▶ All standard geographic levels will be derived from EAs, so will be consistent with each other. ▶ FSA boundaries are a new product for 1996 	<ul style="list-style-type: none"> ▶ Streets and address ranges updated to May 1996 		<ul style="list-style-type: none"> ▶ New product linked to 1996 geography 	<ul style="list-style-type: none"> ▶ Not produced from the PCCF as in 1991 since the PCCF will link to the 1997 Representation Order used to take the 1996 Census 	

Street Network Files (SNFs)

These files show the roads, railways and other useful information, such as street names and address blocks, for most urban centres in Canada. In combination with a suitable mapping program, the SNFs can be used in planning delivery routes, finding locations and preparing maps. Streets and addresses are updated based on data collected on May 14, 1996, Census Day.

Skeletal Street Network Files (SSNFs)

These files contain the main roads and railways (extracted from the Street Network Files), including names but not address blocks, for most large urban centres in Canada. In

combination with suitable mapping software and Digital Cartographic Files, the SSNFs can supply the cartographic reference features needed to produce thematic maps.

Postal Code Conversion File (PCCF)

The Postal Code Conversion File associates six-character postal codes with census standard geographic units. To assist mapping applications, it also provides the co-ordinates of a point corresponding to the approximate location of a postal code. The PCCF is updated twice a year.

Postal Code and Federal Riding File (PCFRF)

This file associates six-character postal codes with the names and codes of Canadian federal electoral districts. The PCFRF is updated twice a year. The Postal Code Conversion File was updated in accordance with the Representation Order of 1996.

Block-face Data File (BFDF)

A block-face generally refers to one side of a city street between consecutive intersections. The BFDF contains 1996 Census population and dwelling counts for block-faces in urban centres covered by Street Network Files. It also relates block-faces to all larger standard geographic units (enumeration area and above) using geographic codes. The file contains street names, address blocks and the approximate co-ordinates of each block-face's midpoint. It can be used together with Street Network Files in geographic information system (GIS) applications.

If the standard geographic products are inadequate for their needs, customers can request customized geographic products such as special data retrievals, file merges using any kind of geographic information, and custom mapping services.

8.3.3 Standard data products

The 1996 Census offers a wide array of standard data products that combine variables in different ways to meet customer needs. In all, there are six different series of standard data products. Some standard tables are available free of charge from Statistics Canada's Web site, <http://www.statcan.ca>.

Population and dwelling counts

The first data released in the census cycle are the geographic distribution of Canada's population and the dwelling counts for all levels of geography. The data are available for the following geographic units: Canada; provinces/territories; federal electoral districts (1987 Representation Order); census divisions; census subdivisions; census consolidated subdivisions; designated places; urban areas; census metropolitan areas; census agglomerations; primary census metropolitan areas; primary census agglomerations; census tracts; enumeration areas; forward sortation areas; and postal codes.

One publication provides population and dwelling counts for most of the standard levels of geography except census tracts and enumeration areas. The publication also includes data by forward sortation area (the first three characters of the postal code), but not by the six-character postal code.

GeoRef, described earlier, contains the population and dwelling counts for all standard geographic levels including census tracts and enumeration areas, but not forward sortation areas or postal codes. A separate CD-ROM product, *Postal Code Counts*, includes the population and dwelling counts by postal code and forward sortation area.

Population and dwelling counts are also included in the Block-face Data File (available in the fourth quarter of 1997) which covers the large urban centres in Canada. This file provides the finest geographic breakdown available for population and dwelling count data, that is one block-face, which is generally defined as one side of a street between two consecutive intersections.

The Nation Series

The Nation is the first series to release basic data from the 1996 Census, providing national coverage. This series covers characteristics of the population, including demographic, social, cultural, labour force and income variables as well as details on dwellings, households and families. Generally the data are represented for Canada, provinces, territories and census metropolitan areas. Some tables include comparisons with data from earlier censuses.

Area Profiles

These products are designed to provide a statistical overview or profile of small geographic areas. They are available for the following units: federal electoral districts; census divisions/subdivisions; census metropolitan areas/census agglomerations; census tracts; forward sortation areas; and enumeration areas.

Basic summary tables

This series is intended to provide tabulations of two or three interrelated variables for small geographic areas. There are about 75 tables in the series, covering the following geographic units: federal electoral districts; census divisions/subdivisions; census metropolitan areas/census agglomerations; census tracts; forward sortation areas; and enumeration areas.

Dimensions Series

This series provides a more in-depth analysis of census data. The publications employ large numbers of variables and address topics of special interest. They apply to Canada, the provinces and territories, with smaller sets of variables being used for smaller geographic units.

Public Use Microdata Files (PUMFs)

These files are unique among census products in that they give customers access to records containing unaggregated data so that they can do their own analysis or research. Special safeguards are applied to the three microdata files to ensure confidentiality. The available files are for individuals, families and households. They contain data from a 3% sample of the 1996 Census, and are available for the following geographic units: Canada/provinces/territories and selected CMAs.

Figure 15 Standard Data Products

	Population and Dwelling Counts	Nation Series	Census Area Profiles	Basic Summary Tables	Dimension Series	Public Use Microdata Files
Major Characteristics	<ul style="list-style-type: none"> Geographic distribution of Canada's population and dwelling at all levels of geography 	<ul style="list-style-type: none"> Designed to give Canada, Provinces and Census Metropolitan Areas picture Detailed information on variables collected by the census Many tables include historical perspective from previous census 	<ul style="list-style-type: none"> Designed to provide small area information Wide range of census variables covered in limited details 	<ul style="list-style-type: none"> Designed to provide small area information Series of tabulations featuring 2 or more interrelated variables 	<ul style="list-style-type: none"> Shows analytical depth of census information Packaged to allow users to do their own analysis Provides information on special interest subjects Profiles sub-populations 	<ul style="list-style-type: none"> Non-aggregated information allowing clients to group data to suit own requirements Contains 3 files (Individuals, Families and Houseings) based on 3% sample of the 1996 Census database
Geography	Canada/Provinces/Terr. FED CD/CSD CT CMA/CA EA FSA Postal Code	Canada/Provinces/Terr. CMA	FED CD/CSD CMA/CA CT FSA EA	FED CD/CSD CMA/CA CT FSA EA	Canada/Provinces/Terr. Lower levels of geography for a limited set of variables	Canada/Provinces/Terr. selected CMAs
Media	<ul style="list-style-type: none"> CD-ROM Publication for some geographies Diskette Internet (for selected tables only) 	<ul style="list-style-type: none"> Diskette CD-ROM Internet (for selected tables only) 	<ul style="list-style-type: none"> Diskette for CD/CSD/CT and CMA Publication for CD/CSD/CT CD-ROM 	Diskette	CD-ROM	<ul style="list-style-type: none"> Data on tape and CD-ROM
Availability	2nd quarter of 1997	Beginning in 4th quarter of 1997	3rd quarter of 1998 (electronic) 1st quarter of 1999 (print)	Beginning in 1st quarter of 1998	Throughout 1998 and 1999	Beginning in 1st quarter of 1999
Price/Price Range	\$40 - \$60	\$60 per release	\$65 - \$8,100	Minimum: \$61 per table Maximum: \$2,075 per table	\$60 per CD-ROM	\$1,000/file or \$1,500 for all 3 files
New for 1996	<ul style="list-style-type: none"> Number of publications reduced but not the information available FSA data will be included in the standard products Population and dwelling counts by 6-character postal code available for the first time 	<ul style="list-style-type: none"> No paper product Windows-based tabulation software 	<ul style="list-style-type: none"> No paper product for some geographies New level of geography available for 1996 - FSA Windows-based tabulation software 	<ul style="list-style-type: none"> No tape product New level of geography available for 1996 - FSA Windows-based tabulation software 	<ul style="list-style-type: none"> Full product line not produced in 1991 Windows-based tabulation software 	<ul style="list-style-type: none"> Windows-based tabulation software on CD-ROM

8.3.4 Analytical products

Throughout 1998 and 1999, Statistics Canada analysts will produce general-interest articles on social, demographic and economic issues using 1996 Census data. The articles will appear in Statistics Canada periodicals, such as *Canadian Social Trends*, *Canadian Economic Observer* and *Perspectives on Labour and Income*, and in other professional statistics and demography journals. *The Daily* contains announcements of major releases, highlights of analytical studies and a summary of key trends.

Figure 16 Analytical Products

Major Characteristics	<ul style="list-style-type: none"> ▶ Short articles published in STC flagship publications ▶ Other products to be determined
Availability	Throughout 1998 and 1999
New for 1996	<ul style="list-style-type: none"> ▶ Focus series not available in 1996 ▶ Monographs not available – only short articles

8.3.5 Tabulation services

a) Standard product services

Using an electronic warehouse of pre-tabulated information (Electronic Shelf), census consultants can retrieve standard published data, in whole or for selected standard geographic areas. Output can be directed to print or to diskette in a variety of commonly used data formats.

Price is based on product type and volume of data accessed. The minimum price per retrieval is \$60. Further details on this service are available from the Statistics Canada regional reference centres (see Chapter 10.1).

b) Custom data products and services

Custom census products are designed to meet customers' specific requirements in terms of content, geography, format or output medium. These products fall into two categories: custom cross-tabulations and semi-custom profiles. Custom cross-tabulations allow the customer to specify the content, level of detail, format and output medium. Semi-custom profiles provide overviews of census variables for which customers can choose the geographic level and medium.

Availability: Tabulations of 100% data and 20% sample data are available for the 1971, 1976, 1981, 1986, 1991 and 1996 censuses.

Prices: Costs are based on consultation time, geographic level, the amount of data processing required and the output medium. For custom cross-tabulations, the minimum cost is about \$1,000 per table. Semi-custom profile prices begin at \$200.

Output media: Products are available on a wide variety of media: computer printout, mainframe/UNIX tape, diskette and CD-ROM. Products destined for use on a PC can be assembled with Statistics Canada's data presentation software packages for DOS or Windows. In most cases, the data can be provided in special formats needed for compatibility with various computer systems.

Figure 17 Custom Data Products and Services

Major Characteristics	<ul style="list-style-type: none"> ▶ Produced from both 100% and 20% databases ▶ Using databases from 1971 to 1996 censuses ▶ Two sub-types of products 					
Product Sub-types	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Custom Cross-tabulations</p> <hr/> <p>Client specifies content; geography format and media</p> </div> <div style="width: 65%; border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Semi-custom Profiles</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Basic Profile</td> <td style="width: 50%; text-align: center;">Target Group Profile</td> </tr> <tr> <td> <ul style="list-style-type: none"> ▶ Pre-determined content and format ▶ Client specifies geography and media </td> <td> <ul style="list-style-type: none"> ▶ Pre-determined content and format ▶ Client specifies target group, geography and media </td> </tr> </table> </div> </div>		Basic Profile	Target Group Profile	<ul style="list-style-type: none"> ▶ Pre-determined content and format ▶ Client specifies geography and media 	<ul style="list-style-type: none"> ▶ Pre-determined content and format ▶ Client specifies target group, geography and media
Basic Profile	Target Group Profile					
<ul style="list-style-type: none"> ▶ Pre-determined content and format ▶ Client specifies geography and media 	<ul style="list-style-type: none"> ▶ Pre-determined content and format ▶ Client specifies target group, geography and media 					
Geography	Standard geography as well as geocoded (custom) areas					
Media	Available in a variety of media (paper, mainframe/UNIX tape, diskette, CD-ROM)					
Availability	100% data – Beginning in 3rd quarter of 1997 20% data – Beginning in 4th quarter of 1997					
Price	Starting at approximately \$1,000 per table for custom. Prices for semi-custom begin at \$200.					
New for 1996	<ul style="list-style-type: none"> ▶ Windows-based tabulation software ▶ Revised pricing structure 					

8.3.6 Custom geography products and services

Several custom geography products and services are available. These include: the geocoding service that allows users to define their own geographic areas of study (user-defined areas or aggregations of standard areas) for census data tabulations; geography custom services for the creation of non-standard geographic products (such as special packaging, manipulation or merges of geography digital files); and geography custom mapping, whereby users may request thematic and reference maps to meet their own custom specifications.

Availability: The geocoding service allows custom geographic areas to be produced from an aggregation at the block-face level in large urban centres with Street Network File coverage and from the enumeration area level in small urban centres and rural areas.

Price: The minimum charge is \$100 for custom services and \$400 for the geocoding service and custom mapping service, plus additional charges based on the nature and complexity of each request.

Formats: Geography Digital Cartographic Files and Digital Boundary Files are available in MapInfo® for Windows format and ARC/INFO® Export format. Co-ordinates contained in the digital files are in Latitude/Longitude and are based on the NAD27 datum.



8.4 Census Data Releases

The first release of census data is available seven months after the field work has been completed. During those months, more than 12.4 million forms go through processing, data entry, automatic coding and compilation before the resulting data can be analysed and made available to users. Each step must be completed and certified before the data are released. This ensures that census data continue to meet the high standards our users have come to expect.

Census data are released in Statistics Canada's official release vehicle, *The Daily*. As was the case for the 1991 Census, 1996 data are released by groups of variables, as shown in Figure 18.

On the day of release, highlights and analysis, as well as three or four tables for each variable will be featured in *The Daily*. This information is available on the Internet at: <http://www.statcan.ca>.

Also, through Statistics Canada's regional reference centres (see Chapter 10.1), a wide variety of data are available. They include two components: the first is a full range of data described as the *Nation Series*, which contains data at the Canada, province/territory levels and for selected tabulations, census metropolitan area level data. The second is *Census Area Profiles* for each of the census variables being released. These are available down to the census division and census subdivision levels. *Census Area Profiles* for other levels of geography are available one month after the time of release.

Figure 18 Major Census Releases

Population and dwelling counts	April 15, 1997
Age and sex*	
Marital status/common-law Families (Part 1: number and structure)	October 14, 1997
Immigration and citizenship	November 4, 1997
Mother tongue Home language Official and non-official languages	December 2, 1997
Aboriginal	January 13, 1998
Ethnic origin Population group	February 17, 1998
Labour force activities Occupation and industry Unpaid household activities Place of work Mode of transportation to work	March 17, 1998
Education Mobility and migration	April 14, 1998
Sources of income Family and household income	May 12, 1998
Families (Part 2: social and economic data) Occupied private dwellings Households and housing costs	June 9, 1998

* 100% age and sex data will be available on request in July 1997.

How Census Data Are Used

9.1 Introduction

Users of census data come from a variety of backgrounds and organizations, ranging from individuals to large corporations. The data are used by all levels of government, the private sector and social and community groups.

Census information may be used in program planning and development. For example, the federal government uses it to help calculate financial grants to provinces and territories. Businesses may use it to assess demand and help market their products. The academic community and the media use census information to stay abreast of topics of current interest and identify trends in Canadian society. Some of the major users of census data are as follows:

- federal government;
- provincial and territorial governments;
- municipal governments;
- libraries;
- educational institutions;
- researchers and academics;
- private industry;



- business associations;
- labour organizations;
- ethnic and cultural groups;
- private citizens;
- public interest groups.

9.2 Applications of Census Data

Census data are used for a myriad of purposes. The following are a few examples:

- Representation in Parliament**
The boundaries and number of federal electoral districts (ridings) in each province and territory are determined with the aid of census data.
- Provinces**
Federal transfer payments in the order of billion of dollars made to the provinces and territories are based on population counts from the census and on postcensal coverage studies results.
- Municipal and local governments**
Some provincial and territorial governments use census data to determine how much money they should allocate to municipalities. These local governments use the same data to assess the need for community programs and services. Local governments analyse census data before deciding where to locate parks, put bus routes and introduce day care or after-school care programs.
- Business and industry**
Businesses use census data to develop employment plans, select new retail or manufacturing sites and analyse markets for their products and services.
- Health care**
Planners employ census data to forecast health care needs and costs, choose sites for new hospitals and clinics and measure the need for medical research programs.

How Census Data Are Used

f) Labour markets

"For us at Human Resources Development Canada, census information is a vital component of our analyses. It forms the basis of our model occupational projections. It also helps us produce socio-economic profiles of our clients so that we can serve them better."

Human Resources Development Canada

The census provides information about the number, geographic distribution and skills of Canadian workers. It also measures their characteristics – age, sex, marital status, education, income, ethnic origin and disabilities – which are used

to develop a profile of Canada's labour market. The commuting distance, which refers to the distance, in kilometres, between the respondent's residence and his or her usual place of work, can also be determined based on data collected by the census.

g) Special employment programs

Managers of programs to help visible minorities and the disabled join the workforce and get better jobs rely on the census for information about the job market and the people they are trying to help.

h) Social service agencies

Information from the census provides the framework necessary to develop programs such as day care, subsidized housing and services for disabled persons.

i) Women

The census measures the number of women in the labour force, as well as their occupation, income, education and marital status. This information is used to develop employment and training programs, and it provides researchers with the data they need to analyse the expanding role of women in the Canadian economy.

j) Education

School boards use population figures listed by age groups and mother tongue to project school enrolments and determine the need for new schools. The data are also used to develop special programs such as minority group language instruction.

k) Agriculture

"Every farmer should take the Census of Agriculture and the questions it asks very seriously, because it is an important source of statistical information for many government and corporate policies."

New Brunswick Federation of Agriculture

The census has been measuring food production, farm income and the area of land under cultivation since its inception. In 1996, the Census of Agriculture also asked questions about non-farm paid work,

non-agricultural businesses, farm injuries, capital purchases and improvements, land used to grow Christmas trees for sale and number of trees harvested, manure-spreading methods, and poultry hatched in commercial hatcheries. This type of information helps organizations like the Canadian Federation of Agriculture to monitor trends in farming. It is also used by the farming industry and the various levels of government to plan and administer farm programs.

l) Disability

The 1996 questionnaire had two questions on activity limitations and long-term disabilities or handicaps that limit the number or type of activities people can engage in at home or at work. This information is used by all levels of government to evaluate and implement programs and services to eliminate the barriers that persons with disabilities face.

m) Aboriginal peoples

Governments, agencies and Aboriginal peoples' organizations need information about the situation of Aboriginal peoples in Canada. Negotiations regarding self-government and land rights must be based on accurate information. A clear picture of the social and economic conditions in which Aboriginal peoples live is also essential.

n) Law enforcement agencies

Many communities depend on census data to calculate the number of workers they will need to serve and protect their citizens.

o) News media

The census provides the background information the media need to report on the economic, social, cultural and other activities of Canadian society. The news media also use census information to market their services. Census data are used to determine circulation areas, develop advertising, design market surveys and evaluate advertising campaigns.

9.3 How Census Data May Help Users

To give you a better idea of how census data could be used in various kinds of businesses, here are a few examples of inquiries received by Statistics Canada consultants.

Example 1: News media

A journalist writing a story wants a breakdown of population by ethnic origin for the Montréal, Ottawa - Hull and Vancouver CMAs.

How Census Data Are Used

Using 1996 Census data, the journalist was able to find out not only the number of people belonging to various ethnic groups in the three CMAs but also the distribution of population by other variables such as age, sex, marital status, education, income, mother tongue and home language.

Example 2: Marketing

A daily newspaper has determined that its typical reader has above-average education and an annual income of \$70,000 or more. The company wants to know where to find people who fit this profile so that it can focus its marketing efforts on them.

Since census data are available for small areas, the newspaper was able to use education and income data to determine which neighbourhoods people fitting the profile live in.

Example 3: Market sectors

An entrepreneur wants to know how many dwellings in the Calgary CMA need repairs.

The census provided the entrepreneur with information about housing repair needs, as well as other valuable business information, such as period of construction, type of dwelling, number of rooms and bedrooms, tenure, costs of shelter and the value of dwellings, for each census tract in the Calgary CMA. If required, he could also obtain data on the occupants, such as the number of persons and maintainers in each household, their age, sex and other characteristics.



Example 4: Actuarial analysis

An actuary working on a workers' compensation case needed to know the employment income of crane operators in the marine industry in a particular region. He wanted to exclude seasonal fluctuations and regional and occupational variations affecting his client's occupation.

The census was able to supply data on the employment income of persons who had the same occupation and characteristics as his client and lived in the geographic area of interest.

How to Obtain Census Data

10.1 Statistics Canada Regional Reference Centres

Statistics Canada regional reference centres are located across the country. Each centre has a complete collection of current publications and reference documents that can be consulted or purchased, along with microcomputer diskettes, CD-ROMs, maps and other products and services, including CANSIM.



The staff of regional reference centres provide consultation and research services as well as after-sales service and support. They also offer seminars and workshops on how to use Statistics Canada information, including census data.

For more information about the services provided by regional reference centres, you can call or visit the closest centre. The locations are listed below. If you are outside the local calling area, please dial the toll-free number.

Telecommunications device for the hearing-impaired: 1 800 363-7629.

List of Statistics Canada Regional Reference Centres

Atlantic Region

Serving Newfoundland and Labrador, Nova Scotia, Prince Edward Island and New Brunswick.

Statistics Canada
Advisory Services
North American Life Centre
1770 Market Street
Halifax, Nova Scotia B3J 3M3
Toll-free number: 1 800 263-1136
Local calls: (902) 426-5331
Fax number: (902) 426-9538

Quebec Region

Statistics Canada
Advisory Services
200 René Lévesque Blvd W.
Guy Favreau Complex
4th floor, East Tower
Montréal, Quebec H2Z 1X4
Toll-free number: 1 800 263-1136
Local calls: (514) 283-5725
Fax number: (514) 283-9350
E-mail: <http://stcmntl@login.net>

National Capital Region

Statistics Canada
Statistical Reference Centre
R.H. Coats Building Lobby
Holland Avenue
Ottawa, Ontario K1A 0T6
Local calls: (613) 951-8116
Fax number: (613) 951-0581
E-mail: <http://infostats@statcan.ca>
If you live outside the local calling area, please dial the toll-free number for your region.

Ontario Region

Statistics Canada
Advisory Services
Arthur Meighen Building
10th floor
25 St. Clair Avenue East
Toronto, Ontario M4T 1M4
Toll-free number: 1 800 263-1136
Local calls: (416) 973-6586
Fax number: (416) 973-7475

Prairie Region

Serving Manitoba, Saskatchewan and Alberta and the Northwest Territories.

Statistics Canada
Advisory Services
VIA Rail Building, Suite 200
123 Main Street
Winnipeg, Manitoba R3C 4V9
Toll-free number: 1 800 263-1136
Local calls: (204) 983-4020
Fax number: (204) 983-7543
E-mail:
<http://statswpg@solutions.net>

Statistics Canada
Advisory Services
Avord Tower, 9th floor
2002 Victoria Avenue
Regina, Saskatchewan S4P 0R7
Toll-free number: 1 800 263-1136
Local calls: (306) 780-5405
Fax number: (306) 780-5403
E-mail:
<http://statcan@sympatico.ca>

Statistics Canada
Advisory Services
Park Square, 9th floor
10001 Bellamy Hill
Edmonton, Alberta T5J 3B6
Toll-free number: 1 800 263-1136
Local calls: (403) 495-3027
Fax number: (403) 495-5318

Statistics Canada
Advisory Services
Discovery Place, Room 201
3553-31 Street N.W.
Calgary, Alberta T2L 2K7
Toll-free number: 1 800 263-1136
Local calls: (403) 292-6717
Fax number: (403) 292-4958
E-mail:
<http://degagnej@cadvision.com>

Pacific Region

Serving British Columbia and the Yukon Territory.

Statistics Canada
Advisory Services
Library Square Office Tower
600 - 300 West Georgia Street
Vancouver, B.C. V6B 6C7
Toll-free number: 1 800 263-1136
Local calls: (604) 666-3691
Fax number: (604) 666-4863

How to Obtain Census Data

10.2 Community Access

"The Vancouver Public Library is visited by about 4,000 users a day, or more than 2.2 million people every year. We provide services to a wide variety of users from social agencies, schools, businesses and the general public. Census publications are among the most frequently used reference materials. To meet our patrons' needs, we have to keep several copies of various census publications on our shelves."

Vancouver Public Library

Residents of the National Capital Region can use Statistics Canada's library, located at head office in Ottawa. The library maintains complete current and historical records of all Statistics Canada products. Library staff are available to help users find the information they need.

Census information can also be found in libraries across the country. Some libraries receive free copies of the entire line of Statistics Canada products on various output media. Provincial and territorial statistics offices also hold census data. In addition, products can be purchased at bookstores that stock Canadian government publications. The list of depository libraries is given below.

LIBRARIES

Statistics Canada Library
 R.H. Coats Building, 2nd Floor
 Tunney's Pasture
 Ottawa, Ontario K1A 0T6
 Local calls: (613) 951-8219
 Fax number: (613) 951-0939

LIST OF DEPOSITORY LIBRARIES

The following is a list of full depository libraries that receive all Statistics Canada publications and all other federal government publications.

**CANADA****Newfoundland****St. John's**

Memorial University
 Queen Elizabeth II Library
 Government Documents
 St. John's, Newfoundland
 A1B 3Y1

Prince Edward Island**Charlottetown**

Government Services Library
 Government Documents
 P.O. Box 2000
 Charlottetown, Prince Edward
 Island
 C1A 7N8

Nova Scotia**Halifax**

Dalhousie University
 Killam Memorial Library
 Government Documents
 Halifax, Nova Scotia
 B3H 4H8

Wolfville

Acadia University
 Library
 Wolfville, Nova Scotia
 B0P 1X0

New Brunswick**Fredericton**

Legislative Library
 Government Documents
 766 King St.
 P.O. Box 6000
 Fredericton, New Brunswick
 E3B 5H1

University of New Brunswick
 Harriet Irving Library
 Government Documents
 Fredericton, New Brunswick
 E3B 5H5

Moncton

Moncton University
 Champlain Library
 Government Documents
 Moncton, New Brunswick
 E1A 3E9

Sackville

Mount Allison University
 Ralph Pickard Bell Library
 Government Documents
 Sackville, New Brunswick
 E0A 3C0

Quebec**Montréal**

Montréal Central Library
 Government Documents
 1210 Sherbrooke St. East
 Montréal, Quebec
 H2L 1L9

Services documentaires

Multimédia
 Publications officielles fédérales
 75 de Port-Royal St. East,
 Room 300
 Montréal, Quebec
 H3L 3T1

Concordia University Library
 Acquisitions – Serials
 1455 de Maisonneuve Blvd West
 Montréal, Quebec
 H3G 1M8

McGill University
 Library
 Government Documents
 3459 McTavish St.
 Montréal, Quebec
 H3A 1Y1

How to Obtain Census Data

Université de Montréal
Bibliothèque des sciences
humaines et sociales
Government Documents
P.O. Box 6128, Station "A"
3000 Chemin de la Tour
Montréal, Quebec
H3C 3J7

Université du Québec à Montréal
Library
Government Documents
1200 Berri St.
Montréal, Quebec
H2L 4S6

Québec
National Assembly Library
Government Documents
Édifice Pamphile
Québec, Quebec
G1A 1A5

Sherbrooke
Université de Sherbrooke
General Library
Government Documents
Cité universitaire
2500 Université Blvd
Sherbrooke, Quebec
J1K 2R1

Sainte-Foy
Université Laval
Library
Government Documents
Pavillon Bonenfant
Cité universitaire
Sainte-Foy, Quebec
G1K 7P4

Ontario
Guelph
University of Guelph
Library
Government Documents
Guelph, Ontario
N1G 2W1

Hamilton
Hamilton Public Library
Government Documents
P.O. Box 2700, Station "A"
55 York Blvd
Hamilton, Ontario
L8N 4E4

McMaster University
Mills Memorial Library
Government Documents
Hamilton, Ontario
L8S 4L6

Kingston
Queen's University
Joseph S. Stauffer Library
Documents Unit
Kingston, Ontario
K7L 5C4

London
University of Western Ontario
D.B. Weldon Library
Government Documents
London, Ontario
N6A 3K7

North York
York University
Scott Library
Government Documents
4700 Keele St.
North York, Ontario
M3J 2R6

Ottawa
Library of Parliament
Government Documents
Ottawa, Ontario
K1A 0A9

National Library of Canada
Canadian Acquisitions
Government Documents
395 Wellington Street
Ottawa, Ontario
K1A 0N4

University of Ottawa
Morisset Library
Special Services
65 University St.
Ottawa, Ontario
K1N 9A5

Sudbury
Laurentian University
J.N. Desmarais Library
Technical Services Department
Ramsey Lake Road
Sudbury, Ontario
P3E 2C6

Thunder Bay
Lakehead University
Chancellor Paterson Library
Government Documents
955 Oliver Road
Thunder Bay, Ontario
P7B 5E1

Thunder Bay Public Library
Government Documents
216 South Brodick Street
Thunder Bay, Ontario
P7E 1C2

Toronto

Legislative Library
Parliament Buildings
Collection Development
99 Wellesley Street West
Room 2350
Toronto, Ontario
M7A 1A9

Metropolitan Toronto
Reference Library
Government Documents,
Collection Development and
Acquisitions
789 Yonge Street
Toronto, Ontario
M4W 2G8

University of Toronto
Robarts Library
Government Documents
Toronto, Ontario
M5S 1A5

Waterloo

University of Waterloo
Dana Porter Arts Library
Government Documents
Waterloo, Ontario
N2L 3G1

Windsor

Windsor Public Library
Government Documents
850 Ouellette Avenue
Windsor, Ontario
N9A 4M9

Manitoba

Winnipeg
Legislative Library
200 Vaughan Street
Main Floor
Winnipeg, Manitoba
R3C 0V8

University of Manitoba
Elizabeth Dafoe Library
Government Documents
Winnipeg, Manitoba
R3T 2N2

Saskatchewan

Regina
Saskatchewan Legislative Library
234 Legislative Building
Regina, Saskatchewan
S4S 0B3

Saskatoon

University of Saskatchewan
Libraries
Room 230 Main Library/Murray
Building
Government Publications
Department
3 Campus Drive
Saskatoon, Saskatchewan
S7N 5A4

Alberta

Calgary
University of Calgary Library
Government Documents
2500 University Drive North West
Calgary, Alberta
T2N 1N4

Edmonton

Edmonton Public Library
Government Documents
No. 7 Sir Wilfrid Churchill Square
Edmonton, Alberta
T5J 2V4

Legislature Library
Government Documents
216 Legislature Building
Edmonton, Alberta
T5K 2B6

University of Alberta
Humanities and Social Sciences
Library
Government Documents
1-101 Rutherford South
Edmonton, Alberta
T6G 2J4

British Columbia

Burnaby
Simon Fraser University
W.A.C. Bennett Library
Serials Division
Burnaby, British Columbia
V5A 1S6

Vancouver

University of British Columbia
Walter Koerner Library
Government Documents
1958 Main Mall
University Campus
Vancouver, British Columbia
V6T 1Z2

Vancouver Public Library
Serials Section (Acq.)
350 West Georgia Street
Vancouver, British Columbia
V6B 6B1

Victoria

Legislative Library
Government Publications Division
Parliament Buildings
Victoria, British Columbia
V8V 1X4

University of Victoria
McPherson Library
Government Documents
P.O. Box 1800
Victoria, British Columbia
V8W 3H5

How to Obtain Census Data

Northwest Territories**Yellowknife**

Legislative Library
 Northwest Territories
 Legislative Assembly Building
 P.O. Box 1320
 Yellowknife, Northwest Territories
 X1A 2L9

United Kingdom

The British Library
 Acquisitions Unit
 H4SS Overseas English
 Boston Spa Wetherly
 West Yorkshire
 England, United Kingdom
 LS23 7BQ

OTHER COUNTRIES**Germany**

Staatsbibliothek zu Berlin
 Government Documents (Canada)
 Preussischer Kulturbesitz,
 Abteilung
 Amtsdruckschriften und Tausch
 Internationaler Amtlicher,
 Schriftentausch
 Potsdamer Str. 33, Paketausgabe
 D-10785 Berlin
 Germany

Japan

Library Cooperation Department
 National Diet Library
 10-1 Nagatacho 1 chome
 Chiyoda-ku
 Tokyo 100, Japan

United States of America

Library of Congress
 Canadian Government Documents
 Exchange and Gift Division
 Washington, D.C. 20540-4200
 U.S.A.

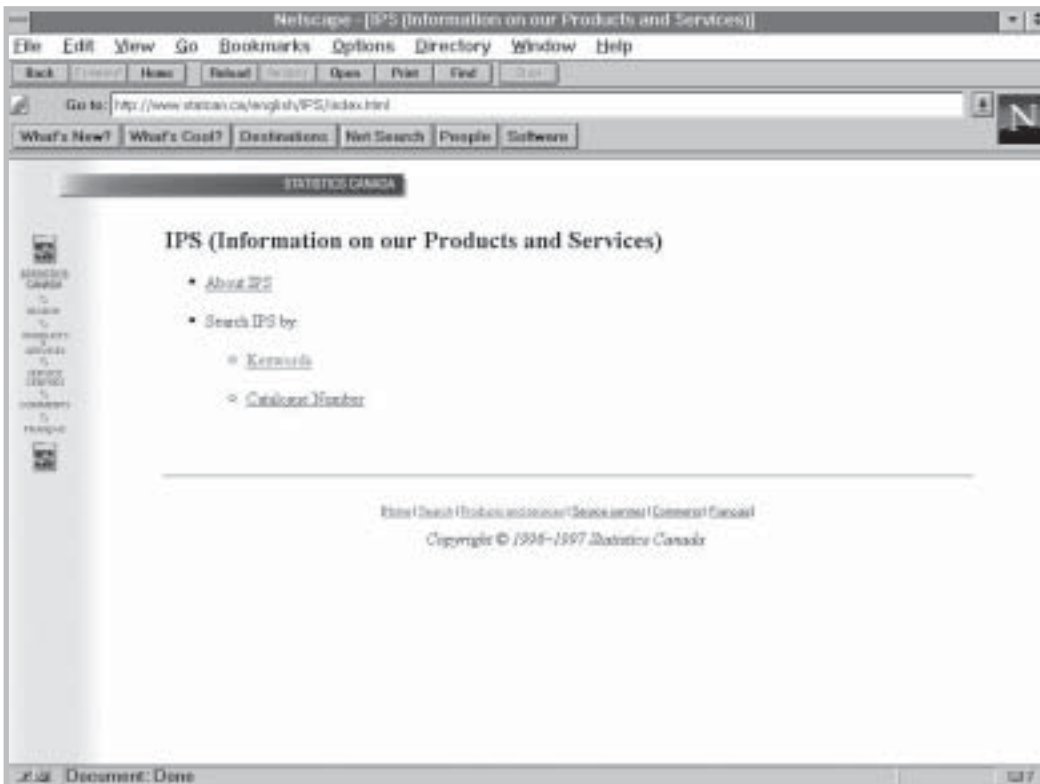
10.3 Canadian Universities – Data Liberation Initiative (DLI)

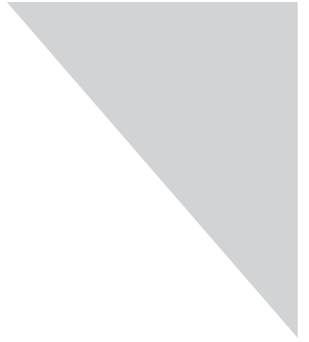
This pilot project provides Canadian universities with affordable access to Statistics Canada's files and databases for teaching and research purposes. Universities participating pay an annual subscription fee and supply support services such as personnel, equipment and software. Statistics Canada provides data files, technical assistance and storage via file transfer protocol (FTP) over the Internet. The DLI gives universities access to public use microdata files, large databases such as census profiles and CANSIM, and geography data such as boundary files. Statistics Canada provides copies of all products distributed exclusively on CD-ROM. With the DLI, universities no longer have to form consortiums (consortiums were an innovative, efficient way for a number of institutions to share the cost of expensive data). Under the DLI, as under the consortium arrangements, access to the files is restricted by contract to the student population, teaching staff and other employees of participating universities. To find out more about the DLI, send an e-mail to: <http://berigan@statcan.ca>.

10.4 Internet

Statistics Canada's Talon service – named after Canada's first official statistician, Jean Talon – was set up in February 1994. Talon can be found at: <http://www.statcan.ca>.

At all time during the census dissemination cycle, this web site offers users a selection of material from the various reference products, a complete issue of *The Daily*, available on the date of release for each variable, containing highlights and selected analysis, and three or four supporting tables for each variable. Also, users have access to detailed information on census products and services through IPS (Information on Products and Services system). IPS is a one-stop searchable repository of all Statistics Canada publications, products and services. With IPS, users can perform organized and efficient searches to find out what publications or electronic products, microdata files, or services are available in their area of interest.





Part

2

Census of Agriculture

Taking an Agriculture Census

1.1 Introduction

To get a complete picture of Canada, it is important that we know more about the way we live and the people involved in various sectors. Agriculture is one of those sectors and it plays an important role in the Canadian economy. Comprehensive information on topics such as crop areas, number of livestock, weeks of farm labour, number and value of farm machinery, farm expenses and receipts and land management practices is available from the Census of Agriculture.

The Census of Agriculture was conducted in conjunction with the Census of Population on May 14, 1996. Although there are many differences between the two censuses, several benefits are achieved by conducting them at the same time. This chapter describes what the Census of Agriculture is and how it is conducted.



1.2 A Brief History

Provisions were made under the *British North America (BNA) Act* of 1867 for a census to be taken every 10 years starting in 1871. However, western Canada was rapidly expanding at the turn of the century. To monitor this growth, a separate census of agriculture was taken every five years in Manitoba, starting in 1896, and in Alberta and Saskatchewan, beginning in 1906.

By 1956, rapid economic growth and development created the need for national demographic and agricultural information at more frequent intervals. To meet this need, the five-year



Census of Agriculture was extended to the entire country in 1956, and was conducted concurrently with the Census of Population, also to be taken every five years, starting that year.

Although the Census of Agriculture and the Census of Population are conducted concurrently, they do have separate questionnaires and most of the development, testing, processing, data

validation and preparation for data dissemination for the Census of Agriculture and the Census of Population is handled by different groups within Statistics Canada. However, the data collection and communications activities for both censuses are conducted jointly, thus streamlining procedures and reducing costs. Another important benefit of jointly conducting the two censuses is that information from the two questionnaires can be linked to create the Census of Agriculture-Population Linkage database. This unique database provides users with a wealth of information pertaining to the social and economic characteristics of the farm population.

1.3 Questionnaire Respondents

Anyone who operates an agricultural operation (farm, ranch or other agricultural operation) which produces at least one of the following products intended for sale is to complete the Census of Agriculture questionnaire.

Taking an Agriculture Census

Figure 19 Products from an Agricultural Operation Which Are Intended for Sale

Crops	Livestock	Poultry	Animal Products	Other Agricultural Products
Field crops	Cattle	Hens	Milk or cream	Greenhouse or nursery products
Tree fruits or nuts	Pigs	Chickens	Eggs	Christmas trees
Berries or grapes	Sheep	Turkeys	Wool	Sod
Vegetables	Horses	Chicks	Furs	Mushrooms
Seed	Game animals	Other poultry	Meat	Maple syrup products
	Other livestock			Honey

Operators are the persons responsible for the day-to-day management decisions made in the operation of the agricultural operation. A Census of Agriculture questionnaire is filled out for all operations, regardless of size. Even very small operations must be enumerated because, as a group, they contribute significantly to the agricultural community and economy.

1.4 Timing of the Census of Agriculture

The Census of Agriculture questionnaire is dropped off at the same time as the Census of Population questionnaire. Farm operators all across Canada were “counting themselves in” as well as their livestock, crops, etc. on Tuesday, May 14, 1996.

In recent years, the Census of Agriculture and the Census of Population were conducted on the first Tuesday of June. For the 1996 Census, this date was changed to the second Tuesday in May. This change resulted in improved follow-up activities since questionnaires were dropped off and mailed back in the same month, thus avoiding beginning and end-of-month movers. As well, most people had not yet left for their annual vacation and were more likely to be available if census representatives needed additional information.



Census of Agriculture concurrently with the Census of Population results in savings of millions of dollars.

Statistics Canada recognizes that mid-May is a very busy time for farmers; however, conducting the

1.5 Progress of Seeding (POS) Follow-up

The change in Census Day (from the first Tuesday in June to the second Tuesday in May) impacted on field crop areas reported by operators. Much of the seeding of field crops across Canada typically occurs between the first of May and the first of June. Due to a late spring, a large portion of the crop was not seeded at the time respondents completed their forms and there was a strong possibility that crops seeded after Census Day would differ from those planned and reported on the census.

POS was implemented to verify or update crop data. It involved following up with operators who reported less than 90% of their field crops seeded when they completed their forms. The



process involved contacting over 100,000 farmers across the country. It was done in two stages. First by census representatives during field follow-up and then, later in the season, by telephone from the regional offices. This follow-up was required for historical comparability, benchmarking intercensal crop estimates and small area data analysis.

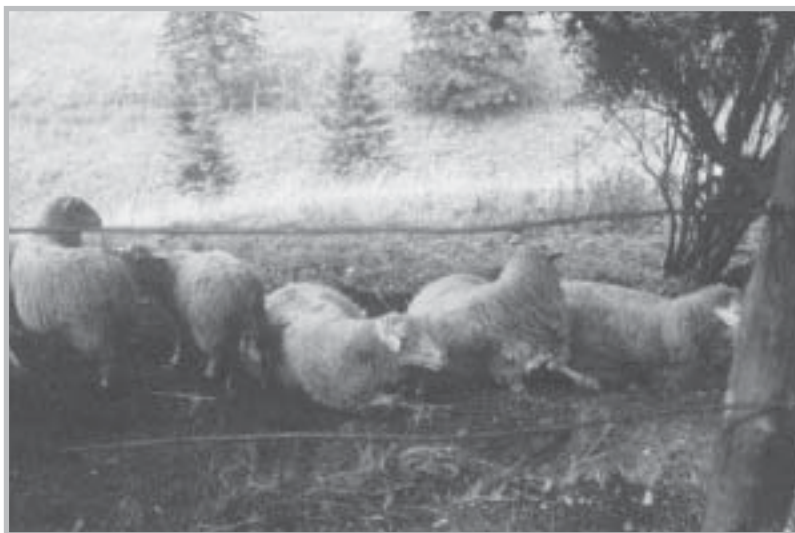
1.6 Types of Data Collected

The 1996 Census of Agriculture made use of a 16-page questionnaire containing 197 questions. Respondents, however, were only required to complete questions that applied to their agricultural operations. An average respondent answered half of the questions. A series of “skip” questions also allowed the respondent to move quickly through the questionnaire. The following is a list of the types of data collected:

- type of operating arrangements
- farm operator information
- size (area) of operation
- area and type of field crops

Taking an Agriculture Census

- area, number and type of tree fruits and nuts
- area and type of berries and grapes
- area and type of vegetables
- area of nursery products and sod
- area of Christmas trees and number of Christmas trees harvested
- area of various uses of land
- area and type of greenhouse products
- area of mushroom houses
- number of bee colonies
- land management practices
- number and type of poultry
- chicken and turkey production
- number of chicks and other poultry hatched in a commercial hatchery located on operation
- number and type of livestock
- market value of land and buildings
- number and market value of farm machinery by type
- farm business operating expenses
- total gross farm receipts
- amount spent on capital improvements and purchases of major capital assets
- use of a personal computer in the management of the farm business
- value of forest products and number of maple taps
- weeks of paid labour



1.7 Census of Agriculture-Population Linkage Database

An important benefit of conducting the Census of Agriculture with the Census of Population is that the two can be matched or linked by computer. Since all farm operators also complete a Census of Population questionnaire, a detailed socio-economic profile of the farm population can be obtained. The Census of Agriculture-Population Linkage database provides information such as marital status, level of schooling, major field of study, labour force activity and sources of income of the farm population.

The Census of Agriculture Cycle

2.1 Introduction

The censuses of agriculture and population are conducted every five years. The two censuses comprise many similar activities; however, the majority are conducted separately. Even before one census cycle is finished, the planning for the next census begins.

2.2 User Consultations

User input played an important role in the planning of the 1996 Census of Agriculture. A series of workshops was held across Canada in 1993 at which users provided recommendations for the types of questions they would like to see on the 1996 Census questionnaire. The data user community was also surveyed by mail and was asked to rate the importance of potential questions. The identification of user data requirements resulted in developing the content and design of the census questionnaire.

2.3 Questionnaire Content and Development

As noted above, user workshops were held across Canada to determine the data requirements from the 1996 Census of Agriculture. Certain basic or core questions appear on every census



and are deemed essential by Statistics Canada and by other major users of Census of Agriculture data.

Examples of these include name of operator, land area, livestock number and crop area questions. Additional questions respond to current trends or areas of interest in agriculture. For example, new for 1996 are questions on area and number of Christmas trees; the number of bison, deer and llamas on farms; capital improvements and purchases of major capital assets; and injuries suffered while performing agricultural-related activities.

Questions were tested with farm operators for their clarity and to

ensure that they were easy to answer, and the wording or presentation of questions was altered or deleted as a result. The final content of the Census of Agriculture questionnaire was made

by keeping in mind budgets, respondent burden, content testing results and user priorities. The 1996 Census questionnaire was approved by Cabinet in the summer of 1995.

2.4 Census Communications Program

The Census Communications Program, implemented prior to the drop-off of the questionnaires, was responsible for promoting both the Census of Agriculture and the Census of Population. The program made the farm community aware of the Census of Agriculture and its new date, importance, confidentiality, changes from 1991 and uses of the resulting data. To promote the Census of Agriculture to farm operators, a variety of separate promotional materials was developed and distributed to various agricultural organizations, producer groups and the farm media. These materials were distributed at a number of farm shows and agricultural conferences and displayed by businesses in rural areas. In addition, a series of advertisements was presented in the few weeks leading up to May 14. It consisted of advertisements in the major agricultural trade magazines and newspapers as well as on farm radio.

2.5 Data Collection

As previously noted, the data collection phase of the Census of Agriculture was conducted jointly with that of the Census of Population. The census representatives (CRs) covered all the households in their enumeration area (EA), dropping off a Census of Population form at each one.

During the drop-off stage, CRs were instructed to ask all respondents: "Does anyone in this household operate a farm, ranch, or other agricultural operation?". This question helped identify who should also complete a Census of Agriculture questionnaire. The question proved especially useful in cases where a farm operator lived away from the actual farm operation. The same question appeared on the Census of Population questionnaire to identify other farm operators who may not have been contacted in person during the time of drop-off. In instances where the presence of an agricultural operation was obvious, a Census of Agriculture questionnaire was also dropped off.

All Census of Agriculture respondents, except those living in remote and northern areas, were asked to mail back their completed questionnaires in the pre-addressed postage-paid envelopes provided for that purpose. In remote or northern areas of the country, CRs visited the agricultural holdings and completed the form by interviewing the farm operator.

The Census of Agriculture Cycle

Another feature for the collection of the 1996 agriculture data was the Census of Agriculture Help Line (CAHL), a toll-free telephone service where respondents called to obtain assistance in completing the questionnaire.

Once the questionnaires were mailed back, the census representatives initially reviewed them to ensure that they were completed properly and that all agricultural operations in the EA were accounted for. In predominantly urban areas, special agriculture CRs were trained to conduct the initial edits and the telephone follow-up if necessary to obtain any missing information. The questionnaires were then sent to the regional processing centres.



2.5.1 Large farms

With the increasing complex structure of large integrated agricultural operations, a special data collection process was developed for these operations. It was conducted on a one-to-one basis between a head office contact and a representative from the operation. The business structure of each operation was studied in order to determine the parts of an operation that were to be enumerated and the number of questionnaires to be completed. Personal visits were made and arrangements for enumeration were agreed upon. Once the questionnaires were completed and verified they were sent to regional processing for data capture.

2.5.2 Centralized Edit

Following a feasibility study in 1993, it was decided that a live collection test, known as Centralized Edit, would be conducted in 10 federal electoral districts in eastern Ontario during the 1996 Census. Both the Censuses of Population and Agriculture participated in the test, which included 350,000 households and 8,000 farms. Pre-addressed questionnaires were mailed to dwellings and farm operators in urban areas, while unaddressed questionnaires were dropped off by enumerators in rural areas. Respondents mailed back their completed questionnaires to a central district office for editing and, if necessary, follow-up by telephone. For questionnaires

not returned by mail, a personal visit was made by an enumerator. This method was tested for many reasons including:

- ensuring respondents' privacy, since questionnaires were not picked up by local enumerators; and
- improving the physical security of census questionnaires, as the returned completed questionnaires were stored in a secure building only accessible by census staff. Editing and telephone follow-up were also conducted from that building.

This methodology will be evaluated to determine if it should be implemented for the 2001 Census.

2.6 Regional Processing

Once the Census of Agriculture questionnaires were delivered to the regional processing centres, bar-coded labels, to uniquely identify each questionnaire, were applied. The questionnaires were logged in and placed in batches. The information was then verified against a list accompanying each shipment.

Data from the questionnaires were then captured and transmitted daily to head office in Ottawa. After the regional processing centres had completed processing the questionnaires, they were shipped to head office for further processing.

The list of agricultural operations compiled from the census is used to update Agriculture Division's registry of farms. This register is used to select samples of farms to be included in surveys in non-census years.

2.7 Head Office Processing

2.7.1 Reception and scanning

In Ottawa, the questionnaire bar codes were wanded (in much the same way as products in a store). It was through wandling that the bar codes were entered into the system which linked the questionnaires with the captured data. The questionnaires were then scanned to produce an electronic image. This allowed the processing staff to reference questionnaires, as required, with the click of a mouse.

The Census of Agriculture Cycle

2.7.2 Edit and Imputation

This step involves numerous edits to identify and resolve problems related to keying errors, missing data and geographic identification of farm operators' residences and headquarters. It is, for the most part, an automated process and focuses on individual questionnaires.

Where an enumerator's follow-up with respondents was unsuccessful in obtaining missing information or resolving data inconsistencies, an automated imputation procedure was used. The system searches for another operation with similar characteristics and within the same geographic area as the questionnaire with the problem. Once a suitable match was made, the system duplicated the donor's responses in the recipient questionnaire.

2.8 Data Validation

Following the processing stage, subject-matter analysts reviewed the aggregate data at various geographic levels and examined the largest values reported for each variable. The data were compared with previous census results, current agricultural surveys and administrative sources. This allowed for the identification and correction of errors remaining due to coverage, misreporting, data capture or other reasons. Where necessary, respondents were contacted to verify their responses. Near the end of the validation process, certification reports, containing results of the analysis and recommendations for publication, were prepared and presented to a review committee. As a result of these procedures, published census data are of very good quality, with the major variables generally demonstrating the highest quality. All tabulated data are subject to confidentiality restrictions to prevent disclosing information on any particular agricultural operation or individual.

2.9 Data Quality

Procedures for collecting complete and accurate information from every agricultural operation in Canada are reviewed and improved for each census. To ensure that data are of consistently high quality, control procedures were incorporated into each census collection and data processing stage. Examples of new procedures and technologies which contributed to improved data quality for the 1996 Census of Agriculture are the Progress of Seeding follow-up, questionnaire bar coding and imaging, automated edit and imputation, and the increased use of administrative data in the validation stage.

2.10 Data Dissemination

Now that the data have been collected, processed, verified and certified, they are ready for public use. Census of Agriculture data are available at low levels of geography and are presented in various standard formats and through custom data tabulations.

Chapter 3 (Part 2) provides a complete list of products and services available from the 1996 Census of Agriculture.

2.11 Census of Agriculture Marketing

This is the last stage in the census cycle. Now that all the data have been collected, processed and produced, users and respondents must be made aware of what is available. The marketing strategy developed by the Census of Agriculture increases the awareness of products and



services. The promotion is done in large part by the Census of Agriculture at head office and by the regional reference centres. The Marketing and Dissemination Divisions of Statistics Canada provide technical support for implementing data releases and producing marketing materials.

Like the Census Communications Program, marketing material is offered to farm organizations and producer groups. They are kept informed of data releases and shown how

the data are important and useful. Broad awareness of 1996 Census of Agriculture products and services will be brought about in the public and private sectors through a variety of activities including mail-outs, media releases, feature articles, client visits and displays.

3.1 Census of Agriculture Data at Work

The Census of Agriculture is the cornerstone of Canada's agriculture statistics program. Governments use Census of Agriculture data to develop, operate and evaluate agricultural policies and programs. Statistics Canada uses the data as benchmarks for making estimates of crops, livestock and farm finances between census years.

Users in the private sector see the Census of Agriculture as an important tool in understanding the agricultural industry. Agribusiness assesses market potential, and makes production and investment decisions based on it; farm boards and organizations use Census of Agriculture data as a foundation for their discussions with governments and trade organizations. Academics base much of their analysis of the agricultural economy on data from the Census of Agriculture.

Census of Agriculture products and services fall into three categories – publications, electronic products and custom services.



3.2 Data Products

Data products present the 1996 Census of Agriculture results in convenient and comprehensive formats. Using concise tables, this series presents data for farm variables and farm operator characteristics in the following products.

Historical Overview of Canadian Agriculture

This data publication presents an historical view of agriculture, at the Canada and provincial levels, through Census of Agriculture data from 1976 to 1996. It also features 75 years of selected data (1921 to 1996) and changes in land management practices (1991 to 1996).

Agricultural Profiles

Eight data publications (Canada, Atlantic provinces and one for each of the other six provinces) contain basic counts and totals for all 1996 farm variables at Canada, provincial and subprovincial levels.

Profile of Canadian Farm Operators

Presents Canada and provincial level data on farm operator characteristics from the 1996 Census of Agriculture, plus comparison tables from 1991 to 1996.

1996 Census of Agriculture CD-ROM

Data from the 1996 Census of Agriculture, plus selected data from the Agriculture-Population Linkage database and historical databases, will be available for the first time on CD-ROM. This product will be released in two phases. The first release will contain all farm and farm operator variables from the 1996 Census of Agriculture. The second release will contain additional selected data from the 1996 Agriculture-Population Linkage database and historical databases.

3.3 Analytical Product

Canadian Agriculture at a Glance

A repeat of the very successful 1991 publication. Building on the effective presentation format introduced in 1991, it will include a series of short analytical articles employing maps and graphics to present the data. New for 1996, will be the inclusion of articles presenting agriculture related data from other sources such as transportation, food consumption and food processing to provide a more complete picture of Canada's agri-food industry.

3.4 Custom Data Products and Services

The User Services Unit of the Census of Agriculture can tailor products and tabulations to meet the special data requirements of clients. Custom tabulations allow the user to create personalized tables from the 1996 Agriculture and Agriculture-Population Linkage databases as well as the historical databases. Custom tabulations are available for the 1966 to 1996 Censuses. (Agriculture-Population Linkage databases were not created for the 1966 and 1976 Censuses.) Custom thematic maps, to visually display data, can also be produced to meet the client's specifications.

Subject to confidentiality restrictions, custom tabulations and maps can be produced for Census of Agriculture standard geographic areas as well as user-defined areas.

Semi-custom products created from the standard tabulations are also available for clients who are only interested in specific variables or certain standard geographic areas.

Pricing

Pricing is based on consulting time, number of geographic areas requested, data processing requirements and media required to deliver the custom or semi-custom product.

Census of Agriculture
Products and Services**Media**

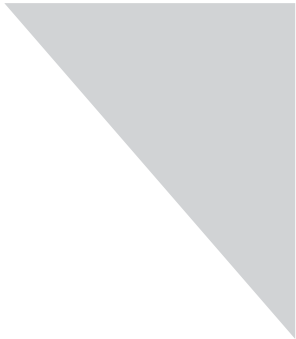
Various formats are available depending on the user's requirements, including paper, diskette or CD-ROM. Retrieval software can be included with the diskette or CD-ROM product.

Service Centres

Clients can be served by contacting their nearest Statistics Canada regional reference centre (see addresses in Part 1, Chapter 10) or the Census of Agriculture User Services Unit, Agriculture Division in Ottawa.

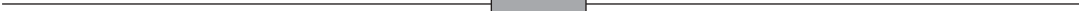
3.5 Additional Information

To obtain more information on the data, products and services available from the Census of Agriculture, please contact your regional Statistics Canada reference centre (see list in Part 1, Chapter 10), the Census of Agriculture User Services Unit (toll-free number 1 800 465-1991) or consult the *1996 Census Catalogue*, Catalogue No. 93-350-XPE or *People, Products and Services* of the Agriculture Division, Catalogue No. 21F0003XPB.



Part

3



How Well Do You Know the Census?

Section 1: Census Exercises

1.1 From the information in Table A, page 190, determine:

- Q1) the number of private households
- Q2) the number of economic families
- Q3) the number of census families
- Q4) the total number of persons in private households
- Q5) the total number of persons in economic families
- Q6) the total number of unattached individuals
- Q7) the total number of persons in census families
- Q8) the total number of non-family persons
- Q9) the household type for each dwelling

1.2 From the fictitious data provided in Table B, page 191, determine:

- Q10) the number of employed
- Q11) the number of unemployed
- Q12) the total labour force
- Q13) the number of persons not in the labour force
- Q14) the unemployment rate
- Q15) the participation rate



Census Exercises

1.3 What do you think?

- Q16) Why does the hierarchical structure of census geography not include census subdivisions (CSDs) in federal electoral districts (FEDs)?
- Q17) Why is Kingston a census agglomeration (CA) and not a census metropolitan area (CMA), when its population was 136,401 in the 1991 Census?
- Q18) If we compare the 1996, 1991, 1986 and 1981 Census data for the municipalities of Ottawa and Montréal, will our findings cover the same geographic areas?
- Q19) The following statement appears in a newspaper story: 38.6% of francophones and 8.2% of anglophones in Canada were bilingual in 1991. What do you conclude from this?
- Q20) What variables might provide information about natives of South Africa living in Canada?
- Q21) Does the variable *mode of transportation* include all modes of transportation used?

Census Exercises

- Q22) Do *mover* and *migrant* mean the same thing?
- Q23) Are students who live elsewhere most of the year for educational reasons enumerated at their parents' home?
- Q24) Were the United States ambassador and members of his family living with him in Canada required to complete a census questionnaire?
- Q25) Was a person who had been in hospital for 5 1/2 months considered an institutional resident on Census Day?
- Q26) Were you required to include your baby born on Census Day in your questionnaire?
- Q27) What age were you supposed to report if your birthday was on Census Day?
- Q28) Your child had chickenpox the week before the census, and when the day care centre refused to take him because of the risk of spreading the disease to other children, your neighbours agreed to look after him just for that week. Could your neighbours have reported the number of hours spent looking after your child in the household activities question?

Census Exercises

<input type="radio"/>	<p>Q29) While visiting the family home during his vacation, your 26-year-old son took care of the vegetable garden and mowed the lawn in the week preceding Census Day. Was he supposed to report the number of hours spent on those activities in his census questionnaire?</p>
<input type="radio"/>	<p>Q30) Could a person born in 1955 report the USSR as his/her place of birth?</p>
<input type="radio"/>	<p>Q31) How can a person be born outside Canada and be a Canadian citizen?</p>
<input type="radio"/>	<p>Q32) Your 14-year-old daughter, a full-time student, delivers newspapers in the morning before she goes to school. Since this is a part-time job, should you have reported it in your census questionnaire?</p>
<input type="radio"/>	

Census Exercises

Table A. Families and households

Dwelling 1

Person 1
 Person 2: common-law partner of Person 1
 Person 3: son or daughter of Person 1

Dwelling 2

Person 1
 Person 2: common-law partner of Person 1
 Person 3: son or daughter of Person 1
 Person 4: son-in-law or daughter-in-law of Person 1

Dwelling 3

Person 1 only (no other persons)

Dwelling 4

Person 1
 Person 2: brother or sister of Person 1

Dwelling 5

Person 1
 Person 2: son or daughter of Person 1
 Person 3: son or daughter of Person 1

Dwelling 6

Person 1
 Person 2: room-mate of Person 1
 Person 3: room-mate of Person 1

Dwelling 7

Person 1
 Person 2: spouse of Person 1
 Person 3: son or daughter of Person 1
 Person 4: brother or sister of Person 1
 Person 5: brother-in-law or sister-in-law of Person 1

Dwelling 8

Person 1
 Person 2: father or mother of Person 1
 Person 3: father or mother of Person 1
 Person 4: other, specified as "Nephew"
 Person 5: other, specified as "Wife of Person 4"

Note: Person 1 reported his/her marital status as "Single" in Question 5.

Dwelling 9

Person 1
 Person 2: spouse of Person 1
 Person 3: son or daughter of Person 1

Note: Person 3 reported his/her marital status as "Divorced" in Question 5.

Dwelling 10

Person 1
 Person 2: spouse of Person 1
 Person 3: son or daughter of Person 1
 Person 4: father-in-law or mother-in-law of Person 1
 Person 5: father-in-law or mother-in-law of Person 1
 Person 6: room-mate of Person 1



Census Exercises

Table B. Labour force		No. of persons
<input type="radio"/>	A. Total population	500
	B. Population aged 15 years and over	400
	C. Population aged 65 years and over	75
	D. Population who worked one or more hours for pay or in self-employment in the week preceding the census	225
	E. Population absent from their job or business for various reasons in the week preceding the census	25
<input type="radio"/>	F. Population without paid work and available for work in the week preceding the census, who actively searched for work in the past four weeks	20
	G. Population without paid work who were available for work and were on temporary lay-off from a job or business in the week preceding the census	5
	H. Population without paid work and available for work in the week preceding the census, who had a new job to start in four weeks or less	5
<input type="radio"/>		

Answers

Section 2: Answers

2.1 On the basis of Table A, there are:

- A1) 10 private households
- A2) 8 economic families
- A3) 11 census families
- A4) 35 persons in private households
- A5) 30 persons in economic families
- A6) 5 unattached individuals
- A7) 27 persons in census families
- A8) 8 non-family persons
- A9) Dwelling 1: One-family household consisting of a common-law couple living with a never-married son or daughter and no other persons
Dwelling 2: Since there are two census families, it is a multiple-family household
Dwelling 3: Non-family household consisting of just one person
Dwelling 4: Non-family household of two or more persons
Dwelling 5: Family household consisting of a lone-parent family and no other persons
Dwelling 6: Non-family household of two or more persons
Dwelling 7: Multiple-family household
Dwelling 8: Multiple-family household
Dwelling 9: Family household consisting of a now-married couple with no children
Dwelling 10: Multiple-family household

2.2 Table B shows:

- A10) The number of employed = 250 (lines D + E)
- A11) The number of unemployed = 30 (lines F + G + H)
- A12) The total labour force = 280 (lines D to H; employed + unemployed)
- A13) The number of persons not in the labour force = 120
(population aged 15 and over - total labour force)

- A14) The unemployment rate = 10.7% $\frac{\text{unemployed labour force}}{\text{total labour force}} \times 100$
- A15) The participation rate = 70.0% $\frac{\text{total labour force}}{\text{population 15 years and over}} \times 100$

2.3 According to the census:

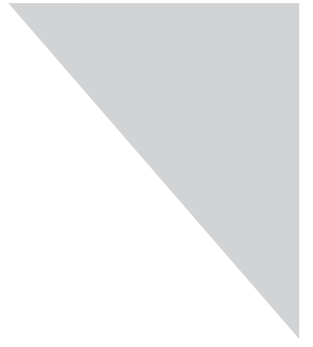
- A16) Federal electoral district (FED) boundaries are defined by a federal authority, while municipal boundaries (census subdivisions [CSDs]) are set by the provinces. Changes in the two units' boundaries occur in lockstep. Unlike CSDs, FEDs are used for elections and are based on population size. Consequently, in rural areas or areas containing medium-sized municipalities, a FED may encompass a number of CSDs or even parts of CSDs. In large population centres such as Montréal and Toronto, on the other hand, a single CSD will include a number of FEDs.
- A17) A census metropolitan area (CMA) must have an urban core population of more than 100,000 (in the last census), not a total population of 100,000. Kingston is considered a census agglomeration (CA) rather than a CMA because the population of its urban core in 1991 was less than 100,000 but more than 10,000. The population of Kingston's urban core was 94,710 in 1991.
- A18) Census subdivisions (CSDs) are administrative units whose boundaries are subject to change in cases of municipal mergers, total or partial annexation, or redefinition of territorial boundaries. For example, between the 1981 and 1986 Censuses, the municipality of Montréal annexed the municipality of Pointe-aux-Trembles; as a result, the Montréal CSD's 1986 boundaries are not the same as its 1981 boundaries. A CSD may also change names from one census to the next.
- A19) Contrary to what you might think, it isn't clear what conclusion can be drawn from the article, since we don't know what concepts the writer is referring to. For example, when he says that some people are bilingual, does he mean they are able to carry on a conversation in both of Canada's official languages, or in any two languages? In

Answers

addition, there is no indication of what the writer means by *francophone* and *anglophone*. On what variables is his statement based: mother tongue or home language, single or multiple responses? As a supplementary exercise, try rewriting the article based on each of these concepts.

- A20) Before we can answer this question, we need to determine whether we are looking for information about people in Canada whose ethnic origin is South African or about people born in South Africa (place of birth). People born there may have various ethnic origins (e.g., British, South African, East Indian, Zulu), and people who report their ethnic origin as South African may have been born in another country (e.g., a person could have been born in Canada to parents who immigrated from South Africa). Thus, either the “ethnic origin” variable or the “place of birth” variable can be used, depending on the information required.
- A21) No. The *mode of transportation* variable records the principal mode of transportation used to travel to work. If more than one mode was used, the respondent was to indicate which mode was used for most of the journey to work.
- A22) No. *Migrants* are defined as persons who have moved and changed census subdivision. For example, people who did not move but changed census subdivisions as a result of changes in geographic boundaries are not considered migrants.
- A23) Students who are away temporarily for educational reasons are enumerated at their parents’ home if that is their usual place of residence in Canada.
- A24) No. Representatives of foreign governments posted to Canada are not enumerated. However, non-permanent residents – persons from other countries who are living in Canada and have a work, student or ministerial permit or are claiming refugee status – are counted.

- A25) To be considered an institutional resident, a person must have resided in the institution for at least six months.
- A26) A baby born after midnight, in the night from May 13 to May 14, 1996, should not have been counted.
- A27) The census questionnaire asks for the *date of birth*. The *age* variable is derived from that information.
- A28) Yes. Household activities performed in the week preceding the census would include looking after one's own or others' children without remuneration.
- A29) Yes, as household activities, housework, if the vegetable garden's produce was intended for the family's consumption and not for sale. If the produce was intended for sale, the time spent working on the vegetable garden would be reported in another question (Question 31, hours worked for pay or in self-employment).
- A30) No. Respondents are required to report their place of birth based on boundaries or borders as they exist on Census Day. Respondents who were not sure of their country of birth because of boundary changes were asked to write the name of the nearest city, state or province in the space provided.
- A31) Any child of Canadian citizens (including Canadian diplomats and members of the Canadian Forces serving abroad) is considered a Canadian citizen by birth even if he/she is born abroad.
- A32) No. The labour market activity questions apply only to persons aged 15 or over.



Appendices

Statutory References
to the Census

A. Constitutional Law

- a) A decennial census in the year 1871 and every tenth year thereafter is required under section 8 of the *Constitution Act, 1867* (formerly named the *British North America Act, 1867*).
- b) Conduct of the census is made a responsibility of the federal government under section 91, subsection 6 of the *Constitution Act, 1867*.
- c) Representation in the House of Commons is made dependent on decennial census data under section 51 of the *Constitution Act, 1867*, as amended by the *Representation Act, 1974*.
- d) The amending formula for the *Constitution Act* is made dependent on population data from the “latest general census” under section 38 of the *Canada Act, 1982*.
- e) A number of provisions relating provincial subsidies to population have been legislated and amended over the years. The following is a summary of this legislation:
 - The *Manitoba Act, 1870*, section 25, made the federal subsidy in support of the provincial government dependent on the decennial census. It is no longer in effect.
 - The *British Columbia Terms of Union, 1871*, Schedule, part 3, made the federal subsidy in support of the provincial government dependent on the decennial census. It is no longer in effect.
 - The *Prince Edward Island Terms of Union, 1873*, Schedule, made the federal subsidy in support of the provincial government dependent on the decennial census. It is no longer in effect.
 - The *Alberta Act, 1905*, section 18, made a federal subsidy to the province dependent on a quinquennial census of the population. It is no longer in effect.
 - The *Saskatchewan Act, 1905*, section 18, made a federal subsidy to the province dependent on a quinquennial census of the population. It is no longer in effect.
 - The *Constitution Act, 1907*, section 1 and Schedule, replaced the above legislation with respect to subsidies to individual provinces with a general formula for a subsidy based on decennial census population counts with respect to all provinces except the three Prairie provinces (Alberta, Saskatchewan and Manitoba), and based on quinquennial census population counts in the cases of the three Prairie provinces. The provisions with respect to the three Prairie provinces are no longer in effect.
 - The *Constitution Act, 1930*, Schedule, replaced the 1907 legislation with respect to the three Prairie provinces. A subsidy was made payable to these provinces (Alberta,

Statutory References
to the Census

Saskatchewan and Manitoba) based on quinquennial census population counts and variable with these counts up to a maximum population of 1,200,000. These provisions are still in effect.

Legal opinions provided to Statistics Canada indicate a constitutional obligation to conduct a quinquennial census of the Prairie provinces exists until such time as their populations exceed one million, two hundred thousand. Since 1961 the population of Alberta has exceeded 1,220,000.

- The *Newfoundland Act*, 1949, Schedule, part 26, made a federal subsidy to that province dependent on decennial census population counts. This provision is still in effect.
- f) Representation of Alberta and Saskatchewan in the House of Commons was made dependent on the mid-decade census of those provinces for the first mid-decade census subsequent to their creation only (i.e. 1906). Thereafter, representation was to be based on the decennial Census of Canada (*Alberta Act*, 1905, section 6; *Saskatchewan Act*, 1905, section 6).

B. Historical Antecedents to the Statistics Act (R.S.C. 1985)

- 1870 The *Census Act* (33 Victoria, Chapter 21) was passed authorizing the decennial census of 1871. The Act did not provide for subsequent censuses. It provided only for a census of the four initial provinces of Confederation.
- 1871 *An Act to Amend the Census Act* (34 Victoria, Chapter 18). This Act served to extend the geographical coverage of the census to those territories which subsequently joined the union (Manitoba, Rupert's Land, etc.).
- 1879 The *Census and Statistics Act* (42 Victoria, Chapter 21) was passed, repealing the *Census Act* of 1871 as amended. It required a census be taken in 1881 and every tenth year thereafter.
- 1885 *An Act to Provide for the Taking of a Census in the Province of Manitoba, the North-West Territories and the District of Keewatin* (48 Victoria, Chapter 3). This Act provided for a mid-decade census in the Prairie provinces in the years 1885 and 1886.
- 1905 The *Census and Statistics Act* (1905) was passed (4-5 Edward VII, Chapter 5), repealing previous legislation. This Act provided for a decennial census of all provinces and territories and a mid-decade census of the Prairie provinces. It initially referred to the provinces of Alberta and Saskatchewan as territories but was subsequently amended in 1905 (4-5 Edward VII, Chapter 6) to name the newly created provinces.

- 1918 The *Statistics Act* (1918) was passed (8-9 George V, Chapter 43), repealing the *Census and Statistics Act* of 1905. It provided for a decennial census of Canada and a mid-decade census of the provinces of Alberta, Saskatchewan and Manitoba.
- 1948 The *Statistics Act* (1948) was passed (11-12 George VI, Chapter 45), repealing the *Statistics Act* (1918). It contained the same provisions with respect to the geographic coverage of decennial and mid-decade censuses as did the Act of 1918.
- 1955 While the provisions of the *Statistics Act* (1948) regarding mid-decade censuses remained unchanged, the government employed an Order in Council (P.C. 1955-1069) to extend the mid-decade census to cover the entire country. This order was presumably made under section 33 of the *Statistics Act* (1948) which gave the Governor in Council broad powers to prescribe “statistical investigations”.
- 1965 While the provisions of the *Statistics Act* (1948) remained unchanged, the government again employed an Order in Council (P.C. 1965-449) to extend the mid-decade census to cover the entire country. This order was again presumably made under section 33 of the *Statistics Act*.
- 1971 The *Statistics Act* (1970-71-72) was passed, repealing the *Statistics Act* (1948). This Act, which is still in effect, prescribes that a quinquennial census of population be conducted in all parts of Canada (i.e. a census every five years).
- 1985 *Statistics Act*, R.S.C. 1985, c. S-19, sections 3, 19, 20 and 21. This Act is a consolidation of previous statutes.

C. Other Federal Statutes

A number of other federal statutes or regulations refer implicitly or explicitly to census data, census-based population estimates or census geography:

- a) *Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act*, R.S.C. 1985, c. F-8

The Act prescribes the use of population estimates from Statistics Canada to calculate fiscal equalization and established program payments by the federal government to the provinces. Section 4 of the *Tax Collection Agreements and Federal Post-Secondary Education and Health Contribution Regulations*, 1987, enacted pursuant to the above-noted Act, provides that in determining the population of a province for purposes of a contribution or payment in the fiscal year beginning on April 1, 1991, the 1991 Census shall be used, and in subsequent years, the estimates as provided by Statistics Canada.

Statutory References
to the Census

- b) *Canada Elections Act*, R.S.C. 1985 as amended, c. E-2, sections 3 and 198

This Act refers to the list of electoral districts named and described in a representation order declared pursuant to the *Electoral Boundaries Readjustment Act* currently in force. This Act also refers to the use of census population counts to determine costs associated with the holding of federal elections and related activities.

- c) *Electoral Boundaries Readjustment Act*, R.S.C. 1994, c. C-18

This Act prescribes the use of population data from the census for readjustment of federal electoral district boundaries.

- d) *Canada Council Act*, R.S.C. 1985, c. C-2, subsection 15(2)

This Act prescribes that funds available under the university capital grants fund be allocated to provinces in accordance with population.

- e) *Canada Pension Plan Act*, R.S.C. 1985, c. C-8, subsection 114(5)

This Act provides that amendments to the plan require consent of participating provinces representing two-thirds of the population of all participating provinces; the population is in such cases determined by Statistics Canada population estimates.

- f) *Canada Student Loans Act*, R.S.C. 1985, c. S-23, subsection 16(4)

The Act provides for allocation of loan funds to a province based on the proportion of Canada's 18- to 25-year-olds that live in the province. The respective populations (national and provincial) are to be determined by Statistics Canada estimates.

- g) *Provincial Subsidies Act*, R.S.C. 1985, c. P-26, section 4

The Act is one of several which provides for payment of subsidies to the provinces. This section specifically refers to Manitoba's subsidy based on population figures derived from the census.

- h) *Railway Relocation and Crossing Act*, R.S.C. 1985, c. R-4, subsection 2(1)

This Act prescribes use of the most recent census data for the definition of urban areas for the purposes of the Act.

- i) *Industrial and Regional Development Act*, R.S.C. 1985, c. I-8, section 2

This Act prescribes use of census geography in establishing a development index while the index itself may potentially employ census data. The word “district” in the Act is defined as a “census division established by Statistics Canada for the purpose of tabulating and publishing census data”.

- j) *Municipal Grants Act*, R.S.C. 1985, c. M-13

Paragraph 2(3)(b) refers to certain “urban” property as defined by Statistics Canada as of the most recent census.

- k) *Employment Equity Act, Employment Equity Regulations*, 1986, section 2

In this Act, the “designated CMA” is defined as follows: “designated CMA means the census metropolitan area of a city referred to in Schedule I and illustrated in the Statistics Canada publication *Reference Maps, Census Metropolitan Areas and Census Agglomerations*, published May 1982”.

- l) *National Housing Act*, R.S.C. 1985, c. N-11, section 2

This Act defines metropolitan area as “a city together with one or more adjacent municipalities in close economic relation with the city”. This is very similar to the definition of a census metropolitan area.

- m) A number of federal statutes permit the use of nominal census records for proof of age:

- *Canada Pension Plan Act*, R.S.C. 1985, c. C-8, section 87;
- *Old Age Security Act*, R.S.C. 1985, c. O-9;
- *War Veterans Allowance Act*, R.S.C. 1985, c. W-3.

D. Provincial Statutes

Many provincial statutes and regulations also implicitly or explicitly refer to census data. The following is a partial list:

Newfoundland

Electoral Boundaries Act, R.S.N. 1990, c. E-4, subsection 13(2)

- Requires population of the province according to the latest census taken by Statistics Canada.

Statutory References
to the Census

Schools Act, R.S.N. 1990, c. S-12, section 85

- Requires population data on religion according to the latest census taken by Statistics Canada.

New Brunswick

Municipal Assistance Act, R.S.N.B. 1973, c. M-19, section 7

- Requires population data according to the latest census taken by Statistics Canada.

Quebec

Act respecting the Conseil de la santé et du bien-être, R.S.Q. c. C-56.3, section 3

- Requires information on population characteristics (sociocultural, ethno-cultural, linguistic, demographic).

Act respecting municipal and intermunicipal transit corporations, R.S.Q. c. C-70, section 25

- Requires municipal population data.

Election Act, R.S.Q. c. E-3.3, section 15

- Requires population data.

Act to secure the handicapped in the exercise of their rights, R.S.Q. c. E-20.1, section 25

- Requires data on persons with disabilities.

Act respecting municipal territorial organization, R.S.Q. c. O-9, section 30

- Requires population data.

Ontario

Assessment Act, R.S.O. 1990, c. A.31, section 15

- Requires population data.

Education Act, R.S.O. 1990, c. E.2, section 27

- Requires population data by age.

Juries Act, R.S.O. 1990, c. J.3, subsection 6(2)

- Requires population data.

Statutory References
to the Census

Municipal Act, R.S.O. 1990, c. M.45, sections 1, 30-33

- Requires population data according to the latest census taken by Statistics Canada.

Manitoba

The Electoral Divisions Act, R.S.M. 1987, c. E-40, section 9

- Requires the total population of the province according to the latest census taken by Statistics Canada.

The Health Services Act, R.S.M. 1987, c. H-30, section 80

- Requires population data according to the latest census taken by Statistics Canada.

The Liquor Control Act, R.S.M. 1988, c. L-160, section 1

- Requires population data according to the latest census.

The Manitoba Natural Resources Act, R.S.M. 1987, c. N-30, section 20

- Requires population data according to the latest quinquennial census.

The Municipal Act, R.S.M. 1988, c. M-225, subsections 2(1), 41(3)

- Requires population data according to the latest census taken by Statistics Canada.

The Unconditional Grants Act, R.S.M. 1987, c. U-10, section 1, and subsections 3(1), 4(1) and 4(2)

- Requires population data according to the latest census taken by Statistics Canada.

The Water Supply Commissions Act, R.S.M. 1988, c. W-100, subsection 21(2)

- Requires population data according to the latest census taken by Statistics Canada.

Saskatchewan

The Community Health Unit Act, S.S. 1979, c. C-19.1, subsection 3(1)

- Requires population data of the province according to the latest census taken by Statistics Canada.

The Fire Departments Platoon Act, R.S.S. 1978, c. F-14, section 3

- Requires population data according to the latest census taken by Statistics Canada.

Statutory References to the Census

The Liquor Licensing Act, R.S.S. 1978, c. L-21, section 62

- Requires population data according to the latest census taken by Statistics Canada.

The Municipal Assessment Act, S.S. 1979-80, c. M-23.1, subsection 3(5)

- Requires population data according to the latest census taken by Statistics Canada.

The Public Health Act, R.S.S. 1978, c. P-37, paragraph 44(1)(b)

- Requires population data according to the latest census taken by Statistics Canada.

The Saskatchewan Assessment Act, S.S. 1980-81, c. S-6.1, subsection 8(3)

- Requires population data according to the latest census taken by Statistics Canada.

The Tuberculosis Sanatoria and Hospitals Act, R.S.S. 1978, c. T-24, paragraph 25(2)(b)

- Requires population data according to the latest census taken by Statistics Canada.

Alberta

County Act, R.S.A. 1980, c. C-27, sections 22, 24, and paragraphs 5(4)(a) and (b)

- Requires population data according to the latest census taken by Statistics Canada.

Municipal and School Administration Act, R.S.A. 1980, c. M-29, paragraph 18(3)(b)

- Requires population data of a city or town according to the latest census taken by Statistics Canada.

Municipal Government Act, R.S.A. 1980, c. M-26, subsections 124(2), 125(2)

- Requires population data of a municipality according to the latest census taken by Statistics Canada.

Property Tax Reduction Act, R.S.A. 1980, c. P-19, paragraph 27(3)(a)

- Requires population data according to the latest census taken by Statistics Canada.

British Columbia

Municipal Act, R.S.B.C. 1979, c. 290, sections 1, 20, 775

- Requires population data according to the latest census taken by Statistics Canada.

Glossary of Terms

Appendix B provides a brief definition of some of the census terms or concepts. Since these definitions have been summarized for the content of this publication, users should refer to the *1996 Census Dictionary* (Catalogue No. 92-351-XPE) to find the complete definitions of the census terms and concepts.

Aboriginal (Aboriginal self-reporting): refers to those persons who reported identifying with at least one Aboriginal group, i.e. North American Indian, Métis or Inuit (Eskimo). In 1991 and previous censuses, Aboriginal persons were determined using the ethnic origin question, based primarily on the ancestry dimension. The 1996 Census shifts the focus away from the background of one's ancestors to the individual's own perception of his/her Aboriginal identity.

Block-face: one side of a city street between two consecutive street intersections. Block-faces are also formed when streets intersect other visible physical features (such as railroads, power transmission lines and rivers) and when streets intersect with enumeration area boundaries.

Census family: refers to a now-married couple (with or without never-married sons and/or daughters of either or both spouses), a couple living common-law (with or without never-married sons and/or daughters of either or both partners) or a lone parent of any marital status, with at least one never-married son or daughter living in the same dwelling.

Collective dwelling: refers to a dwelling of a commercial, institutional or communal nature. It may be identified by a sign on the premises or by a census representative speaking with the person in charge, a resident, a neighbour, etc. Included are lodging or rooming houses, hotels, motels, tourist homes, nursing homes, hospitals, staff residences, communal quarters (military camps), work camps, jails, missions, group homes, and so on. Collective dwellings may be occupied by usual residents or solely by foreign and/or temporary residents.

Common-law partners: are two persons of opposite sex who are not legally married to each other but live together as husband and wife in the same dwelling.

Economic family: refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption.

Employed: refers to persons 15 years of age and over, excluding institutional residents, who, during the week (Sunday to Saturday) prior to Census Day: a) did any work at all for pay or in self-employment; or b) were absent from their job or business for the entire week because of vacation, illness, a labour dispute at their place of work or other reasons.

Geographic reference date: is the date determined by Statistics Canada for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For the 1996 Census, the geographic reference date is January 1, 1996.

Glossary of Terms

Household: refers to a person or a group of persons (other than foreign residents), who occupy the same dwelling and do not have a usual place of residence elsewhere in Canada. It may consist of a family group (census family) with or without other non-family persons, of two or more families sharing a dwelling, of a group of unrelated persons, or of one person living alone.

Household activities: refers to the number of hours persons spent, without pay, in the week (Sunday to Saturday) prior to Census Day, doing housework, yard work or home maintenance, taking care of their own or someone else's children or providing unpaid care or assistance to seniors. Data are available for persons 15 years of age and over, excluding institutional residents.

Lone parent: refers to a mother or a father, with no spouse or common-law partner present, living in a dwelling with one or more never-married sons and/or daughters.

Mode of transportation: refers to the mode of transportation to work of non-institutional residents 15 years of age and over who have worked since January 1, 1995. Persons who use more than one mode of transportation were asked to identify the single mode they used for most of the travel distance.

Never-married sons and/or daughters: refers to blood, step or adopted sons and daughters who have never married (regardless of age) and are living in the same dwelling as their parent(s). Sons and daughters who are currently or were previously married, or who are living common-law, are not considered to be members of their parent(s)' census family even if they are living in the same dwelling. In addition, those never-married sons and daughters who do not live in the same dwelling as their parent(s) are not considered members of their parent(s)' census family.

Occupied private dwelling: refers to a private dwelling in which a person or a group of persons are permanently residing.

Population group: refers to the population group to which the respondent belongs. This question provides information about the visible minority population in Canada which is required for programs under the *Employment Equity Act* (1986). According to this Act, visible minorities are persons (other than Aboriginal persons), who are non-Caucasian in race or non-white in colour.

Private dwelling: refers to a separate set of living quarters with a private entrance either from outside or from a common hall, lobby, vestibule or stairway inside the building. The entrance to the dwelling must be one that can be used without passing through the living quarters of

Glossary of Terms

someone else. The dwelling must meet the three conditions necessary for year-round occupancy: a) a source of heat or power; b) access to a source of drinking water throughout the year; c) an enclosed space that provides shelter from the elements.

Representative point: is a single point that represents a linear feature (block-face) or an areal feature (enumeration area). The point's location generally indicates either dwelling concentrations or centrality.

Spouses: refers to persons of opposite sex who are legally married to each other and living in the same dwelling.

Canada's Population

Population, Canada, Provinces and Territories, 1991 and 1996

Province/Territory	1991* Population	1996* Population	% Change
Canada	27,296,859	28,846,761	5.7
Newfoundland	568,474	551,792	-2.9
Prince Edward Island	129,765	134,557	3.7
Nova Scotia	899,942	909,282	1.0
New Brunswick	723,900	738,133	2.0
Quebec	6,895,963	7,138,795	3.5
Ontario	10,084,885	10,753,573	6.6
Manitoba	1,091,942	1,113,898	2.0
Saskatchewan	988,928	990,237	0.1
Alberta	2,545,553	2,696,826	5.9
British Columbia	3,282,061	3,724,500	13.5
Yukon Territory	27,797	30,766	10.7
Northwest Territories	57,649	64,402	11.7

* Excludes data from incompletely enumerated Indian reserves and settlements.

Population Growth in Canada, 1951-1996

Year	Total Population	Population Increase	Population Growth Rate
1951	14,009,429	—	—
1956	16,080,791	2,071,362	14.8
1961	18,238,247	2,157,456	13.4
1966	20,014,880	1,776,633	9.7
1971	21,568,311	1,553,431	7.8
1976	22,992,604	1,424,293	6.6
1981	24,343,181	1,350,577	5.9
1986	25,309,331*	966,150	4.0
1991	27,296,859*	1,987,528	7.9
1996	28,846,761*	1,549,902	5.7

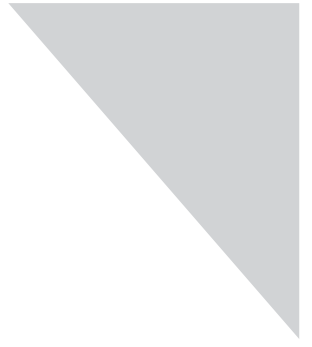
* Excludes data from incompletely enumerated Indian reserves and settlements.

Canada's Population

Population for Census Metropolitan Areas in Decreasing Order of 1996 Population, 1991 and 1996 Censuses

Rank	CMA	1991 Population	1996 Population	% Change
1	Toronto (Ont.)	3,898,933 A	4,263,757	9.4
2	Montréal (Que.)	3,208,970 A	3,326,510	3.7
3	Vancouver (B.C.)	1,602,590 A	1,831,665	14.3
4	Ottawa - Hull (Que.-Ont.)	941,814 A	1,010,498	7.3
5	Edmonton (Alta.)	841,132 A	862,597	2.6
6	Calgary (Alta.)	754,033	821,628	9.0
7	Québec (Que.)	645,550	671,889	4.1
8	Winnipeg (Man.)	660,450 A	667,209	1.0
9	Hamilton (Ont.)	599,760	624,360	4.1
10	London (Ont.)	381,522	398,616	4.5
11	Kitchener (Ont.)	356,421	382,940	7.4
12	St. Catharines - Niagara (Ont.)	364,552	372,406	2.2
13	Halifax (N.S.)	320,501	332,518	3.7
14	Victoria (B.C.)	287,897	304,287	5.7
15	Windsor (Ont.)	262,075	278,685	6.3
16	Oshawa (Ont.)	240,104	268,773	11.9
17	Saskatoon (Sask.)	210,949 A	219,056	3.8
18	Regina (Sask.)	191,692	193,652	1.0
19	St. John's (Nfld.)	171,848 A	174,051	1.3
20	Sudbury (Ont.)	157,613	160,488	1.8
21	Chicoutimi - Jonquière (Que.)	160,928	160,454	-0.3
22	Sherbrooke (Que.)	140,718 A	147,384	4.7
23	Trois-Rivières (Que.)	136,303	139,956	2.7
24	Saint John (N.B.)	125,838 A	125,705	-0.1
25	Thunder Bay (Ont.)	124,925 A	125,562	0.5

A: Adjusted figure due to boundary changes.



Subject Index

Subject Index

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