# SABAL - *Statistics Canada*

- **Database Sources**
- **For more information ...**

**An Overview**

In response to growing demand for data on small geographic areas, Statistics Canada has developed the Small Area Business and Labour Database (SABAL). SABAL combines a wide variety of economic and social statistics, and provides coverage of approximately 140 urban areas and 72 economic regions, in addition to Canada, the Provinces and Territories. Some data are not available at all geographic levels as can be seen from the *GRID*.

SABAL also includes metadata on each of these data sources and a promotion advertising the other products and services offered by the contributing STC subject-matter Divisions.

**The *business sources* included are:**

- Business Small Area File (based on Revenue Canada administrative data)
- Retail Trade
- Building Permits
- Housing Starts from CMHC
- Survey of Manufacturing
- Motor Vehicle Registrations
- Business Counts
- Consumer Price Index
- Tourism

**The *social sources* included are:**

- Census of Population
- Small Area Administrative Data (Taxfiler Data)
- Labour Force Survey
- Household Facilities and Equipment Survey
- Education
- Training
- Justice
- Population Projections
- Family Expenditures
- Consumer Finances Survey

**Analytical Caveats:**

- SABAL is a compendium of the above independent data sources and not a fully integrated database.

- Some of these sources utilize sampling techniques with differing levels of quality between different areas and over time.

- Other sources are compiled from administrative records covering the complete universe.

- Several of these sources provide separate measures of the same item, for example, employment. These employment statistics will typically differ because of the various differences in the methodologies employed by each of the surveys or how they are compiled from administrative sources.

- Some of these sources use STC standard geographic boundaries, while others attempt to proxy these as closely as possible through use of postal code conversions or other estimating techniques.

- As well, geographic boundaries change over time making time analysis more difficult. Efforts have been made to reorganize the data into consistent geographic boundaries, where possible.

**SABAL Platform**

SABAL uses IVISION software which is a user-friendly Windows-based viewer. Because it has pivoting and on-the-fly mapping and graphical capabilities, it is ideally suited to allow users to look across different geographic areas for a class of data and, by exporting the data to a spreadsheet, one can look down within a specific area at all the data. It can also present context sensitive related metadata. The IVISION browser is becoming widely used within STC and the federal government in general.

About SABAL...

---

**The SABAL database:**

- assembles data from many areas within Statistics Canada and a few selected non-Statscan sources into one package. These data sources will be expanded in future editions.

- is in machine-readable form so it can be readily analyzed and/or exported.

- uses Statistics Canada's standards (GEO and SIC) to make data as comparable as possible for analysis.

- provides multi-year data as consistently as possible which allows for time analysis.

- provides a quick analysis capability e.g. pivoting spreadsheet, context sensitive metadata, on-the-fly graphing, mapping and exporting.

**For more information about SABAL**

Contact your nearest Statistics Canada Regional Reference Centre (* see below) or call our National Inquiries Line at 1-800-263-1136.

* Halifax (902) 426-5331 / Montreal (514) 283-5725 / Ottawa (613) 951-8116 / Toronto (416) 973-6586 / Vancouver (604) 666-3691 / Winnipeg (204) 983-4020 / Regina (306) 780-5405 / Calgary (403) 292-6717 / Edmonton (403) 495-3027

## DATA SOURCES BY GEOGRAPHIC AVAILABILITY

| Source | | Type of Data | Level of Geography | | | | | | Data Years | 1980 SIC Digit Level |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nat. | Prov. | ER* | CMA* | CA* | Other | | |
| Business Sources | | | | | | | | | | |
| 1 | Retail Trade | Survey& Admin | y | y | | y | Selected | | 89-93 | 1,2,3 |
| 2 | Consumer Price Index | Survey | y | y | | Selected | | | 90-95 | |
| 3 | Building Permits | Admin | y | y | | y | | | 90-95 | |
| 4 | Housing Starts | Admin | y | y | | y | | | 90-95 | |
| 5 | Survey of Manufacturing | Survey | y | y | | | | CD | 92,93 | 2,3,4 |
| 6 | Motor Vehicles Registrations | Admin | y | y | y | | | | 91-94 | |
| 7 | Business Small Area File | Admin | y | y | y | y | y | | 89-93 | 1,2 |
| 8 | Tourism | Survey | y | y | | Selected | | | 90,92,94 | |
| 9 | Business Counts | Admin | y | y | y | y | y | | 90-94 | 1,2,3,4 |
| Social Sources | | | | | | | | | | |
| 10 | Census of Population | Survey | y | y | | y | y | | 86, 91 | |
| 11 | Small Area Administrative Data (Taxfiler data) | Admin | y | y | | y | | | 90-93 | |
| 12 | Labour Force Survey | Survey | y | y | y | y | | | 87-94 | |
| 13 | Consumer Finance Survey | Survey | y | y | y | y | | | 90-94 | |
| 14 | Family Expenditures | Survey | y | y | y | | | | 86,92 | |
| 15 | Household Facility& Equipment | Survey | y | y | y | y | | | 90-95 | |
| 16 | Training | Survey | y | y | | Selected | | | 92,94 | 1 |
| 17 | Education | Survey | y | y | | | | Institutional | 89-93 | |
| 18 | Justice | Admin | y | y | | y | | SMA* | 85-94 | |
| 19 | Population Estimates | Admin | y | y | | y | y | | 90-2000 | |

* SMA-Selected Municipal Areas are based upon Justice reporting districts and approximate Census Sub-divisions and smaller CA's
ER- Economic Regions are formed by aggregating selected Census Divisions(CD) as defined by the Labour Force Survey
CMA- Census Metropolitan Areas (Cities with over 100,000 in population)
CA- Census Agglomerations (Smaller Cities with a population between 10,000 and 100,000)
SIC- Standard Industrial Classification (1980), Statistics Canada

---

## CONTACTS TO GET MORE INFORMATION...

### *Business sources*:

| | |
|---|---|
| ☞ Building Permits | Investment and Capital Stock Division |
| ☞ Business Counts | Business Register Division |
| ☞ Business Small Area File | Business and Labour Market Analysis Division |
| ☞ Consumer Price Index | Prices Division |
| ☞ Housing Starts from CMHC | Investment and Capital Stock Division |
| ☞ Manufacturing (Survey) | Industry Division |
| ☞ Motor Vehicle Registrations | Transportation Division |
| ☞ Retail Trade | Industry Division |
| ☞ Sub-provincial Manufacturing | Industry Division |
| ☞ Tourism | Education, Culture and Tourism Division |

### *Social sources*:

| | |
|---|---|
| ☞ Census of Population | Census Division |
| ☞ Consumer Finances Survey | Household Surveys Division |
| ☞ Education | Education, Culture and Tourism Division |
| ☞ Family Expenditures | Household Surveys Division |
| ☞ Household Facilities and Equipment Survey | Household Surveys Division |
| ☞ Justice | Canadian Centre for Justice Statistics |
| ☞ Labour Force Survey | Labour and Household Surveys Division |
| ☞ Population Projections | Demography Division |
| ☞ Small Area Administrative Data | Small Area and Administrative Data Division |
| ☞ Training | Education, Culture and Tourism Division |

### OTHERS...

☞ Geography Division
☞ Small Business and Special Surveys Division
☞ Standards Division

☞ IVATION Software

## THE BUSINESS AND LABOUR MARKET ANALYSIS DIVISION'S SMALL AREA FILE

There is a long-standing need for better small area measures of employment by industry. The main sources presently existing to do this are based on social surveys; the Labour Force Survey (LFS) and the Census. The business-based Survey of Employment, Payrolls and Hours (SEPH) no longer releases small areas estimates. The LFS has a rather small sample for estimating smaller geographic areas, especially when further split by industry. The Census relies on a one in five sample to measure employment by industry and is available only every five years.

The Business and Labour Market Analysis Division (BLMA) already produces a longitudinal database (the Longitudinal Employment Analysis Program, LEAP) of Canadian businesses derived from administrative tax records (T4), the Business Register Master File and survey data (SEPH). LEAP contains employment data for each firm at a province level. In order to respond to this demand for better small area measures of employment by industry at the sub-subprovincial level, BLMA has conducted record linkages between the Revenue Canada T1 and T4 files, and the Statistics Canada Business Register and LEAP database in order to build the Small Area File (SAF), a sub-provincially coded file of all businesses with employees.

The major objective of this SAF is to extend the LEAP database by distributing employment and T4 payroll data into sub-provincial units, and to provide industrial distribution of payroll and employment by firm size at these finer geographic levels. Data are available at the Census Agglomeration (CA's typically have a population between 10,000 and 100,000), and Census Metropolitan Areas (populations over 100,000). Data are further grouped at the LFS Economic Region level.

Sub-provincial business locations are obtained by augmenting the known establishment locations from the Statistics Canada Business Register with additional Revenue Canada derived business locations. When it is found that a pool of workers belonging to the same business (using T4 information) congregates in or around an area that was not previously recorded, then a new business location for the business is entered in the file. The area is identified by the home postal codes of these workers, which are obtained from the T1 Personal Tax File. For each of these new business locations the industry, total employment and payroll information is derived. The employment measure used is Proportional Head Counts (PHCs); in previous analyses these were sometimes referred to as Individual Labour Units (ILUs). The PHC is designed to sum to one (1) for every employed person in Canada receiving a T4. Those workers with only a single income source are assigned a PHC of 1 to the employer for which they work. However, those workers with multiple jobs are assigned fractional PHC values to each of their employers based on their earnings. For example, if a worker earned 25% of his annual income with

employer X and 75% with employer Y, this worker would be shown as a .25 PHC to employer X and as a .75 PHC to employer Y. This measure is closer to a head count than a yearly equivalent measure (the Average Labour Unit [ALU] employed by LEAP).

Initially the SAF was considered somewhat experimental and was used in the context of add hoc projects and cost recovery programs. Recently it has been decided that a sufficient volume of work experience has been accumulated with this SAF and that it was of sufficient quality to be used on a larger scale. The primary dissemination instrument that has been chosen for the SAF is the SABAL database. Included are CA, CMA, and ER level tabulations. It is felt that most requests can be met by these tabulations. More detailed customized tabulations can be produced using the file on a case by case cost-recovery basis.

One of the difficulties in assessing the quality of these estimates comes from the fact that there are so few sources of comparable data at these sub-provincial levels. How does one benchmark the benchmark? In the end, SAF industrial payroll distributions were compared with those of the 1991 Census at the 1-digit level of industry detail (looking at data-year 1990 which is the year covered by the 1991 Census). A dissimilarity index was produced by summing the absolute value of the percentage differences in industrial distribution of payrolls between the Census data and that of the SAF file and dividing the result by 200. The bounds of the index are 0 (perfectly similar) to 1 (perfectly dissimilar). The resulting average dissimilarity index was found to be .12. Further review of the data revealed that the Government Sector was somewhat over-represented in the SAF. It is expected that future revisions to the SAF will correct for this. Addressing this bias will lower the .12 dissimilarity index which is already indicating very similar industrial distributions between these two sources.

There are some instances where data has to be screened in order to respect confidentiality. Some cells are masked because of this. Masked cells contain a dash ( - ). Furthermore, the technique known as random rounding has been employed on the units digit of the employment count. For example, an employment count of 1,377 could be randomly shown as either 1,375 or 1,380. A small number of records have missing industry codes, sub-provincial geocodes, &/or missing worker age/gender codes; as a result, various sub-groupings shown will not always necessarily add to the totals shown..

About SABAL's database sources...

---

The SAF is an annual system. It is run once a year. The next reference year to be processed will be 1994. For this 1996 release of SABAL the data will be available from 1989 to 1993 inclusive. From time to time historical revisions may take place.

**CONTACT:**

Richard Dupuy (613) 951-3611
Business and Labour Market Analysis Division
Statistics Canada
24th Floor- Section C, R.H. Coats Building
Ottawa, Ontario, Canada
K1A 0T6

---

**Small communities in Atlantic Canada: their industrial structure and labour market conditions in the early 1980s**

Garnett Picot and John Heath

## Summary

The natural resource sector in Atlantic Canada declined during the recession of the mid 1980s. Communities based on natural resource industries tend to be smaller on average and they 'appeared' to become more diversified during 1981-1986, but this results from a decline in natural resource employment, not from an expansion in the other sectors.

The labour market experiences of individual workers differ by size of community and by the industry mix of employment in the community. Workers in smaller communities experienced a decline in real earnings whereas workers in larger experienced an increase in real earnings. Among the smaller communities, the real earnings of workers declined the most in natural resource communities.

Workers in smaller communities were more likely to move compared to workers in larger communities. However, among the smaller communities, mobility in the natural resource communities was the lowest.

Within smaller natural resource communities, the real earnings of workers in the goods sector declined whereas the real earnings of workers in the commercial or public service sectors increased. However, workers in the goods sector still reported a lower rate of mobility out of the community.

Few individuals experience the calculated average change in earnings. The average change in earnings for a group of workers masks a tremendous variability in the experiences of individual workers. For example, the average Atlantic Canada worker with earnings of more than $6,600 in 1981 and with some earnings in 1986 experienced a 1% increase in earnings. This masks that 61% of the workers experienced a gain in real earnings that averaged 27%, and 39% of the workers experienced a decline in real earnings that averaged 33%.

About SABAL's database sources...

---

**Table of Contents**

# Small communities in Atlantic Canada: their industrial structure and labour market conditions in the early 1980s

Garnett Picot and John Heath

## Introduction and Objective

The impact of economic cycles on small natural resource towns and their workers can be severe. In Atlantic Canada, natural resource communities depend mainly on fishing, forestry, mining and their related processing industries. During the recession of the early 1980s employment in the natural resource sector[1] fell by about 9% in Atlantic Canada (Figure 1). There was some recovery during 1986-1989, but the impact of the cyclical downturn on towns with high dependency on these industries must have been significant.[2]

Other events besides a downturn in the economic cycle can negatively influence natural resource communities. These include:

(1) the depletion of a mine or some other natural resource connected with the town;

(2) structural (or long term) changes in the demand for a natural resource or related manufactured commodities which may result in a permanent decline in employment opportunities in a town;

(3) shifts in international prices for natural resource commodities which renders plants unprofitable and candidates for closure. Commodity prices over the early and mid 1980s were declining in many cases, and a price index of 33 commodities (excluding energy) fell 25% from 1981 to 1986 (Economic Council 1990).

[1]. Including primary industries plus the processing industries in manufacturing directly dependent on natural resources such as pulp and paper, wood industries, and fish processing.

[2]. Like any study with a focus on a particular period, these findings are determined by the economic events of the period. The 1981 to 1986 period was chosen because 1981 preceded the recession and the recovery was underway by 1986. Also, it was helpful to compare the data with census of population data for the two periods. This database facilitates cross-section (ie. one point in time) and annual longitudinal analysis of workers and firms at the municipal level. Analysts are invited to contact the author concerning the availability of data for their research projects.

These forces may negatively influence any town and its workers, but communities with a large proportion of their payroll in the natural resources sector may be particularly vulnerable to such economic forces. Single industry (usually small, natural-resource) communities, and the plight of their workers during economic downturns is of longstanding interest in Canada, especially as up to one-quarter of the rural worker population lives in such communities with fragile economies. Although the communities have been the subject of various reports (e.g. CEIC 1987; CEIC 1988; Royal Commission of Employment and Unemployment 1986), little information is available on the impact to workers. In particular, little work looks at the experience of natural resource communities and their workers within a context. Comparisons with other types of communities are necessary to do this.

Of course, the major concern to small resource communities is the vulnerability of their economies and the resulting effect on the labour market conditions for workers. Unemployment rises, and workers and their families may be forced to move.

To assess the effect on the workers requires longitudinal data. How flexible is the labour market in these areas and do workers move to locate new employment in the face of a very tight labour market in their community? And when they move does adjustment occur quickly, or do their earnings remain depressed and unemployment high? And do conditions in the community improve so that remaining workers secure employment and higher earnings? Two requirements are needed to answer such questions. First, longitudinal data on the workers determines what happens to earnings and unemployment over a number of years. Second, a benchmark, or point of comparison determines if the labour market conditions faced by workers from these communities were significantly different from the conditions encountered by workers from communities. Even when special surveys are conducted to track workers from resource communities over time, there is rarely a "control group" against which to compare the surveys. The experimental data source in this work provides both longitudinal data and data on comparison groups because virtually all workers in the Atlantic area are included in the database.

If adjustment policies are intended for workers in particular types of industries affected by structural change, it may be necessary to consider the type of community (labour market) where they are located. Workers in large, diversified communities face very different labour market conditions than those in smaller, concentrated labour markets. To assess such targeting, comparisons of the adjustment experiences of workers in various labour markets is necessary.

The industrial structure of a town is important. Diversified or public service communities would experience less impact from an economic cycle than natural resource dominated communities given the patterns of employment change (Figure 1). To achieve this characteristic of employment and economic stability, communities seek

diversification. Recent work by the Economic Council and others discuss how single industry communities can foster development strategies to encourage growth and diversification from within (Economic Council 1990; Decter 1989). Diversified communities, and workers in them, should show more stable employment patterns, less variation in earnings and perhaps less mobility than workers from natural resource communities.

But size is also important. Many natural resource communities are small and isolated, adding to their vulnerability when the dominant industry declines. Larger communities tend to have larger service sectors. The Economic Council Report (1990) observed that financial, business, transportation and communication services tended to locate in larger centres such as Halifax. Such service firms need access to a number of features found in larger centres, such as highly skilled labour, head offices, financial institutions, services other than their own, and a larger market. These industries are highly dependent upon access to information and face-to-face contact, which is lost in small communities isolated from the market. Service firms, unlike goods-producing firms, generally service clients face to face, and do not "ship" output nearly as often (although some do).

An interaction between size and industrial structure is apparent: larger communities tend to develop larger service sectors than smaller communities. Employment growth in general has been in the services sector, tending to favour middle size and larger communities and perhaps, augmenting regional disparities. Smaller communities are more likely to be single industry dependent and have more difficulty attracting jobs in the business service and distributive service sectors in particular. Workers laid off in a small natural resource town would have less opportunity for employment in a small concentrated labour market, making it likely that they would have to move to find other employment. They may also have longer breaks in earnings, and a decrease in income over time. In medium and large communities, laid off workers may have more opportunities in other industrial sectors, and may not have to resort to geographic mobility.

This paper will use an experimental data source being developed in Statistics Canada to address a number of questions about the issues described above:

(1) How heterogeneous - in terms of industrial structure - are communities in Atlantic Canada, and in particular, what differentiates small from large communities?

(2) Did the resource communities develop a more diversified industrial structure during 1981-1986?

(3) In general, did workers from small communities face more difficult labour market conditions over the early 1980s than workers from large communities?

(How important is community size in determining the manner in which workers adjust?).

(4) Did the labour market experiences of workers in small natural resource towns differ significantly from those of workers in other small communities?

(5) Four communities of different size, industrial structure and economic history are selected to determine how their workers fared compared to workers in general in Atlantic Canada over the same period. The four communities are Corner Brook, Newfoundland; Labrador City, Newfoundland; Summerside, PEI; and Halifax, Nova Scotia.

**Methodology**

The following is a brief outline of the methodology. More detail is given in Appendix I, and in a paper describing the database construction (Heath 1990).

Geographical information on both the workers (postal codes from Revenue Canada files) and the firms where the workers are employed (postal codes for firms from Statistics Canada's business register) is used to allocate workers to a community. The geographical location refers to the worker's place of employment, not necessarily the place of residence. Information on annual income, unemployment insurance benefits, age, gender, and industry for each worker in any year comes from Revenue Canada and business register data files. This information is available for workers for each year, and hence a longitudinal microdata source is created (i.e. information on the same worker over time) for 1981 to 1986. In this study, information is used only for the end points of this period, in most cases.

The industrial distribution of the payroll in a particular community is calculated simply by adding the annual payroll of all workers employed in that community (not necessarily resident there) during any year (e.g. 1981 and 1986). Payroll is a good indicator of the industrial structure of a community because it measures an industry's contribution to the community through the paycheque. All communities in Atlantic Canada are classified according to three sizes--small (700 to 5,000 workers), medium (5,000 to 20,000 workers) and large (more than 20,000 workers)--and four types of industrial structure: natural resource, public service, diversified and other. Quartiles are used to allocate the towns to types of industrial structure. Within each size class, the one-fourth of all towns which have the highest share of payroll in the natural resource sector are classified as natural resource communities. Similarly, one-quarter are allocated to the public service sector, and the one-quarter most diversified (as measured by the Herfindahl index based on industrial distribution of payroll) are called diversified communities. The remaining one-quarter are left in the "other" category.

The change in industrial structure (i.e. industrial distribution of payroll) is measured for communities during 1981-1986.

Four indicators of labour market conditions for workers are developed and used:

(1) the change in annual employment earnings,
(2) the proportion of workers with earnings in 1981 but not 1986,
(3) the unemployment insurance benefits received by the workers (as a proxy for unemployment) and,
(4) the proportion of workers migrating.

These measures are described in more detail later.

The major interest in this paper is how the labour market conditions changed for workers with a strong labour market attachment. A large volume of workers with low ($1,000 to $5,000) annual earnings result from partial attachment to the labour force. Hence, the four labour market indicators outlined above were calculated only for workers with labour market earnings of more than $6,600 in 1981 (the annual earnings for a full-time worker in a job paying the minimum wage). The industrial payroll in the communities, however, was calculated using the earnings of all workers in that community.

**The Industrial Structure of Small and Large Towns**

The industrial structure of small communities differs from that of large communities in two ways. First, small towns are more dependent on natural resources[3] than their larger counterparts. And second, large communities develop distributive services (transportation, communications, wholesale trade) and business services (financial services, consulting, etc.) sectors which smaller communities do not possess to the same degree. In 1986, 26% of the payroll in larger communities came from these industries, compared to only 12% in small communities (Table 1 and Figure 2). This has implications for workers. Because of cyclical downturns such as the early 1980s and as a result of longer term structural changes occurring in the economy, the natural resource and other goods-producing sectors' share of jobs has declined. The natural resource sector's share of total payroll in Atlantic Canada fell from 14% in 1981 to 11% in 1986. This naturally affected the resource-dependent communities, and in particular the small communities where the dependence on natural resources is greater.

[3]. Natural resources here includes both primary industries, plus natural resource manufacturing industries (i.e. pulp and paper, wood, fish processing, utilities and petroleum and coal industries).

Overall, small communities in Atlantic Canada lost ground over the early 1980s largely because the natural resources sector declined. The value (in constant dollars) of payroll in the natural resource sector in small communities fell by 16% during 1981-1986 although there was some recovery in employment in that sector in 1987 and 1988 (Figure 1). Nonetheless, as a result of this large decline in natural resource payroll in these small towns, their industrial structure became more concentrated in the public sector (Figure 2). The proportion of payroll in the public sector increased slightly from 35% to 39%, and the Herfindal index of concentration[4] increased from .227 to .240 during 1981-1986, indicating increased concentration.

[4]. Simply the sum across all industries of the square of the payroll share (or proportion) in each industry.

**TABLE 1: Industrial distribution of payroll by community type, Atlantic communities, 1981 and 1986**

**1981**

| Community - Type | | Industry: natural resources | other manufac-turing | distri-butive services | consumer services | business services | public services | construc-tion | total | no. communi-ties | no. workers >$6,600 (thous.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | % | % | % | % | % | % | % | | |
| Natural Resource | Small | 61.3 | 3.1 | 3.8 | 9.0 | 2.1 | 17.9 | 2.8 | 100.0 | 27 | 18.2 |
| | Medium | 40.3 | 3.5 | 9.2 | 18.8 | 3.5 | 20.8 | 3.9 | 100.0 | 5 | 38.1 |
| | Large | 29.0 | 3.3 | 10.5 | 13.8 | 5.9 | 32.5 | 5.1 | 100.0 | 1 | 30.6 |
| | Total | 40.9 | 3.3 | 8.5 | 15.1 | 4.0 | 24.0 | 4.1 | 100.0 | 33 | 86.9 |
| Public Service | Small | 9.8 | 7.1 | 8.4 | 11.4 | 3.3 | 55.6 | 4.3 | 100.0 | 27 | 24.4 |
| | Medium | 6.4 | 4.6 | 6.6 | 13.7 | 3.9 | 59.6 | 5.1 | 100.0 | 5 | 21.9 |
| | Large | 7.1 | 5.0 | 8.9 | 15.9 | 8.7 | 49.6 | 4.9 | 100.0 | 1 | 22.1 |
| | Total | 7.8 | 5.6 | 8.0 | 13.6 | 5.3 | 54.8 | 4.8 | 100.0 | 33 | 68.4 |
| Other | | | | | | | | | | | |
| | Small | 16.7 | 7.7 | 17.0 | 17.5 | 2.7 | 31.6 | 6.7 | 100.0 | 27 | 16.5 |
| | Medium | 8.7 | 8.1 | 23.3 | 13.8 | 5.4 | 36.6 | 4.2 | 100.0 | 5 | 25.6 |
| | Large | 5.0 | 7.3 | 14.8 | 13.8 | 10.6 | 43.4 | 5.1 | 100.0 | 4 | 167.1 |
| | Total | 6.2 | 7.4 | 16.0 | 14.1 | 9.4 | 41.7 | 5.1 | 100.0 | 34 | 209.3 |
| Diversified | | | | | | | | | | | |
| | Small | 21.2 | 11.2 | 11.5 | 14.7 | 4.7 | 31.1 | 5.5 | 100.0 | 27 | 27.7 |
| | Medium | 13.2 | 15.3 | 14.5 | 15.5 | 5.5 | 30.7 | 5.2 | 100.0 | 6 | 34.5 |
| | Large | 8.0 | 14.5 | 20.7 | 13.5 | 9.3 | 27.6 | 6.4 | 100.0 | 2 | 104.7 |
| Total | Total | 11.2 | 14.2 | 18.0 | 14.1 | 7.8 | 28.8 | 6.0 | 100.0 | 37 | 166.9 |
| | Small | 25.9 | 7.7 | 10.0 | 13.1 | 3.4 | 35.2 | 4.8 | 100.0 | 108 | 86.8 |
| | Medium | 20.4 | 7.9 | 13.1 | 16.0 | 4.5 | 33.5 | 4.5 | 100.0 | 21 | 120.2 |
| | Large | 8.2 | 9.1 | 15.9 | 13.8 | 9.6 | 37.8 | 5.5 | 100.0 | 8 | 324.5 |
| | Total | 13.7 | 8.6 | 14.4 | 14.2 | 7.5 | 36.4 | 5.2 | 100.0 | 137 | 531.6 |

**1986**

| Community - Type | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | % | % | % | % | % | % | % | % | % |
| Natural Resource | Small | 54.9 | 2.7 | 3.3 | 10.5 | 1.9 | 23.7 | 3.0 | 100.0 | 27 |
| | Medium | 32.2 | 4.3 | 7.3 | 12.4 | 4.4 | 34.1 | 5.4 | 100.0 | 5 |
| | Large | 20.0 | 3.4 | 14.4 | 15.5 | 5.0 | 36.0 | 5.7 | 100.0 | 1 |
| | Total | 32.4 | 3.6 | 9.0 | 13.1 | 4.1 | 32.8 | 5.0 | 100.0 | 33 |
| Public Service | Small | 8.0 | 6.8 | 8.2 | 14.2 | 2.9 | 54.3 | 5.6 | 100.0 | 27 |
| | Medium | 6.2 | 4.9 | 6.6 | 13.5 | 4.1 | 61.0 | 3.7 | 100.0 | 5 |
| | Large | 7.1 | 5.5 | 8.0 | 14.3 | 5.8 | 48.8 | 4.8 | 100.0 | 1 |
| | Total | 7.1 | 5.5 | 8.0 | 14.3 | 5.8 | 54.5 | 4.8 | 100.0 | 33 |
| Other | | | | | | | | | | |
| | Small | 16.1 | 10.1 | 12.2 | 15.2 | 2.9 | 38.5 | 5.0 | 100.0 | 27 |
| | Medium | 7.5 | 8.6 | 11.6 | 16.2 | 5.6 | 46.6 | 4.0 | 100.0 | 5 |
| | Large | 4.9 | 6.7 | 14.8 | 14.4 | 12.0 | 41.8 | 5.5 | 100.0 | |
| | Total | 5.9 | 7.2 | 14.2 | 14.6 | 10.7 | 42.1 | 5.3 | 100.0 | 34 |
| Diversified | | | | | | | | | | |
| | Small | 18.6 | 10.3 | 9.1 | 16.7 | 4.5 | 36.2 | 4.7 | 100.0 | 27 |
| | Medium | 12.6 | 15.7 | 11.1 | 15.8 | 6.0 | 34.8 | 4.1 | 100.0 | 6 |
| | Large | 9.7 | 12.7 | 16.5 | 15.0 | 7.6 | 33.6 | 4.9 | 100.0 | |
| Total | Total | 11.2 | 14.2 | 18.0 | 14.1 | 7.8 | 28.8 | 6.0 | 100.0 | 37 |
| | Small | 22.5 | 7.7 | 8.3 | 14.5 | 3.3 | 39.1 | 4.7 | 100.0 | 108 |
| | Medium | 16.6 | 8.6 | 9.1 | 14.4 | 5.1 | 41.9 | 4.4 | 100.0 | 21 |
| | Large | 6.8 | 8.1 | 16.0 | 14.5 | 10.3 | 39.0 | 5.4 | 100.0 | 8 |
| | Total | 11.2 | 8.1 | 13.4 | 14.5 | 8.1 | 39.6 | 5.1 | 100.0 | 137 |

*Including primary industries plus resource and other manufacturing (wood, pulp & paper, fish processing, utilities)
Source: Statistics Canada. Business and Labour Markets Analysis Group.

Thus, small communities in general lost ground, largely because of the downturn in natural resources. As a result, their payroll became more concentrated in the public services sector.

## The Heterogeneous Nature of Small Communities

Small Atlantic communities are not a homogeneous group; their industrial structure varies dramatically (Figure 3). An equal number of the 108 small communities were allocated to each of four categories: natural resource, public sector, diversified and other. The one-quarter of the small towns which are most dependent on natural resources had fully 61% of their payroll in that sector in 1981. But the same number of small communities depended equally on the public sector (health, education and government). These 27 communities had, on average, 56% of their payroll from that sector. Similarly, the one-quarter most diversified communities have a relatively flat distribution of payroll across industrial structure. This clearly has implications for the stability of the local economy and labour market conditions for workers. This paper is focusing on small, resource-based communities. Like small towns in general, they lost substantial ground over this period. Their share of total payroll in Atlantic Canada (as a proxy for employment) fell from 3.4% in 1981 to 2.9% in 1986. The natural resource sector declined as the value (in constant dollars) of payroll fell by 20% over the period in small resource towns. This decline made it look as if these communities became more diversified, as the dependence in natural resources seemed to decline and the Herfindal index of concentration fell from .420 to .372. However, little expansion of other industrial sectors in these communities occurred as the total payroll (in constant dollars) fell in all industries except for the public services, where it rose 3% annually. Thus, diversification came mainly as a result of the decline in the major industrial sector, not because of growth in other sectors.

With this background on the industrial structure of these communities, the labour market experiences of workers in now considered.

## Labour Market Experiences of Workers from Different Communities

The interest in the vulnerability of small resource towns' economies comes in part from the effect that it has on labour market conditions, earnings and unemployment. That effect is addressed by using longitudinal data on workers during 1981-1986. Workers who had a strong labour force attachment in 1981 are of key interest. Those workers who earn only a few thousand dollars during year because of their weak attachment to the labour force were excluded. Only persons earning more than $6,600 in 1981 are included in the analysis (approximately annual earnings for a full-time worker at minimum wage).

Four indicators assess workers' labour market experiences:

(1) change in annual employment earnings for workers who have earnings in both 1981 and 1986. This change can result from a change in hours worked or wages paid, but it is a good measure of the overall earnings the labour market generated during the year.

(2) the proportion of workers with earning in 1981 but no earnings in 1986. The absence of employment earnings in 1986 may be caused by retirement, emigration from Canada, death, or unemployment. The proportion of workers with no earnings in 1986 is tabulated for those 25-44 to eliminate the impact of retirement or death. Emigration from Canada is quite small for all age groups.

(3) the unemployment insurance benefits received by workers in any group during a given year as a proportion of all employment earnings for that group during the year. This is used as an indicator of unemployment.

(4) the proportion of workers[5] (in any group) who were in the same community in both 1981 and 1986. This is a measure of the geographical mobility of a group of workers.

[5]. For workers who had earnings in both years, since if no tax form is filed, the place of residence cannot be established.

There are four major observations using these indicators.

A. **Workers from small communities generally faced less favourable labour markets than workers in large communities and outmigration is generally higher from small communities.**
In small communities, workers' earnings declined by 3% on average between 1981 and 1986 (in real dollars), while those in large communities increased by 3% (Table 2). Of course, information on the change in cost of living would be needed to completely assess these differences, but while the cost of living may be lower in small towns, the change in the cost of hiring is likely to be similar in both small and large communities.

Much of this difference may be an industry effect, since the natural resource sector is more significant in smaller communities. To control for the industry mix in each community, a regression analysis was conducted. In addition to the industry mix, other variables taken into account were the age and gender composition of the worker population, earnings in 1981[6], and industrial and geographic mobility. After the contribution of all these variables were taken into account, there still remained significant difference in the rate of change of earnings for workers from small and large communities over this period.

These findings are supported by the UI benefits results. Unemployment insurance benefits were 6% of total employment earnings among workers from small towns, compared with 3% among those from large centres, suggesting more unemployment in small towns.

Geographic mobility declined as size of community increased; 70% of workers in small towns were still there in 1986, compared to 80% of workers in medium size towns, and 90% of workers from large communities. This is not surprising, since the broader range of job opportunities in a large city means that when workers want to or are forced to change jobs, they are more likely to be able to remain in a large centre to do so than in a small community.

[6].The ln $(\frac{\text{earning 86}}{\text{earning 81}})$ was the dependent variable. The log of earnings in 1981 were included as a dependent variable because workers with low earnings tend to have more rapid increases than those with high earnings.

**TABLE 2: Outcome on the four indicators for workers from communities of different sizes, 1981-1986**

| | Small | Medium | Large |
|---|---|---|---|
| Average % change in earnings (those with earnings in both years) | -2.6 | -0.6 | +2.7 |
| UI benefits received (as % of earnings over all 6 years for all workers) | 5.8 | 4.1 | 2.9 |
| % with no earnings in 1986 (25-44 years olds) | | | |
| % of workers remaining in community* | 6.9 | 6.2 | 7.5 |
| | 70 | 80 | 90 |

**Outcomes for workers from different types of small communities: 1981-1986**

| | Natural resource | Diversified | Public service |
|---|---|---|---|
| Average % Change in earnings (those with earnings in both years) | -4.9 | -2.4 | -0.2 |
| UI benefits received (as a % of earnings over all 6 years for all workers) | 8.1 | 5.3 | 4.4 |
| % with no earnings in 1986 (25-44 year olds) | 8.7 | 6.7 | 5.7 |
| % of workers remaining in community* | 74 | 70 | 65 |

**Outcome for workers in small natural resource communities, by industrial sector of employment, 1981-1986**

| | Goods producing | Commercial service | Public service |
|---|---|---|---|
| Average % change in earnings (those with earnings in both years) | -7.1 | -3.9 | +1.8 |
| UI benefits received (as a % of earnings over all 6 years for all workers) | 10.2 | 6.5 | 2.7 |
| % with no earnings in 1986 (25-44 year olds) (25-44) | 8.4 | 8.0 | 4.4 |
| % of workers remaining in community* | 75 | 62 | 71 |

Note: For workers earning more than $6,600 in 1981. The community size refers to the community in which the workers worked in 1981

* % of workers with earnings in both 1981 and 1986, since place of residence is determined from tax records and it is necessary for the worker to have employment earnings.

Source: Statistics Canada. Business and Labour Market Analysis Group.

**B. Among different types of small communities, workers from natural resource towns encountered the most difficult labour market, but this did not result in higher outmigration rates in those towns.**

As mentioned earlier, small communities have heterogeneous industrial structures, and hence the labour market outcomes of their workers is also likely to vary considerably. The labour market experiences of workers from the three community types (natural resource, diversified and public service) were of interest. Over this period, the more prevalent the public service sector in the community, the better the labour market for the workers--the more prevalent the natural resources sector, the worse the labour market.

Average earnings declined almost 5% among workers from small natural resource towns, while they remained the same among workers in small public service communities. UI benefits usage supports the differential (benefits were 8% of earnings in small natural resource communities compared to 4% in small public service communities) as did the proportion of workers with earnings in 1981 but none in 1986 (9% compared to 6%). But in spite of these differences, the proportion remaining in the community was if anything, highest in the small natural resource towns[7](Table 2).

**C. Within small, natural resource communities, workers in the goods-producing industry encountered a much more difficult labour market than those in the commercial or public services.**

Another issue of interest is whether all workers are affected equally when a small community faces a downturn. One might argue that as the major industry declines, there is a sort of negative multiplier effect. As the purchasing power of workers in the affected sector decreases, jobs in other sectors of the community are also affected.

While this is likely the case, these indicators suggest a very significant difference in the impact on the earnings and unemployment on various workers. Those in the goods sector saw their earnings fall on average 7%, while those in the public services in the same small natural resource towns had an average increase of almost 2% in earnings. The earnings and employment of the public service workers are not as dependent on immediate market conditions as workers in the private sector. The UI usage supports this, as it was 10% (as % of earnings) among goods sector workers

[7]. The very low rate in the public service communities is likely related to high mobility among Armed Forces personnel.

and only 3% public sector workers, indicating much more unemployment in these small resource towns among the goods workers. The labour market conditions for commercial service sector workers were between those for the goods and public sector workers: the weaker the economic link to the goods sector, the better the workers in these towns did in earnings gain and employment.

In spite of this difference in labour market conditions, the goods sector workers were no more likely to move than other workers. The percent of workers (with earnings in both years) remaining in the community was highest among the goods sector workers. While no attempt is made in this exploratory study to determine why this is the case, it may be related to a many factors:

1. Educational attainment of workers and job opportunities.
   Workers in the goods sector in small communities often have relatively low levels of education, making it difficult for them to locate work elsewhere. As a result, job opportunities may be very limited in other communities.

2. Potentially large financial losses when selling fixed assets.
   A decline in the value of large fixed assets, particularly a house, would discourage many from selling and moving.

3. Social and family ties.
   Many workers may have lived in the communities for a considerable time, and social and family ties may be very strong.

4. A spouse holding employment.
   As more and more families become dual-income families, one spouse losing a job does not necessarily imply zero employment earnings for the family. The cushion of the second income may retard migration.

5. Workers' expectation about recovery.
   In boom and bust communities workers likely witness downturns and recoveries over their working lives. The expectation that conditions will improve (in some cases a false expectation) may discourage workers from moving to other communities, particularly when the upturn would provide a high-wage job relative to what the worker might earn in other communities or industries.

6. Effect of unemployment insurance and other transfer payments.
   Unemployment insurance benefits may discourage worker mobility, especially in combination with the items listed here.

7. The relative importance of migration to other jobs versus migration away from unemployment.
   In many communities, "pull" migration is much more important then "push" migration. In the public service communities in particular, a great portion of the migrants may be people leaving jobs to move to better jobs or people transferring jobs. This may be a significant portion of migration in some communities. In natural resource communities, this type of migration may be much lower. Thus, the aggregate outmigration rate in a resource town may be lower than, say, in public sector towns, even if the "push" outmigration (leaving because of unemployment) is higher.

Some or all of these factors may help explain the outmigration rates observed in this work. However, it is beyond the scope of this exploratory work to attempt to determine the relative importance of each factor.

**Labour Market Experiences of Workers from Four Communities**

Having portrayed some baseline information, we now focus on four specific communities. Knowledge of general trends in different types of communities is necessary to place findings for a specific community within a context, or to make general statements about the effect of structural change on different types of communities. However, the real advantage of our database is its ability to look at specific communities and types of workers within these communities. Three medium sized and one large community are selected to demonstrate this aspect of the database. These communities were selected to validate this experimental datasource. Data from both the census and the experimental source were readily available for these communities:

1. Corner Brook, Newfoundland
   This city of around 30,000 was growing at about 1% per year during 1981-1986. The pulp and paper and the forestry industry were important in the community. During the early 1980s a very large mill made major renovations which resulted in productivity gains and many displaced workers. In fact, this community is quite diversified (Table 6). Although the natural resource sector is relatively large, the distributive services sector (transportation, communications, wholesale trade) is also above average in size. Nonetheless, there was substantial unemployment in this area during the early 1980s.

2. Labrador City, Newfoundland
   This community of around 13,000 is a classic single industry town as it is almost totally dependent upon the iron ore mining industry. During the 1960s and 1970s this was a major centre, but as the U.S. steel industry declined in the 1980s, the mining industry here and in nearby communities had major closures. The community shrank at a rate of about 4% annually during 1981-1986. The average earnings of workers in this community were extremely high ($34,300 in 1981) compared to most other communities ($20,000 to $25,000).

3. Summerside, P.E.I.
   Largely dependent on the public services sector (including defence), this community of about 13,000 grew about 1% per year during 1981-1986. The industrial base of this town is radically different from the first two.

4. Halifax, Nova Scotia
   Chosen as a reference point, this large centre (255,000 in 1981) grew at 1% per year over the period. While quite diversified, this city is also highly dependent on the public service sector (e.g. defence, provincial government, university, health) as 43% of payroll comes from that sector (Table 3). It also has an above average size business service sector and distributive service sector. It has a relatively small natural resource sector.

**TABLE 3: Industrial distribution of payroll in four Atlantic communities, 1981 & 1986**

| | Corner Brook Newfoundland | | Labrador City Newfoundland | | Summerside P.E.I. | | Halifax Nova Scotia | |
|---|---|---|---|---|---|---|---|---|
| Population 1981 | 29,400 | | 13,000 | | 13,600 | | 255,000 | |
| Growth, 1981 to 1986 | +1%/year | | -4.4%/year | | +0.7%/year | | +1.3%/year | |
| Industrial Distribution of Payroll (%) | 1981 | 1986 | 1981 | 1986 | 1981 | 1986 | 1981 | 1986 |
| Natural Resource | 25 | 20 | 70 | 61 | 4 | 4 | 5 | 4 |
| Other Manufacturing | 4 | 7 | 2 | 2 | 6 | 8 | 8 | 7 |
| Construction | 6 | 4 | 2 | 4 | 6 | 5 | 5 | 6 |
| Distributive Services | 26 | 12 | 6 | 6 | 9 | 9 | 14 | 14 |
| Construction Services | 25 | 15 | 7 | 9 | 17 | 17 | 14 | 14 |
| Business Services | 5 | 6 | 2 | 2 | 5 | 6 | 11 | 11 |
| Public Services | 29 | 36 | 12 | 16 | 52 | 52 | 44 | 42 |
| Average 1981 Earnings of Workers with Strong Labour Force Attachment* | $24,100 | | $34,300 | | $21,300 | | $24,800 | |

* i.e. earning more than $6,600 in 1981

Source: Statistics Canada. Business and Labour Market Analysis Group.

## A Comparison of the Labour Market Conditions

Workers remaining in Corner Brook over the period experienced more difficult labour market conditions than those from other communities, notably compared to those in Halifax or regional workers in general. Corner Brook workers who stayed in community saw their earnings fall by almost 5% on average compared to a 2% increase for all workers in the region (Table 4). Their UI benefits were 5% of earnings, compared to 3% for all workers and 2% for Halifax workers remaining in the community. Furthermore, this 5% loss in earnings masks the fact that 53% of workers remaining in Corner Brook saw their earnings fall by an average 27% in real terms over the period

Workers who left Labrador City--likely because of job loss in that single industry community--generally did not encounter favourable labour market conditions compared to other workers. The vast majority of them (77%) took pay cuts, and among all workers the annual earnings decreased by an average 35%. (The 77% taking pay cuts saw their annual earnings fall 50% in real terms). This left the workers with an average pay below that of other workers (at $19,300 compared to $21,700), although their 1981 earnings had been well above that of other workers. And UI benefits among this population (averaged over all six years) were 11% of earnings, compared to 7% for all workers who moved in Atlantic Canada. Thus, the 25% of workers leaving this classic single industry community and moving within Atlantic Canada did not face favourable labour market conditions. Workers who managed to continue working in Labrador City did better even though their earnings declined on average.

Workers from the mainly public sector community of Summerside , and the larger diversified city of Halifax in general experienced less difficulty. Earnings among Summerside workers rose 4%, and among Halifax workers 7%, compared to a 1% rise for workers in general in Atlantic Canada. They also experienced relatively little unemployment (as indicted by UI benefits received).

Not surprisingly, workers in different communities encountered different labour market conditions during 1981-1986.

**TABLE 4: Labour market conditions for workers from four communities during 1981-1986.**

| **All workers** | Corner Brook | Labrador City | Summerside | Halifax | All Workers in Atlantic Canada |
|---|---|---|---|---|---|
| # Workers >$6,600 in 1981 (,000) | 9.5 | 6.2 | 5.2 | 112.8 | 531.6 |
| Average earnings in 1981 ($) | 24,100 | 34,700 | 21,400 | 25,200 | 23,600 |
| No earnings in 1986, population aged 24-44 (%) | 5.6 | 6.3 | 5.1 | 7.9 | 7.1 |
| Change in earnings, 1981-1986 (%) | -3.8 | -17.2 | +3.7 | +6.5 | 1.2 |
| UI benefits as % of earnings (over all six years) | 5.6 | 4.9 | 3.8 | 2.4 | 3.6 |
| **Workers remaining in community** | | | | | |
| % of all workers remaining | 83.0 | 58.0 | 64.0 | 82.0 | 78.0 |
| Change in earnings, 1981-1986 (%) | -4.9 | -11.9 | 1.5 | 6.7 | 1.5 |
| Average earnings in 1986 | 23,100 | 33,300 | 20,600 | 25,900 | 24,400 |
| UI benefits as % of earnings (over all six years) | 4.7 | 2.3 | 3.2 | 1.7 | 3.1 |
| **Workers moving in Atlantic Canada** | | | | | |
| % of all workers moving within Atlantic Canada | 11.0 | 25.0 | 21.0 | 8.0 | 14.0% |
| Change in earnings, 1981-1986 (%) | -3.1 | -35.0 | 0.5 | 3.9 | -5.3% |
| Average earnings in 1986 | 22,200 | 19,300 | 22,200 | 22,200 | $21,700 |
| UI benefits as % of earnings | 7.0 | 11.0 | 5.2 | 4.9 | 6.8% |

* percent of workers with earnings in both 1981 and 1986, since without employment earnings their geographic location is not known

Source: Statistics Canada. Business and Labour Market Analysis Group

## The Large Variance in Change in Annual Earnings

The average change in earnings for a group of workers masks a tremendous variability in the experiences of individual workers. There is surprisingly large variation in the annual earnings of individual workers, even among males aged 25-44.

For workers selected in this study for Atlantic Canada, average earnings rose 1% (for workers earning more than $6,600 in 1981 and with earnings in both years). But this masks that the 61% of workers who gained real earnings saw their earnings rise by 27% on average, and the 39% whose earnings fell experienced an average 33% loss.

Some of this decline could have been related to retirement, workers dropping out of the labour force to raise children, or for other reasons. However, even when the earnings variability of males aged 25-44 are considered, the result is much the same.

For males 25-44, the gainers and losers in real income for the four Atlantic communities and all Atlantic Canada (earning >$6,600) is shown in table 5. While the average earnings change was 3% among these workers in Atlantic Canada, 60% of them experienced a gain of 24%, while 40% lost 28% in real earnings. There is a tremendous amount of variance in earnings change, and the average masks substantial variations.

**TABLE 5: Volatility of earnings for males 25-44**

| | Corner Brook | Labrador City | Summerside | Halifax | All Workers in Atlantic Canada |
|---|---|---|---|---|---|
| Average earnings in 1981 ($) | 27,800 | 39,000 | 24,600 | 29,400 | 27,800 |
| Average % change in earnings 1981-1986 (workers with earnings in both years) | -6.1 | -18.9 | 2.8 | 3.8 | 3.2 |
| **Gainers** | | | | | |
| % with earnings gain | 47.0 | 25.0 | 70.0 | 69.0 | 60 |
| Average gain (%) | 26.0 | 20.0 | 20.0 | 27.0 | 24 |
| **Losers** | | | | | |
| % with earnings loss | 53.0 | 75.0 | 30.0 | 31.0 | 40 |
| Average loss (%) | -26.0 | -25.0 | -30.0 | -27.0 | -28 |

Source: Statistics Canada. Small Business and Labour Market Analysis Group

## Conclusion

The natural resource sector in Atlantic Canada declined during the recession of the early 1980s, and by 1986 had not recovered to its pre-recession level. Communities based on natural resource industries tend to be smaller on average and they appeared to become more diversified during 1981-1986. However, a decline in natural resource employment is responsible, not an expansion in other sectors.

The labour market experiences of individual workers differs by size of community and by the industry mix of employment in the community. Workers in smaller communities experienced a decline in real earnings whereas workers in larger towns experienced an increase in real earnings. Among the smaller communities, the real earnings of workers declined the most in natural resource communities.

Workers in smaller communities were more likely to move compared to workers in larger communities. However, among the smaller communities, mobility in the natural resource communities was the lowest.

Within smaller natural resource communities, the real earnings of workers in the goods sector declined whereas the real earnings of workers in the commercial or public service sectors increased. However, workers in the goods sector still reported a lower mobility rate out of the community.

The average change in earnings for a group of workers masks a tremendous variability in the experiences of individual workers. For example, the average Atlantic Canada worker with earnings of more than $6,600 in 1981 and with some earnings in 1986 experienced an 1% increase in earnings. This masks the fact that 61% of the workers experienced a 27% gain in real earnings and 39% of the workers experienced a 33% decline in real earnings.

About SABAL's database sources...

---

Like any study with a focus on a particular period, these findings are determined by the economic events of the time. The 1981 to 1986 period was chosen because 1981 preceded the recession and the economy had recovered by 1986. Also, it was helpful to compare the data from this experimental data source with the census of population for the two periods. This database facilitates cross-section (i.e. one point in time) and annual longitudinal analysis of workers and firms at the municipal level. Development of the database is continuing.

Garnett Picot
Business and Labour Market Analysis Group
Statistics Canada
Ottawa, K1A 0T6

John Heath
Business and Labour Market Analysis Group
Statistics Canada
Ottawa, K1A 0T6

## Appendix I

## Classifying the Communities

One of the strengths of this data source is its wide coverage of virtually all workers and communities. To take advantage of the wide coverage, all communities in Atlantic Canada which had more than 700 workers (137 communities) were included in the analysis.

For communities greater than roughly 10,000 population, geographical boundaries of the municipalities were determined by Statistics Canada's postal code conversion file, which converts postal codes to municipal areas for census agglomerations (CAs typically have a population between 10,000 and 100,000) and census metropolitan areas (CMAs have population over 100,000). Commuters living outside the municipality in the surrounding rural postal code areas but working in the community were included in the municipality counts (see Heath 1990). For communities under approximately 10,000 in population, the rural postal code area for the town is used. Hence, the geographical unit of observation for the small communities is not necessarily the municipal boundaries, but rather the rural postal code area to which the community belongs. Fairly large areas can encompass more than the community itself, but the areas are usually very sparsely populated outside the smaller community.

The communities were classified by size and industrial structure as of 1981. This year was selected to ascertain the type of community in which workers resided at the beginning of the period. Three size classes were used, 700-4999 workers in 1981, 5000-19999 and 20,000 or more workers. This roughly converts to groups based on population of 1200 to 8500, 8500 to 35,000, and over 35,000. Industrial structure was measured by the distribution of the town's total payroll across a seven industry classification. Payroll is a better measure than employment because of the wide variation among industries in hours worked (share of part-time employment). It is useful as well because the amount of money an industry contributes to the local economy through paycheques is of interest to communities. It must be remembered, however, that the distribution of payroll may differ significantly from the distribution of employment, particularly for sectors which have above average wage rates (e.g. public service) or hours of work which differ significantly from the average (e.g. consumer services). For this classification, primary industries (excluding agriculture, which was dropped from the study) were combined with natural resource manufacturing industries to form the natural resource sector. Any economic event which affected the primary sector would also directly affect the processing industries directly dependent on the natural resources.

About SABAL's database sources...

---

This work did not attempt to classify single industry communities. That requires some sense of an absolute measure of dependence on an industry, and it is difficult to know at what level of industrial concentration a town becomes a single industry community. Rather a relative measure of industrial dominance was used. Thus the most natural resource towns could be compared to the most public service towns, and so on.

Four types of community structure are used: natural resource communities, public service communities, industrially diversified communities, and communities classified to an "other" category. Within each size class towns were divided into quartiles based on their industrial structure. Hence, one-quarter of the communities were allocated to each industrial structure class.

The natural resource dominant communities include the 25% of communities (within each size class) that are the most dependent upon the natural resource sector for the town's payroll. This is different then identifying single industry communities where the absolute dependence of the community in a single sector must be identified. Similarly, the public service sector includes the 25% of communities with the largest public service sectors. The diversified group contains the 25% of communities which have the most diversified industrial structure (based on the distribution of payroll) as measured by the Herfindal index, a commonly used measure of diversification (or concentration). The remaining 25% of communities within each size class is the "other" category. This group has a work force which is neither among the most concentrated in natural resources or public services, nor the most diversified.

This classification method results in 108 small communities divided equally among the four industrial classifications (27 in each), 21 medium-sized communities with approximately 5 in each industrial class, and 8 large communities.

The quartile approach used to classify the community resulted in cut-off points being established by the method. These cut-off points are the following: all small communities with more than 40% of the payroll in the natural resources sector were identified as natural resource communities. This cut-off for medium and large communities was 27% because they have larger service sectors than smaller communities. For the public service sector, communities with greater than 44% of payroll in the sector were said to be public service dominant. And finally, communities for which the Herfindal index was less than .27 (for small), and .21 (medium) and .23 for large were said to be diversified. This difference in the cut-offs indicates that small communities generally have more concentrated industrial structures than large.

## References

**Atlantic Provinces Economic Council. 1987.** Atlantic Canada Today. Halifax: Formac Publishing Ltd.

**Beale, E.J. 1989.** Regional Development in Atlantic Canada. An Overview and a Case Study of the Human Resources Development Agency , Local Development Paper #3. Ottawa: Economic Council of Canada.

**Decter, M.B. 1989.** Diversification and Single Industry Communities: The Implications of a Community Economic Development Approach , Local Development Paper #10. Ottawa: Economic Council of Canada.

**Economic Council of Canada. 1990.** From the Bottom Up, the Community Economic Development Approach. Ottawa: Economic Council of Canada.

**Employment and Immigration Canada. 1987.** Canada's Single-Industry Communities: A Proud Determination to Survive. Ottawa: Canada Employment and Immigration Advisory Council.

**Employment and Immigration Canada. 1988.** Canada's Single-Industry Communities: In search of a New Partnership. Hull, Quebec: Canada Employment and Immigration Advisory Council.

**Heath, J. 1990.** Developing a Small Area Business and Labour Database. Business and Labour Market Analysis Group,(mimeo).
Ottawa: Statistics Canada.

**Locke, Wade. 1986.** Lets recycle our throwaway communities and disposable workers: policies for dealing with mining communities. Background Report. St. John's, Newfoundland: Royal Commission on Employment and Unemployment.

**Robson, R. 1986.** Canadian Single Industry Communities: A Literature and Annotated Bibliography. Rural and Small Town Research Studies Programme, Department of Geography. Sackville, New Brunswick: Mount Allison University.

**Newfoundland. 1986.** Building on Our Strengths. Report of the Royal Commission on Employment and Unemployment. St. John's, Newfoundland: Royal Commission on Employment and Unemployment.

About SABAL's database sources...

---

## Retail Sales of Incorporated Businesses

### Description

The retail trade data in this database are for sales and locations, of incorporated retailers, by CMA and province. It is derived from a combination of data from survey and taxation sources. The Retail Chain Location file of Statistics Canada tracks the locations of all retailers with four or more locations. This file gives the sales for every location. Data for the remaining retailers is obtained from corporate tax returns from Revenue Canada. To build the database, these two files are combined, with the duplicate records removed from the tax data. The result is a database of all incorporated retailers, with data for sales, its industry (1980 Standard Industrial Classification or SIC) and location. These records are then tabulated by CMA and province for this database.

### Data Limitations

There are some limitations to the quality of the estimates produced by this database. First, the data represent sales for *incorporated businesses only*. Sales of unincorporated businesses (i.e. based on T1 tax returns) were considered to be unreliable, for the purposes of this database owing to industrial mis-classification, discrepancies between the address of the household vs. the address of the business as well as concerns regarding the quality of the data. There will therefore be some undercoverage in this database.

In addition, the chain location file contains businesses with four or more locations. Businesses with three or fewer locations will be deemed to be a single store, located at the address indicated on its T2 form. This problem will be less acute in larger aggregations of geographical areas (i.e. CMA level of detail).

## Confidentiality

The Statistics Act prohibits Statistics Canada from releasing data that will identify an individual business. In practice, we check for three things. First, there must be a minimum number of observations in each cell. Second, if one or two firms dominate a particular industry, the cell will be suppressed. Finally, cells adjacent to suppressed cells will be suppressed to ensure that confidential data will not be residually disclosed.

About SABAL's database sources...

---

## Survey Methodology

The Building Permits Survey covers all Canadian municipalities that issue permits. The number of Canadian municipalities currently surveyed exceeds 2,400, representing all the provinces and territories. They account for 93% of the Canadian population. Participation to the survey being voluntary, the survey does not use a predetermined sample of municipalities. In practice, all urban agglomerations are represented in the survey, as well as a fair percentage of rural municipalities. With certain exceptions, the minimum coverage corresponds to the municipalities already included in the Housing Starts and Completions Survey. Non-responding municipalities that issue permits are urged on a regular basis to respond to the survey. Therefore, the number of municipalities covered is increasing continually.

## Collection of Data

The survey is usually conducted by mail, although certain municipalities have the option of responding by telephone. The municipal officer responsible for issuing permits is asked to fill out a form each month describing all major construction projects. The value of the permits reported includes the following expenditures: materials, labour, profit and overhead. The cost of land is never included in the estimated value of the permit while acquisition costs (legal fees, surveying fees and accrued interest) may be included at times.

The municipalities forward a copy of their completed report to the nearest regional office of Statistics Canada and another copy to the local office of the Canada Mortgage and Housing Corporation (C.M.H.C.). To reduce their overhead, an increasing number of respondents are producing a computerized report.

Reports from municipalities which one part of a census metropolitan area or a census agglomeration must be received within 20 days following the month of reference. The other municipalities have 30 days to produce their reports. Only those municipalities that are late in reporting and that are included in the above-mentioned C.M.H.C. survey are subject to follow-up by telephone.

The reports received at our regional offices are verified, coded and processed; the data is then forwarded to Statistics Canada Head Office.

## Types of Errors

Since the building permit data are extracted from municipal administrative documents, two types of response errors are possible: errors attributable to the permit applicant and errors in transcription by the responding municipality. However, experience has shown that transcription errors are not very common and the increasing number of

municipalities producing computerized reports tends to reduce the frequency of this type of error. Errors attributable to a false statement of the cost of construction are more probable. A qualitative survey conducted among major Canadian municipalities has revealed an underestimation of the declared value of buildings for which permits are issued. Since permit fees are in most cases based on the value of the construction, this leads unquestionably to underestimation of project values. The results of that survey also reveal that, in half of the municipalities covered, the value submitted by the applicant is not subject to any verification by municipal officers.

**Quality Control**

Strict quality control procedures are applied to ensure that collection, coding and data processing are as accurate as possible. In addition to the usual checks to ensure that the forms are fully completed, quality control procedures established by the Business Survey Methods Division are applied to the coded and processed data. Checks are also performed on totals and the magnitude of data. Reports that fail to meet the quality standards are subject to verification and are corrected as required.

**Reliability**

The data presented in this CD-ROM are solely those supplied by the respondents. No imputation is done for lack of coverage, concealment or the underevaluation of permits issued. For this reason, the sampling error cannot be computed.

Comparison of data must be done with reservation considering that the methods of issuing permits and the methods of estimating building values can differ from one municipality to another. Also, comparisons involving different periods must take into account the constant increase in the number of municipalities participating in the survey.

The monthly statistics are not corrected for cancelled or expired permits. According to the municipal officers, the proportion of cancelled and unused permits is below 5%.

**Survey Coverage**

The observed annually rate of coverage is shown in table 14 of Catalogue 64-203 on a provincial and infraprovincial basis (economic region, CMA, CA, rural area). For any given geographical entity, it is obtained by dividing the population of reporting municipalities by the total population of the area under study. The reference base for these computations is the population as determined by the 1991 Census.

About SABAL's database sources...

---

**Nature of and Basis for Classification**

The classification used in this suvey deals strictly with **structures** for which a building permit was issued. Permits are generally issued for the following: construction of new buildings, alterations, additions, renovations, etc. Minor repair jobs such as painting, tiling, roofing, etc., for which no permit is required, and engineering work (such as dams, roads, pipelines, etc.), which, by definition, is not a building, are not included in the building permit series. Estimates of such work may be obtained from the publications Construction in Canada (cat. no 64-201) and Private and Public Investment in Canada Intentions (cat. no 61-205).

The description given by the municipalities as to the **type of building** and the **type of work** involved forms the basis for classification. The classification of buildings into major groups and subgroups is based on the following: intended use in the case of new buildings; present or intended use of buildings to which improvements are to be made; present use of the existing structure where the proposed construction is intended to provide additional facilities; principal use of the structure where the proposed construction has more than one intended use; however, where the building contains dwellings, the value of the construction is divided between residential and non-residential use.

**Building Categories**

The survey, uses the following classification for the **value of permits issued** for construction of new buildings or for improvements: residential, industrial, commercial, institutional and government.

**Residential.** Includes all buildings intended for private occupancy whether on a permanent basis or not. Dwellings are divided into the following types: single-family, mobile, cottage, semi-detached, row house and apartment building.

**Industrial.** Includes all buildings used for manufacturing and processing; transportation, communication and other utilities, and agriculture, forestry and mining.

**Commercial.** Includes all buildings used to house activities related to the tertiary sector, such as stores, warehouses, garages, office buildings, theatres, hotels, funeral parlours, beauty salons and miscellaneous commercial installations such as signs, billboards, etc.

---

**Institutional and Government.** Includes expenditures made by the community, public and government for buildings and structures - schools, universities, hospitals, clinics, churches, homes for the aged.

The **number of dwelling units** indicates the number of self contained dwelling units created. This should not be confused with the number of structures. For example, an apartment building containing six dwellings will be shown as six dwelling units. When an existing structure is converted into additional housing units, the number of units added is included. This publication uses the following classification for dwelling units:

**Single-family.** Refers to dwellings commonly called **"single house"**. It includes single dwellings that are completely isolated on all sides, including single dwellings linked to other dwellings below ground. Included are bungalows, split levels, two-storey single-family homes built by conventional methods or prefabricated.

**Mobile homes.** Refers to houses designed and constructed to be transported on their own chassis and for easy moving.

**Cottage.** Refers to dwellings that cannot be occupied year-round or on a permanent basis because the facilities required for comfort are inadequate.

**Double or Semi-detached.** Refers to dwellings in which each of the two dwellings are side by side and joined by a common wall or garage, but not attached to any other building and surrounded by open space.

**Row Dwellings.** Refers to a row of three or more dwellings attached to each other without dwellings above or below.

**Apartment Building.** Includes dwellings in a variety of buildings such as duplexes, semi-detached duplexes, triplexes, row duplexes, apartments as such and dwellings adjacent to non- residential structures.

**Conversion.** Refers to the number of dwellings added by conversion of existing structures.

About SABAL's database sources...

---

## Geographic Classification

Geographic entities are classified according to Standard Geographical Classification (SGC) used by Statistics Canada; each reporting entity is assigned a twelve-digit SGC code for identification.

- **Province and Territory (PR) :** There are ten provinces and two territories.

- **Census Metropolitan Area (CMA):** Its delineation corresponds to the 1991 Census definition. The term CMA refers to the main labour market area of an urban area (the urbanized core) of at least 100,000 population, based on the Census population figures. The twenty-five CMAs are shown in this publication. Although the 1991 Census defines the Ottawa-Hull area as a single CMA, the area is shown in this publication as two separate entities since it is located in two different provinces.

## Territorial Revisions

Territorial boundaries were established according to the 1991 Census definitions. Changes in boundaries, status or name of census subdivisions between censuses are introduced in this publication on a yearly basis. Changes affecting the other geographic units (CMAs, CAs, CDs and ERs) are introduced every five years, eighteen months following the census.

## Revision of Data

Two types of revisions can affect the results of the Building Permits Survey:

**(1) Revisions Due to the Correction of Coding Errors**
These types of revisions are done on a monthly basis only to the data pertaining to the month preceding the reference period.

**(2) Revisions Due to the addition of Late Reports**
Late reports for the month preceding the reference period are incorporated into the survey results on a continuing basis. However, reports received after the two-month deadline following the reference month are introduced only at the end of the year. As a result, the data for the last twelve months are subject to revision.

---

**Availability of Data**

This CD-ROM contains only part of the data produced on building permits. However, you may order unpublished tables or address special requests, now available on diskette, to the **Current Investment Indicators Section ((613) 951-9689, call collect)**.

About SABAL's database sources...

---

## Introduction

The statistics contained in this CD- ROM are the results of one National Survey conducted by Canada Mortgage and Housing Corporation.

## Survey Coverage

The Starts and Completions Survey is carried out monthly in urban areas with populations in excess of 10,000 as defined by the 1991 Census. Centres with populations below 10,000 are enumerated on a sample basis four times a year, at the end of March, June, September and December.

## Concepts and Definitions

A **«start»** for the purposes of the Starts and Completions Survey, is defined as the beginning of construction work on a building, usually when the concrete has been poured for the whole of the footing around the structure, or an equivalent stage where a basement will not be part of the structure.

A **«completion»** is defined as the stage at which all the proposed construction work on a building has been performed, although under some circumstance a building may be counted as completed where up to 10 percent of the proposed work remains to be done.

For multiple-dwelling structures, the definition of a Start or a Completion applies to the structure rather than to the individual dwelling units therein.

The number of units **«under construction»** as at the end of the period shown, takes into account certain adjustments which are necessary for various reasons. For example, after a start on a dwelling has commenced construction may cease, or a structure when completed may contain more or fewer dwelling units than were reported at start.

**Only new self-contained dwelling units are enumerated in the Starts and Completions Survey,** such units being designed for non-transient and year-round occupancy.

---

**Conversions and/or alterations** within an existing structure are excluded from the surveys as are **seasonal dwellings**, such as: summer cottages, hunting and ski cabins, trailers and boat houses; and hostel accommodation, such as: hospitals, nursing homes, penal institutions, convents, monasteries, military and industrial camps, and collective types of ;accommodation such as: hotels, clubs, and lodging homes.

**Mobile Homes** are excluded from the surveys. Mobile homes are defined as homes which can be towed on their own chassis. Prefabricated homes which are not towable on their own chassis are included in the surveys.

A **«dwelling unit»** is defined as a structurally separate set of living premises with a private entrance either outside the building or from a common hall, lobby, vestibule or stairway inside the building. The entrance must be one that can be used without passing through anyone else's living quarters.

The definitions of types of dwellings, used in the Surveys, are in accordance with those used in the Census.

A **«single-detached"** dwelling is a building containing only one dwelling unit, which is completely separated on all sides from any other dwelling or structure.

A **«semi-detached"** dwelling is one of two dwellings located side-by-side in a building, adjoining no other structure and separated by a common or party wall extending from ground to roof.

A **«row»** dwelling is a ground-oriented dwelling attached to two or more similar units so that the resulting row structure contains three or more units.

An **«apartment and other»** dwelling includes all dwellings other than those described above, including structures commonly referred to as duplexes, triplexes, double duplexes and row duplexes.

---

**Definitions of Census Areas referred to in this Publication are as follows:**

1991 Census - A Census Metropolitan Area (CMA) is the main labour market area of an urbanized core or a continuous built-up area having 100,000 or more population. Census Metropolitan Areas contain whole municipalities of Census Subdivisions.

It comprises:

1. Municipalities completely or partly inside the continuous built-up area, and
2. Other municipalities, if

    a) at least 50% of the employed labour force living in the municipality works in the urbanized core, or

    b) at least 25% of the employed labour force working in the municipality lives in the urbanized core.

1991 Census - Census Agglomerations (CA) are defined in the same manner as Cma's except that the urbanized core population is between 10,000 and 99,999.

## Manufacturing Industries of Canada: Selected Sub-provincial Areas, 1992

## Methods, Concepts and Other Definitional Notes

### General

The attached tables for the Year 1992 are the first set of **sub-provincial tabulations** of principal statistics on Canadian manufacturing to be released since the 1986 issue of Catalogue No. 31-209, "Manufacturing Industries of Canada: Sub-provincial Areas". These 1992 tables are available in hard copy and in electronic format.

Catalogue 31-209 was discontinued following the 1986 issue due to the restructuring of Statistics Canada's survey programs, effective with the 1987 survey year, to provide a more balanced coverage of all sectors of the economy and do so in the face of continuing budget limitations. Since manufacturing had traditionally received more comprehensive survey coverage than other sectors of the economy, this move towards equalizing coverage, (without any increase in funding), had the net effect of reducing the resources available for the manufacturing sector. As a result the amount of statistical detail produced for manufacturing had to be curtailed. This reduction was applied through cutbacks in several areas, one of which was the sub-provincial data program.

Principal statistics on the manufacturing industries aggregated at the **provincial** and **Canada** levels however, continued to be produced and published in Manufacturing Industries of Canada: National and Provincial Areas, Catalogue 31-203. These latter statistics are also available in electronic format for all years back to 1961.

Resources were, however, recently authorized to produce 1992 sub-provincial statistics, at **one geographic level** only, in each province except Québec (who prepared their own sub-provincial statistics using raw data collected by Statistics Canada). The geographic level used in each province was selected in consultation with the provincial statistical bureau of that province. The Census Division was chosen as the geographic level for 6 provinces, while in Manitoba, Saskatchewan and New Brunswick statistics are shown at the Economic Region level. Sub-provincial data for Québec have been produced by the Québec Bureau of Statistics for four geographic levels (economic region (région administrative), census division (municpalité régionale de comté), census metropolitan area (CMA) and municipality), using data obtained under a data-sharing agreement from Statistics Canada's Annual Survey of Manufactures, the same data source as was used for the other 9 provinces.

Québec data may be ordered either from Statistics Canada or from the Québec Bureau of Statistics.

These tables of sub-provincial data present principal statistics of manufacturers, compiled at four levels of industrial aggregation (all industry, 2-digit SIC major industry group, 3-digit SIC industry and 4-digit SIC industry), subject to confidentiality restrictions, for the Census Divisions (CD's) or economic regions in each province, as applicable. Statistics have been shown for as many industries and groups as possible in each CD or region, with all non-publishable 4-digit industries being added together and shown as a residual total under "Other industries in the major group". (It should be noted that 3-digit industries are ignored when compiling these aggregations.) This residual always uses a 4-digit SIC code starting with the 2-digit SIC and ending with "9X". Thus such a residual for the Wood Industries group (SIC 25) would be shown under code 259X. Similarly all non-publishable major groups in the CD or region are summed and shown under code 9999 as "Other major groups". Thus the reader can add up 4-digit SIC industries (including the group of confidential ones) to arrive at the 2-digit SIC major group figures (where publishable) and similarly may add up the 2-digit groups to arrive at the "all-industries" totals.

In 5 eastern provinces the term "Census Division" has replaced "county" wherever applicable. This standardizes the terminology used across the country for this geographical unit.

**Methodology and Data Collection**

The basic data for these tables have been compiled according to the 1980 revision of the "Standard Industrial Classification" (S.I.C.). A list of the industries included in the Annual Survey of Manufactures, together with their SIC codes, is published as an appendix in Catalogue 31-203. This list may also be obtained by contacting the Industry Division at (613)-951-9497.

Data are collected either using questionnaires or from tax sources. There are four main types of questionnaires mailed to establishments classified to the manufacturing industries: the "long form" sent to large establishments in all provinces, requesting detailed information on principal statistics and on commodity inputs and outputs; the regular "short form" questionnaire sent to small establishments in the 9 provinces outside Québec, asking for minimum principal statistics and minimal commodity detail; the Québec "short form" sent to small establishments in Québec, asking for more complete principal statistics but minimal commodity detail; and the "head office form" sent to head offices and ancillary units in all provinces. Copies of all these forms are reproduced as appendices in Catalogue 31-203. In the 9 provinces and 2 territories

outside Québec, the regular "short form" questionnaire was only used for 1.4% of the "small" establishments in 1992, with data for the other **98.6%** of these "small" establishments being obtained from **tax sources**.

The criteria used for differentiating "large" and "small" establishments vary by province (and have varied through time) but, in general, are governed by the objective of minimizing survey costs and reducing respondent burden without the loss of a significant amount of commodity detail. Between 1984 and 1987 the structure of the Annual Survey of Manufacturing was significantly redesigned with the result that a number of establishments at the smaller end of the "large" universe were transferred to the "small" universe. While in 1984 small establishments accounted for 43.6% of the total number of establishments and only 3.6% of the dollar value of shipments of manufactured goods, by 1987 this small firm universe had grown to encompass 69.4% of the establishments and 9.5% of the shipments. The revised survey structure which was implemented in 1987 has remained essentially unchanged to this day, although variations have been made from time to time to meet specific requirements for regional or industry data. This revised survey structure is designed to obtain enough reports with full commodity detail (i.e. long questionnaires) to permit reasonably good coverage of commodity data in each province. A consequence of this has been that in smaller provinces like Prince Edward Island a larger **proportion** of the establishments must be surveyed with long questionnaires in order to achieve adequate coverage of commodities. The percentages of manufacturing activity in Canada accounted for by the "small" establishment universe in 1992 stood at 54.1% of establishments and 8.3% of shipments.

Data published herein are based on the Annual Survey of Manufactures which covers all establishments classified to the manufacturing sector according to the 1980 revision of the Standard Industrial Classification (SIC), with the exception of some of the smallest firms. These very small firms, mostly unincorporated, are estimated to account for no more than 1% of manufacturing activity, measured in terms of shipment value.

## Concepts and Definitions

An abbreviated version of the major concepts and definitions used in the Census of Manufactures is printed as "Explanatory Notes" at the back of Catalogue 31-203.

Further information may be obtained from the Information and Classification Section, Industry Division, Statistics Canada, Ottawa, Ontario. K1A 0T6. Of interest to those studying employment data would be the technical paper "The Census of Manufactures and the Labour Force survey: some experimental approaches to comparing

establishment and household survey data" by H.D. Potter, 1982, which is available from the above Section.

**Impact of Small Establishments on Principal Statistics**

Data are collected for small establishments either using a much abbreviated questionnaire or an (even more abbreviated) set of numbers from administrative records of Revenue Canada Taxation. An exception occurs in Québec where, since 1991, a special short form questionnaire has been in use which asks for employment numbers and hours paid, and also asks for some separate materials and shipments figures for non-manufacturing activity. Of all records in the "small" universe in the other 9 provinces, 98.6% of the establishments and 95.2% of the shipments were obtained from tax sources in the 1992 survey.

The lack of detail for these small firms results in the following treatment of their data:

(a) All shipments and inputs are assumed to be manufacturing activity, as there is no breakout of non-manufacturing activity, such as trading in goods purchased for resale without further processing.
(b) All employees and wages are included under production workers engaged in manufacturing activity, as there is no breakout received of administrative and other employees. An exception occurs in the case of SIC 2831 and 2839, (publishing), where all employees, including those reported by large firms, are considered to be administrative, office and other non-manufacturing employees
(c) For these small firms the numbers of employees and their hours paid have been imputed from reported salaries and wages as follows:

(i) The number of person-hours paid is calculated by dividing the wages and salaries reported by the estimated average hourly earnings for the relevant industry and province.
(ii) The number of person-hours worked is calculated using the appropriate ratio of person-hours worked to person-hours paid.
(iii) The number of employees is calculated using the appropriate average person-hours paid per year. (If the total person-hours paid for an establishment is the equivalent of less than 0.5 employees per year, then no employees are imputed but the person-hours figures are retained for the industry.)

Although small establishments accounted for 54.1% of the total number of establishments in 1992, their wages and salaries were only 12.6%, their employee numbers 17.5%, and their manufactured shipments only 8.3% of the totals for all manufacturing. However since the Québec short form asks for most of the

employment detail (all except hours worked), the percentages of most employment figures that are actually based on the above imputation procedures may be reduced by about 1/4.

## Variation in Definition of Value Added

Users comparing data for geographical areas (outside of Québec) should consider whether varying proportions of data accounted for by small establishments (where data obtained using the abbreviated "short form" questionnaire or (mostly) from tax sources) may bias such comparisons, particularly in the case of data involving value added. This will not be a problem for national aggregates nor, for the most part, for provincial totals for industries. The proportion of output accounted for by "short forms" is designedly a small percentage of national totals for all but a few industries and this is usually the case for provincial totals also. However, for sub-provincial areas, very small establishments can account for a large part, or all, of a particular industry's totals.

Value added is calculated by subtracting purchased inputs from gross output. In the case of establishments filing the "long form" questionnaire, the deductions from gross output are the cost of materials and supplies used and the cost of fuel and electricity. In the case of smaller establishments whose data comes from "short form" questionnaires or tax records, however, the relevant input items collected give a combined total for the cost of materials, supplies, fuel and **services**. Thus value added for "short forms" is reduced because the cost of services has been deducted, while for "long form" establishments the value added is inflated because the cost of services was not available and has not been deducted. The difference is often not trivial for the individual establishment and may cause noticeable distortion to industry aggregates if a sizeable proportion of these aggregates is accounted for by smaller firms.

## Confidentiality of Data for Individual Businesses

Statistics Canada is prohibited by law from publishing any statistics which would divulge information relating to any identifiable business without the previous consent in writing of that business. In practice, this means that, for the Annual Survey of Manufactures, no data except for number, type and location of establishments are shown for industrial or geographic
aggregations composed of fewer than three companies or, of three or more if these are dominated by one or two companies. The names and employment size codes of large establishments,classified to individual manufacturing industries,are published in

the 20 Major Group publications which show commodity and other data for the 22 major industry groups.

In order to provide a systematic publication pattern which will prevent indirect (or residual) disclosure of information relating to individual establishments, choices must often be made between the publication or suppression of different levels of industrial or geographic data. Such decisions are made in accordance with an order of precedence designed to provide as detailed data as possible consistent with provisions of the Statistics Act and with requirements for industrial and regional analysis. Thus, for individual industries within any given province or economic region or census division, two-digit industry groups are normally given precedence over their component three- and four-digit industries. Where a decision must be made between suppressing a province or Canada for a given industry, preference is given to the larger Canada figures so the province will be suppressed. Similarly where such a decision must be made between a province and a census division, the smaller census division statistics will be suppressed.

Individual industry and/or major group data are also published within a set of guidelines. If the data are confidential at one level of aggregation any level of aggregation which is lower in preference is treated the same way. Thus if a given industry is confidential at the provincial level, it cannot be published at any sub-provincial level, such as for economic regions or census divisions, in that province.

**Special Treatment of Separately Located Head Offices, Sales Offices, Warehouses and Other Ancillary Units**

It should be noted that head offices, etc., are included in national and provincial industry statistics, but are excluded from all sub-provincial manufacturing data. At the national and provincial level, such units are included in the individual industry of the company's largest activity and the effect on data is very small. At the sub-provincial level, however, the effects of such inclusions are considered serious enough to warrant special treatment, since head offices contribute expenses but no manufacturing revenue. For example, since head offices of large multi-unit firms with Canada-wide operations tend to be located in the large metropolitan areas such as Toronto, Montreal or Vancouver, industry statistics for these centres would be overloaded with expenses relative to revenue and thus would distort inter-area comparisons of manufacturing activity.

In order to avoid such distortions, the basic tables herein by economic region or census division are confined to the principal statistics of establishments actually

performing manufacturing, thus excluding separately located head offices and other ancillary units.

## Spatial Concepts and Definitions

### (a)Census Divisions

Effective with 1977, the term "Census Division" replaced "county' wherever applicable. This complies with the required use of standard terminology within Statistics Canada.

Census Divisions are basic political and/or administrative divisions generally referred to as counties in Prince Edward Island, Nova Scotia, New Brunswick, Québec and Ontario. In Ontario there also exist a number of regional municipalities, territorial districts, one district municipality and one metropolitan municipality. All of these are treated as CD's in these tables. Effective with 1986, in Québec, the new "municipalités régionales de comté" have replaced the old counties and are treated as CD's. The "regional districts" of British Columbia are also treated as CD's.

### (b) Economic Regions

These regions have been established to meet needs for data for larger and more relevant areas than CD's but smaller than provinces. Economic regions are combinations of CD's grouped together to provide a meaningful regional aggregation for analysis and planning. The boundaries of these regions all respect CD boundaries. In Québec, the regions are the 16 administrative regions established by the Québec government in 1991. In Ontario, the economic regions are the same as the five planning regions used by the provincial government since 1974. In British Columbia, the economic regions are the 8 development regions established by the government of that province in 1989. All economic region codes in Canada now coincide with those in the 1991 Standard Geographical Classification (SGC).

## Data Quality

All data, from whatever source, are subject to error. The Annual Census of Manufactures is no exception. The four major components of error include:

**(a) Coverage Error**

the failure to cover the population of interest (including covering population outside the area of interest).

**(b) Response Error**

errors introduced by the respondent either as a result of misunderstanding or due to recording, measurement or observation.

**(c) Processing Errors**

errors introduced in the data capture, edit, imputation, validation or dissemination process.

**(d) Non-response Errors**

the complete or partial failure of units of the population to complete the manufacturing questionnaire.

Coverage, response and processing errors do not easily lend themselves to quantification. Where they are detected, they are corrected. There is some information available on the extent of non-response error. Non-response can be of two types - total non-response (i.e. no information is supplied by the establishment) or partial non-response (incomplete data were received). Missing data were imputed using a variety of techniques such as the utilization of data from the Monthly Survey of Manufacturing; the use of tax data; previous year's data and industry trends. The extent of this non-response for 1992 was as follows:

Amount estimated for Non-response in the Annual Survey of Manufactures by Form Type, 1992

| | Number of Establishments | Value of Manufacturing | Amount Estimated | |
|---|---|---|---|---|
| | | | Value | % |
| | | $000,000 | $000,000 | |
| All manufacturing | | | | |
| Total | 34,511 | 286,043 | 6,970 | 2.4 |
| Long | 15,827 | 262,377 | 6,293 | 2.4 |
| Short | 5,326 | 5,124 | 677 | 13.2 |
| Tax records | 13,358 | 18,542 | ... | ... |

About SABAL's database sources...

---

# Motor Vehicle Registrations

Road motor vehicle registrations are obtained from the ten provincial and two territorial governments, each of which has its own distinct registration system. The data are intended to provide an indication of the geographic distribution of vehicles within each province. For most provinces and territories, the registration figures represent the total number of vehicles which hold a valid registration in the reporting jurisdiction at any time during the licence year. Information is collected by means of a questionnaire from the government departments responsible for the registration of road motor vehicles or the issuance of drivers' licences. For this data product, distinctions are made among the various types of road motor vehicle registrations by distinguishing road motor vehicles that have been registered as:

Passenger Automobiles
Trucks
Buses
•Motorcycles
•Other Registered Vehicles

***Data Quality and Limitations***

There are a number of conceptual problems inherent in compiling data from twelve separate jurisdictions. Each province or territory has its own independent system to classify and record registrations, as well as its own statutory licensing requirements and exemptions. For example, in some provinces the distribution of registrations is based on place of residence while, in other provinces, the distribution is by place of issuance of licence. While each system may be comprehensive and consistent within itself, the inconsistencies among the different provinces and territories may pose problems depending on data use. Users are advised to refer to the *Interprovincial Differences* before comparing the provincial and territorial statistics.

While response to this survey is 100%, detailed breakdowns of registrations by place of residence or by place of issuance of licence are not always furnished by certain provinces for certain registration years. In these cases, distributions have been interpolated by Statistics Canada. Since the registration figures represent the total number of vehicles which hold a valid registration in the reporting jurisdiction at any time during the licence year, there may be some duplication. The number of road motor vehicles in actual use is less than the number of vehicle registrations for several reasons. Registrations may double-count vehicles which are moved from one province to another during the calendar year. Also, there is a time lag in removing inactive vehicles from the provincial registration file. For these reasons, a rule of thumb is the number of passenger automobiles in use is approximately 90% of the passenger

automobile registrations. With trucks, there may be more multiple registrations since commercial vehicles may be required to obtain a licence in each province where they are operated.

It is important to note the following data anomalies in this product. First, provincial totals exceed the sum of the their respective geographic components. This occurs because the provincial totals include, in some cases, out-of-province registrations, registrations where the place is "unknown" and other such nuances . Second, provincial and national totals may differ from those data previously released in publication form by Statistics Canada due to do revisions made when additional information is submitted. Third, some provinces do not require any permits for certain categories and others are not able to provide complete data. Fourth, motor vehicle counts taken at different times for different survey years result in inconsistencies for vehicles with a seasonal use (e.g. motorcycles).

***Interprovincial Differences***
The following represent the main differences between the provinces and territories in the classification of motor vehicles registrations:

*Newfoundland*
Registration Year - Calendar Year
Geography - Place of Residence or Business
Trucks - Includes ambulances, hearses, camper trucks and buses
Buses - Included with trucks
Other Vehicles - Includes ambulances, hearses, trailers, snowmobiles, road construction & maintenance and farm tractors

*Nova Scotia*
Registration Year - April 1 to March 31
Geography - Place of Residence or Business
Passenger Automobiles - Includes station wagons licensed as trucks
Buses - Included with trucks
Other Vehicles - Includes campers, off highway vehicles (including snowmobiles), trailers, semi-trailers, farm trucks, fire trucks and miscellaneous equipment (both powered and towed)

*New Brunswick*
Registration Year - April 1 to March 31
Geography - Place of Residence or Business
Passenger Automobiles - Includes camper trucks and buses for personal use
Trucks - Excludes camper trucks and includes buses
Buses - Included with trucks
Other Vehicles - Includes trailers, tractors, all terrain vehicles and others

About SABAL's database sources...

---

*Prince Edward Island*
Registration Year - April 1 to March 31
Geography - Place of Residence or Business
Other Vehicles - No other vehicles are reported

*Quebec*
Registration Year - Calendar Year
Geography - Place of Residence or Business
Passenger Automobiles - Includes campers
Trucks - Includes fire trucks
Other Vehicles - Includes trailers, off-road vehicles and others

*Ontario*
Registration Year - Calendar Year
Geography - Place of Residence or Business
Trucks - Includes fire trucks, road construction and maintenance equipment
Other Vehicles - Includes trailers, snowmobiles and off-road vehicles

*Manitoba*
Registration Year - Staggered Annual Count - September for 1991, October 1992, February 1993, November 1994
Geography - Place of Residence or Business
Passenger Automobiles - Includes ambulances, hearses and school buses
Trucks - Includes fire trucks
Buses - Included with passenger cars
Other Vehicles - Includes trailers, snowmobiles, commercial and public service trailers

*Saskatchewan*
Registration Year - Calendar Year
Geography - Place of Issuing Licence
Other Vehicles - Includes private trailers, motor toboggans, ambulances, hearses, motorhomes, police vehicles, snowmobiles, commercial trailers and federal government vehicles

*Alberta*
Registration Year - As of March 31
Geography - Place of Issuing Licence
Passenger Automobiles - Includes "drive yourself" trucks and vans and trucks licensed with passenger plates
Trucks - Includes ambulances, hearses and fire trucks and excludes "drive yourself" trucks and vans and trucks licensed with passenger plates
Other Vehicles - Includes trailers, utility vehicles, vans, farm tractors and others

About SABAL's database sources...

---

*British Columbia*
Registration Year - As of December 31
Geography - Place of Issuing Licence
Passenger Automobiles - Includes station wagons, campers and motor homes
Trucks - Includes taxicabs, buses, ambulances, hearses and fire trucks
Buses - Included with trucks.
Other Vehicles - Includes utility trailers and commercial trailers

*Northwest Territories*
Registration Year - Calendar Year
Geography - not applicable
Other Vehicles - Includes ambulances, hearses, fire trucks, trailers and road construction & maintenance equipment
Note - The data for 1994 reflect more precise identification of vehicles through a newly implemented system. This may affect data comparability with previous years.

*Yukon Territories*
Registration Year - Calendar Year
Geography - not applicable
Other Vehicles - No other vehicles are reported

*Note*
Motorcycles - Includes mopeds in provinces where registration is required.

*For further information contact:*

**Robert Larocque**
**Transportation Division**
**(613) 951- 2486**
**email - laroque@statcan.ca**

# BUSINESS REGISTER TABULATIONS

## INTRODUCTION

The Business Register (BR) is a repository of information on all business in Canada, and exists primarily for purposes of supplying frames for all economic surveys in Statistics Canada. It is designed to provide a means of coordinating the coverage of surveys and of achieving consistent classification of statistical reporting units.

The major sources of information for the BR are updates from the Statistics Canada survey program and from Revenue Canada Taxation's (RCT) payroll deduction account file. These employer accounts assist in creating the universe of business entities having paid employees in Canada. The data contains counts of statistical establishments by industrial activity (1980 Standard Industrial Classification codes) and by employment size range.

A "statistical establishment" is the smallest operating entity capable of reporting all elements of basic industrial statistics. The statistical establishment should not be confused with the legal entity or place of business. For example, one legal entity, especially for large and complex organizations, could be divided into more that one statistical establishment in order to compile data by industry. Alternatively, one statistical establishment could represent more that one place of business.

## COVERAGE

As described previously, the coverage of businesses on the BR is determined primarily by RCT's payroll deduction account file. Therefore, the BR data cover all industrial activity in Canada but are limited to the employer portion of the business world. Therefore, an activity such as a corner store that is owner-operated, with no paid employees, would be excluded from these counts.

Also excluded from the BR data are records which are considered to be "out of scope". These are all Revenue Canada employer records:

- for which RCT has not received any remittances from the employer (eg. dormant accounts); or
- where RCT has received remittances but where Business Register Division is awaiting complete Nature of Business information in order to assign a Standard Industrial Classification (SIC) code.

These counts are not an indication of number of "locations" of stores, branches, plants, etc. For example, a bank could be considered as a single-establishment company, counted only once in the province in which the head office is located, with no indication of the number of bank branches across the country. The employment size code would indicate the range of number of employees in total for the bank.

The previous set of data produced by the Business Register Division reflected data input up to the end of December 1988, and no further data have been produced until now. The BR based data data will not be directly comparable to those previously produced from the BRMF. The methodology used in the creation and maintenance of business establishment information on the BR includes those firms which are active remitters only, and therefore active employers. The BRMF derived counts previously provided, may have included small business which at one time were employers and then became inactive. Although there are other differences in the data maintenance methodology for the BR, this exclusion criterion for small businesses represents the primary source of variation in the comparison of BRMF results.

We understand that the data comparability issue is an important one for those analysts considering the counts in terms of a time series. Accordingly, we will be undertaking an analysis of the data to determine if statistical techniques can be employed in the derivation of adjustment factors which would allow the linkage of the BR/BRMF counts at some level of data aggregation. As results from this work become available, we would be pleased to forward any relevant details.

We would caution you in comparing these figures from year to year in order to arrive at an estimate of the number of "new" businesses. This type of comparison would only give the net change (the combination of those business entries and those firms which have exited or ceased to operate) in the comparison period, and does not reflect solely new businesses.

These counts should not be compared to survey program data due to differences in data compilation methodology. Any quoted references should specify the BR as the source.

We recommend that the tables be used with caution, and careful consideration should be given to the methodology employed in the development of the administrative sources.

About SABAL's database sources...

---

## STANDARD INDUSTRIAL CLASSIFICATION

The 1980 Standard Industrial Classification codes are used in these data. A description of these codes is contained in the Standard Industrial Classification Manual, Revised 1980, Catalogue 12-501E, and may be obtained through all regular Statistics Canada publication outlets. It should be noted that there are no sub-totals in the Business Register data.

*June and December 1990 and 1991*

*-12 employment size ranges*

*December 1991*

*- available with 12 or 6 employment size ranges*

*June and December 1992 and 1993*

*-6 employment size ranges*
*-December 1993 - unsuppressed counts*

*June 1994*

*- unsuppressed counts*
*- 8 employment size ranges (ESRC)*
*- counts by 6 age categories at 1 & 2 digit SIC level, for provinces & Canada only*
*- 1991 Standard Geographical Classification (SGC 1991)*

### *EMPLOYMENT SIZE RANGE CODES*

*The employment size range codes give a range of employees only.*

*8 ESRC*

| | |
|---|---|
| *01* | *1 to 4* |
| *02* | *5 to 9* |
| *03* | *10 to 19* |
| *04* | *20 to 49* |
| *05* | *50 to 99* |
| *06* | *100 to 199* |
| *07* | *200 to 499* |
| *08* | *500+* |

*6 ESRC:*

| | |
|---|---|
| *01* | *1 to 4* |
| *02* | *5 to 9* |
| *03* | *10 to 19* |
| *04* | *20 to 49* |
| *05* | *50 to 199* |
| *06* | *200+* |

---

*12 ESRC*

| | | | |
|---|---|---|---|
| *01* | *1 to 4* | *07* | *200 to 499* |
| *02* | *5 to 9* | *08* | *500 to 999* |
| *03* | *10 to 19* | *09* | *1,000 to 1,499* |
| *04* | *20 to 49* | *10* | *1,500 to 2,499* |
| *05* | *50 to 99* | *11* | *2,500 to 4,999* |
| *06* | *100 to 199* | *12* | *5,000+* |

*The number of estimated employees includes full-time employees, as well as part-time employees. An employee is defined as any person drawing pay for services rendered and for paid absences, and for whom their employer is required to remit to Revenue Canada deductions for Income Tax, Canada Pension Plan/Quebec Pension Plan and Unemployment Insurance.*

## THE CONSUMER PRICE INDEX
## TECHNICAL NOTES

### Definition

The Consumer Price Index (CPI) is an indicator of the changes in consumer prices experienced by the target population. The CPI measures price change by comparing, through time, the cost of a fixed basket of commodities. This basket is based on the expenditures of the target population in a certain reference period, currently 1992. Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price movements.

Separate CPI's are published for Canada, the ten provinces, Whitehorse and Yellowknife. Some CPI information is also available for an additional sixteen cities. Since the CPI is a measure of price change from one time period to another, it cannot be used to indicate differences in price levels between provinces or cities.

### Population Coverage

The population targeted by the Consumer Price Index consists of families and individuals living in urban and rural private households. For practical reasons, residents of the Territories outside Whitehorse and Yellowknife are not represented by the index. Previous to January 1995, the target population consisted of private households in Canadian urban centres with a population of 30,000 or more.

### Time Reference

The CPI compares, in percentage terms, prices in any given time period to prices in the official base period which, at present, is 1986=100. The official time base was changed from 1981=100 to 1986=100 starting with the CPI for June 1990. The change is strictly an arithmetic conversion which alters the index levels but leaves the percentage changes between any two periods intact, except for differences in rounding.

### Percent Versus Index Point Changes

The movements of the indexes from one month to another are expressed as percent changes rather than changes in index points. Index point changes are affected by the level of the index which, in turn, depends on the time base of the particular index. The percentage change between any two time periods can be readily calculated by dividing the index point difference between the two time periods by the index for the earlier period and multiplying the result by one hundred.

### Price Coverage

The prices used in the CPI calculation are final prices, inclusive of excise and other indirect taxes paid by consumers. In particular, they include the Goods and Services Tax as well as provincial retail sales taxes wherever applicable. It follows that the CPI can change as a result of modifications to any of these taxes. The selection of commodities and the outlets from which prices are collected is judgmental, other than for rents. The number of prices required for a given commodity depends on the importance and the nature of the commodity. The samples are designed to

represent volume selling commodities and outlets. The principal objective of the sample design is to ensure an informative, reliable and impartial picture of consumer inflation at the national and provincial levels.

Price collection for a given month's index is carried out during the first three weeks of the month. Although prices for most CPI commodities are collected monthly, prices for commodities having less frequent price changes (e.g. property taxes and electricity rates) are collected at intervals longer than one month. Special pricings are carried out where there is evidence that significant price changes have occurred between scheduled pricing periods.

### Weights and Linking

The CPI maintains fixed quantitative proportions (weights) between commodities during the life of a given basket. The baskets are updated periodically to take into account changes in consumer expenditure patterns. In January 1995, the basket reflecting the 1992 expenditure patterns replaced the 1986 basket. The continuity of the CPI series is maintained by "linking" the corresponding indexes obtained from consecutive baskets.

The CPI is calculated as a weighted average of specified commodity price indexes. The weights are derived from Family Expenditure Survey data. Text Table 1 compares the expenditure shares of the two most recent CPI baskets, i.e. those of 1992 and 1986. Because both sets of weights are expressed in December 1994 or "link month" prices, the differences reflect the shifts in the relative quantities purchased between the two baskets. The differences are a result of changes in consumer expenditure patterns over time and of the expansion of the population coverage.

**Text table 1**
**Comparison of the 1992 and 1986 Distribution of Expenditures used in the Consumer Price Index, by major Component, for Canada**

| | 1992 Expenditures | | 1986 Expenditures[1] |
|---|---|---|---|
| Major Components | Expressed in 1992 prices | Expressed in Dec. 1994 prices | Expressed in Dec. 1994 prices |
| **All-Items** | **100.0** | **100.0** | **100.0** |
| Food | 18.0 | 18.0 | 17.0 |
| Shelter | 27.6 | 27.9 | 25.3 |
| Household operations and furnishings | 10.4 | 10.0 | 9.7 |
| Clothing and footwear | 6.8 | 6.6 | 8.6 |
| Transportation | 17.2 | 18.3 | 18.8 |
| Health and personal care | 4.3 | 4.3 | 4.3 |
| Recreation, education and reading | 10.2 | 10.4 | 10.3 |
| Alcoholic beverages and tobacco products | 5.5 | 4.5 | 6.0 |

[1] The 1986 data were adjusted to be comparable with the classification system used for the 1992 basket.

When reconstructing or re-aggregating published CPI series, the changes in weights and the linking procedures must be taken into account. For a description of the methodology required to reconstruct or re-aggregate CPI series, see the Consumer Price Index Reference Paper catalogue 62-553 Occasional or contact Prices Division (Telephone: 1-613-951-9606).

### Whitehorse and Yellowknife Indexes

The relatively small size of the housing market in these two cities makes it difficult to construct reliable price indexes for new houses. To compensate, the price movements of rental accommodation are used to approximate the price movements of new houses. The rent information itself is collected using different pricing frequencies and collection methods than in the rest of the country. Because of these problems, the indexes for Rented Accommodation, Owned Accommodation and Shelter are not published for these two cities. Further, the All-items indexes published for these two cities are not strictly comparable with the same indexes for the provinces or the other sixteen urban centres.

### Calculation of City Indexes

With the introduction of the 1992 basket, emphasis was shifted from city data to provincial data. City All-items series were continued since many users had come to rely on this service, but the method of calculation was changed. Shelter indexes are calculated for each city. This recognizes the importance of Shelter in the basket, the significant and persistent differences in price movements between cities, and the availability of local data. For the other seven major components, the movement of the provincial counterpart (or, in the cases of Montréal, Toronto, and Vancouver, a sub-provincial counterpart) is used. The major components are aggregated using the city's expenditure pattern to arrive at each city's All-items index.

### The Purchasing Power of the Consumer Dollar

As prices rise, a dollar will buy fewer goods and services. Because the CPI measures changes in the general price level, it is often used to estimate changes in the purchasing power of the Canadian dollar. For example, between 1986 and 1994, the All-items Canada CPI rose from 100.0 to 130.7, indicating that consumers had to pay 30.7% more to buy the same quantity of goods and services. Looked at in terms of purchasing power, a dollar in 1994 would purchase the same amount as 76.5¢ {(100.0 / 130.7) * 100¢} did in 1986. This process may be interpreted as the deflation of money or the adjustment of money values to eliminate price effects.

---

**TOURISM STATISTICS PROGRAM**
**from EDUCATION CULTURE AND TOURISM DIVISION**

The Tourism Statistics Program collects, analyses and disseminates data on tourism. Tourism is broadly defined as the business, pleasure and leisure activities that support a person travelling outside their usual environment.

Tourism statistics cover three distinct Programs: the *Domestic Tourism Statistics Program*, the *International Travel Statistics Program* and development of the *Tourism Satellite Account.*

Information on domestic travel is collected through a biennial household survey -- the Canadian Travel Survey, also known as the CTS (for more information refer to the section on CTS).

Information on international travel is collected through frontier counts taken by Revenue Canada, Customs at each port of entry into Canada and a series of surveys conducted by Statistics Canada that determine the characteristics and spending patterns of travellers into and out of Canada (for more information refers to the section on ITS).

The Tourism Satellite Account amalgamates data from the consumption and supply sides to create a credible means of measuring tourism activities in relation to other economic activities in Canada. It provides answers to such questions as "what constitutes the tourism industry?", "what's the industry's part in the GDP and employment?" and "what is the extent of tourism-related expenditures?". The account is consistent with the concepts and definitions of tourism used by industry, government and the World Tourism Organization.

Included in SABAL are information on domestic and international travel. Because of timeliness, information from the Tourism Satellite (TSA) account was not included. The TSA is a new statistical program which started in the late 1980's. Still under development, first results from this initiative came out in 1994 and presented 1988 data. Since then, they have been progressing on 1992 data. Results are however not yet available. For more information on this initiative, you can contact Jocelyn Lapierre (613) 951-3720.

## i) SURVEY DESCRIPTION

### a) CANADIAN TRAVEL SURVEY (CTS)

#### Objective

The Canadian Travel Survey (CTS) is a biennial survey whose purpose is to gather information on Canadian trips and travellers. The survey collects more than 30 characteristics which includes socio-demographic information on travellers, leisure activities, trip purpose, mode of transportation, length of stay, origin and destination, expenditures....

#### A Look at the History of the Survey...

The CTS has a relatively short history, with data collection beginning in 1979 and continuing in each even-numbered year from 1980 to 1994.

The Survey is a federal-provincial project. Until 1990, Tourism Canada assumed the cost of the basic survey and the provinces shared the cost of increasing the sample size. Since 1992, the cost of the basic survey has been shared by Tourism Canada (now the Canadian Tourism Commission) and the provincial governments.

The provinces' heightened participation has not been only financial. A Tourism Research Working Group (TRWG) has been formed and has recommended changes to the 1992 and 1994 surveys. In response to these recommendations, major changes were made to the data collection method in the second quarter of 1992 and the first quarter of 1994. However, the improvement in the collection method represents a break in the series. **Therefore the 1992 and 1994 data are not comparable with those of previous years.**

#### Methodology

The Canadian Travel Survey (CTS), sponsored by the Canadian Tourism Commission and the provincial governments, is conducted as a supplement to Statistics Canada's monthly Labour Force Survey (LFS). The LFS employs a complex probability sample representing almost all of the civilian residents of Canada 15 years of age and over. Excluded are residents of the Yukon and Northwest Territories, populations living on Crown lands, inmates of institutions, and members of the armed forces, all of whom, in total, account for only 2% of the population of Canada.

The Canadian Travel Survey had a sample size of about 10,000 households each collection period. In 1992 and 1990, the information was collected on a quarterly basis; in 1994, it was collected on a monthly basis. Respondents for the travel survey were randomly chosen from the LFS sample - one person 15 year of age or more from each household.

For each month or quarter, information was collected for all overnight trips, regardless of distance, and for all same-day trips having a one-way distance from home of 80 kilometres (50 miles) or more. To qualify for the survey, a trip had to have ended during the reference period preceding the survey. The CTS excludes travel by members of operating crews of commercial vehicles, such as buses, planes and trucks; travel to work or to school; and moves to a new residence.

**Sampling Variability**

Canadian Travel Survey (CTS) results are computed from the survey responses of a sample of Canadians. These results are, therefore, only estimates of the "true" values for the Canadian population, values which could only be obtained through a census. Since differences always exist between sample and census data, statistical measures have been developed which indicate the expected size of the differences. Such measures allow analysts to assess the reliability of statistics produced from sample surveys.

The expected difference between the sample estimate and the corresponding census value is known as the sampling variability. The statistical measure of sampling variability used in this publication is the coefficient of variation (CV). The CV is the standard error of an estimate expressed as a percentage of the estimate.

As a rule, the larger of two estimates will have a smaller CV, and therefore will be more reliable. Also, of two estimates of the same size, the one referring to a characteristic more evenly distributed throughout the population will tend to have a smaller CV.

The application of the CV to the included CTS data has been simplified. When the CV is over 25%, a specific code appears in the table informing the user of the situation. No data is shown in such cases, sampling variability being too high.

**Term Definitions**

In data published by Statistics Canada from the Canadian Travel Survey a *trip* is defined as followed: travel involving a person or persons returning home from a location 80 km or more away during the survey period. A trip has a maximum duration of one year. The following types of travel are not included in the Canadian Travel Survey definition of trip: travel to and from work or school; one-way travel involving a change of residence; travel by members of operating crews.

Other definition of specific concepts used are located in the documentation section accompagnying each table.

## b) INTERNATIONAL TRAVEL SURVEY (ITS)

### A look at the history

Compared to the recent history of the CTS described above, the International Travel Survey's (ITS) is much longer. Statistical series on travel between Canada and other countries originated in the early 1920s primarily as a requirement for the Canadian Balance of International Payments.

The method of collection relied heavily on the detailed administrative records of Canada Customs and Immigration authorities, to obtain the number of border crossings and to distribute questionnaires to individual travellers.

The accuracy of these methods depended on (1) the completeness of the records of traveller movements and (2) the representativeness of the sample expenditures derived from each category of traveller.

The statistical processes continued to rely on the administrative records of co-operating departments until 1972. Several changes in the methods of documenting visitors and residents, resultant from policy revisions by Customs and Immigration, have led in the past to changes in definitions and breaks in statistical continuity. The purpose of the change in 1972 was to standardize definitions, methods and requirements for the collection of traveller counts, in light of the movement toward facilitation of traffic flows, and as a means of more adequately controlling the results. A detailed description of methods is presented in the "Description of Data Collection Methods" section.

The original purpose of the questionnaire surveys was to collect expenditure data only, to be applied to the traveller movements, to derive aggregate expenditures on visitors and returning residents. The first questionnaires were short and contained only three or four questions. Response was large and consistent.

As travel gained in size and importance to the Canadian economy, the travel industry voiced the need for more detailed characteristics on the traveller for market research and industry planning. The questionnaires were gradually expanded to include as many as 19 questions including purpose of trip, origin and destination, type of accommodation, etc., with distribution of the most recently redesigned questionnaires beginning in 1990.

Prior to 1990, questionnaires for United States travellers visiting Canada were distributed to American residents on returning to their country by United States Customs officials. The questionnaires were processed by the United States Department of Commerce and the results were sent to Statistics Canada. Questionnaires are now distributed to residents of the United States upon entering Canada during sampling periods by Canada Customs officials. Completed questionnaires are mailed to Statistics Canada for processing.

Other modifications to the system of data collection in the field have been introduced progressively since 1976. The current methods are discussed under "Questionnaire Surveys", in the"Description of Collection Methods" section.

**Description of Data Collection Methods**

The existing methods of collecting international travel statistics are described under two headings "Frontier Counts" and "Questionnaire Surveys". Both these systems depend greatly on the co-operation of Revenue Canada, Customs and Excise in the collection of the number of crossings and the distribution of travel questionnaires.

**Frontier Counts**

All ports of entry across Canada participate in determining the number of travellers by selected categories, by type of transportation, as well as the number of cars, trucks, motorcycles and bicycles in the case of highway and ferry points.

These surveys are conducted on a census basis except for seven ports of entry which are using sampling schemes to estimate automobile and cycle flows. By sampling traffic one day every four days, United States and Canadian vehicles and travellers are estimated by country of residence. The samples are selected among the seven ports in order to represent all days of the month over the region. Customs officials at these ports provide the count of automobile and cycle traffic by country of residence for those sample days. These counts are weighted to the total flows provided by toll authorities. Measures of reliability computed each month show that the estimates by category are within acceptable limits at the region or province level.

The weighting formula for the sample ports can be described in simple terms as follows:

$\hat{N}_i = N \cdot n_i$ where

| | | |
|---|---|---|
| $\hat{N}_i$ | = | estimate of the number of automobiles in category i, |
| N | = | Toll counts at any given port, |
| n | = | Total sample autos at any given port, |
| i | = | Categories 1, 2, ... 8 at any given port (e.g. United States auto same-day, United States auto one or more nights, etc.). |

The forms used by Customs officials in the enumeration process are described as follows:

**E-62 Entry Tally**. Form used to record travellers and vehicles arriving by land and by ferry, at points of entry on the United States-Canada border. Each form represents one or more vehicles and persons.

**E-63 Private Craft and Passenger Arrivals**. Form used to record travellers entering Canada by private plane and boat. This form is also used to record travellers and crews on commercial freighters, passenger ferries and cruises. Each form represents one or more vehicles and persons.

**E311 Referral Card.** Form used to record on a census basis travellers entering Canada by commercial plane, including schedule and charter arrivals, at the major international airports. Each form represents one traveller only. In addition, an increasing number of highway ports are using the Primary Automated Lookout System (PALS) to record automobiles and motorcycles and their associated travellers.

Detailed instructions are provided to aid Customs officials in the task of collecting data on these documents. A continual liaison function is performed by the International Travel Section with the supplying department to review, discuss and resolve inconsistencies in the reported figures. A monitoring system has been established to compare incoming data with information available from independent sources, such as airport management reports, toll figures, provincial road counters, etc. The above, as well as reference to weather reports, calendars of special events and direct contact with port authorities, permits the verification and explanation of irregular fluctuations in reported figures.

The completed forms are submitted continuously to Statistics Canada for processing, analysing and publication. Table I shows the number of documents processed from 1990 to 1994.

**Table I. Number of documents processed, 1990-1994**

| | **1990** | **1991** | **1992** | **1993** | **1994** |
|---|---|---|---|---|---|
| **E-62** | 400,400 | 436,600 | 427,500 | 401,500 | 383,700 |
| **E-63** | 26,800 | 24,100 | 24,700 | 24,700 | 24,300 |
| **E311** | 12,624,000 | 11,632,000 | 12,185,000 | 12,765,200 | 12,919,900 |

**Questionnaire Surveys**

Continuous questionnaire surveys are used to secure information on the expenditure and other characteristics of the international traveller. The questionnaires are handed out to the travel party on entry (non-residents) or re-entry (residents of Canada) by Canada Customs officials according to pre-arranged schedules.

The basic purpose of the questionnaire surveys (the estimation of total spending at the Canada level) continues to be met with reasonable levels of reliability. Estimation of expenditures and other characteristics at lower levels of aggregation, such as regional/provincial data and detailed cross-classifications, strain the capacity of the survey and the resultant estimates are less reliable, as discussed in the "Estimation Method" and "Sampling Variability" sections.

The actual implementation of the specified methods may be subject to two types of bias: (1) a distribution bias, that is, the questionnaires may not be handed to a random selection of travellers and (2) a non-response bias, that is, returns may not be representative of the travelling public. Although about 45,700 questionnaires were received from non-resident parties entering Canada and 53,600 for returning residents in 1994, these numbers represent less than 1% of the total traffic.

Under the present operational conditions, the size of these samples is adequate to permit quarterly estimation of expenditures at the national level, and annual estimates for certain provinces, provided that the assumption of negligible bias is not seriously violated. However, some data for lower levels of aggregation and cross-tabulations are not sufficiently reliable to be published on a regular basis.

In the past, as part of a continuing attempt to improve travel surveys at minimal cost, a stint sampling scheme, described below, was developed. After a number of trials in 1976 at selected land ports, the stint sampling scheme was introduced in 1977 at all major land ports for Canadian residents returning from the United States after a stay of one or more nights. In 1978, the stint approach was introduced on a trial basis at a number of airports to improve distribution and survey response. The trials proved to be successful, so, in 1979, the ten major international airports were added to the stint system for surveys of Canadians returning from international trips and visitors from countries other than the United States. Also in 1979, the stint approach was introduced at the land ports to distribute the same-day questionnaires. Therefore, from 1979, all international travel surveys operated by the International Travel Section used the stint distribution system at all border ports sampled.

A stint consists of a selected period of several days during which questionnaires are to be distributed to eligible travellers. Each port involved in this scheme receives, for each of its stints, a specific quantity of numbered questionnaires and a date on which to start the distribution. On the start date, the officers hand out the questionnaires on a continuous basis to the appropriate travelling population until they have all been distributed. The Liaison staff of the International Travel Section call each port the day before the stint is to start to make

sure that the questionnaires have arrived and to remind the officers to start the distribution the next day. Approximately 10 days after the start of the stint, the port is contacted again to ascertain the finishing date. In this way, the response rate of each stint, the coverage rate of the traffic and the length of the stint can all be used as a measure of performance for each stint. Statistics Canada Liaison officers conduct regular visits to ports of entry and participate in Customs training courses to relay the importance of the statistical functions and to encourage the adherence to instructions.

Five questionnaires are used in the collection process and are subjected to a complex edit system at Statistics Canada. Only those questionnaires acceptable to the edit system are subsequently used in estimation. Three of those questionnaires are distributed to foreign visitors while two are given to Canadians returning from a trip abroad.

**Questionnaire (8-2200-337) for residents of countries other than the United States visiting Canada.** Distributed by Canada Customs officials during sampling periods to travellers residing in overseas countries at all land, sea and air ports, completed by the travellers and returned to Statistics Canada for processing.

**Questionnaire (8-2200-356) for United States travellers visiting Canada.** Distributed by Canada Customs officials during sampling periods to travellers residing in the United States at all land, sea and air ports, completed by the travellers and returned to Statistics Canada for processing.

**Questionnaire (8-2200-345) for United States residents visiting Canada by auto on the same day (a visit of less than 24 hours).** The cards are distributed to the drivers of United States vehicles by Canada Customs officials, completed and mailed to Statistics Canada for processing. Since the same-day traffic is considered to be fairly homogeneous, a less frequent sample is taken than for the longer term traffic.

**Questionnaire (8-2200-336) for Canadian residents returning from trips outside Canada.** Distributed by Canada Customs officials during sampling periods to residents re-entering Canada, completed by the traveller and mailed to Statistics Canada for processing. This questionnaire is used for Canadian residents returning from the United States or other countries.

**Questionnaire (8-2200-338) for Canadian residents leaving and returning to Canada by auto on the same day (a visit of less than 24 hours).** The cards are distributed to the drivers of Canadian vehicles by Canada Customs officials, completed and mailed to Statistics Canada for processing. Since the same-day traffic is considered to be fairly homogeneous, a less frequent sample is taken than for the longer term traffic.

Table II shows the number of usable responses, the number of travellers covered and the response rate for foreign visitors, from 1990 to 1994. Note that in 1990 the questionnaire used by both visitors from the United States and from overseas was the same (8-2200-337).

**Table II. Number of questionnaires received, number of travellers represented and response rate, foreign visitors, 1990-1994.**

| | | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|
| **8-2200-337** | Questionnaires | 11,100 | 13,500 | 13,700 | 13,600 | 13,900 |
| | Travellers | 21,100 | 24,300 | 25,700 | 25,400 | 26,500 |
| | Response rate | .. | .. | 4% | 4% | 4% |
| **8-2200-356** | Questionnaires | 31,000 | 26,500 | 25,800 | 25,200 | 22,000 |
| | Travellers | 63,300 | 53,400 | 49,900 | 50,700 | 44,200 |
| | Response rate | .. | .. | 7% | 7% | 7% |
| **8-2200-345** | Questionnaires | 9,400 | 9,900 | 9,700 | 10,700 | 9,700 |
| | Travellers | 21,700 | 23,100 | 22,000 | 24,400 | 22,300 |
| | Response rate | .. | .. | 6% | 6% | 6% |

.. : not available

**Estimation Method**

For estimation purposes, the responses obtained through the questionnaires surveys must be treated as a simple random sample from the total traffic in each stratum (port or group of ports, by type of traffic, by quarter). The data may in fact be subject to some degree of "distribution bias", due to the fact that not all categories of travellers are represented in the handout, or to a "non-response bias" due to the fact that the individuals replying may not be representative of the population.

The number of questionnaires returned may be adequate if the above restrictions could be evaluated. In 1990, such an evaluation was done. Results from this study on selected Quebec and Ontario ports can be obtained from the International Travel Section of Statistics Canada. Weighting techniques used in the estimation process attempt to reduce the effect of biases. Response is disaggregated by known characteristics into homogeneous groups. For example, three main groups are United States automobiles entering and leaving same day, those staying one night and those staying two or more nights. Further, the port or area of entry is established for each group to take into account geographical distribution prior to the application of weights. In one quarter, 605 individual weights are applied in the estimation of expenditures and trip characteristics of international travellers.

The formula for the estimation of travel characteristics of United States residents to Canada, as an example, may be summarized as follows:

$$\hat{X}_i = \sum_{c=1}^{L} \sum_{i=1}^{m_c} \sum_{j=1}^{n_{ci}} N_{ci} \cdot X_{cij} \qquad \text{where}$$

$\hat{X}$ = estimate of characteristic X (e.g., expenditures, nights, etc.);
c = category of traveller (e.g., auto same-day, auto one night, etc.);
L = number of categories;
i = place of entry;
$m_c$ = number of places of entry which recorded travellers of category C;
j = unit identification de within sub-sample;
$N_{ci}$ = total volume for given c and i, according to Revenue Canada;
$n_{ci}$ = sample size for given c and i;
$X_{cij}$ = observation on a particular characteristic (e.g., expenditures, nights, etc.).

**Sampling Variability**

In sample surveys, since inference is made about the entire population covered by the survey on the basis of data obtained from only a part (sample) of the population, the results are likely to be different from the "true" population values. The true population values in this context refer to the values that would have been obtained when the entire population was enumerated under the same general survey conditions. The error arising due to drawing inferences about the population on the basis of information from the sample is termed sampling error.

The sampling error, in addition to the size of the sample, depends on factors such as variability in the population, sampling design and method of estimation. For example, the sampling error depends on the stratification procedure employed, allocation of the sample, choice of sampling units and method of selection employed.

The estimation procedure employed plays an important role. The accuracy and precision depend on the particular estimate used. Additionally, even if the sample design, the size of the sample, and the estimation procedure were the same, different characteristics (on which data have been collected from the sample) would possess different sampling errors, due to the fact that they have different degrees of variability in the population. For instance, the

sampling error for expenditure estimates would be different from the sampling error for length of stay, both estimates being based on the same sample. Each of the possible samples would yield somewhat different sets of results. The sampling errors are measures of the variation of all the possible sample estimates around the true values.

The expected value of a variable is the average of the variable taken over all possible samples weighted by the probability of drawing the sample. The difference between the expected value of an estimate and the corresponding true value is called the bias of the estimate. The mean square error of an estimate is defined as the expected value of the square of the deviation of the estimate from the true value. The variance of an estimate is defined as the expected value of the square of the deviation of the estimate from its expected value. Thus, when an estimate is unbiased (i.e., its bias is zero), its variance and mean square error are equal.

The accuracy of estimates from sample surveys is affected by both variance and bias. Under the assumption of simple random sampling within each stratum and with the further assumption of absence of bias, the variance of an estimated characteristic value is a good indicator of its reliability. Since the true variance of the estimate depends, like the estimate itself, on the whole population, it must be estimated from the available sample.

A notable feature of probability sampling is that the quality of the estimates may be estimated from the sample itself. The estimated coefficient of variation is defined as the ratio of the square root of the estimated variance to the estimate itself. Guides to the potential size of sampling errors are provided by the estimated coefficients of variation. The quality of the estimate increases as the corresponding coefficient of variation decreases.

The estimated coefficients of variation are presented in the form of lettered symbols. The lettered symbols refer to ranges of percentage estimated coefficients of variation that are applicable to the estimates. These symbols are as follows: A(0.0%-0.5%), B(0.6%-1%), C(1.1%-2.5%), D(2.6%-5%), E(5.1%-10%), F(10.1%-16.5%), G(16.6%-25%), H(25.1%-33.3%), J(33.4% and over). Only data with coefficients of variation in categories A to F are generally released without restrictions. Table III gives an indication of the estimated coefficients of variation for the figures that are shown here. Additional information on specific coefficients of variation maybe obtained from the International Travel Section of Statistics Canada.

**TABLE III. Estimated Coefficients of Variation - Letter Codes, 1990-1994**

| **Population and length of stay** | *Person-nights* | **Characteristics** *Visits* | *Spending* |
|---|---|---|---|
| ***United States visitors*** | | | |
| Same day | - - - - - | .. .. A A A | D D D D D |
| One or more nights | C C C C C | .. .. B B B | B C C C C |
| **Total** | **C C C C C** | **.. .. A A A** | **B C C B B** |
| ***Overseas visitors*** | | | |
| Same day | - - - - - | .. .. C C C | E F E F F |
| One or more nights | C C C B C | .. .. A B B | C C C C C |
| **Total** | **C C C B C** | **.. .. A B B** | **C C C C C** |

- : not applicable
.. : not available

**Definition of Terms**

The definitions of terms described in this section relate to the statistics of international travel by Canada and although close they do not necessarily coincide precisely with definitions developed internationally or elsewhere nationally. The definitions are restricted by the nature of the survey and the physical limitations of the collection process at border points. The frontier counts and the questionnaire distribution are conducted at points of entry by Canada Customs officials, applying to Canadian residents on returning to Canada and non-residents on entering Canada. Included are definitions applicable to all tables; specific concepts and definition can be found in the information related to each table.

**International Traveller**

The term international traveller applies to all persons arriving in Canada who are cleared through Customs and Immigration points of entry. Any person may cross into Canada more than once in the same period. The method of collection counts each crossing made. The numbers, therefore, represent numbers of crossings (entries or re-entries), not individual travellers. The term international traveller is divided into three groups: non-resident traveller, resident traveller and other traveller.

**Non-resident Traveller**

A non-resident traveller is an international traveller resident of a country other than Canada who passes through Canada Customs on a visit for a period of less than 12 months. Canadian citizens residing in other countries coming home on leave are included. This category comprises persons entering Canada for the following reasons:

business, commuting to work, seasonal or temporary employment;

attending a convention, conference or seminar;

study, summer resident, visiting friends or relatives;

pleasure, holiday, vacation, health and shopping; and

persons travelling in transit who clear Canada Customs.

**About SABAL's database sources...**

---

## *Census - Part 2A*

(extracts from Statistics Canada's documentation for the Profile Series - Part A)

### Definitions

The definitions of geographic terms and census concepts are presented here in summary form only. Users should refer to the 1991 Census Dictionary (Catalogue No. 92-301E) for the full definitions and additional remarks related to these concepts and definitions.

### Age

Refers to the age at last birthday (as of the census reference date, June 4, 1991). This variable is derived from the date of birth question which asks day, month and year of birth. Persons who were unable to give the exact date of birth were asked to give the best possible estimate.

### Census Agglomeration (CA)

The general concept of a census agglomeration (CA) is one of a large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

A CA is delineated around an urban area (called the urbanized core and having a population of at least 10,000, based on the previous census). Once a CA attains an urbanized core population of at least 100,000, based on the previous census, it becomes a census metropolitan area (CMA).

### 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 (again 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.

**About SABAL's database sources...**

---

## Census Family Composition

Refers to the classification of census families according to the number and/or age groups of never-married sons and/or daughters at home.

## Census Family Living Arrangements

Refers to the classification of persons in terms of whether they are members of a family household or a non-family household, and whether they are family or non-family persons.

## Census Family Status

Refers to the classification of the population according to whether or not they are members of a census family.

Family persons refers to household members who belong to a census family. They, in turn, are further classified as follows:

Husband and wife refer to persons of opposite sex who are legally married to each other and living in the same dwelling.

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.

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.

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. In previous censuses, the term "child (children)" was used to refer to never-married sons and/or daughters, regardless of age.

Non-family persons refers to household members who do not belong to a census family. They may be related to Person 1 (the household reference person) (e.g., Person 1's divorced brother, brother-in-law, cousin, grandparent) or unrelated (e.g., lodger, room-mate, employee). A person living alone is always a non-family person.

**About SABAL's database sources...**

---

## Census Family Structure

Refers to the classification of census families into families of now-married couples (with or without never-married sons or daughters living at home of either or both spouses), families of common-law couples (with or without never-married sons or daughters living at home of either or both partners) and lone-parent families by sex of parent.

## Census Metropolitan Area (CMA)

The general concept of a census metropolitan area (CMA) is one of a very large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

A CMA is delineated around an urban area (called the urbanized core and having a population of at least 100,000, based on the previous census). Once an area becomes a CMA, it is retained in the program even if its population subsequently declines.

Smaller urban areas, centred on urbanized cores of a population of at least 10,000, are included in the census agglomeration (CA) program.

## 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.

## Economic Family Status

Refers to the classification of the population according to whether or not they are members of an economic family.

Economic family persons refers to two or more household members who are related to each other by blood, marriage, common-law or adoption and thereby constitute an economic family.

Unattached individuals refers to household members who are not members of an economic family. A person living alone is always an unattached individual.

**About SABAL's database sources...**

---

## Household

Refers to a person or 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 members who are temporarily absent on Census Day (e.g., temporary residents elsewhere) are considered as part of their usual household. For census purposes, every person is a member of one and only one household.

Households are classified into three groups: private households, collective households and households outside Canada.

## Household Size

Refers to the number of persons in a private household.

## Household Type

Refers to the basic division of private households into family and non-family households. Family household refers to a household that contains at least one census family, that is a married couple with or without never-married sons or daughters, or a couple living common-law with or without never-married sons or daughters, or a lone parent living with one or more never-married sons or daughters (single-parent family). One-family household refers to a single census family (with or without other non-family persons) that occupies a private dwelling. Multiple-family household refers to one in which two or more census families (with or without additional non-family persons) occupy the same private dwelling.

Non-family household refers to either one person living alone in a private dwelling or to a group of two or more people who share a private dwelling, but who do not constitute a census family.

## Indian Reserve

Refers to land, the legal title to which is vested in Her Majesty, that has been set apart for the use and benefit of an Indian band and that is subject to the terms of the Indian Act. Since it is generally excluded from local jurisdiction and is administered by the Federal Department of Indian and Northern Affairs Canada (INAC), it is classified as a census subdivision (CSD) by Statistics Canada.

**About SABAL's database sources...**

---

**Indian Settlement**

Refers to places, identified by the Federal Department of Indian and Northern Affairs Canada (INAC) for statistical purposes only, where a self-contained group of at least 10 Indian people reside more or less permanently. Indian settlements are usually located on Crown lands under federal or provincial jurisdiction. They have not been set apart for the use and benefit of an Indian band as is the case with Indian reserves.

**Land Area**

**Net**

Refers to land area measurement in square kilometres and excludes discernible bodies of water as found on the maps used to calculate land area.

All land area measurements apply to the limits in effect on January 1, 1991, the geographic reference date for the 1991 Census of Canada.

The map scales used to measure land area generally vary between 1:50,000 and 1:250,000. In densely populated urban areas and in sparsely populated areas, larger or smaller scales are sometimes used.

**Marital Status (Legal)**

Refers to the conjugal status of a person.

**Legally married (and not separated)**

Persons whose husband or wife is living, unless the couple is separated or a divorce has been obtained.

**Legally married and separated**

Persons who have been deserted or who have parted because they no longer want to live together, but have not obtained a divorce.

**Divorced**

Persons who have obtained a legal divorce and who have not remarried.

---

**Widowed**

Persons who have lost their spouse through death and who have not remarried.

**Never married (single)**

Persons who have never married (including all persons less than 15 years of age) and persons whose marriage has been annulled and who have not remarried.

**Mother Tongue**

Refers to the first language learned at home in childhood and still understood by the individual at the time of the census.

The following instructions were provided to respondents in the 1991 Census Guide:

Report the first language learned at home before starting school. If this language is no longer understood, report the second language learned.

If more than one language is understood, report the language first learned at home. If two languages were learned at the same time, report the language spoken most often as a child at home. If both languages were used equally often, report both.

For a child who has not yet learned a language, report the first language this child will learn at home. If two languages will be learned at the same time, report the one which will be used most often to speak to this child. If both languages are used equally often, report both.

If a person speaks an Indian language (from India), do not report Indian but rather the specific language such as Hindi, Urdu or Punjabi.

If a person speaks an Amerindian (North American Indian) language, report the specific Amerindian language such as Cree or Ojibway.

**Occupied Private Dwelling**

Refers to a private dwelling in which a person or group of persons are permanently residing. Also included are private dwellings whose usual residents are temporarily absent on Census Day. These data, however, exclude private dwellings occupied solely by foreign and/or temporary residents.

Primary Census Metropolitan Area (PCMA) - Primary Census Agglomeration (PCA)

**About SABAL's database sources...**

---

The primary census metropolitan area (PCMA) or primary census agglomeration (PCA) concept recognizes the fact that adjacent census metropolitan areas (CMAs) and census agglomerations (CAs) are socially and economically integrated within a larger consolidated CMA or CA.

Adjacent CMAs and CAs are consolidated into a single CMA or CA if the total commuting interchange between the two is equal to at least 35% of the employed labour force living in the smaller CMA or CA, based on the previous census. The original CMAs or CAs are known as PCMA or PCA subregions of the CMA or CA.

**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 which can be used without passing through the living quarters of someone else. The dwelling must meet the three conditions necessary for year-round use:

(1) a source of heat or power (as evidenced by chimneys, power lines, oil or gas pipes or meters, generators, woodpiles, electric lights, solar heating panels, etc.);

(2) access to a source of drinking water throughout the year (as evidenced by faucets, drain pipes, wells, water pumps, etc.);

(3) an enclosed space that provides shelter from the elements (as evidenced by complete and enclosed walls, by a roof, and by doors and windows that provide protection from wind, rain and snow).

**Private Household**

Refers to a person or group of persons (other than foreign residents) who occupy a private dwelling and do not have a usual place of residence elsewhere in Canada.

**Sex**

Refers to the gender of the respondent.

**About SABAL's database sources...**

---

## Standard Geographical Classification (SGC)

The Standard Geographical Classification (SGC) is Statistics Canada's official classification of geographic areas in Canada. The SGC provides unique numeric identification for three types of geographic areas. These are:

- provinces and territories;

- census divisions (CDs);

- census subdivisions (CSDs).

The three geographic areas are hierarchically related. Census subdivisions (CSDs) aggregate to census divisions (CDs), which in turn aggregate to a province or a territory. This relationship is reflected in the seven-digit code:

| Province/territory | Census division | Census subdivision |
|---|---|---|
| XX | XX | XXX |
| 2 digits | 2 digits | 3 digits |

## Structural Type of Dwelling

Refers to the structural characteristics and/or dwelling configuration, that is, whether the dwelling is a detached single house, apartment in a high-rise building, a row house, a mobile home, etc.

## Tenure

Refers to whether some member of the household owns or rents the dwelling, or whether the dwelling is band housing (on an Indian reserve or settlement).

## Data Quality

### General

The 1991 Census was a large and complex undertaking and, while considerable effort was taken to ensure high standards throughout all collection and processing operations, the resulting estimates are inevitably subject to a certain degree of error. Users of census data should be aware such error exists, and have some appreciation of its main components, so that they can assess the usefulness of census data for their purposes and the risks involved in basing conclusions or decisions on these data.

**About SABAL's database sources...**

---

Errors can arise at virtually every stage of the census process from the preparation of materials, through the listing of dwellings and data collection to processing. Some errors occur more or less at random, and when the individual responses are aggregated for a sufficiently large group, such errors tend to cancel out. For errors of this nature, the larger the group, the more accurate the corresponding estimate. It is for this reason that users are advised to be cautious when using small estimates. There are some errors, however, which might occur more systematically, and which result in "biased" estimates. Because the bias from such errors is persistent no matter how large the group for which responses are aggregated, and because bias is particularly difficult to measure, systematic errors are a more serious problem for most data users than the random errors referred to previously.

For census data in general, the principal types of error are as follows:

- coverage errors, which occur when dwellings and/or individuals are missed, incorrectly included or double counted;

- non-response errors, which result when responses cannot be obtained from a small number of households and/or individuals, because of extended absence or some other reason;

- response errors, which occur when the respondent, or sometimes the Census Representative, misunderstands a census question, and records an incorrect response;

- processing errors, which can occur at various steps including: coding, when "write-in" responses are transformed into numerical codes; data capture, when responses are transferred from the census questionnaire to computer tapes by key-entry operators; and imputation when a "valid", but not necessarily correct, response is inserted into a record by the computer to replace missing or "invalid" data ("valid" and "invalid" referring to whether or not the response is consistent with other information on the record);

- sampling errors, which apply only to the supplementary questions on the "long form" asked of a one-fifth sample of households, and which arise from the fact that the results for these questions, when weighted up to represent the whole population, inevitably differ somewhat from the results which would have been obtained if these questions had been asked of all households.

The above types of error each have both random and systematic components. Usually, however, the systematic component of sampling error is very small in relation to its random component. For the other non-sampling errors, both random and systematic components may be significant.

**About SABAL's database sources...**

---

## Coverage Errors

Coverage errors affect the accuracy of the census counts, that is the sizes of the various census universes: population, families, households and dwellings. While steps have been taken to correct certain identifiable errors, the final counts are still subject to some degree of error resulting from persons or dwellings being missed, incorrectly included in the census or double counted.

Missed dwellings or persons result in undercoverage. Dwellings can be missed because of misunderstanding of enumeration area (EA) boundaries, or because dwellings are hidden or appear uninhabitable. Persons can be missed when their dwelling is missed or classified as vacant, or when individual household members are omitted from the questionnaire because the respondent misinterprets the instructions on whom to include. Some individuals may be missed because they have no usual residence and did not spend census night in any dwelling.

Dwellings or persons that are incorrectly included or double counted result in overcoverage. Overcoverage of dwellings can occur when structures unfit for habitation are listed as dwellings, or when units which do not meet the census definition of a dwelling are listed separately instead of being treated as part of a larger dwelling. Double counting of dwellings can occur, for example, because of ambiguity over EA boundaries. Persons can be double counted because their dwelling is double counted or because the guidelines on whom to include on the questionnaire have been misunderstood. Occasionally, someone who is not in the census population universe, such as a foreign resident or a fictitious person, may, incorrectly, be enumerated in the census. On average, overcoverage is less likely to occur than undercoverage and, as a result, counts of dwellings and persons are likely to be slightly underestimated.

In 1991, four studies were undertaken to measure different aspects of coverage error. First, a sample of dwellings listed as vacant was revisited to verify that they really were vacant on Census Day. Adjustments have been made to the final census counts for households and persons missed because their dwelling was incorrectly classified as vacant. Second, a sample of persons enumerated as temporary residents was selected to verify whether or not they were enumerated at their usual place of residence. Based on this sample, estimates were obtained of the number of persons missed because they were temporarily absent from their usual place of residence. Corresponding adjustments were made to the final population counts. Despite these adjustments, the final counts are still subject to some undercoverage. For Canada as a whole and for each province and territory, the magnitude of this residual undercoverage in the 1991 Census is being measured by means of a special study known as the Reverse Record Check. Undercoverage tends to be higher for certain segments of the population such as young adult males and recent immigrants. The fourth study, known as the Overcoverage Study, is designed to investigate

overcoverage errors. The results of the Reverse Record Check and the Overcoverage Study, when taken together, furnish an estimate of net undercoverage.

### Other Non-Sampling Errors

While coverage errors affect the number of units in the various census universes, other errors affect the characteristics of those units.

Sometimes, it is not possible to obtain a complete response from a household, even though the dwelling was identified as occupied and a questionnaire dropped off. The household members may have been away throughout the census period or, in rare instances, the householder may have refused to complete the form. More frequently, the questionnaire is returned but information is missing for some questions or individuals. Considerable effort is devoted to ensure as complete a response as possible. Census representatives edit the questionnaires and follow up on missing information. The Census Representative's work is then checked by both a supervisor and a quality control technician. Despite this, at the end of the collection stage, a small number of responses is still missing. Although missing entries are eliminated during processing by replacing a missing value by the corresponding entry for a "similar" record, there remain some potential non-response errors. This is particularly serious if the non-respondents differ in some respects from the respondents, since this procedure will result in non-response bias.

Even when a response is obtained, it may not be entirely accurate. The respondent may have misinterpreted the question or may have guessed the answer, especially when answering on behalf of another, possibly absent, household member. Such errors are referred to as response errors. While response errors usually arise from inaccurate information provided by respondents, they can also result from mistakes by the Census Representative when completing certain parts of the questionnaire, such as structural type of dwelling, or when calling back to obtain a missing response.

Some of the questions on the census document require a written response. During processing, these "write-in" entries are given a numeric code. Coding errors can occur, especially when the code list is extensive (as with, for example, language, ethnic origin, industry and occupation), and when the written response is ambiguous, incomplete or difficult to read. Coding errors are controlled, though not completely eliminated, by verifying a sample of the codes and taking corrective action where necessary. For the first time in 1991, much of the coding was automated, partly in an effort to reduce the extent of coding errors.

The information on the questionnaires is key-entered onto a computer file. Two procedures are used to control the number of data capture errors. First, certain edits (such as range checks) are performed as the data are keyed. Second, a sample from each batch of documents is re-keyed and compared with the original entries. If there is

more than a specified number of errors among the original entries, the whole batch is re-keyed.

Once the data have been captured, they are sent to Ottawa where they undergo a series of computer checks to identify missing or inconsistent responses. In the case of inconsistent responses, it has first to be decided which response is to be considered invalid. Invalid or missing responses must then be replaced by valid responses, that is, responses which are consistent with other data on the record. For a small proportion of cases, the correct response can be inferred from other data on the record. In most cases, however, this is not possible and a valid response is obtained from a "donor" record selected at random from among a group of consistent records which are similar to the invalid record in terms of a number of related characteristics. There is, of course, no guarantee that the imputed value will necessarily be the correct response for the individual concerned. However, provided the missing or invalid records are similar, on average, to the valid records, any imputation errors will more or less cancel out when results are tabulated for a sufficiently large geographic area or population subgroup.

Various studies are being carried out to evaluate the quality of the responses obtained in the 1991 Census. For each question, response rates and edit failure rates have been calculated. These can be useful in identifying the potential for non-response and other errors. Also, tabulations from the 1991 Census have been or will be compared with corresponding estimates from previous censuses, from sample surveys (such as the Labour Force Survey) and from various administrative records (such as birth registrations and municipal assessment records). Such comparisons can indicate potential quality problems or at least discrepancies between the sources.

In addition to these aggregate-level comparisons, there are some micromatch studies in progress, in which census responses are compared with another source of information at the individual record level. For certain "stable" characteristics (such as age, sex, mother tongue, place of birth), the responses obtained in the 1991 Census, for a sample of individuals, are being compared with those for the same individuals in the 1986 Census. Also, following the 1991 Census, a sample of persons was re-enumerated, primarily to determine overcoverage rates. At the same time, however, interviewers asked a series of detailed questions on language, ethnic origin and marital status; the responses will be compared with the corresponding census responses in order to identify, and hopefully understand, response errors.

## Confidentiality and Random Rounding

The figures shown in the tables have been subjected to a confidentiality procedure known as "random rounding". This is done to prevent the possibility of associating statistical data with any identifiable individual. Under this method, all figures including totals are randomly rounded either up or down to a multiple of "5", and in some cases

"10". While providing strong protection against disclosure, this technique does not add significant error to the census data. However, there are some consequences for the users. Since totals are independently rounded, they do not necessarily equal the sum of individually rounded figures in distributions. Also, minor differences can be expected in corresponding totals and cell values in various census tabulations. Similarly, percentages, which are calculated on rounded figures, do not necessarily add up to 100. Percentage distributions and rates for the most part are based on rounded data, while percentage changes and averages are based on unrounded data. It should also be noted that small cell counts may suffer a significant distortion as a result of random rounding. Individual data cells containing small numbers may lose their precision as a result.

Users should be aware of possible data distortions when they are aggregating these rounded data. Imprecisions as a result of rounding tend to cancel each other out when data cells are reaggregated. However, users can minimize these distortions by using, whenever possible, the appropriate subtotals when aggregating.

For those requiring maximum precision, the option exists to use custom tabulations. With custom products, aggregation is done using individual census database records. Random rounding occurs only after the data cells have been aggregated, thus minimizing any distortion.

In addition to random rounding, area suppression has been adopted to further protect the confidentiality of individual responses.

Area suppression results in the deletion of all characteristic data for geographic areas with populations below a specified size. The extent to which data are suppressed depends upon the following factors:

- if the data are tabulated from the 100% database, suppression is based upon the total population;

- if the data are tabulated from the 20% sample database, suppression is based upon the non-institutional population;

- if the data contain an income distribution, those areas with populations below 250 persons are suppressed;

- if the data do not contain an income distribution, those areas with a population of less than 40 persons are suppressed.

In all cases, suppressed data are included in the appropriate higher aggregate subtotals and totals.

**About SABAL's database sources...**

---

This technique is being implemented for all products involving subprovincial data (i.e. Profile series, basic summary tabulations, semi-custom and custom data products) collected on a 100% or 20% sample basis.

## Special Notes

Population Counts Based on Usual Residence

The population counts shown here for a particular area represent the number of Canadians whose usual place of residence is in that area, regardless of where they happened to be on Census Day. Also included are any Canadians staying in a dwelling in that area on Census Day and having no usual place of residence elsewhere in Canada, as well as those considered "non-permanent residents" (see note on this group). In most areas, there is little difference between the number of usual residents and the number of people staying in the area on Census Day. For certain places, however, such as tourist or vacation areas, or those including large work camps, the number of people staying in the area at any particular time could significantly exceed the number of usual residents shown here.

## Non-permanent Residents

In 1991, for the first time, the census of population included both permanent and non-permanent residents of Canada. Non-permanent residents are persons who hold student or employment authorizations, Minister's permits or who are refugee claimants.

Prior to 1991, only permanent residents of Canada were included in the census. (The only exception to this was 1941.) Non-permanent residents were considered foreign residents and were not enumerated.

Today in Canada, non-permanent residents make up a growing segment of the population. Their presence can affect the demand for such government services as health care, schooling, employment programs and language training. The inclusion of non-permanent residents in the 1991 Census will also facilitate comparisons with provincial and territorial statistics (marriages, divorces, births and deaths) which include this population. In addition, the census definition is now closer to the United Nations' recommendation that long-term residents (persons living in a country for one year or longer) be enumerated.

Total population counts, as well as counts for all variables collected on a 100% basis, e.g., age, sex, mother tongue and marital status, will be affected by the change in the 1991 Census universe. Until immigration data are released, it will not be possible to know the extent to which differences in the counts are due to the inclusion of non-

permanent residents or other factors. Users should be especially careful when comparing data from 1991 and previous censuses in geographic areas where there is a concentration of non-permanent residents. These include the major metropolitan areas in Ontario, Québec and British Columbia.

Although every attempt has been made to enumerate non-permanent residents, factors such as language difficulty and the reluctance to complete a government form or understand the need to participate may affect the enumeration of this population. Non-permanent residents can only be identified through the long questionnaire completed by 20% of Canadian households. An estimate of the size of this population group will not be known until the release of census data on immigration in December 1992.

## Incompletely Enumerated Indian Reserves and Indian Settlements

On some Indian reserves and Indian settlements in the 1991 Census, enumeration was not permitted or was interrupted before it could be completed. Moreover, some Indian reserves and Indian settlements were enumerated late or the quality of the collected data was considered inadequate. These geographic areas (a total of 78) are called incompletely enumerated Indian reserves and Indian settlements.

Data for 1991 are therefore not available for the incompletely enumerated reserves and settlements and are not included in tabulations. Data for geographic areas containing one or more of these reserves and settlements are therefore noted accordingly. Because of the missing data, users are cautioned that for the affected geographic areas, comparisons (e.g., percentage change) between 1986 and 1991 are not exact. While for higher level geographic areas (Canada, provinces, census metropolitan areas and census agglomerations) the impact of the missing data is very small, the impact can be significant for smaller areas, where the affected reserves and settlements account for a higher proportion of the population.

A list of incompletely enumerated Indian reserves and Indian settlements along with Population and Occupied Private Dwelling Counts from the last two censuses (where available) has been compiled and is shown in Appendix 1.

**About SABAL's database sources...**

---

## Comparability and Quality of Data on Mother Tongue

The mother tongue question reads as follows for the 1991 Census: "What is the language that this person first learned at home in childhood and still understands?" This phrasing is similar to that used for the 1986 Census, except for the insertion of the expression "at home". Furthermore, an instruction has been added in 1991 following the question: "If this person no longer understands the first language learned, indicate the second language learned". In 1986, this instruction was found in the guide which accompanied the questionnaire.

The short questionnaire (Form 2A) contains only one language question; the one on mother tongue. In 1991, it bore the title of Language First Learned at Home in Childhood. However, the long questionnaire (Form 2B) comprised four language-related questions. The title Language preceded these questions. The question on the mother tongue came last, following the two questions on the knowledge of official and non-official languages, and the question on language spoken most often at home. In 1986, the question on mother tongue (Question 6) preceded questions on the language spoken most often at home and on knowledge of the official languages (Questions 18 and 19).

In 1991, the boxes corresponding to the three most frequent non-official languages were deleted from the questionnaire. The only two check boxes were the ones referring to English and French; other language responses were recorded by means of a write-in answer space. For the first time, in 1991, these answers were coded using an automatic process.

An important change was made to the "Algonquian languages, n.i.e." category. This category contains the Oji-Cree language in 1991, which had been assigned to Cree or Ojibway in 1986.

**About SABAL's database sources...**

---

The table shown below gives the main answer categories of the question on mother tongue. The complete data (100%), the data taken from the short questionnaire (distributed to 80% of households) and the data taken from the long questionnaire (distributed to 20% of households) are included. Some of the following figures are approximative.

| | 1981 | | | 1986 | | | 1991 | | |
|---|---|---|---|---|---|---|---|---|---|
| | **100%** | **80%** | **20%** | **100%** | **80%** | **20%** | **100%** | **80%** | **20%** |
| *Total* | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| *Single response* | 97.5 | 97.5 | 97.8 | 96.2 | 96.1 | 96.6 | 97.3 | 97.0 | 98.8 |
| *English* | 60.3 | 60.3 | 60.4 | 60.6 | 60.6 | 60.6 | 60.5 | 60.6 | 59.9 |
| *French* | 25.2 | 25.2 | 25.2 | 24.3 | 24.3 | 24.3 | 23.8 | 23.8 | 24.1 |
| *Non official languages* | 12.1 | 12.0 | 12.2 | 11.3 | 11.2 | 11.6 | 13.0 | 12.6 | 14.8 |
| *Multiple response* | 2.5 | 2.5 | 2.2 | 3.8 | 3.9 | 3.4 | 2.7 | 3.0 | 1.2 |

The 1991 distributions show the notable difference between the data taken from the short form (80%) and the data taken from the long form (20%). The proportion of multiple responses was 3.0% and 1.2% respectively. This difference is probably due to the fact that in the first case, the question on the mother tongue was the only language question asked, while in the second case, other language questions were asked before the question on the mother tongue. Respondents would be less likely to report two or more mother tongues if they were first able to indicate their language proficiency. Accordingly, there was a higher proportion of single responses in the responses taken from the long form (20%); this increase applied to French and especially to non-official languages, while a decrease was noted for English. Part of this variation is probably linked to the inclusion of the new question on the knowledge of non-official languages.

Between 1981 and 1991, fluctuations were observed in the proportion of multiple responses on the short form (80%). This proportion rose from 2.5% to 3.9% between 1981 and 1986, and dropped back to 3.0% in 1991. These fluctuations are probably due to the modifications made to the questionnaire.

**About SABAL's database sources...**

---

Time comparisons become a rather delicate issue due to the changes in certain aspects of the collection and processing of data on mother tongue from one census to the next. Therefore, users are advised to exercise caution when analysing historical trends.

## Structural Type of Dwelling

Movable dwellings, one category of structural type of dwellings, were suspected to be under-reported in the 1991 Census. This is thought to be due to the misclassification of a number of Mobile Homes as other structural types. For large geographic areas, this error is not expected to have a significant impact upon other dwelling categories because of the relatively large number of dwellings in that area. However, for small geographic areas, the impact may be more pronounced.

**About SABAL's database sources...**

---

## *Census - Part 2B*

(extracts from Statistics Canada's documentation for the Profile Series - Part B)

### Definitions

The definitions of geographic terms and census concepts are presented here in summary form only. Users should refer to the 1991 Census Dictionary (Catalogue No. 92-301E) for the full definitions and additional remarks related to these concepts and definitions.

### Age

Refers to the age at last birthday (as of the census reference date, June 4, 1991). This variable is derived from the date of birth question which asks day, month and year of birth. Persons who were unable to give the exact date of birth were asked to give the best possible estimate.

### Age at Immigration

Refers to the age at which the respondent first obtained landed immigrant status. A landed immigrant is a person who is not a Canadian citizen by birth, but who has been granted the right to live in Canada permanently by Canadian immigration authorities.

### Bedrooms

Refers to all rooms designed and furnished as bedrooms and used mainly for sleeping purposes, even though the use may be occasional (i.e. spare bedroom).

### Census Agglomeration (CA)

The general concept of a census agglomeration (CA) is one of a large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

A CA is delineated around an urban area (called the urbanized core and having a population of at least 10,000, based on the previous census). Once a CA attains an urbanized core population of at least 100,000, based on the previous census, it becomes a census metropolitan area (CMA).

**About SABAL's database sources...**

---

## Census Division (CD)

Refers to the general term applying to geographic areas established by provincial law, which are intermediate geographic areas between the census subdivision and the province (e.g., divisions, counties, regional districts, regional municipalities and seven other types of geographic areas made up of groups of census subdivisions).

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 co-operation with these provinces.

## 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 (again 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.

## Census Farm

Refers to a farm, ranch or other agricultural holding which produces at least one of the following products intended for sale: crops, livestock, poultry, animal products, greenhouse or nursery products, mushrooms, sod, honey, or maple syrup products.

## Census Metropolitan Area (CMA)

The general concept of a census metropolitan area (CMA) is one of a very large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

A CMA is delineated around an urban area (called the urbanized core and having a population of at least 100,000, based on the previous census). Once an area becomes a CMA, it is retained in the program even if its population subsequently declines.

Smaller urban areas, centred on urbanized cores of a population of at least 10,000, are included in the census agglomeration (CA) program.

**About SABAL's database sources...**

---

## Census Subdivision (CSD)

Refers to the general term applying to municipalities (as determined by provincial legislation) or their equivalent, e.g., 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 co-operation with the provinces as equivalents for municipalities.

## Census Subdivision Type

The type indicates the municipal status of a census subdivision. Census subdivisions (CSDs) are classified into various types, according to official designations adopted by provincial or federal authorities.

## Citizenship

Refers to the legal citizenship status of the respondent. Persons who are citizens of more than one country were instructed to indicate this fact.

## Class of Worker

This variable classifies persons who reported a job into those who (i) worked mainly for someone else for wages, salaries, commissions or payments "in kind", (ii) worked without pay in a family farm, business or professional practice owned or operated by a related household member, (iii) worked mainly for themselves, with or without paid help. The job reported was the one held in the week prior to enumeration if the person was employed, or the job of longest duration since January 1, 1990, if the person was not employed during the reference week. Persons with two or more jobs in the reference week were to provide information for the job at which they worked the most hours.

**Note: Self-employed persons in incorporated companies in 1971 and 1981 Census publications are normally included in the paid worker category to permit comparisons with surveys of establishments and the System of National Accounts. In 1991 and 1986 Census publications, where space permits, self-employed persons whose farms or businesses were incorporated are shown separately.**

**About SABAL's database sources...**

---

## Condition of Dwelling

Refers to whether, in the judgement of the respondent, the dwelling requires any repairs (excluding desirable remodelling or additions).

Regular maintenance refers to painting, furnace cleaning, etc. Minor repairs refer to missing or loose floor tiles, bricks or shingles, defective steps, railing or siding, etc. Major repairs refer to defective plumbing or electrical wiring, structural repairs to walls, floors or ceilings, etc.

## 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 who, during the week prior to June 4, 1991:

(a) did any work at all excluding housework or other maintenance or repairs around the home and volunteer work; or

(b) were absent from their job or business because of own temporary illness or disability, vacation, labour dispute at their place of work, or were absent for other reasons.

Data are available for persons 15 years of age and over, excluding institutional residents.

## Enumeration Area (EA)

An enumeration area (EA) is the geographic area canvassed by one census representative.

## Ethnic origin

Refers to the ethnic or cultural group(s) to which the respondent's ancestors belong. Ethnic or cultural origin refers to the ethnic "roots" or ancestral background of the population, and should not be confused with citizenship or nationality.

It should be noted that, prior to the 1981 Census, only the respondent's paternal ancestry was to be reported. If multiple ethnic origins were reported, only one origin was captured, resulting in one ethnic origin per respondent. In 1981, this restriction was removed, allowing for multiple ethnic origins. One write-in was provided on the 1981 questionnaire, in addition to the mark-in boxes. The 1986 Census questionnaire

allowed respondents to write in three ethnic origins not included in the mark-in boxes. In 1991, respondents could write in up to two ethnic origins not included in the mark-in circles.

The 1991 question was changed slightly from that asked in the 1986 Census. In 1991, respondents were asked "To which ethnic or cultural group(s) did this person's ancestors belong?" The 1986 Census question asked "To which ethnic or cultural group(s) do you or did your ancestors belong?"

In 1991, the ordering of the mark-ins was altered to more accurately reflect the changing relative size of ethnic groups based on single responses in the 1986 Census.

**Experienced Labour Force**

Refers to persons who, during the week prior to June 4, 1991, were employed or unemployed but who had worked since January 1, 1990. The experienced labour force can be derived by deleting from the total labour force those unemployed persons 15 years of age and over who have never worked or who worked only prior to January 1, 1990.

**Federal Electoral District (FED)**

A federal electoral district refers to any place or territorial area entitled to return a member to serve in the House of Commons (source: Canada Elections Act, 1990). There are 295 FEDs in Canada according to the 1987 Representation Order.

Federal electoral districts are defined according to the following criteria:

(1) the legal limits and descriptions are the responsibility of the Chief Electoral Officer and are published in the Canada Gazette;

(2) FED limits are usually revised every 10 years after the results of the decennial census.

**Fertility**

Refers to the number of children ever born alive to women aged 15 years and over.

**Forward Sortation Areas (FSAs)**

Forward sortation areas (FSAs) are a set of well-defined and stable areas represented by the first three characters of a postal code. Information in this series is based on the reported postal code.

**About SABAL's database sources...**

---

**Full-time or Part-time Weeks Worked in 1990**

Refers to persons who worked in 1990. These persons were asked to report whether the weeks they worked in 1990 were full weeks (30 hours or more per week) of work or not. Persons with a part-time job for part of the year and a full-time job for another part of the year were to report the information for the job at which they worked the most weeks. Data are available for persons 15 years of age and over who worked in 1990, excluding institutional residents.

**Gross Rent**

Refers to the total average monthly payments paid by tenant households to secure shelter.

**Highest Level of Schooling**

Refers to the highest grade or year of elementary or secondary school attended, or the highest year of university or other non-university completed. University education is considered to be above other non-university. Also, the attainment of a degree, certificate or diploma is considered to be at a higher level than years completed or attended without an educational qualification.

**Home Language**

Refers to the language spoken most often at home by the individual at the time of the census.

**Immigrant Population**

Refers to persons who are, or have been, landed immigrants in Canada. A landed immigrant is a person who is not a Canadian citizen by birth, but who has been granted the right to live in Canada permanently by Canadian immigration authorities. For further information on the immigrant population, see Figures 6A and 6B in the 1991 Census Dictionary (Catalogue No. 92-301E).

Income: Average, Median and Standard Error

**Average Income**

Average income refers to the weighted mean total income of a group of income units (individuals, families or households) and is calculated from unrounded data by dividing the aggregate income of the group (e.g., males, 45-54 years of age, female lone-parent families, one-person households) by the number of units in that group.

**About SABAL's database sources...**

---

In the case of individuals, average income is calculated only for individuals with income (positive or negative). In all other cases, both with and without income units are included in the calculation.

This concept and procedure applies to total income, employment income, wages and salaries and any other component of income.

**Median Income**

The median income of a specified group of income units is that amount which divides their income size distribution into two halves, i.e. the incomes of the first half of the income units are below the median, while those of the second half are above the median.

In the case of individuals, median income is calculated only for individuals with income (positive or negative). In all other cases, both with and without income units are included in the calculation.

This concept and procedure applies to total income, employment income, wages and salaries and any other component of income.

**Standard Error of Average Income**

Refers to the estimated standard error of average income. It is an estimate of the error introduced into these data due to the fact that they are collected only from a one in five random sample of households. When using these figures, the user can be reasonably certain that the true value of the average income (i.e. the value that would have been obtained had sampling not been used) lies within plus or minus twice the standard error and virtually certain that it lies within plus or minus three times the standard error. These estimates of standard error do not include the effects of certain types of response error or systematic or coverage errors.

**Income: Census Family Total Income**

The total income of a census family is the sum of the total incomes of all members of that family. Similarly, the income of a family from a particular source or sources is the sum of incomes of all family members from that source or sources.

**Income: Composition of Income**

The composition of the total income of a population group or a geographic area refers to the relative share of each income source or group of sources, expressed as a percentage of the aggregate income of that group or area.

**About SABAL's database sources...**

---

For the profile series three groups of sources are used; employment income, which includes wages and salaries and income from farm and non-farm self employment; government transfer payments which includes all transfers or payments received from any level of government and covered as a separate income source; other income which includes investment income, retirement pensions and other money income. See "Sources of Income" for each income source description.

**Income: Employment Income**

Refers to total income received by persons 15 years of age and over during 1990 as wages and salaries, net income from unincorporated non-farm business and/or professional practice and net farm self-employment income.

**Income: Household Total Income**

The total income of a household is the sum of the total incomes of all members of that household.

**Income: Incidence of Low Income**

The incidence of low income is the proportion or percentage of economic families or unattached individuals in a given classification below the low income cut-offs. These incidence rates are calculated from unrounded estimates of economic families and unattached individuals 15 years of age and over. Since all members of an economic family share a common status, incidence of low income is also calculated for the population in private households.

**Income: Income Status**

Refers to the position of an economic family or an unattached individual 15 years of age and over in relation to Statistics Canada's low income cut-offs (LICOs).

**Income: Low Income Cut-offs (LICOs)**

Measures of low income known as low income cut-offs (LICOs) were first introduced in Canada in 1968 based on 1961 Census income data and 1959 family expenditure patterns. At that time, expenditure patterns indicated that Canadian families spent about 50% of their income on food, shelter and clothing. It was arbitrarily estimated that families spending 70% or more of their income on these basic necessities would be in "straitened" circumstances. With this assumption, low income cut-off points were set for five different sizes of families.

Subsequent to these initial cut-offs, revised low income cut-offs were established based on national family expenditure data from 1969, 1978 and 1986. These data indicated that Canadian families spent, on average, 42% in 1969, 38.5% in 1978 and

36.2% in 1986 of their income on basic necessities. By adding the original difference of 20 percentage points to the basic level of expenditure on necessities, new low income cut-offs were set at income levels differentiated by family size and degree of urbanization. Since then, these cut-offs have been updated yearly by changes in the consumer price index.

For the purposes of low income statistics, economic families and unattached individuals in the Yukon and the Northwest Territories and on the Indian reserves are excluded. The low income cut-offs were based on certain expenditure-income patterns which were not available from survey data for the entire population.

The census and the Survey of Consumer Finances differ slightly when applying the "Size of Area" classification to derive incidence of low income. Census takes into account the density of population to designate an enumeration area as urban and the total population of contiguous urban EAs determines the size of area. The survey takes complete CMAs or CAs and classifies these into size of area by total population within the CMA/CA boundaries. The overall impact of this difference is negligible.

All persons 15 years of age or over were asked to report their total money income from the following sources during the calendar year 1990:

(a) Wages and Salaries

Refers to gross wages and salaries before deductions for such items as income tax, pensions, unemployment insurance, etc. Included in this source are military pay and allowances, tips, commissions and cash bonuses, as well as all types of casual earnings in the 1990 calendar year. The value of taxable allowances and benefits provided by employers, such as free lodging and free automobile use, is excluded.

(b) Net Income from Unincorporated Non-farm Business and/or Professional Practice

Refers to net income (gross receipts minus expenses of operation such as wages, rents and depreciation) received during calendar year 1990 from the respondent's non-farm unincorporated business or professional practice. In the case of a partnership, only the respondent's share was to be reported. Also included is net income from persons baby-sitting in their own homes, operators of direct distributorships such as those selling and delivering cosmetics, as well as from free-lance activities of artists, writers, music teachers, hairdressers, dressmakers, etc.

(c) Net Farm Self-employment Income

Refers to net income (gross receipts from farm sales minus depreciation and cost of operation) received during calendar year 1990 from the operation of a farm, either on own account or in partnership. In the case of partnerships, only the respondent's

share of income was to be reported. Also included are advance, supplementary or assistance payments to farmers by federal or provincial governments. However, the value of income "in kind", such as agricultural products produced and consumed on the farm, is excluded.

(d) Old Age Security Pension and Guaranteed Income Supplement

Refers to Old Age Security pensions and Guaranteed Income Supplements paid to persons 65 years of age and over, and Spouses' Allowances paid to 60- to 64-year-old spouses of Old Age Security recipients by the federal government only during the calendar year 1990. Also included are Extended Spouses' Allowances paid to 60- to 64-year-old widows/widowers.

(e) Benefits from Canada or Quebec Pension Plan

Refers to benefits received in calendar year 1990 under the Canada or Quebec Pension Plan, e.g., retirement pensions, survivors' benefits and disability pensions. Does not include lump-sum death benefits.

(f) Family Allowances

Refers to total allowances paid in calendar year 1990 by the federal and provincial governments in respect of dependent children under 18 years of age. For Quebec residents, "Allowance for children less than 6 years of age" and "Allowance for newborn children" are included. These allowances, though not collected directly from respondents, were calculated and included in the income of one of the parents.

(g) Federal Child Tax Credits

Refers to federal Child Tax Credits paid in calendar year 1990 by the federal government in respect of dependent children under 18 years of age. These credits, though not collected directly from respondents, were calculated and included in the income of one of the parents.

(h) Benefits from Unemployment Insurance

Refers to total Unemployment Insurance benefits received in calendar year 1990, before income tax deductions. It includes benefits for sickness, maternity, fishing, work sharing, retraining and retirement received under the Federal Unemployment Insurance Program.

(i) Other Income from Government Sources

Refers to all transfer payments, excluding those covered as a separate income source (Family Allowances, federal Child Tax Credits, Old Age Security pensions and

Guaranteed Income Supplements, Canada or Quebec Pension Plan benefits and Unemployment Insurance benefits) received from federal, provincial or municipal programs in calendar year 1990. This source includes social assistance payments received by persons in need, such as mothers with dependent children, persons temporarily or permanently unable to work, elderly individuals, the blind and the disabled. Included are provincial income supplement payments to seniors to supplement the Old Age Security pension and Guaranteed Income Supplement and provincial payments to seniors to help offset accommodation costs. Also included are other transfer payments such as benefits under the Canadian Jobs Strategy, veterans' pensions, war veterans' allowance, pensions to widows and dependants of veterans and workers' compensation. Additionally, any amounts received in 1990 for refundable Provincial Tax Credits, Federal Sales Tax Credits and the federal Goods and Services Tax Credits are included.

(j) Dividends and Interest on Bonds, Deposits and Savings Certificates and Other Investment Income

Refers to interest received in calendar year 1990 from deposits in banks, trust companies, co-operatives, credit unions, caisses populaires, etc., as well as interest on savings certificates, bonds and debentures and all dividends from both Canadian and foreign stocks. Also included is other investment income from either Canadian or foreign sources such as net rents from real estate, mortgage and loan interest received, regular income from an estate or trust fund, and interest from insurance policies.

(k) Retirement Pensions, Superannuation and Annuities

Refers to all regular income received during calendar year 1990 as the result of having been a member of a pension plan of one or more employers. It includes payments received from all annuities, including payments from a matured Registered Retirement Savings Plan (RRSP) in the form of a life annuity, a fixed term annuity, a registered retirement income fund or an income-averaging annuity contract; pensions paid to widows or other relatives of deceased pensioners; pensions of retired civil servants, Armed Forces personnel and Royal Canadian Mounted Police (RCMP) officers; annuity payments received from the Canadian Government Annuities Fund, an insurance company, etc. Does not include lump-sum death benefits, lump-sum benefits or withdrawals from a pension plan or RRSP or refunds of overcontributions.

(l) Other Money Income

Refers to regular cash income received during calendar year 1990 and not reported in any of the other nine sources listed on the questionnaire, e.g., alimony, child support, periodic support from other persons not in the household, net income from roomers and boarders, income from abroad (except dividends and interest), non-refundable scholarships and bursaries, severance pay, royalties and strike pay.

**About SABAL's database sources...**

---

**Receipts Not Counted as Income**

Gambling gains and losses, money inherited during the year in a lump sum, capital gains or losses, receipts from the sale of property or personal belongings, income tax refunds, loans received, loans repaid to an individual as the lender, lump-sum settlements of insurance policies, rebates of property taxes and other taxes, and refunds of pension contributions were excluded as was all income "in kind" such as free meals, living accommodations, or agricultural products produced and consumed on the farm.

**Total Income**

"Total income" refers to the sum of amounts received during 1990 by an income recipient from the sources of income listed above.

**Income: Total Income**

Refers to the total money income received from the following sources during the calendar year 1990 by persons 15 years of age and over:

Total wages and salaries

Net income from unincorporated non-farm business and/or professional practice

Net farm self-employment income

Family Allowances

Federal Child Tax Credits

Old Age Security pension and Guaranteed Income Supplement

Benefits from Canada or Quebec Pension Plan

Benefits from Unemployment Insurance

Other income from government sources

Dividends and interest on bonds, deposits, savings certificates and other investment income

Retirement pensions, superannuation and annuities

Other money income

**About SABAL's database sources...**

---

## Industry (Based on 1980 Standard Industrial Classification)

Refers to the general nature of the business carried out in the establishment where the person worked, as indicated by the name of the employer and the kind of business, industry or service. Data are available for persons 15 years of age and over, excluding institutional residents. If the person was not employed in the week prior to enumeration, the information relates to the job of longest duration since January 1, 1990. Persons with two or more jobs were to report the information for the job at which they worked the most hours.

Census industry data based on the 1980 Standard Industrial Classification (SIC) have three levels of aggregation. There are 18 divisions (labelled A to R) which are subdivided into 75 major groups, which are, in turn, subdivided into 296 unit groups.

Direct comparisons can be made between 1991 and 1986 Census industry data based on the 1980 SIC.

Direct comparisons of 1991 and 1986 data with industry data from the 1981 and 1971 Censuses are possible, based on the 1970 SIC. For further information, refer to the definition of Labour: Industry (Based on 1970 Standard Industrial Classification) in the 1991 Census Dictionary (Catalogue No. 92-301E).

## Inexperienced Labour Force

The inexperienced labour force consists of unemployed persons 15 years of age and over who have never worked or who worked only prior to January 1, 1990.

## Institutional Resident

Refers to a resident of an "institutional" collective dwelling, other than staff members and their families.

"Institutional" collective dwellings are children's group homes and orphanages, nursing homes, chronic care hospitals, residences for senior citizens, hospitals, psychiatric institutions, treatment centres and institutions for the physically handicapped, correctional and penal institutions, young offenders' facilities and jails.

## Knowledge of Non-official Languages

Refers to the language or languages, other than English or French, in which the respondent can conduct a conversation.

The non-official language data are based on the respondent assessment of his or her ability to speak non-official languages.

**About SABAL's database sources...**

---

**Knowledge of Official Languages**

Refers to the ability to conduct a conversation in English only, in French only, in both English and French or in none of the official languages of Canada.

The official language data are based on respondent assessment of his or her ability to speak the two official languages.

**Labour Force Activity**

Refers to the labour market activity of the working age population who, in the week prior to June 4, 1991, were employed or unemployed. The remainder of the working age population is classified as not in labour force. Data are available for persons 15 years of age and over, excluding institutional residents.

**Landed Immigrant Status**

Refers to persons who are not Canadian citizens by birth, but who have been granted to right to live in Canada permanently by Canadian immigration authorities.

The landed immigrant status question, in conjunction with the citizenship question, permits Census data users to identify the non-immigrant population, the immigrant population and non-permanent residents. For more information on these populations, refer to Figures 6A and 6B in the 1991 Census Dictionary (Catalogue No. 92-301E).

**Marital Status (Legal)**

Refers to the conjugal status of a person.

**Legally married (and not separated)**

Persons whose husband or wife is living, unless the couple is separated or a divorce has been obtained.

**Legally married and separated**

Persons who have been deserted or who have parted because they no longer want to live together, but have not obtained a divorce.

**Divorced**

Persons who have obtained a legal divorce and who have not remarried.

**Widowed**

Persons who have lost their spouse through death and who have not remarried.

**Never married (single)**

Persons who have never married (including all persons less than 15 years of age) and persons whose marriage has been annulled and who have not remarried.

**Mobility Status - Place of Residence 1 Year Ago**

Refers to the relationship between a person's usual place of residence on Census Day and his or her usual place of residence one year earlier. A person is classified as a non-mover if no difference exists; otherwise, a person is classed as a mover and this categorization is called Mobility Status (1 Year Ago). Within the category movers, a further distinction is made between intraprovincial movers, interprovincial migrants and external migrants.

Non-movers are persons who, on Census Day, were living at the same address which they occupied one year earlier.

Movers are persons who, on Census Day, were living at a different address than the one at which they resided one year earlier.

Intraprovincial movers are movers who, on Census Day, were living at a different address but in the same province/territory that they occupied one year earlier.

Interprovincial migrants are movers who, on Census Day, were living in a different province/territory one year earlier.

External migrants are movers who, on Census Day, were living outside Canada one year earlier.

**Mobility Status - Place of Residence 5 Years Ago**

Refers to the relationship between a person's usual place of residence on Census Day and his or her usual place of residence five years earlier. A person is classified as a non-mover if no difference exists; otherwise, a person is classed as a mover and this categorization is called Mobility Status (5 Years Ago). Within the category movers, a further distinction is made between non-migrants and migrants; this difference is called migration status.

Non-movers are persons who, on Census Day, were living at the same address which they occupied five years earlier.

Movers are persons who, on Census Day, were living at a different address than the one at which they resided five years earlier.

**About SABAL's database sources...**

---

Non-migrants are movers who, on Census Day, were living at a different address but in the same census subdivision (CSD) that they occupied five years earlier.

Migrants are movers who, on Census Day, were residing in a different CSD five years earlier (internal migrants) or who were living outside Canada five years earlier (external migrants). Internal migrants are further divided into two categories: intraprovincial migrants, who moved to a different CSD within the same province, and interprovincial migrants, who moved to another province.

External migrants are movers who, on Census Day, were living outside Canada five years earlier.

**Non-immigrant Population**

Refers to persons who are Canadian citizens by birth. For further information on the non-immigrant population, see Figures 6A and 6B in the 1991 Census Dictionary (Catalogue No. 92-301E).

**Non-permanent Residents**

Refers to persons who hold a student authorization, employment authorization, Minister's permit or who are refugee claimants. For further information on this population, refer to the "Special Notes" section and to Figures 6A and 6B in the 1991 Census Dictionary (Catalogue No. 92-301E).

**Not in the Labour Force**

Refers to those persons who, in the week prior to enumeration, were unwilling or unable to offer or supply their labour services under conditions existing in the labour market. It includes persons who looked for work during the last four weeks but who were not available to start work in the reference week, as well as persons who did not work, did not have a new job to start in four weeks or less, were not on temporary lay-off or did not look for work in the four weeks prior to enumeration. Data are available for persons 15 years of age and over, excluding institutional residents.

**Occupation (Based on 1980 Standard Occupational Classification)**

Refers to the kind of work persons were doing during the reference week, as determined by their kind of work and the description of the most important duties in their job. Data are available for persons 15 years of age and over, excluding institutional residents. If the person did not have a job during the week prior to enumeration, the data relate to the job of longest duration since January 1, 1990. Persons with two or more jobs were to report the information for the job at which they worked the most hours.

**About SABAL's database sources...**

---

Occupation data are based on the 1980 classification structure which is composed of three levels of aggregation. There are 22 major groups which are subdivided into 80 minor groups. These, in turn, contain a total of 514 unit groups.

The 1981 and 1986 Censuses also used the 1980 Standard Occupational Classification to classify occupation data; therefore, direct comparisons with 1991 data are possible. For comparisons with 1971 data, adjustments must be made to the labour force universe and only occupation data classified to the 1971 Occupational Classification Manual can be used. For further information, refer to the definition of Labour: Occupation (Based on 1971 Occupational Classification Manual) in the 1991 Census Dictionary (Catalogue No. 92-301E).

**Occupied Private Dwelling**

Refers to a private dwelling in which a person or group of persons are permanently residing. Also included are private dwellings whose usual residents are temporarily absent on Census Day. These data, however, exclude private dwellings occupied solely by foreign and/or temporary residents.

**Owner's Major Payments**

Refers to the total average monthly payments made by owner households to secure shelter.

**Owner's Major Payments or Gross Rent as a Percentage of Household Income**

Refers to the proportion of average monthly 1990 total household income which is spent on owner's major payments (in the case of owner-occupied dwellings) or on gross rent (in the case of tenant- occupied dwellings). This concept is illustrated below:

(a) Owner-occupied non-farm dwellings:

Owner's major payments 100=____%X(1990 total annual household income) /12

(b) Tenant-occupied non-farm dwellings:

Gross rent100=____%X(1990 total annual household income) /12

**Participation Rate**

Refers to the total labour force (in reference week) expressed as a percentage of the population 15 years of age and over, excluding institutional residents. The participation rate for a particular group (age, sex, marital status, geographic area, etc.) is the labour force in that group expressed as a percentage of the population for that group.

**Period of Construction**

Refers to the period in time during which the building or dwelling was originally constructed.

**Period of Immigration**

Refers to groupings of years derived from the year of immigration question.

**Place of Birth**

Refers to specific provinces or territories if born in Canada, or to specific countries if born outside Canada.

**Place of Work**

Refers to the usual place of work of non-institutional residents 15 years of age and over who have worked since January 1, 1990. The variables usually relate to the individual's job in the week prior to enumeration. However, if the person had not worked in that week but had worked since January 1, 1990, the information relates to the job held longest during that period.

Respondents were to check the "Worked at home", "Worked outside Canada" or "Worked at address specified below" box. Explanations follow.

Worked at home - Includes those persons whose location of employment is in the same building as their place of residence and those persons living and working on the same farm.

Worked outside Canada - Includes diplomats, Armed Forces personnel and others enumerated abroad, recent immigrants not currently employed whose job of longest duration since January 1, 1990 was outside Canada, and other persons who indicated that they worked outside Canada.

Worked at the address specified below - This response was to be checked off by persons whose place of work did not fall in either the "Worked at home" or "Worked outside Canada" categories. In addition, the full address of the place of work was to be reported. If the full address was not known, the name of the building or street intersection could be substituted. Persons who did not work in one area but who

reported regularly to a headquarters were to give the address of the local headquarters or depot. Persons with no fixed or usual place of work were asked to write in "No usual place".

**Presence of Children**

The Presence of Children variable classifies females 15 years and over in private households into those with children at home and those with no children at home. Females with children at home are then further classified on the basis of the age groups of their children.

The term "children" refers to all blood, step-, or adopted sons and daughters, who have never married, regardless of age, in census families (in private households), who 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.

**Primary Census Metropolitan Area (PCMA) - Primary Census Agglomeration (PCA)**

The primary census metropolitan area (PCMA) or primary census agglomeration (PCA) concept recognizes the fact that adjacent census metropolitan areas (CMAs) and census agglomerations (CAs) are socially and economically integrated within a larger consolidated CMA or CA.

Adjacent CMAs and CAs are consolidated into a single CMA or CA if the total commuting interchange between the two is equal to at least 35% of the employed labour force living in the smaller CMA or CA, based on the previous census. The original CMAs or CAs are known as PCMA or PCA subregions of the CMA or CA.

**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 which can be used without passing through the living quarters of someone else. The dwelling must meet the three conditions necessary for year-round use:

(1) a source of heat or power (as evidenced by chimneys, power lines, oil or gas pipes or meters, generators, woodpiles, electric lights, solar heating panels, etc.);

(2) access to a source of drinking water throughout the year (as evidenced by faucets, drain pipes, wells, water pumps, etc.);

(3) an enclosed space that provides shelter from the elements (as evidenced by complete and enclosed walls, by a roof, and by doors and windows that provide protection from wind, rain and snow).

**Private Household**

Refers to a person or group of persons (other than foreign residents) who occupy a private dwelling and do not have a usual place of residence elsewhere in Canada.

**Province**

Refers to the major political division of Canada. From a statistical point of view, it is a basic unit for which data are tabulated and cross-classified.

**Provincial Census Tract (PCT)**

The general concept of a provincial census tract (PCT) is that of a permanent, small, urban and/or rural neighbourhood-like or community-like area outside those census metropolitan areas (CMAs) and census agglomerations (CAs) having a census tract (CT) program. Taken together, CTs and PCTs cover all of Canada.

Provincial census tracts are delineated to encompass populations between 3,000 and 8,000, with a preferred average of 5,000. Boundaries, as much as possible, follow permanent physical features.

**Religion**

Refers to specific religious denominations, groups or bodies as well as sects, cults, or other religiously defined communities or systems of belief.

**Rooms**

Refers to the number of rooms in a dwelling. A room is an enclosed area within a dwelling which is finished and suitable for year-round living.

**Rural Area**

The general concept of a rural area is that of a sparsely populated area.

Statistics Canada defines rural areas as those areas of Canada lying outside urban areas.

**Rural Farm Population**

**About SABAL's database sources...**

---

Refers to all persons living in rural areas who are members of the households of farm operators living on their farms for any length of time during the 12-month period prior to the census.

**Rural Non-Farm Population**

Refers to all persons living in rural areas who are not members of the households of farm operators living on their farms for any length of time during the 12-month period prior to the census.

**Rural Population**

Refers to persons living outside "Urban Areas".

**School Attendance**

Refers to either full-time or part-time (day or evening) attendance at school, college or university during the nine-month period between September 1990 and June 4, 1991. Attendance is counted only for courses which could be used as credits towards a certificate, diploma or degree.

**Sex**

Refers to the gender of the respondent.

**Standard Geographical Classification (SGC)**

The Standard Geographical Classification (SGC) is Statistics Canada's official classification of geographic areas in Canada. The SGC provides unique numeric identification for three types of geographic areas. These are:

- provinces and territories;

- census divisions (CDs);

- census subdivisions (CSDs).

**About SABAL's database sources...**

---

The three geographic areas are hierarchically related. Census subdivisions (CSDs) aggregate to census divisions (CDs), which in turn aggregate to a province or a territory. This relationship is reflected in the seven-digit code:

| Province/territory | Census division | Census subdivision |
|---|---|---|
| XX | XX | XXX |
| 2 digits | 2 digits | 3 digits |

**Tenure**

Refers to whether some member of the household owns or rents the dwelling, or whether the dwelling is band housing (on an Indian reserve or settlement).

A dwelling is classified as "owned" even if it is not fully paid for, such as one which has a mortgage or some other claim on it. The dwelling may be situated on rented or leased land or be part of a condominium (whether registered or unregistered).

A dwelling is classified as "rented" even if it is provided without cash rent or at a reduced rent or if the dwelling is part of a co-operative. For census purposes, in a co-operative all members jointly own the co-operative and occupy their dwelling units under a lease agreement.

For historical and statutory reasons, shelter occupancy on reserves does not lend itself to the usual classification by standard tenure categories. Therefore, a special category, band housing, has been created for 1991 Census products.

**Territory**

Refers to two major political divisions of Canada, namely Yukon Territory and Northwest Territories. From a statistical point of view, these territories are equivalent to provinces, i.e. a basic unit for which data are tabulated and cross-classified.

**Total Labour Force**

Refers to persons who were either employed or unemployed during the week prior to enumeration (June 4, 1991). Data are available for persons 15 years of age and over, excluding institutional residents.

**About SABAL's database sources...**

---

**Unemployed**

Refers to persons who, during the week prior to enumeration (June 4, 1991):

(a) were without work, actively looked for work in the past four weeks and were available for work; or

(b) were on lay-off and expected to return to their job and were available for work; or

(c) had definite arrangements to start a new job in four weeks or less and were available for work.

Data are available for persons 15 years of age and over, excluding institutional residents.

**Unemployment Rate**

Refers to the unemployed labour force expressed as a percentage of the total labour force (in reference week). The unemployment rate for a particular group (age, sex, marital status, geographic area, etc.) is the number of unemployed in that group expressed as a percentage of the labour force for that group. Data are available for persons 15 years of age and over, excluding institutional residents.

**Urban Area (UA)**

The general concept of an urban area (UA) is that of an area containing a dense concentration of population.

Statistics Canada defines an urban area as an area which has attained a population concentration of at least 1,000, and a population density of at least 400 per square kilometre, at the previous census. All territory lying outside urban areas is considered rural. Taken together, urban and rural areas cover all of Canada.

Urban areas separated by gaps of less than two kilometres are combined to form a single urban area.

**Urban Population**

Refers to persons living in a continuously built-up area having a population concentration of 1,000 or more and a population density of 400 or more per square kilometre, based on the previous census.

**About SABAL's database sources...**

---

**Urban Population Size Group**

The publication the following size groups are shown:

Under - 2,500

2,500 - 4,999

5,000 or more

**Value of Dwelling**

Refers to the dollar amount expected by the owner if the dwelling were to be sold.

**Work Activity in 1990**

Refers to the number of weeks in which a person worked in 1990 and whether these weeks worked were full-time or part-time. Individuals who worked 49 to 52 weeks, mostly full time, are classified as full-year, full-time workers.

**Data Quality**

**General**

The 1991 Census was a large and complex undertaking and, while considerable effort was taken to ensure high standards throughout all collection and processing operations, the resulting estimates are inevitably subject to a certain degree of error. Users of census data should be aware such error exists, and have some appreciation of its main components, so that they can assess the usefulness of census data for their purposes and the risks involved in basing conclusions or decisions on these data.

Errors can arise at virtually every stage of the census process from the preparation of materials, through the listing of dwellings and data collection to processing. Some errors occur more or less at random, and when the individual responses are aggregated for a sufficiently large group, such errors tend to cancel out. For errors of this nature, the larger the group, the more accurate the corresponding estimate. It is for this reason that users are advised to be cautious when using small estimates. There are some errors, however, which might occur more systematically, and which result in "biased" estimates. Because the bias from such errors is persistent no matter how large the group for which responses are aggregated, and because bias is particularly difficult to measure, systematic errors are a more serious problem for most data users than the random errors referred to previously.

**About SABAL's database sources...**

---

For census data in general, the principal types of error are as follows:

- coverage errors, which occur when dwellings and/or individuals are missed, incorrectly included or double counted;

- non-response errors, which result when responses cannot be obtained from a small number of households and/or individuals, because of extended absence or some other reason;

- response errors, which occur when the respondent, or sometimes the Census Representative, misunderstands a census question, and records an incorrect response;

- processing errors, which can occur at various steps including: coding, when "write-in" responses are transformed into numerical codes; data capture, when responses are transferred from the census questionnaire to computer tapes by key-entry operators; and imputation when a "valid", but not necessarily correct, response is inserted into a record by the computer to replace missing or "invalid" data ("valid" and "invalid" referring to whether or not the response is consistent with other information on the record);

- sampling errors, which apply only to the supplementary questions on the "long form" asked of a one-fifth sample of households, and which arise from the fact that the results for these questions, when weighted up to represent the whole population, inevitably differ somewhat from the results which would have been obtained if these questions had been asked of all households.

The above types of error each have both random and systematic components. Usually, however, the systematic component of sampling error is very small in relation to its random component. For the other non-sampling errors, both random and systematic components may be significant.

**Coverage Errors**

Coverage errors affect the accuracy of the census counts, that is the sizes of the various census universes: population, families, households and dwellings. While steps have been taken to correct certain identifiable errors, the final counts are still subject to some degree of error resulting from persons or dwellings being missed, incorrectly included in the census or double counted.

Missed dwellings or persons result in undercoverage. Dwellings can be missed because of misunderstanding of enumeration area (EA) boundaries, or because dwellings are hidden or appear uninhabitable. Persons can be missed when their dwelling is missed or classified as vacant, or when individual household members are omitted from the questionnaire because the respondent misinterprets the instructions

on whom to include. Some individuals may be missed because they have no usual residence and did not spend census night in any dwelling.

Dwellings or persons that are incorrectly included or double counted result in overcoverage. Overcoverage of dwellings can occur when structures unfit for habitation are listed as dwellings, or when units which do not meet the census definition of a dwelling are listed separately instead of being treated as part of a larger dwelling. Double counting of dwellings can occur, for example, because of ambiguity over EA boundaries. Persons can be double counted because their dwelling is double counted or because the guidelines on whom to include on the questionnaire have been misunderstood. Occasionally, someone who is not in the census population universe, such as a foreign resident or a fictitious person, may, incorrectly, be enumerated in the census. On average, overcoverage is less likely to occur than undercoverage and, as a result, counts of dwellings and persons are likely to be slightly underestimated.

In 1991, four studies were undertaken to measure different aspects of coverage error. First, a sample of dwellings listed as vacant was revisited to verify that they really were vacant on Census Day. Adjustments have been made to the final census counts for households and persons missed because their dwelling was incorrectly classified as vacant. Second, a sample of persons enumerated as temporary residents was selected to verify whether or not they were enumerated at their usual place of residence. Based on this sample, estimates were obtained of the number of persons missed because they were temporarily absent from their usual place of residence. Corresponding adjustments were made to the final population counts. Despite these adjustments, the final counts are still subject to some undercoverage. For Canada as a whole and for each province and territory, the magnitude of this residual undercoverage in the 1991 Census is being measured by means of a special study known as the Reverse Record Check. Undercoverage tends to be higher for certain segments of the population such as young adult males and recent immigrants. The fourth study, known as the Overcoverage Study, is designed to investigate overcoverage errors. The results of the Reverse Record Check and the Overcoverage Study, when taken together, furnish an estimate of net undercoverage.

**Other Non-Sampling Errors**

While coverage errors affect the number of units in the various census universes, other errors affect the characteristics of those units.

Sometimes, it is not possible to obtain a complete response from a household, even though the dwelling was identified as occupied and a questionnaire dropped off. The household members may have been away throughout the census period or, in rare instances, the householder may have refused to complete the form. More frequently, the questionnaire is returned but information is missing for some questions or individuals. Considerable effort is devoted to ensure as complete a response as

possible. Census representatives edit the questionnaires and follow up on missing information. The Census Representative's work is then checked by both a supervisor and a quality control technician. Despite this, at the end of the collection stage, a small number of responses is still missing. Although missing entries are eliminated during processing by replacing a missing value by the corresponding entry for a "similar" record, there remain some potential non-response errors. This is particularly serious if the non-respondents differ in some respects from the respondents, since this procedure will result in non-response bias.

Even when a response is obtained, it may not be entirely accurate. The respondent may have misinterpreted the question or may have guessed the answer, especially when answering on behalf of another, possibly absent, household member. Such errors are referred to as response errors. While response errors usually arise from inaccurate information provided by respondents, they can also result from mistakes by the Census Representative when completing certain parts of the questionnaire, such as structural type of dwelling, or when calling back to obtain a missing response.

Some of the questions on the census document require a written response. During processing, these "write-in" entries are given a numeric code. Coding errors can occur, especially when the code list is extensive (as with, for example, language, ethnic origin, industry and occupation), and when the written response is ambiguous, incomplete or difficult to read. Coding errors are controlled, though not completely eliminated, by verifying a sample of the codes and taking corrective action where necessary. For the first time in 1991, much of the coding was automated, partly in an effort to reduce the extent of coding errors.

The information on the questionnaires is key-entered onto a computer file. Two procedures are used to control the number of data capture errors. First, certain edits (such as range checks) are performed as the data are keyed. Second, a sample from each batch of documents is re-keyed and compared with the original entries. If there is more than a specified number of errors among the original entries, the whole batch is re-keyed.

Once the data have been captured, they are sent to Ottawa where they undergo a series of computer checks to identify missing or inconsistent responses. In the case of inconsistent responses, it has first to be decided which response is to be considered invalid. Invalid or missing responses must then be replaced by valid responses, that is, responses which are consistent with other data on the record. For a small proportion of cases, the correct response can be inferred from other data on the record. In most cases, however, this is not possible and a valid response is obtained from a "donor" record selected at random from among a group of consistent records which are similar to the invalid record in terms of a number of related characteristics. There is, of course, no guarantee that the imputed value will necessarily be the correct response for the individual concerned. However, provided the missing or invalid records are similar, on average, to the valid records, any imputation errors will more or less cancel

out when results are tabulated for a sufficiently large geographic area or population subgroup.

Various studies are being carried out to evaluate the quality of the responses obtained in the 1991 Census. For each question, response rates and edit failure rates have been calculated. These can be useful in identifying the potential for non-response and other errors. Also, tabulations from the 1991 Census have been or will be compared with corresponding estimates from previous censuses, from sample surveys (such as the Labour Force Survey) and from various administrative records (such as birth registrations and municipal assessment records). Such comparisons can indicate potential quality problems or at least discrepancies between the sources.

In addition to these aggregate-level comparisons, there are some micromatch studies in progress, in which census responses are compared with another source of information at the individual record level. For certain "stable" characteristics (such as age, sex, mother tongue, place of birth), the responses obtained in the 1991 Census, for a sample of individuals, are being compared with those for the same individuals in the 1986 Census. Also, following the 1991 Census, a sample of persons was re-enumerated, primarily to determine overcoverage rates. At the same time, however, interviewers asked a series of detailed questions on language, ethnic origin and marital status; the responses will be compared with the corresponding census responses in order to identify, and hopefully understand, response errors.

**Sampling Errors**

Estimates obtained by weighting up responses collected on a sample basis are subject to error due to the fact that the distribution of characteristics within the sample will not usually be identical to the distribution of characteristics within the population from which the sample has been selected.

The potential error introduced by sampling will vary according to the relative scarcity of the characteristics in the population. For large cell values, the potential error due to sampling, as a proportion of the cell value, will be relatively small. For small cell values, this potential error, as a proportion of the cell value, will be relatively large.

The potential error due to sampling is usually expressed in terms of the so-called "standard error". This is the square root of the average, taken over all possible samples of the same size and design, of the squared deviation of the sample estimate from the value for the total population.

**About SABAL's database sources...**

---

The table below provides approximate measures of the standard error due to sampling. These measures are intended as a general guide only.

**Table:**

**Approximate Standard Error Due to Sampling for 1991 Census Sample Data**

| Cell Value | Approximate Standard Error |
|---|---|
| 50 or less | 15 |
| 100 | 20 |
| 200 | 30 |
| 500 | 45 |
| 1,000 | 65 |
| 2,000 | 90 |
| 5,000 | 140 |
| 10,000 | 200 |
| 20,000 | 280 |
| 50,000 | 450 |
| 100,000 | 630 |
| 500,000 | 1400 |

Users wishing to determine the approximate error due to sampling for any given cell of data, based upon the 20% sample, should choose the standard error value corresponding to the cell value that is closest to the value of the given cell in the census tabulation. When using the obtained standard error value, in general the user can be reasonably certain that, for the enumerated population, the true value (discounting all forms of error other than sampling) lies within plus or minus three times the standard error (e.g., for a cell value of 1,000, the range would be 1,000 " 3 <#0002> 65 or 1,000 " 195).

The standard errors given in the table above will not apply to population or universe (persons, households, dwellings or families) totals or subtotals for the geographic area under consideration (see Sampling and Weighting). The effect of sampling for these cells can be determined by comparison with a corresponding 100% publication.

The effect of the particular sample design and weighting procedure used in the 1991 Census will vary, however, from one characteristic to another and from one geographic area to another. The standard error values in the table may, therefore, understate or overstate the error due to sampling.

For further information on the quality of census data, contact the Social Survey Methods Division at Statistics Canada, Ottawa, Canada KlA 0T6 (613) 951-6940.

**Confidentiality and Random Rounding**

The figures shown in the tables have been subjected to a confidentiality procedure known as "random rounding". This is done to prevent the possibility of associating statistical data with any identifiable individual. Under this method, all figures including totals are randomly rounded either up or down to a multiple of "5", and in some cases "10". While providing strong protection against disclosure, this technique does not add significant error to the census data. However, there are some consequences for the users. Since totals are independently rounded, they do not necessarily equal the sum of individually rounded figures in distributions. Also, minor differences can be expected in corresponding totals and cell values in various census tabulations. Similarly, percentages, which are calculated on rounded figures, do not necessarily add up to 100. Percentage distributions and rates for the most part are based on rounded data, while percentage changes and averages are based on unrounded data. It should also be noted that small cell counts may suffer a significant distortion as a result of random rounding. Individual data cells containing small numbers may lose their precision as a result.

Users should be aware of possible data distortions when they are aggregating these rounded data. Imprecisions as a result of rounding tend to cancel each other out when data cells are reaggregated. However, users can minimize these distortions by using, whenever possible, the appropriate subtotals when aggregating.

For those requiring maximum precision, the option exists to use custom tabulations. With custom products, aggregation is done using individual census database records. Random rounding occurs only after the data cells have been aggregated, thus minimizing any distortion.

In addition to random rounding, area suppression has been adopted to further protect the confidentiality of individual responses.

Area suppression results in the deletion of all characteristic data for geographic areas with populations below a specified size. The extent to which data are suppressed depends upon the following factors:

- if the data are tabulated from the 100% database, suppression is based upon the total population;

- if the data are tabulated from the 20% sample database, suppression is based upon the non-institutional population;

- if the population is less than 40 persons, then all data are suppressed.

In all cases, suppressed data are included in the appropriate higher aggregate subtotals and totals.

This technique is being implemented for all products involving subprovincial data (i.e. Profile series, basic summary tabulations, semi-custom and custom data products) collected on a 100% or 20% sample basis.

## Sampling and Weighting

The 1991 Census data were collected either on a 100% basis (i.e. for all households) or on a sample basis (i.e. from only a random sample of households) with data weighted to provide estimates of the entire population. The information in this report was collected on a 20% sample basis and weighted up to compensate for sampling. All table headings are noted accordingly. Note that, on most Indian reserves and remote areas, all data were collected on a 100% basis.

For any given geographic area, the weighted population, household, dwelling or family total or subtotal may differ from that shown in reports containing data collected on a 100% basis. Such variation (in addition to the effect of random rounding) will be due to sampling.

## Special Notes

### Population Counts Based on Usual Residence

The population counts shown here for a particular area represent the number of Canadians whose usual place of residence is in that area, regardless of where they happened to be on Census Day. Also included are any Canadians staying in a dwelling in that area on Census Day and having no usual place of residence elsewhere in Canada, as well as those considered "non-permanent residents" (see note on this group). In most areas, there is little difference between the number of usual residents and the number of people staying in the area on Census Day. For certain places, however, such as tourist or vacation areas, or those including large work camps, the number of people staying in the area at any particular time could significantly exceed the number of usual residents shown here.

**About SABAL's database sources...**

---

## Non-permanent Residents

In 1991, for the first time, the census of population included both permanent and non-permanent residents of Canada. Non-permanent residents are persons who hold student or employment authorizations, Minister's permits or who are refugee claimants.

Prior to 1991, only permanent residents of Canada were included in the census. (The only exception to this was 1941.) Non-permanent residents were considered foreign residents and were not enumerated.

Today in Canada, non-permanent residents make up a growing segment of the population. Their presence can affect the demand for such government services as health care, schooling and employment programs. The inclusion of non-permanent residents in the 1991 Census will also facilitate comparisons with provincial and territorial statistics (marriages, divorces, births and deaths) which include this population. In addition, the census definition is now closer to the United Nations' recommendation that long-term residents (persons living in a country for one year or longer) be enumerated.

Total population counts, as well as counts for all variables, will be affected by this change in the 1991 Census universe. According to the 1991 Census, there were 223,410 non-permanent residents in Canada, representing slightly less than 1% of the total population. Users should be especially careful when comparing data from 1991 and previous censuses in geographic areas where there is a concentration of non-permanent residents. These include the major metropolitan areas of Ontario, British Columbia and Quebec.

Although every attempt was made to enumerate non-permanent residents, the completeness of enumeration of this population was below that achieved for permanent residents. Factors such as language difficulty and a reluctance to complete a government form or understand the need to participate, may have affected the enumeration of non-permanent residents and resulted in undercounting.

## Incompletely Enumerated Indian Reserves and Indian Settlements

On some Indian reserves and Indian settlements in the 1991 Census, enumeration was not permitted or was interrupted before it could be completed. Moreover, some Indian reserves and Indian settlements were enumerated late or the quality of the collected data was considered inadequate. These geographic areas (a total of 78) are called incompletely enumerated Indian reserves and Indian settlements.

Data for 1991 are therefore not available for the incompletely enumerated reserves and settlements and are not included in tabulations. Data for geographic areas containing one or more of these reserves and settlements are therefore noted

accordingly. Because of the missing data, users are cautioned that for the affected geographic areas, comparisons (e.g., percentage change) between 1986 and 1991 are not exact. While for higher level geographic areas (Canada, provinces, census metropolitan areas and census agglomerations) the impact of the missing data is very small, the impact can be significant for smaller areas, where the affected reserves and settlements account for a higher proportion of the population.

A list of incompletely enumerated Indian reserves and Indian settlements along with Population and Occupied Private Dwelling Counts from the last two censuses (where available) has been compiled and is shown in Appendix 1.

**Structural Type of Dwelling**

Movable dwellings, one category of structural type of dwellings, were suspected to be under-reported in the 1991 Census. This is thought to be due to the misclassification of a number of Mobile Homes as other structural types. For large geographic areas, this error is not expected to have a significant impact upon other dwelling categories because of the relatively large number of dwellings in that area. However, for small geographic areas, the impact may be more pronounced.

**Home Language and Mother Tongue**

For the 1991 Census, the question on language spoken at home read as follows: "What language does this person speak most often at home?" The expression "most often" replaced the term "usually" which had been used in 1981 and in 1986. The instruction accompanying the question ("If more than one language, which language do you speak most often?") was suppressed in 1991. As for the question on mother tongue, it was expressed in the following terms: "What is the language that this person first learned at home in childhood and still understands?" This wording is similar to that used for the 1986 Census, except for the insertion of the expression "at home". Furthermore, an instruction was added in 1991 following the question: "If this person no longer understands the first language learned, indicate the second language learned". In 1986, this instruction was found in the guide which accompanied the questionnaire.

The short questionnaire (2A) of the 1991 Census, which was completed by four households in five, contained only one language question, that is the one on mother tongue. This question bore the title Language First Learned at Home in Childhood. The question on home language appeared on the long questionnaire (2B) which was given to one household in five. This questionnaire contained four language questions.

The title Language preceded these questions. The question on home language appeared after the two questions on knowledge of languages (official and non-official) and preceded the question on mother tongue. In 1986, the question on the language

spoken at home (question 18) came before the one on the knowledge of the official languages (question 19), but it appeared well after the question on the mother tongue (question 6).

Changes to the collection and processing of data affect figures for both mother tongue and home language. First of all, in 1991, the boxes corresponding to the three most frequent non-official languages were deleted from the questionnaire. The only two check boxes were the ones referring to English and French; other language responses were recorded by means of a write-in answer space. Up to two of these write-in responses could be processed. For the first time, in 1991, these answers were coded using an automatic process. Among other things, this reduced the time needed for coding and solved the problem of classification that affected certain language categories such as Aboriginal and Indo-Iranian languages (refer to the section entitled Special Notes in the 1986 publication Language: Part 1, number 93-102 in the catalogue).

Some changes have also been incorporated in the language classifications used in publications. In 1991, the Sino-Tibetan, Tai and Austro-Asiatic language families were added. Furthermore, certain residual categories have been added to existing language families, such as "Germanic languages, n.i.e." (n.i.e.: not included elsewhere) and "Dravidian, n.i.e.". Moreover, because of the small number of respondents reporting them, certain native languages which were identified in 1986 have been included in the category "Athapaskan languages, n.i.e." in 1991. Finally, an important change was made to the "Algonquian languages, n.i.e." category. In 1991 this category contains the Oji-Cree language, which was assigned to Cree or Ojibway in 1986.

The number of non-responses to the question on the language spoken at home remained stable between the 1986 and 1991 censuses (315,000 individuals). As for the proportion of non-responses, it went from 1,3% to 1,2%. Except for the Yukon, provincial and territorial rates have decreased between 1986 and 1991.

Non-responses and invalid responses were corrected during data processing. A summary analysis reveals that this operation did not significantly change the distributions. However, the proportion of answers assigned is between 5% and 9,9% for Frisian, Danish, Icelandic, Norwegian, Kurdish, Sinhalese, Sino-Tibetan languages, not included elsewhere (n.i.e.), Khmer, Austro-Asiatic languages, n.i.e., Semitic languages, n.i.e., Swahili, Cree, Montagnais-Naskapi,

Algonquian languages, n.i.e. and Wakashan languages; between 10% and 14,9% for Swedish, Welsh, Ojibway, Malecite, Tsimshian and Amerindian languages, n.i.e.; and between 15% and 19,9% for Gaelic languages and African languages, n.i.e. Furthermore, the proportion of assigned responses exceeds 20% for four languages: North Slave (Hare), Mohawk, Salish languages and Haida. Analysts are advised to be careful when using the data on these languages.

**About SABAL's database sources...**

---

The table shown as follows gives the main response categories of the questions on mother tongue and home language. Statistics are taken from the long questionnaire (distributed to 20% of households).

| | Mother Tongue | | | Home Language | | |
|---|---|---|---|---|---|---|
| | **1981** | **1986** | **1991** | **1981** | **1986** | **1991** |
| Total population | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Single responses | 97.8 | 96.6 | 98.8 | 97.8 | 95.4 | 98.2 |
| English | 60.4 | 60.6 | 59.9 | 66.9 | 66.3 | 67.5 |
| French | 25.2 | 24.3 | 24.1 | 24.2 | 23.2 | 23.0 |
| Non-official languages | 12.2 | 11.6 | 14.8 | 6.6 | 5.9 | 7.7 |
| Multiple responses | 2.2 | 3.4 | 1.2 | 2.2 | 4.6 | 1.8 |

In the case of mother tongue and home language, a notable increase took place for single answers from 1986 to 1991. This was accompanied, of course, by a substantial decrease in the number and proportion of multiple responses. These changes are probably largely attributable to the order in which the language questions appeared on the long questionnaire. Respondents would have less of a tendency to declare more than one language for the answer categories relating to language most often spoken at home and mother tongue if they could first indicate their language knowledge.

In 1991, statistics on mother tongue which were taken from the long questionnaire sometimes presented significant differences in relation to the data taken from the short questionnaire. For more information concerning this matter, consult the Content Considerations section of the publication Mother Tongue: 20% Sample Data, number 93-333 in the catalogue.

Time comparisons become a rather delicate issue due to the changes in certain aspects of the collection and processing of data on mother tongue and home language from one census to the next. Therefore, users are advised to exercise caution when analysing trends.

**About SABAL's database sources...**

---

## Median Calculation

The procedure to estimate medians has been changed from that used in previous censuses and in the initial release of income data from the 1991 Census, specifically Catalogue 93-331, Selected Income Statistics. The new procedure employs a much larger number of income groups and provides a more accurate estimate of the median value. For this reason, medians calculated using the new method will differ slightly from those previously published or from those calculated from distributions shown in a publication.

## Income Data

Average income, median income and standard error of average income of population 15 years and over are calculated for persons with income only, but are calculated for all census families and private households whether or not they reported any income. Aggregate income calculated from these data should be used with caution as averages were calculated prior to rounding. Medians have been calculated from unpublished grouped data.

Income size distributions by various characteristics for the population 15 years and over, census families, non-family persons, economic families, unattached individuals and private households in Canada, provinces, territories and CMA's are published in separate reports.

Census income statistics are subject to sampling variability. Although such sampling variability may be quite small for large population groups, its effects cannot be ignored in the case of very small subgroups of population in an area or in a particular category. This is because, all other things being equal, the smaller the sample size, the larger the error. For this reason, income data for areas, where the non-institutional population was below 250 have been suppressed. In addition, for EAs, the income distribution and related statistics are suppressed where less than 100 persons, families or households are involved. However, where statistics are not suppressed but are still based on relatively small totals, the readers are strongly advised to exercise caution in the use and interpretation of these statistics.

## Number of Weeks Worked

The data for the 40-48 and 49-52 weeks worked categories for 1990 must be interpreted with caution because some respondents tend to exclude their paid leave of absence due to vacation or for other reasons from their work weeks, when in fact such leave of absence should be included. As a result, the 49-52 week category may be understated.

**About SABAL's database sources...**

---

## Labour Force Activity

The census labour force activity concepts have not changed between 1986 and 1991. However, the processing of the data was modified, causing some differences. In the 1991 Census, a question on school attendance was asked. This question was not asked in 1986. It was used to edit the labour force activity variable, specifically unemployment. Consequently, the processing differences affect the unemployed population and are mostly concentrated among the 15-19 age group. The table below indicates the magnitude of the effect upon the data, at the Canada level.

### Labour Force Activity, 1991 Census of Canada

| Canada | 1991 Census (as published in 1991) | 1991 Census (using 1986 processing) |
|---|---|---|
| Labour Force 15 years and over | 14,474,940 | 14,535,850 |
| Employed | 13,005,505 | 13,005,500 |
| Unemployed | 1,469,440 | 1,530,350 |
| Not in the Labour Force | 6,829,795 | 6,768,885 |
| Labour force 15-19 years | 904,370 | 948,260 |
| Employed | 766,260 | 766,260 |
| Unemployed | 138,110 | 182,005 |
| Not in the labour force | 967,865 | 923,965 |
| Labour Force 20 years and over | 13,570,575 | 13,587,590 |
| Employed | 12,239,240 | 12,239,245 |
| Unemployed | 1,331,330 | 1,348,350 |
| Not in the Labour Force | 5,861,940 | 5,844,925 |

# SMALL AREA DATA DIVISION

**Data Source**

From the income tax forms submitted each year by Canadians the Small Area Data Division produces a wealth of economic and demographic information for use by both the private and public sectors. Over twenty million records are processed each year to provide the most detailed and accurate data possible. In fact, the information represents approximately 95% of the Canadian population.

These data are matched to a number of geographic files providing clients the opportunity to request data for areas as small as a letter carrier's walk.

Development of the small area family data is based on the census family concept. This concept, specific to Statistics Canada, is similar to the traditional family concept. However, the small area family data include parent(s) and "single" children (as reported on the tax form) living in the same dwelling, whereas the census family includes never-married children living with their parent(s).

Starting with the 1992 tax year, common law couples were recognized as a separate category on the T1 General tax form. As a result, the coverage of husband-wife families (in which common law families are included) is very high at 95.8% in 1993. This comparison was done using population estimates from Statistics Canada's Demography Division.

The initial population, used to develop the family units, comprises all taxfilers for the reference year and represents approximately two-thirds of the Canadian population. The family units are formed from information obtained on the tax returns of the taxfiling family members.

First, taxfilers from the same family, including children, are matched using common links (e.g. spousal social insurance number, same name, same address). The resulting family unit is then examined to verify if it is complete. When there are indications that one or several members of the family are missing (for instance children), those members are imputed. The remaining taxfilers who have not been matched in the family formation process become non-family persons.

Non-family persons are not living with a spouse or child. They may be living with a family to whom they are related (e.g. brother-in-law, cousin, grandparent) or unrelated (e.g. lodger, room mate). They may be living with other non-family persons or living alone.

The family databank approximates the total Canadian population. It contains information on sources of income (from the taxfilers) and some demographic indicators (derived from both the taxfilers and the imputed non-filers).

**Rounding**

Counts are rounded to the nearest multiple of 10. Medians are rounded to the nearest multiple of 100. Income aggregates are rounded to the nearest multiple of 1,000.

**Data Quality**

The data which appear in the tables are taken directly from the family databank. Information on income is obtained from taxfilers and their non-filing spouses and dependents.

About SABAL's database sources...

Figures derived from the databank compare well with estimated population counts. Coverage rates of the databank population by family type are reported in the following table:

**Rates of Coverage**
**T1FF Compared to Population Estimates by Family Type**

| | **Husband-Wife Families** (excluding the Yukon and the Northwest Territories) | **Common Law Couples** | **Lone Parent Families** (excluding the Yukon and the Northwest Territories) | **Non-family Persons** (excluding the Yukon and the Northwest Territories) |
|---|---|---|---|---|
| 1990 T1FF | 6,211,720 | 526,400 | 1,055,820 | 4,193,170 |
| 1991 population estimate | 6,524,900 | 726,950 | 972,500 | 4,047,000 |
| Coverage | 95.2% | 72.4% | 108.6% | 103.6% |
| 1991 T1FF | 6,284,410 | 556,820 | 1,128,920 | 4,263,560 |
| 1992 population estimate | 6,579,300 | 752,510 | 986,000 | 4,246,000 |
| Coverage | 95.5% | 74.0% | 114.5% | 100.4% |
| 1992 T1FF | 6,491,240 | 773,910 | 1,087,250 | 4,322,330 |
| 1993 population estimate | 6,632,400 | 778,020 | 999,500 | 4,217,000 |
| Coverage | 97.9% | 99.5% | 108.8% | 102.5% |
| 1993 T1FF | 6,658,760 | 865,940 | 1,151,580 | 4,367,590 |
| 1994 population estimate | 6,771,100 | 903,600 | 1,026,100 | 4,271,000 |
| Coverage | 98.3% | 95.8% | 112.2% | 102.3% |

*Sources: Annual Demographic Statistics (annual, catalogue number 91-213); Family Income, Census Families (annual, catalogue number 13-208); Revised Intercensal Population and Family Estimates, July 1, 1971-1991 (occasional, catalogue number 91-537); T1 Family File (T1FF, 100% file, unpublished data).*

Note: There is not an exact reference period relationship between the T1FF and the population estimates. The closest is to use T1FF for one year and the population estimates for the next year, since tax returns are completed in the Spring of the following year. For example, the 1993 T1FF population is compared to the July 1994 population estimates.

About SABAL's database sources...

---

Comparing the tax-based family median income figures (T1FF) to the Statistics Canada Survey of Consumer Finances (SCF) shows these results:

| Year | Median Income, all Families | | % ratio (T1FF/SCF) |
|---|---|---|---|
| | T1FF | SCF | |
| 1989 | 41,100 | 43,547 | 94.4% |
| 1990 | 42,700 | 45,125 | 94.6% |
| 1991 | 42,900 | 45,515 | 94.3% |
| 1992 | 43,500 | 46,479 | 93.6% |
| 1993 | 42,900 | 45,783 | 93.7% |

*Note: The above T1FF medians are taken from the family databank being discussed here; the Survey of Consumer Finances (SCF) medians are from Statistics Canada's annual publication 13-208: Family Incomes, Census Families. The SCF estimates do not include the Territories, and so they were also excluded from the T1FF figures above.*

## Geography

Family tables are available for the following geographic areas:

a) Canada,
b) Provinces and Territories,
c) Census Metropolitan Areas (CMAs),
d) Census Divisions (CDs),
e) Postal Geography:
   - Rural Postal Codes Not in a City
   - City Totals
   - Rural Postal Codes Within a City
   - Suburban Services
   - Rural Routes
   - Urban Forward Sortation Areas (FSAs)
   - Postal Walks.

f) User-defined areas

Clients may select geographical areas of their own definition, areas that are not part of the standard areas listed here. For this, clients must submit a list of the postal codes that make up their special area, and we will aggregate the micro data to correspond to that area of interest.

**Note**: the postal walks represented in the 1993 data product were coded from a Canada Post Corporation file with an April 1995 reference date.

## Table 1: Summary table

- Count of taxfilers
- Count of taxfilers and dependents by age group: under 15, 15 - 64, 65 and over, total
- Count of all families (husband-wife families + lone parent families) and the number of persons in families; similar counts are also given for husband-wife families, lone parent families and non-family persons
- Median total income and per capita income for all families, for husband-wife families, for lone parent families and for non-family persons
- Count of all families with employment income, of non-family persons with employment income, and their median employment income
- Count of dual-earner husband-wife families, of single-earner-male families, of single-earner-female families, and the median employment income of these families
- Count of all families and of non-family persons receiving transfer payments, and the average amount of transfer payments

- Count of families with at least one member in the labour force; the number of families receiving UI and the average amount received; count of non-family persons in the labour force, the number receiving UI and the average amount received

## Glossary

*Note: all income amounts are gross amounts, except for the five categories of self-employment income and rental income.*

**Age**
is calculated as of December 31 of the reference year (taxyear minus year of birth).

**Alimony**
payments from one former spouse to the other, for couples that are separated or divorced.

**All families**
includes husband-wife families as well as lone parent families.

**All persons**
includes the total population: taxfilers and imputed persons, regardless of family type.

**Canada/Quebec Pension Plan (CPP/QPP)**
are compulsory contributory social insurance plans that protect workers and their families against loss of income due to retirement, disability or death.

**Census Divisions (CDs)**
Applies to the geographic areas established by provincial law, which are intermediate geographic areas between the census subdivisions (e.g. cities and towns) and the province; for example, counties, regional districts, regional municipalities, divisions and other types of geographic areas.

In Newfoundland, Manitoba, Saskatchewan and Alberta, provincial law does not provide for these geographic areas, hence they have been created by agreement between Statistics Canada and the provinces concerned.

**Census Metropolitan Areas (CMAs)**
The general concept of Census Metropolitan Areas (CMA) is one of a very large urban area together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

**Child Tax Benefit (CTB)**
This system replaces the previous Family Allowance program, the non-refundable Child Tax Credit and the refundable Child Tax Credit. It is an income supplement for individuals who have at least one qualified dependent (child). The child tax benefit is also based on the individual's family income and the number of dependent children.

**Children**
in husband-wife and lone parent families are taxfilers or imputed persons; taxfiling children report "single" as their marital status and have no child of their own.

**Dividends**
are amounts received as dividends from taxable Canadian corporations (line 120 of the personal tax return grossed down to the actual amounts received).

**Dual-earner family**
are husband-wife families, where both spouses have non-negative employment income.

**Employment income**
includes salaries, wages, commissions and net self-employment income.

**FSA**
Acronym for Forward Sortation Area, a postal term applied to the area represented by the first three characters of a postal code (e.g. A1A or T7L). Within each FSA there are many postal codes classified by the type of mail delivery. These include: a specific residential address, a specific business address, a rural route on the fringe of an urban area, a locked box near a new subdivision (suburban service), a locked box at a post office or a general delivery address at a post office. The addresses included in the data for an FSA are the residential addresses; the data are for the people living in the FSA. The non-residential addresses are combined for each city and reported under "other" for their city or town.

**Family reporting income**
is counted for a given source of income when that income is received by at least one family member. Families and individuals may report more than one source of income.

**Family total income**
includes the sum of the total incomes of all taxfiling members of the family (see *Total income*). New to the 1992 definition of total income is income for non-filing spouses. The information is derived from the taxfiling spouse. Caution must be used in comparing to data for previous years.

**Forward Sortation Area**
see FSA

**Goods and Services Tax (GST) Credit**
includes all amounts received through this program.

**Husband-wife family**
consists of a man and woman living together at the same address. (Includes men and women living together under common law.)

**Imputed persons**
are persons who are not taxfilers, but are reported by a taxfiler (for example, a non-filing spouse or child).

**Income aggregates**
are rounded to the nearest thousand dollars.

**Interest income**
refers to the amount Canadians claimed on line 121 of the personal income tax return. This includes interest generated from bank deposits, Canada Savings Bonds, corporate bonds, treasury bills, annuities, mutual funds, life insurance policies and all foreign investment income.

**Investment income**
are amounts reported as dividends from taxable Canadian corporations on line 120 of the personal tax return (grossed down to the actual amounts received) as well as other investment income reported on line 121.

**Labour force**
consists of all persons who reported income from employment (wages, salaries, commissions and self-employment income) or income from unemployment insurance.

**Labour force families**
consists of all families where at least one member reported income from employment (wages, salaries, commissions and self-employment income) or income from unemployment insurance.

**Labour force income**
includes employment income (wages, salaries, commissions and net self-employment income) and unemployment insurance benefits.

**Limited partnership income**
is net income (i.e. gross income less expenses) from a limited partnership, where a limited partner is a passive or non-active partner whose liability as a member is limited to his/her investment.

**Lone parent family**
is a family with only one parent, male or female, and with at least one child.

**Median**
is the middle number in a group of numbers. Where a median income, for example, is given as $26,000, it means that exactly half of the incomes reported are greater than or equal to $26,000, and that the other half less than or equal to the median amount. Median incomes in the data tables are rounded to the nearest hundred dollars. With the exception of Total Income, zero values are not included in the calculation of medians.

**Negative income**
generally applies to net self-employment income, net rental income and net limited partnership income. Negative income would indicate that expenses exceeded gross income.

**Net rental income**
is income received or earned from the rental of property, less related costs and expenses.

**Non-family person**
is an individual who is not living with a spouse or children, or parent, with exception: the exception to the parent category is related to the marital status of the child; only children who report marital status of "single" will be treated as children of a family; others will be non-family persons.

**Non-negative income**
is income that is zero or greater.

**Non-taxable income**
includes workers' compensation payments, social assistance payments, guaranteed income supplements, spouses' allowances, provincial refundable tax credits. Other sources of income (e.g. GST credit, child tax benefit) are not taxable, but are reported in different categories.

**Old Age Security (OAS) Pension**
is part of the Old Age Security Program, a federal government program that guarantees a degree of financial security to Canadian seniors. All persons in Canada aged 65 or over, who are Canadian citizens or legal residents, may qualify for a full OAS pension, depending on their years of residence in Canada after reaching age 18.

**Other income**
includes net rental income, alimony, income from a limited partnership, RRSP income, retiring allowances, scholarships, amounts received through a supplementary unemployment benefit plan (guaranteed annual income plan), payments from income-averaging annuity contracts, as well as all other taxable income not included elsewhere. Beginning with the 1992 data, this variable also includes the imputed income of imputed spouses, as derived from the tax return of the filing spouse.

**Other pensions**
includes all pension benefits reported (superannuation and private pensions) other than Old Age Security and Canada/Quebec Pension Plan benefits.

**Parent**
is a person who provides indication of dependent children of his/her own and at least one child is matched or imputed to the family.

**Persons**
in husband-wife families includes both spouses and children; in lone parent families includes the parent and children; in non-family persons includes the number of such individuals.

**Provincial tax credit**

is a refundable credit paid to individuals by the province/territory (Manitoba, Ontario, Quebec, Nova Scotia, British Columbia and the Northwest Territories) in which he/she resided as of December 31 of the taxation year.

**RRSP income**
is withdrawals from an RRSP investment.

**Self-employment income**
is net income from business, profession, commission, farming and fishing.

**Single-earner family**
is defined, in husband-wife families, as only one spouse having employment income greater than zero or, in lone parent families, as the parent with employment income greater than zero.

**Spouse**
is either a husband or wife in a husband-wife family.

**Taxfilers and dependents**
This is an estimate of the entire population, based solely on the taxfile. Counts are rounded to the nearest 10.

**Total income**
***The variable Total Income*** *was revised as follows: In 1990, the Goods and Services Tax Credit began replacing the Federal Sales Tax Credit, by 1991, the Federal Sales Tax Credit no longer existed. Also, non-taxable income and Provincial tax credits are included in Total Income for the first time with the 1990 data. This category was made up of: guaranteed income supplement, spouses' allowances, workers' compensation payments, social assistance payments and provincial tax credits. In 1992,* ***Total Income*** *was further changed to include income for non-filing spouses reported on the taxfiler's income tax return. Data users who plan to compare current data to data from previous years should bear in mind these changes.*

About SABAL's database sources...

---

Total income includes income reported by taxfilers from any of the following sources:

labour force income
- employment income
  - wages, salaries and commissions
  - net self-employment income
- Unemployment Insurance benefits

pension income
- Old Age Security
- CPP/QPP
- superannuation and other pensions

family allowance benefits (up to and including 1992)
interest and other investment income
dividend income
limited partnership income
net rental income
other income (e.g. alimony)
RRSP income
income for non-filing spouses (since 1992)
FST credit (for 1989-1990 inclusive)
GST credit (beginning in 1990)
child tax credit (up to and including 1992)
child tax benefits (since 1993)
other non-taxable income (since 1990)
- workers' compensation payments
- social assistance payments
- guaranteed income supplements
- spouses' allowances

provincial refundable tax credits in Ontario, Quebec and Manitoba (since 1990), British Columbia and the Northwest Territories (since 1993)

Monies not included in total income as defined above are: veterans' disability and dependent pensioners' payments, war veterans' allowances, lottery winnings and capital gains.

**Totals**
are rounded independently and may not equal the sum of their components.

**Transfer payments**
for the purpose of these data, denote the following payments made to individuals by the federal or provincial governments or by organizations or institutions: unemployment insurance, Old Age Security, Canada/Quebec Pension Plan, Other (private) pensions, child tax benefit, GST credit, non-taxable income and provincial refundable tax credits. The individuals in this case receive these payments without providing goods or services in return.

**Unemployment Insurance (UI) benefits**
include all payments regardless of reason (job loss, maternity leave, sickness, etc.).

**Wages, salaries and commissions**
include employment pay and commissions as stated on T4 information slips, training allowances, tips and gratuities.

**We invite your comments!**

We are always working on ways to improve our products. The comments we receive concerning quality and presentation are essential to meet this objective. If you have any suggestions in this regard, we encourage you, the user, to provide us with your comments.

**Do you need additional information?**

Please let us know if there is any further information we can provide. We'll be pleased to answer your questions.

Small Area and Administrative Data Division
STATISTICS CANADA
14th Floor, Section C
R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario
K1A 0T6

Customer Service: (613) 951-9720
Fax: (613) 951-4745
e-mail: saadinfo@stcinet.statcan.ca

About SABAL’s database sources...

---

**Labour Force Survey**

(See "For more information...")

# Household Facilities and Equipment Survey (HFE)

**N.B.:** Most of the following notes were extracted from catalogue 64-202 and 13-218. For more details you should refer to those publications.

Statistics Canada has conducted the Household Facilities and Equipment (HFE) Survey annually since 1948. This survey is conducted in the Spring as a supplement to the monthly Labour Force Survey using about two thirds of the regular sample. Survey content has varied over the years to meet needs of data analysts, market researchers and policy makers. Many items are rotated in and out on a regular basis in order to collect data on as many household items as possible.

**This SABAL CD ROM presents some results of the 1990 to 1995 surveys.** Data for 1990 to 1994 are revised estimates. These revisions reflect the move to the 1991 Census base, the adjustment of population estimates for net Census undercoverage, and the inclusion of non-permanent residents. For more details see "Changes for 1995".

## The Survey

The Household Facilities and Equipment Survey (HFE) is conducted as a supplement to the monthly Labour Force Survey each spring. In 1995, the Household Facilities and Equipment Survey was carried out in the month of May and it was restricted to two thirds of the Labour Force Survey sample (about 38,000 households).

## Coverage

The Labour Force Survey sample is designed to represent virtually all households in Canada, except for households in the Yukon and Northwest Territories, households on Indian reserves and Crown lands, and the institutional population.

In this CD ROM, only households living in standard **private dwellings** are represented. Therefore, in addition to the exclusions indicated above, also excluded are:

(I) military camps;
(ii) collective-type households such as those living in hotels, large lodging houses, clubs, logging and construction camps; and
(iii) private households living in trailers, in summer cottages, on boats, etc.

## Sample Design

A detailed description of this survey design, which is a multistage stratified clustered probability sample, can be found in **Methodology of the Canadian Labour Force Survey, 1984-1990**, Catalogue No. 71-526.

## Data Collection and Processing

In 1995, data for the HFE survey were collected for the first time using computer assisted interviewing (CAI). The Labour Force Survey had been using CAI for approximately one year and the HFE capture application was added to the LFS program. With CAI, the interviewer read the question as it appeared on the screen and selected the appropriate answer. Built-in edits and skip-patterns resulted in improved data quality and reduced processing time.

Interviewers listed all persons in the selected households and asked persons 15 years of age and over questions concerning their labour force activity during the previous week. The interviewers then asked a responsible household member for information on dwelling characteristics and selected household items.

While the information on facilities and equipment was collected in May, other data were obtained from the Labour Force Survey conducted one month earlier, in April. In that month, another Labour Force Survey supplement, the Survey of Consumer Finances was carried out. As both supplements, the Household Facilities and Equipment Survey and the Survey of Consumer Finances, covered identical Labour Force Survey subsamples, it was possible to process them jointly. The common data base used demographic and other characteristics of households from the April Labour Force Survey data file.

The labour force data were processed and edited according to established Labour Force Survey procedures. The household data were loaded to a computer data base and linked with the April Labour Force Survey data. The data were then processed through the computer edit system which checks household records for consistency and completeness.

## Reliability of Estimates

The estimates presented in this CD ROM are derived from a sample survey. There are two types of errors present in an estimate based on a sample survey, namely sampling errors and non-sampling errors. Sampling errors occur because inferences about the entire population are made on the basis of information obtained from only a sample of the population. Non-sampling errors occur because it is not always possible to obtain and retain throughout processing an accurate or true response (value) for each sampled unit due to such factors as non-response, response errors and processing errors. The reliability of a survey estimate is thus determined by the combined effect of non-sampling and sampling errors.

## Effects of sample size on Census Metropolitan Area (CMA)/Economic Region (ER) Estimates

Due to sample size limitations and sampling variability, estimates for CMAs and ERs are less reliable and subject to larger errors than provincial and national estimates. In particular, **Statistics Canada warns that between CMA/ER comparisons should be avoided**, since differences may not be significant when the standard error of the estimate is taken into account.
See "Boundaries of Economic Regions (ER) and Census Metropolitan Areas (CMA)" to get the boundaries definitions of each ER or CMA.

**CHANGES FOR HFE 1995**

In January of 1995, the LFS introduced a new sample design and a modified weighting system. Details on the changes can be found in the feature articles of the October 1994, December 1994 and January 1995 editions of the report *The Labour Force*, Catalogue No. 71-001. A summary of these changes, which impact the HFE Survey, are given below.

**Sample Design**

The new sample design now includes persons residing in Canada who are neither Canadian citizens nor landed immigrants. Specifically the following groups of people are included:

- persons claiming refugee status;
- students from other countries attending school in Canada on student visas;
- persons from other countries in Canada on work permits;
- persons who have a Minister's permit to reside in Canada; and
- non-Canadian born dependents of the above four categories.

The new design includes less clustering, more sample in urban areas, (as per the feature articles from Catalogue No. 71-001 cited above).

**Weighting**

Population estimates moved from a 1986 Census base to a 1991 Census base.

Population estimates now include non-permanent residents.

A new method of compensating for household non-responses takes into account patterns of non response that vary according to the number of months the households have been in the sample.

Household estimates are based on the LFS weighting system.

**Size of Area of Residence**

The classification of urban areas is now based on 1991 census population within 1996 census boundaries. Previously, it was based on 1986 census population within 1981 census boundaries.

## Revision of Household Facilities and Equipment Survey Estimates

The HFE data have been revised for the period 1981 to 1994. These revisions reflect the move to the 1991 Census base, the adjustment of population estimates for net Census undercoverage, the inclusion of non-permanent residents, and the use of a weighting procedure based on the LFS weighting system. Beginning with the 1995 release of HFE data, all analysis is based on the revised series.

## Definitions:

**Dwelling.** A dwelling is defined as a structurally separate set of living premises with a private entrance from outside the building, or from a common hallway or stairway inside. A private dwelling is one in which one person, a family or other small group of individuals may reside (a single house or an apartment).

**Household.** A person or a group of persons occupying one dwelling unit is defined as a "household". The number of households will, therefore, be equal to the number of occupied dwellings. The person or persons occupying a private dwelling form a private household.

**Household Income.** Household income is defined as the income received by all individuals 15 years of age and over, who at the time of the survey, formed one household. Income data were collected from each member and are considered to be part of household income even if certain household members belonged to another household for the whole or part of the preceding calendar year. Also, no recall or adjustment was made to account for the income of persons who were members of the household for part of the year and who left because of marriage, death or other reasons.

Individual income consists of all money income receipts from the following sources: wages and salaries (before deductions for taxes, pensions, etc.), military pay and allowances, net income from self-employment (including net income from farming, independent professional practice, and roomers and boarders), investment income (such as interest, dividends, rental income), government transfer payments (such as child tax benefits, old age security pensions), retirement pensions, annuities and superannuation, and miscellaneous income (such as scholarships, alimony, etc.).

**Receipts Not Counted As Income.** Gambling gains and losses, money inherited during the year in a lump sum, capital gains or losses, receipts from the sale of property or personal belongings, income tax refunds, loans received, loans repaid to an individual as the lender, lump sum settlements of insurance policies, and rebates of property taxes and other taxes are excluded as well as all income in kind such as free meals, living accommodation, or food and fuel produced on own farm.

**Dwelling Type.** Refers to the structural arrangement of the dwelling.

> **Single detached dwelling** - This type of dwelling is commonly called a single house, i.e. a house containing one dwelling unit and completely separated on all sides from any other building or structure.
>
> **Single attached dwelling** - Each half of a semi-detached (or double) house and each section of a row or terrace is defined as a "single attached" dwelling. A single dwelling attached to a non-residential structure also belongs to this category.

**Apartment or flat** - This type of dwelling includes:

(i) dwelling units in apartment blocks or apartment hotels;

(ii) flats in duplexes or triplexes, i.e. where the division between dwelling units is horizontal;

(iii) suites in structurally converted houses;

(iv) living quarters located above or in the rear of stores, restaurants, garages or other business premises;

(v) janitors' quarters in schools, churches, warehouses, etc.; and

(vi) private quarters for employees in hospitals or other types of institutions.

**Mobile home** - A moveable dwelling designed and constructed to be transported (by road) on its own chassis to a site, and placed on a temporary foundation such as blocks, posts or a prepared pad. It should be capable of being moved to a new location.

**Condominium.** A residential complex in which dwellings are owned individually while land is held in joint ownership with others. The building(s) must be a registered condominium complex.

**Rooms.** In determining the number of rooms in a dwelling, only those rooms used or suitable for living purposes, including rooms occupied by servants, lodgers or members of lodging families, are counted. The following are not counted as rooms: bathrooms, storage rooms, halls, clothes closets and rooms used solely for business purposes. Summer kitchens, sunrooms, rooms in basements or attics are not counted unless they are finished off and suitable for use as living quarters throughout the year. "Kitchenettes" are counted if the normal kitchen functions are carried out therein and if they contain, as a minimum, cooking facilities (such as a stove or range) and a sink or tub.

**Bedrooms.** Included as "bedrooms" are all rooms furnished as bedrooms and used as such, even though the use may be occasional as in the case of a "spare" bedroom. Bedsitting rooms, or other such rooms used for sleeping and living, are not included. In the case of all one-room dwellings, such as bachelor apartments and other small dwellings, no "bedroom" would be reported.

**Dwelling repairs.** Any work that restores the dwelling to its original condition. Desirable remodelling, additions, conversions or improvements which upgrade the dwelling over and above its original condition are excluded.

**Major Repairs** - Any work required to correct serious deficiencies in the structural condition of the dwelling, as well as in the plumbing, electrical and heating systems.

**Minor Repairs** - Any work required to correct deficiencies in the surface or covering material of the dwelling and to the less serious deficiencies in the plumbing, electrical and heating systems.

## Boundaries of Census Metropolitan Areas (CMA) and Economic Regions (ER)

An Economic Region is a geographical unit generally composed of several Census Divisions within a province. In the case of Prince Edward Island, the province constitutes one Economic Region.

Since HFE is a supplement to the LFS, estimates in this disc are based on Economic Region boundaries in use for the Labour Force Survey commencing in 1995. In British Columbia, completely new Economic Regions were adopted in 1995. As it was not possible to produce comparable historical estimates for these new B.C. regions, only 1995 estimates for British Columbia are based on the new boundaries; estimates for 1991 to 1994 are based on the previous boundaries.

The composition of the Economic Regions used in this disc are described in the menu items below.

**Newfoundland**

010: Avalon Peninsula: Census Division 01.

020: South Coast - Burin Peninsula: Census Divisions 02 and 03.

030: West Coast - Northern Peninsula - Labrador: Census Divisions 04, 05, 09 and 10.

040: Notre Dame - Central Bonavista Bay: Census Divisions 06, 07 and 08.

**Prince Edward Island**

110: Prince Edward Island: Census Divisions 01 Kings County, 02 Queens County and 03 Prince County

**Nova Scotia**

210: Cape Breton: Census Divisions 15 Inverness County, 16 Richmond County, 17 Cape Breton County and 18 Victoria County.

220: North Shore: Census Divisions 10 Colchester County, 11 Cumberland County, 12 Pictou County, 13 Guysborough County and 14 Antigonish County.

230: Annapolis Valley: Census Divisions 05 Annapolis County, 07 Kings County and 08 Hants County.

240: Southern: Census Divisions 01 Shelburne County, 02 Yarmouth County, 03 Digby County, 04 Queens County and 06 Lunenburg County.

250: Halifax: Census Division 09 Halifax County.

**New Brunswick**

310: Campbellton - Miramichi: Census Divisions 09 Northumberland County, 14 Restigouche County and 15 Gloucester County.

320: Moncton - Richibucto: Census Divisions 06 Albert County, 07 Westmorland County and 08 Kent County.

330: Saint John - St. Stephen: Census Divisions 01 Saint John County, 02 Charlotte County and 05 Kings County.

340: Fredericton - Oromocto: Census Divisions 03 Sunbury County, 04 Queens County and 10 York County.

350: Edmunston - Woodstock: Census Divisions 11 Carleton County, 12 Victoria County and 13 Madawaska County.

**Québec**

410: Gaspésie - Îles-de-la-Madeleine: Census Divisions 01 Les Îles-de-la-Madeleine, 02 Pabok, 03 La Côte-de-Gaspé, 04 Denis-Riverin, 05 Bonaventure and 06 Avignon.

415: Bas-Saint-Laurent: Census Divisions 07 La Matapédia, 08 Matane, 09 La Mitis, 10 Rimouski-Neigette, 11 Les Basques, 12 Rivière-du-Loup, 13 Témiscouata and 14 Kamouraska.

420: Québec: Census Divisions 15 Charlevoix-Est, 16 Charlevoix, 20 L'Île-d'Orléans, 21 La Côte-de-Beaupré, 22 La Jacques-Cartier, 23 Communauté urbaine de Québec et 34 Portneuf.

425: Chaudière-Appalaches: Census Divisions 17 L'Islet, 18 Montmagny, 19 Bellechasse, 24 Desjardins, 25 Les Chutes-de-la-Chaudière, 26 La Nouvelle-Beauce, 27 Robert-Cliche, 28 Les Etchemins, 29 Beauce-Sartigan, 31 L'Amiante and 33 Lotbinière.

430: Estrie: Census Divisions 30 Le Granit, 40 Asbestos, 41 Le Haut-Saint-François, 42 Le Val-Saint-François, 43 Sherbrooke, 44 Coaticook and 45 Memphrémagog.

435: Montérégie: Census Divisions 46 Brome-Missisquoi, 47 La Haute-Yamaska, 48 Acton, 53 Le Bas- Richelieu, 54 Les Maskoutains, 55 Rouville, 56 Le Haut-Richelieu, 57 La Vallée-du-Richelieu, 58 Champlain, 59 Lajemmerais, 67 Roussillon, 68 Les Jardins-de-Napierville, 69 Le Haut-Saint-Laurent, 70 Beauharnois-Salaberry and 71 Vaudreuil-Soulanges.

440: Montréal: Census Division 66 Communauté urbaine de Montréal.

445: Laval: Census Division 65 Laval.

450: Lanaudière: Census Divisions 52 D'Autray, 60 L'Assomption, 61 Joliette, 62 Matawinie, 63 Montcalm and 64 Les Moulins.

455: Laurentides: Census Divisions 72 Deux-Montagnes, 73 Thérèse-De Blainville, 74 Mirabel, 75 La Rivière-du-Nord, 76 Argenteuil, 77 Les Pays-d'en-Haut, 78 Les Laurentides and 79 Antoine-Labelle.

460: Outaouais: Census Divisions 80 Papineau, 81 Communauté urbaine de l'Outaouais, 82 Les Collines-de-l'Outaouais, 83 La Vallée-de-la-Gatineau and 84 Pontiac.

465: Abitibi-Témiscamingue: Census Divisions 85 Témiscamingue, 86 Rouyn-Noranda, 87 Abitibi-Ouest, 88 Abitibi and 89 Vallée-de-l'Or.

470: Mauricie - Bois-Francs: Census Divisions 32 L'Irable, 35 Mékinac, 36 Le Centre-de-la Mauricie, 37 Francheville, 38 Bécancour, 39 Arthabaska, 49 Drummond, 50 Nicolet-Yamaska, 51 Maskinongé and 90 Le Haut-Saint-Maurice.

475: Saguenay-Lac-Saint-Jean: Census Divisions 91 Le Domaine-du-Roy, 92 Maria-Chapdelaine, 93 Lac-Saint-Jean-Est and 94 Le Fjord-du Saguenay.

480: Côte-Nord: Census Divisions 95 La Haute-Côte-Nord, 96 Manicougan, 97 Sept-Rivières- Caniapiscau and 98 Minganie-Côte-Nord-du-Golfe-Saint-Laurent.

490: Nord-du-Québec: Census Division 99 Territoire nordique.

**Ontario**

510: Ottawa: Census Divisions 01 Stormont, Dundas and Glengarry United Counties, 02 Prescott and Russell United Counties, 06 Ottawa-Carleton Regional Municipality, 07 Leeds and Grenville United Counties and 09 Lanark County.

515: Kingston - Pembroke: Census Divisions 10 Frontenac County, 11 Lennox and Addington County, 12 Hastings County, 13 Prince Edward County and 47 Renfrew County.

520: Muskoka - Kawarthas: Census Divisions 14 Northumberland County, 15 Peterborough County, 16 Victoria County, 44 Muskoka District Municipality and 46 Haliburton County.

530: Toronto: Census Divisions 18 Durham Regional Municipality, 19 York Regional Municipality, 20 Toronto Metropolitan Municipality, 21 Peel Regional Municipality and 24 Halton Regional Municipality (except the city of Burlington).

540: Kitchener - Waterloo - Barrie: Census Divisions 22 Dufferin County, 23 Wellington County, 30 Waterloo Regional Municipality and 43 Simcoe County.

550: Hamilton - Niagara Peninsula: Census Divisions 24 Halton Regional Municipality (city of Burlington only), 25 Hamilton-Wentworth Regional Municipality, 26 Niagara Regional Municipality, 28 Haldimand-Norfolk Regional Municipality and 29 Brant County.

560: London: Census Divisions 32 Oxford County, 34 Elgin County and 39 Middlesex County.

570: Windsor - Sarnia: Census Divisions 36 Kent County, 37 Essex County and 38 Lambton County.

580: Stratford - Bruce Peninsula: Census Divisions 31 Perth County, 40 Huron County, 41 Bruce County and 42 Grey County.

590: Northeast: Census Divisions 48 Nipissing District, 49 Parry Sound District, 51 Manitoulin District, 52 Sudbury District, 53 Sudbury Regional Municipality, 54 Timiskaming District, 56 Cochrane District and 57 Algoma District.

595: Northwest: Census Divisions 58 Thunder Bay District, 59 Rainy River District and 60 Kenora District.

**Manitoba**

610: Southeast: Census Divisions 01, 02 and 12.

620: South Central: Census Divisions 03 and 04.

630: Southwest: Census Divisions 05, 06, 07 and 15.

640: North Central: Census Divisions 08, 09 and 10.

650: Parkland: Census Divisions 16, 17 and 20.

660: Interlake: Census Divisions 13, 14 and 18.

670: Winnipeg: Census Division 11

680: North: Census Divisions 19, 21, 22 and 23.

**Saskatchewan**

710: Regina - Moose Mountain: Census Divisions 01, 02 and 06.

720: Swift Current - Moose Jaw: Census Divisions 03, 04, 07 and 08.

730: Saskatoon - Biggar: Census Divisions 11, 12 and 13.

740: Yorkton - Melville: Census Divisions 05, 09 and 10.

750: Prince Albert: Census Divisions 14, 15, 16 and 17.

760: Northern: Census Division 18.

## About SABAL's database sources...

**Alberta**

810: Lethbridge - Medicine Hat: Census Divisions 01, 02 and 03.

820: Drumheller - Stettler - Wainwright: Census Divisions 04, 05 and 07.

830: Calgary: Census Division 06.

840: Athabasca - Jasper - Banff: Census Divisions 13, 14 and 15.

850: Red Deer - Rocky Mountain House: Census Divisions 08 and 09.

860: Edmonton: Census Division 11.

870: Grande Prairie - Peace River: Census Divisions 17, 18 and 19.

880: Fort McMurray - Camrose: Census Divisions 10, 12 and

**British Columbia**

910: Vancouver Island and Coast: Census Divisions 17 Capital Regional District, 19 Cowichan Valley Regional District, 21 Nanaimo Regional District, 23 Alberni-Clayoquot Regional District, 25 Comox - Strathcona Regional District, 27 Powell River Regional District, 43 Mount Waddington Regional District and 45 Central Coast Regional District.

920: Lower Mainland - Southwest: Census Divisions 09 Fraser-Cheam Regional District, 11 Central Fraser Valley Regional District, 13 Dewdney-Alouette Regional District, 15 Greater Vancouver Regional District, 29 Sunshine Coast Regional District and 31 Squamish-Lillooet Regional District.

930: Thompson - Okanagan: Census Divisions 07 Okanagan-Similkameen Regional District, 33 Thompson- Nicola Regional District, 35 Central Okanagan Regional District, 37 North Okanagan Regional District and 39 Columbia-Shuswap Regional District.

940: Kootenay: Census Divisions 01 East Kootenay Regional District, 03 Central Kootenay Regional District and 05 Kootenay Boundary Regional District.

950: Cariboo: Census Divisions 41 Cariboo Regional District and 53 Fraser-Fort George Regional District.

960: North Coast: Census Divisions 47 Skeena-Queen Charlotte Regional District and 49 Kitimat-Stikine Regional District.

970: Nechako: Census Divisions 51 Bulkley-Nechako Regional District and 57 Stikine Region.

980: Northeast: Census Divisions 55 Peace River Regional District and 59 Fort Nelson-Liard Regional District.

## Census Metropolitan Areas (CMA)

As with Labour Force Survey, HFE estimates for CMA's use preliminary 1996 boundaries. These boundaries will be used for the 1996 Census of Canada. They are based on commuting patterns at the time of the 1991 Census. Maps and definitions of the Census Sub-division comprising CMA's can be purchased for $40. Contact Marc Lévesque at (613) 951-2793 to purchase your copy.

About SABAL's database sources...

---

# EDUCATION

## *The University Student Information System*

The enrolment and graduation data available in the USIS databases are the products of the enrolment and degrees surveys conducted annually by Statistics Canada. Each of these surveys covers all degree-granting institutions.

The information is obtained from the administrative records of Canadian degree-granting institutions, generally in an individual record format. All data are subject to validity and relationship edits by the universities, in some cases by the province and by Statistics Canada, Final summary tabulations are then approved by university administrations before publication or other forms of information dissemination.

University enrolment statistics are available on students enrolled in Canadian degree-granting institutions in programs leading towards a degree, diploma or certificate. These statistics include students enrolled in courses and students who have completed their courses requirements and who are engaged in thesis writing or research. Also included are students taking courses eligible for credit; but who are not seeking a degree, diploma or certificate, e.g. auditors.

The enrolment survey collects information on student counts as of December 1st in all provinces except Ontario, where the reference date is November 1st. This means that each student who attends university in the fall session is counted only once annually, even though the student may be enrolled in more than one program. This student count is used as a proxy for the total number of students enrolled during a complete academic year.

The degrees survey collects information on all students who have received a degree, diploma or certificate during the calendar year ending in December. It is a count of the number of degrees, diplomas and certificates awarded, not the number of individual students who receive them.

Enrolment data is available from the 1972-73 academic year to the present. Degree data is available from 1970 to the present.

---

**Linkage file**

Through record linkage with the enrolment file much information available on the enrolment file is also available on the degrees file. For example, it is possible to obtain information on the age, immigration status and citizenship of graduates. Currently linkage is possible for most institutions, accounting for approximately 70% of the student records for the 1993 survey year.

Users interested in obtaining degrees information involving linkage with the enrolment file should contact the USIS survey manager at (613) 951-8285.

**COLLEGE (Information to follow)**

# *TRAINING*

## Survey objectives

The objectives of the Adult Education and Training Survey (AETS) were:

- to measure the incidence of adult education and training in Canada in a comprehensive manner;
- to provide a socio/economic/demographic profile of individuals who participated and did not particiapte in education or training;
- to profile the types, durations and locations of education or training that individuals received;
- to profile employer involvement in the education/training process;
- to identify barriers to education and training.

## Survey design

The AETS was administered in January 1992 and January 1994 to a sub-sample of the dwellings in the Labour Force Survey (LFS) sample. Its sample design is thus closely tied to that of the LFS. The reference period of each survey is a year. Then, information collected refers to education and training activities that have taken place in 1991 or 1993.

Information were collected during the January 1992 and 1994 LFS telephone interviews. Responses were obtained from approximately 45,000 individuals. These responses were weighted to represent the total Canadian population.

The LFS target population includes all the provinces but excludes the Yukon and the Northwest Territories. Also excluded are inmates of institutions such as prisons or hospitals, residents of Indian reserves, and full-time members of the armed forces.

For the AETS, the coverage of the LFS was modified to include all members of the houselholds 17 years of age and over. This included all households members 70 years of age and over. However, unlike the LFS where information is collected for all eligible household members, the AETS only collected information from one pre-selected household member and proxy responses were not permitted.

## Definition

Adult education and training include all formal educational (credit and non-credit courses) and training activities taken by individuals aged 17 and over. These activities can be taken at work, at school or at other locations for job-related or personal reasons.

However, to avoid distorting the profile of adult learners, full-time educational activities of any students enrolled in a full-time program, i.e those enrolling in learning activities after leaving the school system, unless supported by an employer were excluded. The employer-supported full-time students were included to be able to discern the role employers take in the continuing education and training of employees.

**Sampling error**

The difference between estimates derived from a sample and those derived from a complete census taken under similar conditions is called the sampling error. As in any sample survey, some of the AETS estimates are subject to considerable sampling error or are based on too small a sample to be statistically reliable. Some of these estimates should then be used with caution. The following table shows the minimum size of the estimate at the provincial, regional and national levels under which the estimates are less reliable. Under these levels, the coefficient of variation (c.v.) is 25% or over.

| Area | Estimate size under which c.v. is 25% or over | |
|---|---|---|
| | **1992** | **1994** |
| Newfoundland | 5,500 | 7,500 |
| Prince Edward Island | 2,000 | 2,500 |
| Nova Scotia | 7,000 | 8,000 |
| New Brunswick | 5,500 | 8,000 |
| Quebec | 28,000 | 30,500 |
| Ontario | 31,000 | 33,000 |
| Manitoba | 7,500 | 14,000 |
| Saskatchewan | 4,000 | 7,500 |
| Alberta | 11,000 | 15,000 |
| British Columbia | 20,500 | 39,500 |
| Atlantic Provinces | 6,000 | 7,000 |
| Prairie Provinces | 10,000 | 13,000 |
| CANADA | 21,500 | 26,000 |

## Historical comparisons

Other similar surveys were conducted before 1992. However, since each survey have used relatively different concepts, questionnaire and approach, no longitudinal analysis can be undertaken over that period. However, 1994 and 1992 surveys are totally comparable.

About SABAL's database sources...

---

## CANADIAN CENTRE FOR JUSTICE STATISTICS

## PREFACE

The Canadian Centre for Justice Statistics (CCJS), a branch of Statistics Canada, has the mandate is to develop Canada's system of justice statistics and information to support the administration of justice in Canada, and to ensure that accurate information regarding the nature and extent of crime and the administration of justice is available to the Canadian public.

## CRIME STATISTICS IN CANADA

## INTRODUCTION

Crime can be defined as the acts and behaviours for which society provides formally sanctioned punishments. What is considered criminal may vary over time and across cultures. In Canada, criminal acts are specified in written law (the *Criminal Code of Canada* and other federal statutes).

The Canadian Centre for Justice Statistics, in co-operation with the policing community, collects police reported crime statistics through the Uniform Crime Reporting survey. This product presents statistics for criminal incidents categorised by Common Offences Category. This common framework permits users to compare analytical results across the different databases, and to examine data from different sectors of the justice system using a single set of offence categories. Each common offence category is constructed by aggregating individual UCR offence categories into the larger common categories.

## THE UNIFORM CRIME REPORTING SURVEY

The Uniform Crime Reporting (UCR) survey was developed by Statistics Canada with the co-operation and assistance of the Canadian Association of Chiefs of Police. The UCR survey became operational in 1961. It covers crime and traffic statistics reported by police agencies in Canada. UCR survey data reflect reported crime that has been substantiated through police investigation. The survey collects numbers of criminal incidents, the clearance status of those incidents, and numbers of persons charged. The UCR survey has thus produced a continuous 31-year historical record of crime data.

---

### The *Most Serious Offence* in an Incident

The UCR survey classifies incidents according to the *most serious offence* in the incident, generally the offence which carries the longest maximum sentence under the *Criminal Code of Canada*. In categorising incidents, violent offences always take precedence over non-violent offences. For example, incidents involving both a breaking and entering offence and an assault are counted as assault incidents. As a result of the *most serious offence* scoring rule, less serious offences are under-counted by the UCR survey.

The UCR survey scores violent incidents differently from other types of crime. For violent crime, a separate incident is recorded for each victim. (If one person assaults three people, then three incidents are recorded. If three people assault one person, only one incident is recorded.) For non-violent crimes, one incident (categorised according to the *most serious offence*) is counted for every distinct or separate occurrence.

Robbery is the one exception to the above scoring rules. Robbery is categorised as a violent offence. Unlike all other violent offences, one occurrence of robbery is equal to one incident, regardless of the number of victims. The reason for this exception is that robbery can involve many people who could all be considered victims. In a bank robbery with 5 tellers and 20 customers present, 25 incidents of robbery would be counted if the normal scoring rule for violent incidents were applied. This would seriously overstate the occurrence of robbery.

Thus, the total number of incidents recorded by the UCR survey is not a census of all violations of the law that come to the attention of police. Rather, the total number of incidents is equal to the number of victims of violent crimes (other than robberies) plus the number of separate occurrences of non-violent crimes (and robberies).

## DATA COMPILATION AND VERIFICATION

### Operational Overview

The Uniform Crime Reporting Survey is currently composed of two survey instruments: the aggregate survey and the revised (incident-based) survey. Data from the aggregate survey are sent to the Policing Services Program on survey forms or in a machine readable format. The *revised (incident-based) survey,* on the other hand, is a microdata survey which collects detailed information on individual criminal incidents, including characteristics of accused persons and the victims of violent offences. The revised survey commenced data collection in 1988. Revised UCR data are extracted directly from a police force's information system through a system interface developed in compliance with the survey data requirements. These data are sent to the Program

in a machine readable format. Data requirements for the revised survey are essentially unchanged since the survey started.

Aggregate and incident-based UCR data are handled, processed, and stored in separate operational systems. In order to maintain historical continuity with the aggregate survey as well as comparability across police forces during implementation, counts obtained from the incident-based survey can be tabulated so that the results are consistent with the aggregate survey. During production of the annual crime data, data from the aggregate survey and aggregated data from the incident-based survey are combined to form consolidated national statistics.

Together, the two surveys form a census of crime reported to and by the police. Altogether, there are approximately 1,800 separate police locations reporting to UCR, comprising about 420 different police forces. For the most recent reporting year (1993), the incident-based UCR Survey covers approximately 32% of reported crime in Canada with coverage expanding as the survey is implemented by police departments. In 1993, approximately 1.2 million incidents, including updates to previous years, were reported to the incident-based survey.

**The Aggregate UCR Survey - On-going Processing**

Monthly counts of aggregate crime and traffic incidents are recorded by police agencies and forwarded to the Policing Services Program two weeks after month-end. These forms are visually edited for completeness and consistency and, if necessary, follow-up telephone calls are made to the respondent for clarification and immediate correction. The crime and traffic data are transferred to an electronic format by the Data Capture Unit of Statistics Canada. All counts are verified to assure that the information has been correctly transferred from the forms to tape. Machine readable files are transferred to the mainframe environment. Some respondents submit their counts in machine readable format, such as tape, which eliminates the initial processing procedures.

The raw data are processed through a set of automated edit routines to further verify the counts for internal consistency. Error reports are produced and Program staff contact respondents to obtain correct information. Corrections are re-submitted for verification and to up-date the monthly counts. Master files of aggregate data are continually updated throughout the year, and, in turn are further processed when it is necessary to produce the year-end data.

Police departments are expected to revise previously submitted information if more information has become available (e.g., an accused has been charged for a previously reported incident). Assuming all procedures have been followed by the respondents, the UCR counts processed by the Program will correspond with the records maintained by police departments at year-end.

About SABAL's database sources...

---

**The Incident-based UCR Survey - Ongoing Processing**

All data for the incident-based survey are collected from police automated operational systems by an approved extraction program and are forwarded to Policing Services in a machine readable format with a standard record layout and record length. Data are reported to the CCJS monthly with a two month time delay (i.e., January data will be reported during the first week of April; February data plus any updates to January data will be reported during the first week of May; March data plus any updates to January and February data will be reported during the first week of June, etc.). The purpose of the two month time delay is to reduce the volume of updates required.

Upon receipt of the data by Policing Services, initial data quality procedures are applied and the data are prepared for processing by the central processing system. This central processing system performs a series of intensive edits (more than 300) on these data, including duplicate record checks, logic edits, format errors and imputations. No errors are permitted on key variables. The outcome of the edits and imputations is reported in a series of edit reports and all processed data are stored in an Oracle relational database. Included in the edit reports are a summary of the number and types of records processed, a frequency count of edit failures and a listing of every record which failed an edit. All edits are examined at the CCJS with the objective of identifying possible problems with the respondent system interface or with respondent adherence to survey data requirements. Any problems are pursued with the respondent. Edit reports are also sent to the respondents for their information and for the correction of errors.

**Data Compilation and Verification at Year-end**

The data capture and correction process of both the aggregate and incident-based surveys is a continuous activity throughout the year. At present, the final counts are released to the public in August. This release follows a lengthy data production cycle which begins in December of the previous year with the preparation of interim aggregate data. These preliminary data are prepared to provide an early warning of any data problems. Problems are identified with the use of a statistical "tolerance" model specifically designed to compare a single respondent to its past behaviour and to that of similar respondents.

Non-respondents, for example, are easily identified using the model and staff then call to collect outstanding monthly counts. Respondents not submitting counts for 6 months or more are referred to as non-respondents. In addition, a closure of a police services or seasonal operation may explain an anomaly in the data. The largest police departments responding to either the aggregate or incident-based surveys are asked to review summary data tables for completeness and accuracy and, if necessary, adjustments are made before a master file is created.

In order to create either the preliminary or final master file, the incident-based file must be converted to produce counts comparable to those produced by the aggregate survey. The converted counts, or the "Derived Aggregate Offence" data, are compiled with the aggregate survey to produce the national and provincial tables displayed in this publication. In this way, continuity is maintained with the historical crime series.

UCR Survey data for 1992, 1993 and 1994 give a more accurate picture of the total level of reported crime in Canada than has ever been achieved in the past. As more police agencies begin to respond to the Revised UCR Survey, the quality of crime statistics improves. Anomalies in crime reporting practices that previously lay undetected are now being corrected.

**Under-reporting Crime**

The Policing Services Program does not undertake audits of a police department's Records Unit to assure complete and accurate reporting. Nor does the Program examine records which the police have processed and describe as outside the scope of the survey. For example, it is common practice among automated police services to enter all incoming calls recorded by an automated dispatch system into their automated information system. Only a portion of all calls received fall with the scope of the national survey. As a consequence, the amount of crime which actually falls within the scope of the survey but is not reported is unknown. Police departments, however, have established rules governing the collection of data (coding manuals) and have designated individuals with the task of verifying the reports from which the data are extracted. Quality control measures are in effect on-site for respondents of the aggregate and the incident-based survey to minimise the under-reporting of crime.

Another factor which may result in an under-count in the official crime statistics is the development of police initiatives which place more focus on conflict resolution and less on record keeping. Community-based policing may result in fewer records being submitted to police headquarters.

The UCR Survey also under-reports crime to the extent that respondents do not forward their monthly data. Each year, a small number of respondents do not submit the required information. In 1993, seven police departments did not report complete data, all of which policed areas with populations of 10,000 or less. Excluded from the list of non-respondents are police departments which were open on a seasonal basis and those that did not have any crime to report.

---

## GLOSSARY

**Accused**
An accused is a person who has been identified by police as an offender in an incident and against whom a charge may be laid in connection with that incident. Does not include suspects.

**Actual Incidents**
To produce the number of "actual incidents", unfounded incidents are subtracted from the number of reported incidents. The levels and rates of crime reported in this publication are calculated on the basis of "actual incidents" (categorised according to the *most serious offence* in each incident).

**Adults**
Adults consist of all persons aged 18 and over. As opposed to youths, the target group here falls under the delegation of the adult justice system. In this publication, rates for accused adults are represented only by those aged 18 and over.

**Alternative Measures**
Actions other than judicial proceedings used to deal with a young person alleged to have committed an offence. These measures are not the responsibility of the police service but rather specific programs developed pursuant to section 4 of the *Young Offenders Act.* Young persons participating in Alternative Measures may or may not have been charged by police. The existence of such programs is one factor among many that are likely to explain the divergence between UCR and Courts data. In addition, youths may be diverted from the court system with a referral to an informal diversion program sponsored by the police service. These youths are not charged for the offence.

**Cleared By Charge**
When a police investigation leads to the identification of at least one suspect, an "information" is laid against that person (i.e., the person is formally charged with at least one offence). From a statistical point of view, the laying of an information means that at least one actual incident can be "cleared by charge". An incident can be cleared by charge even if the police have not apprehended the accused person, provided that person has been identified and there is sufficient evidence to lay a charge. The charge which describes the incident, that is, the most serious, may not be the offence for which an accused has been identified. Any charge in the incident which is cleared will result in the incident being described as "cleared".

---

**Cleared Otherwise**
In some cases, police cannot lay an information even if they have identified a suspect and have enough evidence to support the laying of an information. Examples include cases of diplomatic immunity, instances where the complainant declines to proceed with charges against the accused, or cases where the alleged offender dies before he/she can be formally charged. Such incidents are considered "cleared otherwise".

***Criminal Code* Traffic Incidents**
These incidents involve offences such as impaired driving, dangerous operation of a motor vehicle, and failing to stop or remain at the scene of an accident. Incidents related to impaired driving account for over one-half of the incidents in this category.

**Dangerous Driving and Drinking - Bill C-18**
Introduced in 1985, Bill C-18 imposed more stringent sentences for dangerous driving and drinking and driving. It also facilitated the enforcement of impaired driving laws by authorizing police to take blood samples in certain circumstances.

**Drug Incidents**
These incidents involve offences under the federal *Food and Drugs Act* and the *Narcotic Control Act*. These offences comprise possession, trafficking, importation or cultivation of various illicit, controlled and restricted drugs.

**Historical Crimes**
These incidents are those crimes that occurred in the past and are being reported and recorded in the present. This is especially the case in crimes of violence where heightened public awareness and the growth of more accessible laws have given victims the opportunity to recount past incidents in which they were victimised.

**Homicide Survey**
The Homicide Survey, in place since 1961 and recently revised in 1991, provides a data source capable of addressing specific questions such as methods used to commit homicide, characteristics of homicide incidents, victim-accused relationships, characteristics of victims and accused, "gang" killings and alcohol/drug involvement.

**Incident**
The basic unit of count selected to report crime to both the aggregate UCR survey and the incident-based UCR survey is the "criminal incident". An incident is the set of connected events which usually constitutes an occurrence report.

**Mischief - Bill C-18**
Bill C-18 also changed the way mischief offences are categorised. Before 1986, mischief offences were distinguished between damage to public property and damage to private property. Since the amendment, mischief has been categorised according to the value of property damage: mischief with property damage over $1,000, and mischief with property damage $1000 and under.

About SABAL's database sources...

---

**Most Serious Offence**
The UCR aggregate survey describes incidents according to the *most serious offence* in the incident, that is, by the offence with the greatest maximum penalty prescribed by law. For the purposes of reporting, violent offences are assigned a higher priority than non-violent offences. As a result, less serious offences are under-counted in the survey. In addition, a violent incident is reported for each victim in the incident.

**Most Serious Violation**
In contrast to the aggregate UCR survey, the revised UCR survey collects up to four different violations per incident. Each incident is described by the most serious violation which is selected based on the following criteria: person or violent violations take precedent over non-violent violations; the greatest maximum penalty prescribed by law; and the discretion of the police.

**Other *Criminal Code* Incidents**
These incidents involve the remaining *Criminal Code* offences that are not classified as violent or property (excluding traffic offences). Examples are mischief, bail violations, disturbing the peace, arson, prostitution and offensive weapons.

**Other Federal Statute Offence Incidents**
These incidents include violations under all other federal statutes. About one-half of the incidents in this category fall under the *Canada Shipping Act*, the *Immigration Act*, the *Customs Act*, the *Excise Act*, and the *Bankruptcy Act*.

**Persons Charged**
The UCR survey also records the number of persons charged in association with cleared incidents. For incidents cleared, the UCR survey collects the number of adults charged (male and female) as well as the number of youths charged (male and female). The "persons charged" category includes the number of people charged or recommended for charges by police, *not* the number of charges laid or recommended against those people.

**Policing Services Program**
The Policing Services Program provides information on homicides and other criminal incidents reported by police services in Canada. Further information is produced on police personnel and expenditures as well as qualitative information concerning the delivery of policing services in Canada.

**Property Incidents**
These incidents involve unlawful acts with the intent of gaining property but do not involve the use or threat of violence against an individual. Theft, breaking and entering, fraud and possession of stolen goods are examples of property crimes.

About SABAL's database sources...

---

**Provincial Statute Offence Incidents**
These incidents include all violations under provincial statutes although traffic-related statutes are excluded unless stated otherwise. Most of the criminal incidents in this category fall under various provincial liquor acts.

**Rate Per 100,000 Population**
"Rate per 100,000 population" refers to the total number of incidents divided by the total population and multiplied by 100,000. A "rate" is an approximation of the relative risk of being victimised by a criminal act.

**Reported Incidents**
When a crime is reported to the police by a citizen, the incident is recorded as a "reported" incident. Police then conduct a preliminary investigation to determine the validity of the report. In addition, "reported" incidents include those which are uncovered by the police themselves.

**Sexual Assault - Bill C-127**
In January of 1983, Bill C-127 replaced the crimes of rape and indecent assault with a three-tiered structure for sexual assaults. The Bill also eased the circumstances under which police could lay charges in incidents of sexual and non-sexual assault.

**Sexual Assault - Bill C-49**
Bill C-49 was passed and took effect in August, 1992. In addition to re-establishing a statutory rape-shield law, which had been struck down in 1991, Bill C-49 also provided a precise definition of consent.6

**Unfounded Incidents**
Occasionally, crimes reported to the police prove to be unfounded. If the preliminary enquiry conducted by the police reveals that a reported crime has not been committed, this incident is to be classified as unfounded.

**Uniform Crime Reporting Survey (Aggregate UCR)**
The Uniform Crime Reporting (UCR) survey was developed by Statistics Canada with the co-operation and assistance of the Canadian Association of Chiefs of Police. The UCR survey became operational in 1962. It covers crime and traffic statistics reported by police agencies in Canada. UCR survey data reflect reported crime that has been substantiated through police investigation. The survey collects numbers of criminal incidents, the clearance status of those incidents, and numbers of persons charged.

**Uniform Crime Reporting Survey (Revised/Incident-based UCR)**
In 1983, the Canadian Centre for Justice Statistics began a major revision of the UCR survey. Since 1988, numerous police agencies have reported to the "Revised" UCR survey. This incident-based survey allows for the collection of statistics on detailed characteristics of the victim, accused, and incident. (See Appendix C.)

About SABAL's database sources...

---

**Victim**
The term victim is a central concept in UCR scoring rules. For the purposes of reporting incidents, a "victim" is a person who is the target of violent/aggressive action or threat. The survey also collects "victims" of criminal traffic violations. For this, the victim is the target of an intended/unintended violent action. For the purposes of the UCR Survey, people who have lost property, either through damage or theft are defined as "complainants" rather than victims. No complainant information is collected by either the aggregate or incident-based surveys.

**Violation / Offence**
Refers to a contravention of the *Criminal Code* or other federal and provincial statutes.

**Violent Incidents**
These incidents involve offences that may result in physical injury to a person. These include homicide, attempted murder, various forms of sexual and non-sexual assault, robbery and abduction. Traffic incidents that result in death or bodily harm are included under *Criminal Code* traffic incidents.

**Youths**
Youths, as defined in this publication, refer to those aged 12 to 17 (inclusive). This definition applies to the target group who fall under the delegation of the *Young Offenders Act* (YOA). In this publication, rates of accused youths are represented only by those aged 12 to 17 (inclusive). The number of YOA incidents reported to police are included in the category "Other federal statute offences".

**Youth Court Survey**
The Youth Court Survey collects statistical information on *Criminal Code* and other federal statute charges heard in youth courts. Caseloads and case characteristics data are collected from all jurisdictions through either automated interfaces or data collection.

About SABAL's database sources...

---

# *Population Projections*

## Subject Matter

Statistics Canada releases long-term population projections for Canada, provinces and territories (Catalogue 91-520, Occasional) at regular intervals. In addition, short-term projections, for the coming five years, are published in the **Annual Demographic Statistics** (Catalogue 91-213, Annual). However, population projections at sub-provincial levels have not been previously produced. In order to meet the widespread demand for population projections at subprovincial levels, and to complement the current subprovincial population estimates which are published in **Annual Demographic Statistics** (Catalogue 91-213, Annual), Statistics Canada has embarked on producing special population projections for the 26 CMAs, 12 non-CMA regions, 119 CAs and 12 non-CA regions in Canada from 1996 to 2000, on a cost recovery basis.

The purpose of the front-end section is to describe the methods used in estimating and projecting the total population for census metropolitan areas (CMAs) and census agglomerations (CAs).

## A. ESTIMATION METHODOLOGY

### A.1 ESTIMATES OF THE TOTAL POPULATION FOR CANADA, PROVINCES AND TERRITORIES

The estimates of population for Canada, provinces and territories are produced using the component approach. The method is described in ***Annual Demographic Statistics, 1993***, Catalogue No. 91-213, (March 1994). The provincial and territorial population estimates form the base for CMA and CA estimates.

### A.2 ESTIMATES OF THE TOTAL POPULATION FOR CENSUS DIVISIONS(CDs)

The estimates of census metropolitan areas for 1995 and census agglomerations from 1991 to 1995 are based on the estimates of census divisions. The methods (component and regression-nested) for estimating the population for census divisions are described in Statistics Canada, ***Annual Demographic Statistics***, Catalogue 91-213, (March 1994).

---

## A.3 ESTIMATES OF THE TOTAL POPULATION FOR CENSUS METROPOLITAN AREAS AND NON-METROPOLITAN AREAS JULY 1, 1991 TO 1995

There are 25 census metropolitan areas (CMAs) in Canada. However, the Ottawa-Hull CMA is split by two provinces; Quebec and Ontario. There are no CMAs in Prince Edward Island and the Yukon and Northwest Territories. The twelve non-CMAs mentioned in this report are the areas outside the CMA boundaries in nine of the provinces, the province of Prince Edward Island and the two territories.

The July 1, 1991 estimates of the total population for CMAs form the basis for producing estimates for subsequent years.

1) Estimates as of July 1, 1991

The estimate of the total population as of July 1, 1991 for each CMA includes adjustments for the net census undercount and any incompletely enumerated Indian reserves where applicable.

2) Postcensal Estimates as of July 1, 1992, 1993 and 1994 - Component Method

Final births and deaths for July 1, 1991 to June 30, 1993 were derived from vital statistics files from Health Statistics Division. Data for July 1, 1993 to June 30, 1994 were converted from CD births and deaths using 1991 Census counts.

The other components, namely immigration, emigration, net internal migration, non-permanent residents, and returning Canadians, were converted from CD data.

3) Postcensal Estimates as of July 1, 1995

The population of CMAs as of July 1, 1995 was estimated by converting the CD population estimates derived from the regression-nested procedure (see ***Annual Demographic Statistics, 1993***, Catalogue No. 91-213) using conversion factors derived from the 1991 Census census subdivision (CSD) counts.

For each province, population estimates for the non-CMA portion, from 1991 to 1995 were obtained by subtracting the corresponding CMA estimates from the provincial total estimate.

---

### A.4 ESTIMATES OF TOTAL POPULATION FOR CENSUS AGGLOMERATIONS AND NON-CENSUS AGGLOMERATIONS, 1991-1995

In Canada there are 115 census agglomerations (CAs). Four of them cross provincial boundaries, making it necessary to treat each part separately.

For many years, postcensal estimates of the population for census divisions (CDs) and census metropolitan areas (CMAs) in Canada have been available on an annual basis, but annual estimates of the total population for the CAs have not been produced before. Population counts for the CAs and non-CAs are available from the 1986 and 1991 Censuses in terms of 1991 boundaries.

Census agglomerations are formed from entire CDs or parts of CDs. First, based on the 1991 Census, a translation file that showed the share of the individual CA and non-CA populations of the CD population was generated. Second, assuming that the proportions of CAs and non-CAs of CDs remained constant over the years 1991 to 1995, the translation file was used for estimating the total CA and non-CA populations as of July 1, 1991 to 1995. These estimates include the adjustment for net census undercount, non-permanent residents, and returning Canadians. Third, in order to ensure comparability between the numbers thus derived and the published CMA population estimates, the non-CMA total population estimates were used as control totals for the non-CMA population obtained by summing the CAs and non-CAs of each province. In the case of a difference, the sum of the CA and non-CA populations was prorated to equal the non-CMA population of the corresponding province.

## B. PROJECTION METHODOLOGY

### B.1 POPULATION PROJECTIONS FOR CANADA, PROVINCES AND TERRITORIES, 1995 TO 2000

The population projections which are used in projecting the population for subprovincial areas are based on the medium projection series for 1993 to 2016 projections in ***"Population Projections for Canada, Provinces and Territories, 1993-2016"*** (Catalogue No. 91-520), Demography Division, Statistics Canada.

In 1994, these projections were updated based on 1995 official preliminary population estimates (29,606,100) and published in Statistics Canada, ***Annual Demographic Statistics, 1993***, Catalogue No. 91-213.

About SABAL's database sources...

---

The general projection method used was the regional cohort component approach,( for details, see the publication ***Population Projections for Canada, Provinces and Territories, 1993-2016***, Catalogue No. 91-520). The underlying component assumptions, at the national level, of the medium projection series (Projection 2) are as follows:

| Component - Composante | | Assumptions - Hypothèses |
|---|---|---|
| 1. | Fertility - Fécondité | 1.7 children per woman - 1,7 enfant par femme |
| 2. | Mortality (life expectancy) - Mortalité (espérance de vie à la naissance) | 78.5 years (M); and 84.0 years (F) in 2016 - 78,5 ans (hommes); 84,0 ans (femmes) en 2016 |
| 3. | Immigration (annual) - Immigration (annuelle) | 210,000 persons - 210 000 personnes |
| 4. | Emigration (annual) - Émigration (annuelle) | 47,000 to 55,000, 1995 to 2016 - Entre 47 000 (en 1995) et 55 000 (en 2016) |
| 5. | Interprovincial migration - Migration interprovinciale | Medium scenario - Scénario moyen |
| 6. | Non-permanent residents (annual) - Résidents non permanents (nombre annuel) | Reaching 198,000 by 1996 and constant thereafter - Atteignant 198 000 en 1996 et constant par la suite |
| 7. | Returning Canadians (annual) - Canadiens de retour (nombre annuel) | 22,000 to 26,000, 1995 to 2016 - Entre 22 000 (en 1995) et 26 000 (en 2016) |

## B.2 METHODOLOGY FOR PROJECTING TOTAL POPULATION FOR CMAs AND NON-CMAs

A ratio method was used to generate the projections. The ratios used, refer to the population of a specific CMA or non-CMA region to the population of the province in which it is located. Four year data series from 1991 to 1994 were used to compute the projected ratios which were multiplied by the projected population for the provinces each year to obtain the projected population for CMAs and non-CMAs.

The method involves the following steps:

1. Compute the proportion of the CMA and non-CMA population to the provincial population for each year, 1991 to 1994.

2. Compute the average annual rate of change in shares/ratios for each CMA and non-CMA, 1991 to 1994, 1992 to 1994 and 1993 to 1994.

3. Examine the average annual rate of change in shares to determine the migration group for each region:

    - Constant direction of share change (either positive or negative), 1991-1994, 1992-1994, 1993-1994 is referred to as group 1.

    - Constant direction of share change (either positive or negative), 1992-1994, 1993-1994 is referred to as group 2.

    - A residual category, in which the direction of share change in 1993-1994 differed from 1992-1994, is referred to as group 3.

4. Select the average annual rate of change in the shares of CMA or non-CMA populations to the provincial population. For projection purposes, the slopes were selected as follows:

    - for migration group 1, select the lowest level of average annual rate of change in shares, 1991-1994, 1992-1994 and 1993-1994.

    - for migration group 2, select the lowest level of average annual rate of change in shares, 1992-1994 and 1993-1994.

    - for migration group 3, select half of the average annual rate of change in shares, 1993-1994.

5. The procedure to select the slope for migration group 3 was slightly modified in order to avoid the risk of extrapolating an irregular trend. Since 1995 preliminary estimates of population are available, those cases assigned as migration group 3 stayed as they were if the growth trend for the latest period 1993-1994 was supported by the preliminary data for 1994-1995. If not, the slope was selected as the lowest level of average annual rate of change in shares during the previous two periods, 1991-94 and 1992-94.

6. Project the slope on the assumption that their annual rate of change would decrease to zero in 50 years; values between the initial and terminal rates were obtained by interpolation.

7. Verify the sum of shares of CMA and non-CMA region in each province to ensure that it is equal to unity. In the case of a difference, prorated adjustments were made.

8. Obtain the projected total population of CMAs and non-CMAs in each province by multiplying the projected shares of the CMA and non-CMA populations to the projected provincial population.

The provincial population projection used for the CMA/non-CMA total population projections is an update of the provincial projections based on the 1995 preliminary population estimates.

## B.3 PROJECTION OF TOTAL POPULATION FOR CENSUS AGGLOMERATIONS AND NON-CENSUS AGGLOMERATIONS, 1996-2000

As in the case of CMA projections, a ratio method was used to produce the projections of the total population for CAs and non-CAs, 1996 to 2000. These ratios refer to the population of a specific CA and non-CA to the population of the total non-CMA population of the province in which it is located. Four-year data series from 1991 to 1994 were used to compute the projected ratios which were multiplied by the projected population of the non-CMA population of the province to obtain the projected population for the CAs and non-CAs.

The method is exactly the same as that used to produce the CMA projections:

1. Compute the proportions (or shares) of the CAs and non-CAs to the non-CMA population of the province for each year, 1991 to 1994.

2. Compute the average annual rate of change in shares/ratios for each CA and non-CA, for the periods 1991 to 1994, 1992 to 1994 and 1993 to 1994.

3. Examine the average annual rate of change in shares for the three time periods to determine the migration group:

    - Constant direction of share change (either positive or negative), 1991-1994, 1992-1994 and 1993-1994 is referred to as group 1.

    - Constant direction of share change (either positive or negative), 1992-1994 and 1993-1994 is referred to as group 2.

    - A residual category, in which the direction of share change in 1993-1994 differed from 1992-1994, is referred to as group 3.

4. Make the selection of the average annual rate of change in the shares of CA and non-CA population to the non-CMA population of the province. For projection purposes, the slopes were selected as follows:

    - for migration group 1, select the lowest level of average annual rate of change in shares during the three time periods, 1991-1994, 1992-1994 and 1993-1994;

    - for migration group 2, select the lowest level of average annual rate of change in shares during the time periods, 1992-1994 and 1993-1994;

    - for migration group 3, select half of the average annual rate of change in shares for the time period 1993-1994.

5. The procedure to select the slope for migration group 3 was slightly modified in order to avoid the risk of extrapolating an irregular trend. Since 1995 preliminary estimates of population are available, those cases assigned as migration group 3 stayed as they were if the growth trend for the latest period 1993-1994 was supported by the preliminary data for 1994-1995. If not, the slope was selected as the lowest level of average annual rate of change in shares during the previous two periods, 1991-94 and 1992-94.

6. Project the slope on the assumption that their annual rate of change would decrease to zero in 50 years; values between the initial and terminal rates were obtained by interpolation.

7. Verify the sum of shares of CAs and non-CAs in each province to equal to unity. In the case of a difference, prorated adjustments on the projected shares were made.

8. Obtain the projected total population of CAs and non-CAs in each province by multiplying the projected shares of the CA and non-CA populations to the projected non-CMA population.

## C. DATA SOURCES

The estimates of the population for the provinces, territories and CMAs were taken from **Annual Demographic Statistics** (Catalogue no. 91-213). The non-CMA population was derived from these estimates. The population estimates for census agglomerations and non-census agglomerations were derived from the estimates of census divisions. A translation file for converting estimates of census divisions to census agglomerations and non-census agglomerations was developed based on the 1991 Census. This translation was assumed to be constant for the years 1991 to 1995, in order to produce the estimates of census agglomerations and non-census agglomerations.

## D. QUALITY OF DEMOGRAPHIC DATA

Census Data

Coverage, Response and Imputation Errors

The errors attributable to census data can be divided into two groups: response and processing errors, and coverage errors. The first group implies non-response error, misinterpretation by respondents, incorrect coding and non-response imputation. Error in the second group primarily result from undercoverage and, to a lesser extent, overcoverage. It should be noted that both types of error are intrinsic to any survey data.

During the process of developing the 1991 base population, an attempt was made to correct for coverage errors only. This correction, however, as it is based on the results of the coverage studies and on modelling of provincial/territorial net undercoverage by age, sex and marital status, is also subject to sampling, collection, response and processing errors and uncertainty in the assumptions underlying the models. Users should also be aware that when calculating undercoverage rates for small areas, it is likely that the underlying assumptions may be violated. If this is true, the resulting undercoverage rate would be misleading. Errors associated with these assumptions are, however, very difficult to quantify at this stage of population estimates production.

# About SABAL's database sources...

## Population Estimates

For census divisions (CDs), the population estimates for 1991 to 1994 derived by the component method are subject to errors in the components as mentioned below. The 1995 estimates are based on the regression-nested method using timely symptomatic indicators. Because of the different methodologies, caution should be used when comparing growth rates for 1994-1995 with those of previous years.

The population estimates derived by the component method for census metropolitan areas (CMAs) are subject to errors in the conversion process used to estimate the migration components from CD migration data. This conversion process is also used to derive the 1995 CMA regression-nested population estimates.

## Component Data

### Births and Deaths

Since the law requires the recording of vital statistics, final data meet very high standards. However, preliminary data which were used in 1993 and 1994 differed from final data. For example, in 1992 the average annual absolute deviations in percent between the preliminary and final data for the ten provinces were 2.6% and 2.7% for births and deaths, respectively.

### Immigration and Non-Permanent Residents

Since immigration is controlled by law (the Immigration Act), data on immigrants and non-permanent residents are compiled upon arrival in Canada. These data represent only "legal" immigration and exclude illegal immigrants. Thus, for the "legal" part of international movement into Canada, the data are considered to be of high quality. However, some biases such as the difference between the stated province of intended residence at the time of arrival and the actual province of residence, may persist. Finally, since information provided by the Visitor Information Data System (VIDS) is not complete (age and sex of dependents, province of residence for certain groups of permit holders), estimates of non-permanent residents are more prone to error than data on immigrants.

### Returning Canadians

The international movement of Canadian permanent residents is not under legal control and consequently a direct source of information on those who are returning to re-establish permanent residence in the country does not exist. The estimate of returning Canadians is based on assumptions concerning the proportion of emigrants returning to the country and their length of stay abroad. Moreover, as these assumptions are kept constant across provinces and territories, any relative geographical variation may introduce error into this component.

## About SABAL's database sources...

### Emigration

These estimates are more subject to error, in view of the use of administrative records that do not fully cover the universe under estimation.

### Interprovincial Migration

Since July 1993, preliminary interprovincial migration estimates have been based on Child Tax Benefit (CTB) files which replaced Family Allowance files. Under the Child Tax Benefit Program, only 80% of children aged 0-17 at the Canada level were entitled to benefits. Furthermore, coverage variation in the CTB was observed by the provinces and territories. It is believed therefore, that the preliminary CTB-based estimates are subject to more error than were the preliminary estimates based on Family Allowance files when compared to the final estimates derived from Revenue Canada Tax files.

### Intraprovincial migration

These estimates are derived from Revenue Canada tax files and are subject to errors generally associated with small area administrative data including errors in assigning Standard Geographic Codes and errors due to boundary changes over time.

### Population Projections

Population projections are not predictions. They are calculations of future population based on a starting population and stated assumptions with respect to the components of population change. Although a single set of projections is presented here, it should not be interpreted as being the preferred series by Statistics Canada. Given the short projection time horizon of five years, and the consequent lack of any perceptible differences in the projected numbers under the different projection series for this period, it was considered sufficient to present only one series.

# Family Expenditure in Canada

## METHODOLOGY, NOTES AND DEFINITIONS

**N.B.:** Most of the following notes were extracted from catalogue 62-555. For more details you should refer to those publications.

Family expenditure surveys have been conducted approximately every two years since 1953. Coverage for most of these has been restricted to selected cities. Only five of the surveys have also included smaller urban and rural areas to provide national coverage: 1969, 1978, 1982, 1986 and 1992. The next national survey will refer to the 1996 calendar year.

The survey's data relate household expenditure to household income and other household characteristics. It contains information needed to monitor and periodically update the weights used in the computation of the Consumer Price Index. The survey includes sufficient detail on spending that researchers have used the data to determine how much money people pay in indirect taxes, such as sales and excise taxes. Researchers trying to define an adequate income also need such expenditure data. In addition, the spending patterns indicated by the data are of interest to market researchers.

Since the estimated are based on a sample survey, they are subject to sampling variability in addition to response errors (by respondents, interviewers and during processing) and errors due to non-response.

This SABAL CD ROM presents selected data for the years 1986 and 1992.

### SURVEY METHODOLOGY

***The Sample***

The Survey of Family Expenditures in 1992 and 1986 were carried out in urban and rural areas of the 10 provinces as well as in Whitehorse and Yellowknife. The samples for the surveys were selected from the Labour Force Survey sampling frame.[1footnote] The selection of the sample comprised two main steps: the selection of clusters from predetermined Labour Force Survey rotation groups within each area and the selection of dwellings within these selected clusters.

[1] **A detailed description of the Labour Force Survey sampling frame can be found in "Methodology of the Canadian Labour Force Survey, 1984-1990", Statistics Canada, Catalogue No. 71-526.**

Persons living on Indian reserves and families of official representatives of foreign countries living in Canada were excluded from the survey. Members of religious and other communal colonies were excluded, as were persons living full time in institutions, for example, inmates of penal institutions and chronic care patients living in hospitals and nursing homes. Data were not gathered directly from persons temporarily living away from their families (for example, students at university), because data on such persons would theoretically have been gathered from their families. In this way, double counting of such individuals was avoided.

Data on part-year households were recorded but excluded from tabulations of average expenditure per household. Part-year households are comprised of persons who were members of other households for part of the survey year, immigrants who arrived during the survey year, and Canadians who returned from living abroad during the survey year.

***Sample Response***

For 1992, the overall response rate was 73.8%. For 1986, the overall response rate was 76.6%. Part-year households were excluded from the calculation of the overall response rate for previous surveys, but they were included for the 1992 survey.

***Data Collection***

First, all members of the household at the time of survey were listed plus any additional persons who were part of the household during the reference year. Then the individuals that composed the household during the reference year and the number of weeks they were eligible members were determined. A detailed questionnaire was then completed for each household.

Because the Survey of Family Expenditures is designed principally to provide detailed information on non-food expenditures, only an aggregate estimate of food expenditures is recorded. Detailed information on food expenditures is provided by the Food Expenditure Survey, which was conducted monthly throughout the reference year. The results of the food survey are published in "Family Food Expenditure in Canada", catalogue number 62-554. A technical note discussing differences between the diary and recall surveys entitled "Reconciliation of Information from the Food Expenditure Survey in 1992 and the Survey of Family Expenditures in 1992" is available on request.

Purchases of large items -- automobiles, for example -- are recalled fairly readily, as are expenditures on rent, property taxes, and monthly payments on mortgages. The accuracy of data on other individual purchases depends on respondents' ability to remember such purchases in detail or willingness to consult records.

Several features of the survey help respondents recall their expenditures as accurately as possible. First, the survey period was the calendar year because it is probably more clearly defined in people's minds than any other period. Second, expenditure on food -- about

one-eighth of the average budget in 1992 -- can be estimated as weekly or monthly expenses. Third, expenses on smaller items purchased at regular intervals are usually estimated on the basis of amount and frequency of purchase.

***The Reliability of Sample Estimates***

Survey results are subject to both sampling and non-sampling errors. The sample design, the method of estimation, the variability of the data, and the sample size determine the size of the sampling error. Unlike sampling error, non-sampling error is not readily quantified. Four sources of non-sampling error can be identified: coverage error, response error, non-response error, and processing error.

## NOTES AND DEFINITIONS

**Estimated number of households:** The estimated number of households living in private dwellings on December 31. These totals are aggregations of data used in the weighting of records in each group.

**Item numbers**: Each basic item of expenditure, household characteristic and supplementary item is associated with a four-digit code. Categories defined by an item code range (as in the summary and in various levels of subtotals in the detail tables) constitute aggregates of the corresponding basic items. Note that these codes are not necessarily the same from year to year.

**Average (dollar or quantity) per household:** This average is computed as the ratio of the weighted sum of all reported dollar expenditures or values in the given group of households to the **"Estimated number of households"** in the group, that is households that bought the given item and those that did not, or households that reported a non-zero value and those that reported a zero value. This average not only depends on the level of the individual household dollar expenditures or values but also on the percentage of households in the group that have actually made an expenditure or reported a non-zero value. It provides a measure of the relative importance of the item for the group of households as a whole. (See the **Technical notes** on how to use these data).

**Percentage not reporting zero[**[2footnote]**]:** The percentage of households reporting non-zero expenditures or values. (See the Technical notes on how to use these data).

**Average (dollar or quantity) per household not reporting zero**: This average is computed as the ratio (multiplied by 100) of the **Average (Dollar or Quantity) per Household** to the **Percentage Not Reporting Zero**, using the values from the table. It refers to the average expenditure or value for those households in the group who actually purchased the given item or reported a non-zero value for the item. Since the average is calculated using the rounded figures from the table, it may differ slightly from the estimate that would be obtained using the microdata.

### *Household Characteristics*

**Comparability:** The unit of observation for Surveys of Family Expenditures prior to 1990 was the "spending unit"- a group of persons living in the same dwelling who depend on a common or pooled income for major expenses or one financially independent individual living alone. This concept was abandoned in favour of "household" with the 1990 survey.

[2] **This was titled "% rptg" in the tables from the 1986 survey and before.**

The definitions of the characteristics categories shown in the statistical tables from one survey to the next may not always be comparable. While efforts are made to describe the categories adequately within the tables, there are prohibitive space limitations. Users should therefore review the definitions in the respective Users' Guides before proceeding with their analysis of the data.

**Household:** A person or group of persons occupying one dwelling unit is defined as a "household". The number of households will therefore be equal to the number of occupied dwellings. The person or persons occupying a private dwelling form a private household. Since this survey covers a full calendar year and that many household expenditures cannot be attributed to any specific individuals, membership for the year was reconstructed rather than taken as it was at one point in time. In addition to persons who were members of the current household for 52 weeks the household also includes household membership time for persons who were members for only part of the year.

**Age:** Age at December 31. An age indicator for the household is provided. This is labelled "Age of husband or reference person" and is defined as the age of the husband where the household is headed by a married couple, or the age of the reference person in other households.
This concept is not strictly comparable to the "age of head" used in surveys prior to 1990. The "head" concept was based on the reported reference person with some adjustment for low income reference persons. The arbitrary use of the husband's age in married-couple households allows us to discard the concept of a single household "head" while operationalizing the derivation of the age indicator. This approach retains some continuity with the family age data from surveys prior to 1990 since virtually no difference in the resulting age statistics has been observed.

**Adult:** Any member aged 16 or over.

**Child:** Any member aged less than 16..

**Household size:** The number of year-equivalent persons. Household size was computed by dividing by 52 the total number of weeks in the year for which members were part of the household. In this way, part-year members were counted as fractions of a year-equivalent person.

**Reference person:** The member of the household listed on the questionnaire as mainly responsible for its financial maintenance. Where two or more share equally in financial maintenance, any of these may be designated the reference person. The reference person had to have been a member of the household at December 31 of the reference year.

**Full-time earner:** Any person employed for 49 weeks or more during the reference year, of which 25 weeks or more were on a full-time basis.

**Part-time earner:** Any person employed during the reference year other than as a full-time earner.

**Homeowner December 31:** Household living in a dwelling owned (with or without mortgage) by a member at December 31 of the reference year.

**One-person household**: The dwelling was occupied by only one person.

**Married-couple household**: Household in which the spouse of the reference person was a member on December 31 of the reference year. (Where a married couple was not together at December 31, the spouse who left the household was treated as a "relative" for classification purposes.)

**Metropolitan areas:** Boundaries respect 1981 Census Metropolitan Area (CMA) and Census Agglomeration (CA) boundaries. Other city boundaries are defined in the methodology report of the Labour Force Survey sample frame.
Ottawa includes only the Ontario part of the Ottawa-Hull CMA.

***Income and Other Financial Items***

**Household income before tax:** Income before tax includes total household income received in the reference year including gross income from wages and salaries, net income from self-employment, receipts from military pay and allowances, gross receipts from roomers and boarders not related to the reference person, net rentals, family allowances, interest and dividends, all pensions, workers' compensation and unemployment insurance benefits, social assistance and income supplements, child tax credits, Goods and Services Tax credits, provincial tax credits and miscellaneous regular income receipts.

Income before tax in the Survey of Family Expenditures (FAMEX) is similar to the concept used by the Survey of Consumer Finances (SCF) except the 1986 and previous Family Expenditure Surveys treated federal and provincial sales tax credits as negative income tax instead of income. Gross receipts from roomers and boarders are used by FAMEX while SCF estimates net receipts.

**Other money receipts:** Other receipts not included in income, such as inheritances, bequests, lump-sum settlements from property insurance, settlements from accident and health policies, and gifts of money from outside the household. Income from tax refunds, which was considered other money receipts in the 1978 survey, has been netted out in the calculation of personal taxes since 1982.

**Net change in assets and liabilities:** Net changes during the survey year in the value of both assets and liabilities. Assets include bank accounts, money on hand, money owed to the household, stocks and bonds (excluding the change in market value), the sale of personal property, and investments in real estate, including the home, and business. Liabilities include notes due to banks, loan and insurance companies, etc., installment purchases, charge accounts and other bills, rents, and taxes.

Contributions to and withdrawals from registered retirement savings plans are included in net changes in assets and liabilities. In surveys up to and including 1976 contributions were included in security, withdrawals in other money receipts.

**Change in principal of mortgage on home:** The sum of payments on principal of mortgage less all amounts added to the principal. Payments on principal include both regular payments and any lump-sum payments such as those made at anniversary dates, when refinancing or at time of sales. The amounts added to principal include increases to principal at the time of purchase of a home, when refinancing an existing mortgage, and in taking out a second mortgage.

The change in principal can be positive or negative and is influenced by the large amounts from the few households who either took up a mortgage for the first time or closed a mortgage with a lump-sum payment. The variance of the change in principal is therefore large, relative to the average value, and users should use this field with caution.

**Additions, renovations and new installations to home:** These are considered investments in the home and are part of the net change in assets and liabilities.

***Expenditures***

**Comparability:** Significant changes to the classification of expenditures have occurred from survey to survey. Users therefore should be aware of them before comparing expenditures over time. A chart titled "Comparison of Family Expenditure Categories 1969-1992" lists the categories from the 1969, 1974, 1978, 1982, 1984, 1986 and 1990 surveys which are equivalent to the 1992 publication's summary and selective detail categories. This document is available from the Family Expenditure Surveys Section.

**General expenditure concepts:**

1. Non-money gifts for persons outside the household are reported under gifts and not under the relevant commodity groups.
2. Reimbursed expenditures are excluded (e.g. employer, travel, expenditures covered by insurance).
3. Expenses attributable to business are excluded.
4. Furnishings and equipment included in the price of homes purchased during the year are not attributed to relevant commodity groups.
5. Expenditures on fixtures (including built-in appliances and wall-to-wall carpeting) are reported separately or, if they were part of a larger job, may be reported under additions, renovations and alterations, or repairs and maintenance.
6. The survey recognizes other composite goods and services e.g. travel tours (combining transportation and accommodation) with or without other services such as meals, hotels with meals included in price ("Meal Plan" and "Modified American Plan").
7. Except for mortgages, interest on loans is not attributed to specific goods and services. These are separately reported as interest on personal loans.
8. The survey includes all goods and services received in the reference year whether they were paid for prior to the reference year or were to be paid for after the reference (such as on an Installment plan). Loans taken out for purchases, as well as unpaid bills are accounted for in the change in assets and liabilities.
9. Expenditure categories include Goods and Services Tax, provincial retail sales taxes, tips, customs duties and any other additional charges or taxes.
10. The survey includes the deductible amount paid for an expenditure category where insurance settlements were used to repair or replace property.
11. Except for real estate, the expenditure amount is the total cost after any trade-in.
12. Separate sales of property, except for vehicles, were considered an asset change.

**Account balancing difference:** The difference between receipts and disbursements. Receipts include total income, other money receipts, and debit items of financial change (a decrease in assets and an increase in liabilities). Disbursements include total expenditure and credit items of financial change (an increase in assets and a decrease in liabilities).

**Food purchased from stores and food purchased from restaurants:** (Food prepared at home and food in eating places were the terms used in the 1978 and earlier publications.) Stores include frozen food provisions, outdoor farmers' markets or stands, and all other non-service establishments. Restaurants include refreshment stands, snack bars, vending machines, mobile canteens, caterers, and coffee wagons.

**Rent:** The net household expense for contract rent after adjusting for any use of the dwelling for business. No adjustment for partial subletting to non-household members was made, but rent was adjusted by rebates.

**Homeowner - Maintenance, repairs and replacements:** Contract and labour cost and the separate cost of materials for all types of maintenance, repairs and replacements. Includes all such expenditures on the dwelling including those for built-in appliances, and other equipment and fixtures. Costs of additions, renovations, and new installations are considered increases in assets and are shown separately.[3footnote] There were significant changes in the 1982 questionnaire design which affect comparisons between 1978 and subsequent surveys.

**Property taxes:** This is the amount billed, before any rebates from the municipality or from income tax. Special service charges (i.e., garbage, sewage, etc.) and local improvements as well as water charges, are included if these are part of the property tax bill. Property taxes which are included in condominium charges are excluded.

**Tenants' and homeowners' insurance:** Premiums paid in the reference year for fire and comprehensive policies. Premiums covering more than the survey year were not prorated.

**Mortgage interest:** The interest on mortgages and other loans on owned living quarters. Repayments of principal in the survey year were not considered expenses and hence were not included in either shelter costs or total expenditure, but in net change in assets and liabilities.

**Water:** This is the amount billed for water and any additional charges for sewage (including sewage pumping services) which are not included in property taxes.

**Traveller accommodation:** When meals were included in the price, their cost was included here and not in food. Excludes accommodation which was part of a travel tour.

**Major household appliances:** Net purchase price after deducting trade-in allowance and discount. Excludes built-in appliances and appliances included in the purchase of a home.

**Clothing:** Note that as for other goods, gifts received from outside the household or given to someone outside the household are excluded. See "Gifts". Note also that purchases of infants' wear by household members expecting a child who was not yet a member at December 31st were not included in clothing, but form part of the figure for gifts. Disposable diapers are not included in Infants' wear, but are included in Personal Care.

[3] **An annual data series showing household expenditures on repairs and renovations is available from the Housing Repair and Renovation Survey. See "Homeowner Repair and Renovation Expenditures in Canada", catalogue number 62-201.**

**Vehicle purchase:** Net purchase price - including extra equipment, accessories, and warranties bought when the vehicle was purchased - after deducting trade-in allowance and separate sales.

**Vehicle operation:** The cost of operation adjusted to include only costs for household use.

**Health care - Direct costs to household:** Expenditures on physician's care, eye care, dental care, hospital care, nursing care, etc., not covered by any prepaid plan.

**Home entertainment appliances:** Net purchase price after deducting trade-in allowance and discount.

**Package Travel tours**: Package trips that included at least transportation and accommodation.

**Personal taxes:** Personal taxes are the sum of income taxes paid on the reference year's and previous years' incomes plus other personal taxes (gift taxes, Newfoundland school tax, etc.) minus income tax refunds except for federal child tax credits, Goods and Services Tax credits and provincial tax credits. These credits are included in income.

**Security:** Disbursements on life insurance, social security, public and private pension plans, and similar items. For certain uses of the data, some of these items might be regarded as savings, although the relationship between the disbursement and increase in savings may not be easily determined.

**Gifts:** Money and the value of other gifts given to people outside the household. Gifts of money from people outside the household are included in other money receipts. Note that support payments are included here. The values of other gifts received are excluded from the expenditure, but the data are presented for broad classes of goods in these tables.

**Total current consumption:** Expenses incurred during the survey year for food, shelter, household operations, household furnishings and equipment, clothing, transportation, health care, personal care, recreation, reading materials, education, tobacco products and alcoholic beverages, and a miscellaneous group of items. Consumer durables such as automobiles and household equipment were considered current consumption items. Changes in equity, such as buying and selling a home, were considered changes in assets and liabilities. Household expenditures for items used partially for business, such as the home or cars, were adjusted to exclude the amount chargeable to business use. Sales, excise, automobile, and real estate taxes were included as part of expenditure on the commodity or service to which the taxes applied. With subsidies, the general rule was that respondents were asked to report their direct payments on rent, on mortgages, and on other goods and services even if the payments were reduced for any reason. If they paid the full amount but received financial assistance, the latter would be treated as income, other money receipt, or a loan depending on the form of assistance.

## TECHNICAL NOTES

Accurately interpreting the expenditure data presented depends on understanding certain concepts used in the Survey of Family Expenditures. In this section, these concepts are discussed, and the calculations used most frequently in manipulations of the data are presented. Users are strongly advised to refer to this section before doing their own analysis of the data.

### *How to Combine Data From Various Groups of Households Within a Table*

By using the following techniques to combine data from various groups of households within a table, the user can obtain estimates for combined groups for any item.

#### Average (dollar or quantity) per household

The average for a combined group of households is calculated as follows:

1. Multiply the **"Estimated number of households"** by the **average** for an item for each of the groups of households being combined.
2. Sum the results.
3. Sum the **"Estimated number of households"** for the groups being combined.
4. Divide the figure obtained in step 2 by the result of step 3.

#### Percentage not reporting zero

The percentage not reporting zero for a combined group of households is calculated as follows:

1. Multiply the **"Estimated number of households"** by the **percentage not reporting zero** for an item for each of the groups of households being combined.
2. Sum the results.
3. Sum the **"Estimated number of households"** for the groups being combined.
4. Divide the figure obtained in step 2 by the result of step 3.

#### Average (dollar or quantity) per household not reporting zero

Using the values obtained above, the average for a combined group of households is calculated by dividing the **Average (dollar and quantity) per household** for the combined group by the **Percentage not reporting zero** for the combined group, and then multiplying by 100.

***How to Calculate Aggregate Expenditure or Value***

To derive estimates of the aggregate expenditure on an item or the aggregate value for an item, the user must multiply the average (dollar or quantity) per household by the estimated number of households. Such aggregates are based on a sample that excludes part-year households and other people ineligible for the survey.

***How to Calculate Expenditure or Value per Person***

The user should estimate expenditure or value per person for an item or group of items, for a group of households, by dividing the estimate of expenditure or value by the average household size given for that group in the characteristic item portion of the table. When comparing estimates of per person expenditure or value, the user should consider the differential effects of adults and children.

**Note:** The computation of per person expenditure or value is possible only for the *averages relating to households in the group* and not possible for the *averages per household not reporting zero*, since the average household size provided in the table refers to all households in the group and may not correspond to any sub-groups not reporting zero.

***How to Calculate Expenditure as a Percentage Distribution***

By dividing spending on an item or group of items by total expenditure, the user can calculate expenditure as a percentage distribution. However, there are other aggregations of expenditure, including those which exclude non-discretionary payments, such as personal taxes. These measures may therefore be more appropriate divisors for some uses.

***How to Use Data on Percentage Not Reporting Zero***

Data on percentage reporting a non-zero expenditure or value **(%)** are provided in most tables so that users can derive estimates of the number of households reporting a non-zero expenditure or value for a given item.
The user can estimate the number of households reporting a non-zero expenditure or value simply by multiplying the given estimated number of households for a group by the percentage of households not reporting zero (divided by 100).

***How to Use Data on the Sample Size***

When comparing data for various groups of households within a table, the user must consider the sample sizes involved. Apparent differences between groups of data must be weighed against the sampling errors associated with sample size. Information on the extent of the sampling error for particular items is presented in the table on standard error in "Family Expenditure in Canada, 1992", catalogue number 62-555.

For items not shown in the table on standard error, the user may use data on sample size and percentage not reporting zero as a guide to reliability. Studies of the survey data have shown that the coefficient of variation[footnote] for a specific item is closely related to the number of households reporting its purchase. The relationship was examined, using data from the 1992 survey, by regressing the coefficients of variation against the number reporting non-zero expenditure. The "best" model when the number of households reporting non-zero expenditure is less than 101 was determined to be a log-log model. The relationship was different between various classification groups. Some results are shown in the following table.

**Table 1**: Coefficients of Variation by Number Reporting
**A Guide to Reliability**

| **Number of households in sample reporting a purchase** | **Coefficient of variation** | |
|---|---|---|
| | **Province** | **Household Composition** |
| | **Percent** | |
| **15** | **39** | **42** |
| **20** | **35** | **38** |
| **30** | **30** | **33** |
| **40** | **27** | **30** |
| **60** | **23** | **26** |
| **80** | **21** | **24** |
| **100** | **19** | **22** |

Data on average expenditure and quantity, and percentage not reporting zero have therefore been suppressed in the tables for items reported by fewer than 30 households. However, data on suppressed items are retained as components of more reliable higher aggregates.
It is possible to estimate the number of sampled households reporting a purchase of an item in a particular column by taking the product of number of households in the sample for the column and the percentage of households reporting a purchase of the item (divided by 100).

[4] **The coefficient of variation is the standard error for the item expressed as a percentage of the estimate.**

## RELATED PRODUCTS AND SERVICES

The results of the 1992 Family Expenditure Survey are summarized in the catalogue PUBLICATION 62-555 "Family Expenditure in Canada, 1992".
The detailed tables described in this guide are available on a variety of media.
Regular detailed or summary and selective detail tables are available on HARD COPY, PERSONAL COMPUTER DISKETTE or computer readable TAPE. Detailed tables are also available on MICROFICHE.

SPECIAL TABULATIONS can be produced to your specifications on a contract basis.
A public-use MICRODATA FILE based on the 1992 and the 1986 survey has been prepared for distribution. Similar files based on the 1969, 1974, 1978, 1982, 1984 and 1990 surveys are also available.

All requests for products derived from the 1992 Survey of Family Expenditures or prior surveys can be directed to any of the Statistics Canada reference centres or to the Family Expenditure Surveys Section.

---

For any questions about this data contact the Income, Expenditure and Housing Data Dissemination Unit at:

Telephone: **(613) 951-4643**
**(613) 951-4633**

FAX: **(613) 951-3012**

Internet: **expense@statcan.ca**

or by mail at:

Statistics Canada
Household Surveys Division
Jean Talon Building
5th Floor, Section B-8
Tunney's Pasture
Ottawa, Ontario
K1A 0T6

Additional information on special request tabulations and the purchase of microdata files can be obtained from the contacts above.

## FOR FURTHER INFORMATION CONTACT

**Income, Expenditure and Housing**
**Dissemination Unit**
**Household Surveys Division**
**Statistics Canada**
**Ottawa K1A 0T6**

**Telephone: (613) 951-4643**
**(613) 951-4633**

**FAX: (613) 951-3012**

**Internet: expense@statcan.ca**

or the Statistics Canada reference centre in:

| | |
|---|---|
| **Halifax** | **(1-902-426-5331)** |
| **Montreal** | **(1-514-283-5725)** |
| **Ottawa** | **(1-613-951-8116)** |
| **Toronto** | **(1-416-973-6586)** |
| **Winnipeg** | **(1-204-983-4020)** |
| **Regina** | **(1-306-780-5405)** |
| **Edmonton** | **(1-403-495-3027)** |
| **Calgary** | **(1-403-292-6717)** |
| **Vancouver** | **(1-604-666-3691)** |

Toll-free access is provided in all provinces and territories, for users who reside outside the local dialling area of any of the regional reference centres.

| | |
|---|---|
| **Newfoundland, Labrador, Nova Scotia, New Brunswick and Prince Edward Island** | **(1-800-565-7192)** |
| **Quebec** | **(1-800-361-2831)** |
| **Ontario** | **(1-800-263-1136)** |
| **Manitoba** | **(1-800-661-7828)** |
| **Saskatchewan** | **(1-800-667-7164)** |
| **Southern Alberta** | **(1-800-882-5616)** |
| **Alberta and Northwest Territories** | **(1-800-563-7828)** |
| **British Columbia and Yukon** | **(1-800-663-1551)** |
| **Telecommunications Device for the Hearing Impaired** | **(1-800-363-7629)** |

---

**Methodology, Notes and Definitions**

## *Survey of Consumer Finances (SCF)*

**N.B.:** Most of the following notes were extracted from catalogue 13-207, 13-210 and 13-551. For more details you should refer to those publications.

Statistics Canada has conducted the Survey of Consumer Finances (SCF) on a periodic basis between 1951 and 1971 and annually since 1971. The surveys were initially restricted to the non-farm population, but starting with the income data for 1965, the surveys have used a sample representing virtually all private households in Canada.

The most recent survey was conducted in April 1995 as a supplement to the monthly Labour Force Survey (LFS). Since the estimates in this CD ROM are based on a sample survey, they are subject to sampling variability in addition to response errors (by respondents, interviewers and during processing) and errors due to non-response.

**This SABAL CD ROM presents selected data for the years 1990 to 1994.** Data for 1990 to 1993 are revised from results originally published. These revisions reflect the move to the 1991 Census base, the adjustment of population estimates for net Census undercoverage, and the inclusion of non-permanent residents. For more details see "Changes for SCF 1995".

**Sample.** The sample for SCF used two thirds of the April LFS sample (approximately 38,000 households). A detailed description of this survey design, which is a multistage stratified clustered probability sample, can be found in **Methodology of the Canadian Labour Force Survey, 1984-1990**, Catalogue No. 71-526.

The sample represents all families and individuals in Canada with the exception of the following:

(i) residents of the Yukon and Northwest Territories;
(ii) members of households located on Indian reserves; and
(iii) inmates of institutions.[1]

**Effect of sample size on Census Metropolitan Area (CMA)/Economic Region (ER) Estimates**

Due to sample size limitations and sampling variability, estimates for CMAs and ERs are less reliable and subject to larger errors than provincial and national estimates. In particular, **Statistics Canada warns that between CMA/ER comparisons should be**

**avoided**, since income differences may not be significant when the standard error of average income is taken into account.

For example, the 1994 average family income for Ottawa would be, in nineteen out of twenty surveys, between $59,094 and $69,238 (the average of $64,166 plus or minus two times the standard error of $2,536). For Toronto, the 1994 family average would be between $61,720 and $66,896. Since the income ranges for Ottawa and Toronto overlap considerably, ranking of these CMAs by their average family incomes should be avoided. Similar overlaps occur among other CMAs and ERs and the same caution would apply.

See "Boundaries of Economic Regions (ER) and Census Metropolitan Areas (CMA)" for boundary definitions of each ER or CMA.

**Data Collection and Processing.** In April 1995, 1994 data for the SCF were collected for the first time using computer assisted interviewing (CAI). The Labour Force Survey had been using CAI for approximately one year and the SCF capture application was added to the LFS program. With CAI, the interviewer read the question as it appeared on the screen and entered the appropriate answer. Built-in edits and skip-patterns resulted in improved data quality and reduced processing time. After the administration of the April LFS, persons 15 years of age and over were asked questions concerning their labour force experience during the previous year and other demographic data. Respondents then gave detailed income information for the 1994 calendar year from the mailed out questionnaires that they were asked to complete prior to the interview.

The labour force data were processed and edited according to established LFS procedures. The income data were loaded to a data base and linked with the LFS data. The data were then processed through the computer edit system which checks individual records for consistency and completeness.

**Family.** The family is defined as a group of individuals sharing a common dwelling unit and related by blood, marriage (including common law relationships) or adoption. Thus, all relatives living together at the time of this survey were considered to comprise one family whatever the degree of family relationship. No recall or adjustment was made to account for persons who were members of the family for part of the year and who left because of marriage, death or other reasons. Some family units existing at the time of the survey were not family units during the whole year. Aside from never married sons and daughters, other relatives most commonly found living in the household were married sons and daughters, parents, brothers and sisters.

**The definition of the family is referred to as the "economic family" definition.** Other family definitions are employed for other purposes. Demographic studies made in connection with population censuses normally use a more restricted classification: the family consists of the husband, wife and any never married children resident with them, or one parent and never married children. For budget studies, which investigate patterns of family expenditure, the important criterion is whether or not persons living together pool their incomes for expenditure purposes; that is, whether they constitute one spending unit or several spending units.

1 Institutions such as prisons, penitentiaries, jails, reformatories, mental hospitals, tuberculosis hospitals, sanatoria, orphanages, homes for the aged.

**Unattached Individual.** An unattached individual is a person living alone or in a household where he/she is not related to other household members.

**Total Income.** The total income of a unit consists of income from the following sources:

(i) ***Wages and Salaries.*** Gross wages and salaries before deductions for such items as income taxes, unemployment insurance and pension plans, and excluding fringe benefits. Commission income received by salespersons as well as occasional earnings for baby-sitting, for delivering papers, for cleaning, etc., are also included in this category. All income in kind such as meals or living accommodation is excluded.

Where individuals received military pay in the form of reserve military pay, and where this was a minor part of total income, such income was combined with wages and salaries.

(ii) ***Net income from self-employment.*** Net income (gross income minus expenses) received from self-employment either on own account or in partnership in an unincorporated business or in independent professional practice. Included here is net income from operating a farm as well as that received from roomers and boarders.

Net income from farming was to be reported by individuals who operated their own or a rented farm either on own account or in partnership. Field instructions specified that net income was to be calculated by subtracting farm operating expenses and depreciation of farm assets from farm cash receipts. The latter were to include all money receipts from the sale of farm products as well as supplementary and assistance payments from governments. Income in kind is excluded.

The survey collected net receipts from roomers and boarders. Payments for room and board received from relatives were not included in income of the person receiving such payments.

(iii) ***Investment income.*** Bond interest, dividends, mortgage interest, net rents, estate income, bank interest and other investment income.

(iv) ***Government transfer payments.*** All social welfare payments from federal, provincial and municipal governments such as Child Tax Benefit, Old Age Security, Guaranteed Income Supplement, Spouse's Allowance, pensions under Canada and Québec Pension Plans, Unemployment Insurance benefits, worker's compensation, training allowances, veterans' pensions, social assistance, pensions to the blind and the disabled. Refundable tax credits, both provincial and the federal Goods and Services Tax Credit, are included as income.

(v) **Other Money Income.** All other sources of money income not listed above, including retirement pensions, annuities, superannuation, scholarships, alimony and other items not specified or included in the above categories.

**Receipts Not Counted as Income.** Gambling gains and losses, money inherited during the year in a lump sum, capital gains or losses, receipts from the sale of property or personal belongings, income tax refunds, loans received, loans repaid to an individual as the lender, lump sum settlements of insurance policies, and rebates of property taxes and other taxes are excluded as well as all income in kind such as free meals, living accommodation or food and fuel produced on own farm.

**Family Income.** Family income consists of incomes received by all individuals 15 years of age and over who at the time of the survey formed one economic family. Income data were collected from each member and considered to be part of the family's income even if certain family members belonged to another family unit for the whole or part of the preceding calendar year. Also, no recall or adjustment was made to account for income of persons who were members of the family for part of the year and who left because of marriage, death or other reasons.

Families who immigrated to Canada during the reference year and earned some income abroad and some in Canada were classified by their income while residing in Canada. Thus, some families are classified at incomes which are somewhat lower than actual receipts. Income from abroad such as investment income or retirement pensions received by Canadian residents was included in the income.

**Income Tax Payable.** Income tax payable is the sum of federal and provincial income taxes payable on income and capital gains. Provincial tax credits, the child tax credit and the goods and services tax credit have not been deducted from income tax

payable. The value of the Quebec Abatement for residents of Quebec has been removed from income tax payable.

**Income After Tax.** Income after tax is total money income less income tax payable (as specified above).

## Boundaries of Census Metropolitan Areas (CMA) and Economic Regions (ER)

### Economic Regions:

An Economic Region is a geographical unit generally composed of several Census Divisions within a province. In the case of Prince Edward Island, the province constitutes one Economic Region.

Since SCF is a supplement to the LFS, estimates on this disc are based on Economic Region boundaries in use for the Labour Force Survey commencing in 1995 (1994 income reference year). In British Columbia, completely new Economic Regions were adopted in 1995. As it was not possible to produce comparable historical estimates for these new B.C. regions, only 1994 income estimates for British Columbia are based on the new boundaries; estimates for 1990 to 1993 income are based on the previous boundaries.

The composition of the Economic Regions used on this disc are described in the menu items below.

### Newfoundland

010: Avalon Peninsula: Census Division 01.

020: South Coast - Burin Peninsula: Census Divisions 02 and 03.

030: West Coast - Northern Peninsula - Labrador: Census Divisions 04, 05, 09 and 10.

040: Notre Dame - Central Bonavista Bay: Census Divisions 06, 07 and 08. **Prince Edward Island**

110: Prince Edward Island: Census Divisions 01 Kings County, 02 Queens County and 03 Prince County

About SABAL's database sources...

---

**Nova Scotia**

210: Cape Breton: Census Divisions 15 Inverness County, 16 Richmond County, 17 Cape Breton County and 18 Victoria County.

220: North Shore: Census Divisions 10 Colchester County, 11 Cumberland County, 12 Pictou County, 13 Guysborough County and 14 Antigonish County.

230: Annapolis Valley: Census Divisions 05 Annapolis County, 07 Kings County and 08 Hants County.

240: Southern: Census Divisions 01 Shelburne County, 02 Yarmouth County, 03 Digby County, 04 Queens County and 06 Lunenburg County.

250: Halifax: Census Division 09 Halifax County.

**New Brunswick**

310: Campbellton - Miramichi: Census Divisions 09 Northumberland County, 14 Restigouche County and 15 Gloucester County.

320: Moncton - Richibucto: Census Divisions 06 Albert County, 07 Westmorland County and 08 Kent County.

330: Saint John - St. Stephen: Census Divisions 01 Saint John County, 02 Charlotte County and 05 Kings County.

340: Fredericton - Oromocto: Census Divisions 03 Sunbury County, 04 Queens County and 10 York County.

350: Edmunston - Woodstock: Census Divisions 11 Carleton County, 12 Victoria County and 13 Madawaska County.

**Québec**

410: Gaspésie - Îles-de-la-Madeleine: Census Divisions 01 Les Îles-de-la-Madeleine, 02 Pabok, 03 La Côte-de-Gaspé, 04 Denis-Riverin, 05 Bonaventure and 06 Avignon.

415: Bas-Saint-Laurent: Census Divisions 07 La Matapédia, 08 Matane, 09 La Mitis, 10 Rimouski-Neigette, 11 Les Basques, 12 Rivière-du-Loup, 13 Témiscouata and 14 Kamouraska.

---

420: Québec: Census Divisions 15 Charlevoix-Est, 16 Charlevoix, 20 L'Île-d'Orléans, 21 La Côte-de-Beaupré, 22 La Jacques-Cartier, 23 Communauté urbaine de Québec et 34 Portneuf.

425: Chaudière-Appalaches: Census Divisions 17 L'Islet, 18 Montmagny, 19 Bellechasse, 24 Desjardins, 25 Les Chutes-de-la-Chaudière, 26 La Nouvelle-Beauce, 27 Robert-Cliche, 28 Les Etchemins, 29 Beauce-Sartigan, 31 L'Amiante and 33 Lotbinière.

430: Estrie: Census Divisions 30 Le Granit, 40 Asbestos, 41 Le Haut-Saint-François, 42 Le Val-Saint-François, 43 Sherbrooke, 44 Coaticook and 45 Memphrémagog.

435: Montérégie: Census Divisions 46 Brome-Missisquoi, 47 La Haute-Yamaska, 48 Acton, 53 Le Bas- Richelieu, 54 Les Maskoutains, 55 Rouville, 56 Le Haut-Richelieu, 57 La Vallée-du-Richelieu, 58 Champlain, 59 Lajemmerais, 67 Roussillon, 68 Les Jardins-de-Napierville, 69 Le Haut-Saint-Laurent, 70 Beauharnois-Salaberry and 71 Vaudreuil-Soulanges.

440: Montréal: Census Division 66 Communauté urbaine de Montréal.

445: Laval: Census Division 65 Laval.

450: Lanaudière: Census Divisions 52 D'Autray, 60 L'Assomption, 61 Joliette, 62 Matawinie, 63 Montcalm and 64 Les Moulins.

455: Laurentides: Census Divisions 72 Deux-Montagnes, 73 Thérèse-De Blainville, 74 Mirabel, 75 La Rivière-du-Nord, 76 Argenteuil, 77 Les Pays-d'en-Haut, 78 Les Laurentides and 79 Antoine-Labelle.

460: Outaouais: Census Divisions 80 Papineau, 81 Communauté urbaine de l'Outaouais, 82 Les Collines-de-l'Outaouais, 83 La Vallée-de-la-Gatineau and 84 Pontiac.

465: Abitibi-Témiscamingue: Census Divisions 85 Témiscamingue, 86 Rouyn-Noranda, 87 Abitibi-Ouest, 88 Abitibi and 89 Vallée-de-l'Or.

470: Mauricie - Bois-Francs: Census Divisions 32 L'Irable, 35 Mékinac, 36 Le Centre-de-la Mauricie, 37 Francheville, 38 Bécancour, 39 Arthabaska, 49 Drummond, 50 Nicolet-Yamaska, 51 Maskinongé and 90 Le Haut-Saint-Maurice.

475: Saguenay-Lac-Saint-Jean: Census Divisions 91 Le Domaine-du-Roy, 92 Maria-Chapdelaine, 93 Lac-Saint-Jean-Est and 94 Le Fjord-du Saguenay.

480: Côte-Nord: Census Divisions 95 La Haute-Côte-Nord, 96 Manicougan, 97 Sept-Rivières- Caniapiscau and 98 Minganie-Côte-Nord-du-Golfe-Saint-Laurent.

490: Nord-du-Québec: Census Division 99 Territoire nordique.

**Ontario**

510: Ottawa: Census Divisions 01 Stormont, Dundas and Glengarry United Counties, 02 Prescott and Russell United Counties, 06 Ottawa-Carleton Regional Municipality, 07 Leeds and Grenville United Counties and 09 Lanark County.

515: Kingston - Pembroke: Census Divisions 10 Frontenac County, 11 Lennox and Addington County, 12 Hastings County, 13 Prince Edward County and 47 Renfrew County.

520: Muskoka - Kawarthas: Census Divisions 14 Northumberland County, 15 Peterborough County, 16 Victoria County, 44 Muskoka District Municipality and 46 Haliburton County.

530: Toronto: Census Divisions 18 Durham Regional Municipality, 19 York Regional Municipality, 20 Toronto Metropolitan Municipality, 21 Peel Regional Municipality and 24 Halton Regional Municipality (except the city of Burlington).

540: Kitchener - Waterloo - Barrie: Census Divisions 22 Dufferin County, 23 Wellington County, 30 Waterloo Regional Municipality and 43 Simcoe County.

550: Hamilton - Niagara Peninsula: Census Divisions 24 Halton Regional Municipality (city of Burlington only), 25 Hamilton-Wentworth Regional Municipality, 26 Niagara Regional Municipality, 28 Haldimand-Norfolk Regional Municipality and 29 Brant County.

560: London: Census Divisions 32 Oxford County, 34 Elgin County and 39 Middlesex County.

570: Windsor - Sarnia: Census Divisions 36 Kent County, 37 Essex County and 38 Lambton County.

580: Stratford - Bruce Peninsula: Census Divisions 31 Perth County, 40 Huron County, 41 Bruce County and 42 Grey County.

590: Northeast: Census Divisions 48 Nipissing District, 49 Parry Sound District, 51 Manitoulin District, 52 Sudbury District, 53 Sudbury Regional Municipality, 54 Timiskaming District, 56 Cochrane District and 57 Algoma District.

595: Northwest: Census Divisions 58 Thunder Bay District, 59 Rainy River District and 60 Kenora District.

About SABAL's database sources...

---

**Manitoba**

610: Southeast: Census Divisions 01, 02 and 12.

620: South Central: Census Divisions 03 and 04.

630: Southwest: Census Divisions 05, 06, 07 and 15.

640: North Central: Census Divisions 08, 09 and 10.

650: Parkland: Census Divisions 16, 17 and 20.

660: Interlake: Census Divisions 13, 14 and 18.

670: Winnipeg: Census Division 11

680: North: Census Divisions 19, 21, 22 and 23.

**Saskatchewan**

710: Regina - Moose Mountain: Census Divisions 01, 02 and 06.

720: Swift Current - Moose Jaw: Census Divisions 03, 04, 07 and 08.

730: Saskatoon - Biggar: Census Divisions 11, 12 and 13.

740: Yorkton - Melville: Census Divisions 05, 09 and 10.

750: Prince Albert: Census Divisions 14, 15, 16 and 17.

760: Northern: Census Division 18.

**Alberta**

810: Lethbridge - Medicine Hat: Census Divisions 01, 02 and 03.

820: Drumheller - Stettler - Wainwright: Census Divisions 04, 05 and 07.

830: Calgary: Census Division 06.

840: Athabasca - Jasper - Banff: Census Divisions 13, 14 and 15.

850: Red Deer - Rocky Mountain House: Census Divisions 08 and 09.

860: Edmonton: Census Division 11.

870: Grande Prairie - Peace River: Census Divisions 17, 18 and 19.

880: Fort McMurray - Camrose: Census Divisions 10, 12 and

**British Columbia**

910: Vancouver Island and Coast: Census Divisions 17 Capital Regional District, 19 Cowichan Valley Regional District, 21 Nanaimo Regional District, 23 Alberni-Clayoquot Regional District, 25 Comox-Strathcona Regional District, 27 Powell River Regional District, 43 Mount Waddington Regional District and 45 Central Coast Regional District.

920: Lower Mainland - Southwest: Census Divisions 09 Fraser-Cheam Regional District, 11 Central Fraser Valley Regional District, 13 Dewdney-Alouette Regional District, 15 Greater Vancouver Regional District, 29 Sunshine Coast Regional District and 31 Squamish-Lillooet Regional District.

930: Thompson - Okanagan: Census Divisions 07 Okanagan-Similkameen Regional District, 33 Thompson-Nicola Regional District, 35 Central Okanagan Regional District, 37 North Okanagan Regional District and 39 Columbia-Shuswap Regional District.

940: Kootenay: Census Divisions 01 East Kootenay Regional District, 03 Central Kootenay Regional District and 05 Kootenay Boundary Regional District.

950: Cariboo: Census Divisions 41 Cariboo Regional District and 53 Fraser-Fort George Regional District.

960: North Coast: Census Divisions 47 Skeena-Queen Charlotte Regional District and 49 Kitimat-Stikine Regional District.

970: Nechako: Census Divisions 51 Bulkley-Nechako Regional District and 57 Stikine Region.

980: Northeast: Census Divisions 55 Peace River Regional District and 59 Fort Nelson-Liard Regional District.

About SABAL's database sources...

---

**Census Metropolitan Areas (CMA)**

As with Labour Force Survey, SCF estimates for CMAs use preliminary 1996 boundaries. These boundaries will be used for the 1996 Census of Canada. They are based on commuting patterns at the time of the 1991 Census. Maps and definitions of the Census Sub-division comprising CMAs can be purchased for $40. Contact Marc Lévesque at (613) 951-2793 to purchase your copy.

**Changes for SCF 1995**.

In January of 1995, the LFS introduced a new sample design and a modified weighting system. Details on the changes can be found in the feature articles of the October 1994, December 1994 and January 1995 editions of the report *The Labour Force*, Catalogue No. 71-001. A summary of these changes, which impact the SCF, are given below.

**Sample Design**. The new sample design now includes persons residing in Canada who are neither Canadian citizens nor landed immigrants. Specifically the following groups of people are included:

- persons claiming refugee status;
- students from other countries attending school in Canada on student visas;
- persons from other countries in Canada on work permits;
- persons who have a Minister's permit to reside in Canada; and
- non-Canadian born dependents of the above four categories.

The new design includes less clustering and more sample in urban areas (as per the feature articles from Catalogue No. 71-001 cited above).

**Weighting**. Population estimates moved from a 1986 Census base to a 1991 Census base.

Population estimates now include non-permanent residents.

A new method of compensating for household non-responses takes into account patterns of non response that vary according to the number of months the households have been in the sample.

Family and individual estimates are based on the LFS weighting system.

**Size of Area of Residence**. The classification of urban areas is now based on 1991 census population within 1996 census boundaries. Previously, it was based on 1986 census population within 1981 census boundaries.

About SABAL's database sources...

---

**Revision of the Survey of Consumer Finances Survey Estimates**. The SCF data have been revised for the period 1980 to 1993. These revisions reflect the move to the 1991 Census base, the adjustment of population estimates for net Census undercoverage, the inclusion of non-permanent residents and the use of a weighting procedure based on the LFS weighting system. Beginning with the release of 1994 data, all analysis is based on the revised series.

**Statistics on Low Income**. Table I and Table II present low income statistics for persons and selected family types.

**Note**:

Although the low income cut-offs often are referred to as "poverty lines", Statistics Canada does not define poverty and does not recommend the use of the low income cut-offs for this purpose.

**Low Income Cut-offs (LICOs)**

Low income cut-offs are used to delineate family units into "low income" and "other" groups. A family unit with income below the cut-off for its family size in an urbanization classification is considered a **"low income" family**. Any family with income equal to or above the cut-off is considered in the "other" category.

**Low Income Cut-offs Based on Family Expenditure Data**

Every four years Statistics Canada conducts a detailed survey of the expenditure patterns of Canadian families by means of the Family Expenditure Survey (FAMEX). Low income cut-offs are based on FAMEX data.

From FAMEX data, the Canada average family expenditure on food, shelter and clothing is calculated. This is expressed as a percentage of pre-tax income. Base year low income cut-offs are set where families spend 20 percentage points more of their income than the Canadian average on food, shelter and clothing. The FAMEX data are then analysed to determine the income levels where families spend this percentage on the basics (i.e. the overall Canada percentage plus 20 percentage points). These income levels, differentiated by size of area of residence and by family size, become the base year low income cut-offs.

**Low Income Cut-offs: 1992 Base**

About SABAL's database sources...

---

The low income cut-offs used for calculating low income rates in Table II are referred as the " low income cut-offs (1992 base)", determined from an analysis of 1992 FAMEX data. These income limits were selected on the basis that families in the FAMEX with incomes below these limits usually spent more than 54.7% of their income on food, shelter and clothing and were considered to be in straitened circumstances.

Low income cut-offs are updated annually by the Consumer Price Index (annual average, all-items).

Data produced on the basis of low income cut-offs are published annualy in Statistics Canada's **Income Distributions by Size in Canada** (Catalogue No. 13-207). The 1992-base low income cut-offs (based on the 1992 FAMEX) were introduced in the 1992 edition of that report.

**Updating of Low Income Cut-offs**

The cut-offs are updated annually by the Consumer Price Index using the following formula:

$$L_y = (L_{y-1}) \times \frac{C_y}{I_{a-1}}$$ where:

$L_y$ is the cut-off for the current year, **y**;

$L_{y-1}$ is the cut-off for the previous year, **y - 1**;

$C_y$ is the CPI for the current year, **y**; and

$C_{y-1}$ is the CPI for the previous year, **y - 1**.

To prevent errors due to rounding, the numerator is calculated first.

The following example shows the updating of the 1992 base low income cut-off for family size "4" in size of area of residence "500,000 and over" from 1994 to 1995.

$$L_y = \frac{31071 \times 176.8}{173.0}$$

$$= \frac{5493352.8}{173.0}$$

$$= 31753.48$$

Therefore, the cut-off is $31,753 (rounded to the nearest dollar).

**Consumer Price Index (CPI), 1981-base Year**

| Year | *CPI* | Year | *CPI* |
|---|---|---|---|
| 1980 | *88.9* | 1988 | *143.8* |
| 1981 | *100.0* | 1989 | *151.0* |
| 1982 | *110.8* | 1990 | *158.2* |
| 1983 | *117.2* | 1991 | *167.1* |
| 1984 | *122.3* | 1992 | *169.6* |
| 1985 | *127.2* | 1993 | *172.7* |
| 1986 | *132.4* | 1994 | *173.0* |
| 1987 | *138.2* | 1995 | *176.8* |

Statistics
Canada

# *Business Register Division*

## Product Analysis and Data Dissemination

January 11,
1996

# *Who are we?*

- The Business Register (BR) is a repository of selected business information on all employer businesses in Canada, and exists primarily for purposes of supplying frames for all economic surveys in Statistics Canada.
- The major sources of information for the BR are the updates from the Statistics Canada Survey program and from Revenue Canada's (RC) payroll deduction file.
- The Tax Estimates program provides estimates of tax sourced data for a variety of other statistical applications.

# *What do we have to offer*

- The Canadian Business Patterns diskette product offers counts of establishments at the 1, 2 and 4 digit SIC-E levels at the CMA, provincial and national levels.
  - 8 employment size ranges
  - Establishment counts by 6 age categories at the 1 and 2 digit levels.
- Custom tabulations of business counts for virtually any geographic area in Canada, including Census Division (CD), Census Sub-Division (CSD), Forward Sortation Area (FSA), Enumeration Area (EA) and many others.
- Data are available on various media including CD ROM, diskette and print formats.

# *What do we have to offer (Cont'd)*

- Estimates of Business Entries and Exits by province or industry for employer businesses in Canada by quarter from Q1 1993 to Q1 1995.
- Payroll Deduction (PD) remitter series data by province  by quarter from 1979 to the present.
- Industrial coding of businesses
- File linkage exercises

# *Why use the BR?*

- Timely data. Most establishment count information is available about 2 months after the reference period.
- Coverage. The entire business population is tracked. The BR handles the employer universe while the Tax Estimates program captures the self-employed portion.
- Accuracy. Quarterly updates and on-going maintenance ensure accurate, up-to-date information.

# *The Future*

- Possibility of releasing GST related data in 97.
- Putting a Business Register Home Page on the INTERNET.
- Advertising BR information and products on the INTERNET
- Creation of the BR “Mini-Browser” to help make viewing the CFDB more user friendly.

For more information...

---

***Business and Labour Market Analysis Division (Business Small Area File)***

**CONTACT:**
Richard Dupuy (613) 951-3611
Business and Labour Market Analysis Division
Statistics Canada
24th Floor- Section C, R.H. Coats Building
Ottawa, Ontario, Canada
K1A 0T6

For more information...

---

***MORE DETAILS ON MANUFACTURING OR RETAIL? THE INDUSTRY DIVISION OF STATISTICS CANADA ALSO COVERS WHOLESALE TRADE, THE ENTIRE ENERGY SECTOR, MINING AND FORESTRY.***

---

**MANUFACTURING (INCLUDING FORESTRY AND MINING)**

In addition to the data available on **SABAL**, we have, **on a monthly basis**, data on values of shipments, inventories, new orders and unfilled orders in Canada. Data are classified into 22 major industry groups (2 digit SIC) and by durable and non durable goods. Information for selected industries are presented at the 3 and 4 digit level of SIC detail; shipments data may also be available by province at this level of detail. The results are available in publication 31-0010XPB, by fax or diskette. Special customized tables are also available on request as well as delivery by fax.

**On a quarterly basis**, we have data on opinions collected on expected changes in production and employment during the next three months and the present state of finished product inventories, orders received, backlog of unfilled orders and impediments to production. Impediments to production include shortage of skilled and unskilled labour, raw materials, working capital and other non pre-specified categories. Data are available three days after the reference month and are published four times a year in the Statistics Canada Daily (available on Internet) or as a special request.

**On various sub-annual frequencies**, we have selected data on the following topics: Oils and Fats; Production and Disposition of Tobacco Products; Shipments of Plastic Film and Bags Manufactured from Resin; Production and Shipments of Plastic Bottles; Footwear; Construction Type Plywood; Particleboard, Waferboard and Fibreboard; Sawmills and Planning Mills (excluding Newfoundland and Prince Edward Island); Pulpwood and Wood Residue; Asphalt Roofing; Primary Iron and Steel including steel castings and Pig Iron; Steel Pipe and Tubing; Steel Wire and Specified Wire Products; Electric Lamps; Cement ; Industrial Chemical and Synthetic Resins; Mineral Wool including Fibrous Glass Insulation ; Shipments of Solid Fuel Burning Heating Products.

**On an annual basis in addition to the data already available on SABAL,** we have list of larger establishments participating in the annual survey. We also have principal and operating statistics for the mining and forestry sector published in the following annual publications:

| | |
|---|---|
| Canada's Mineral Production | 26-2020XPB |
| General Review of the Mineral Industries, Mines, Quarries and Oil wells | 26-2010XPB |
| Metal Mines | 26-2230XPB |
| Non-Metal Mines | 26-2240XPB |
| Quarries and Sand Pits | 26-2250XPB |
| Selected forestry Statistics | Report E-X-47 |
| Logging Industry | 25-2010XPB |
| Canadian Forestry Statistics | 25-2020XPB |

**From the annual survey of manufactures, we also offer** the following services:
***Commodities***

Value and quantity of products shipped by manufacturers, classified by commodity (over 4,000) for Canada and the provinces. Furthermore, we can offer "commodity sector" estimates. The harmonized coding system permits the identification of all the establishments that produce a specified commodity or group of commodities. Once the commodity group or sector is identified, a summary of principal statistics can be provided. This summary includes: number of establishments; cost of fuel and electricity; employees and payroll information; cost of materials ans supplies; value shipments; and census value added.

***Destination of shipments of manufacturers***
This database contains information on the first destination of shipments of manufacturers. For Canada and each province and territory, this report presents the value of shipments to each province and territory and outside Canada. The data are available for all manufacturing, for the 22 major groups of manufacturers, and for the 236 four-digit SIC industries, to the extent possible.

***Fuel and energy consumption data***
Data include the value and quantity of fuel by type of fuel and electricity consumed by manufacturing industries. Data are available for approximately 230 four digit SIC industries for Canada and the provinces.

***Special tabulations from the national and provincial principal statistics***
Principal statistics can be produced for establishments by employment size, by sub-industry groupings and specific small geographic areas.

***Primary products specialization and coverage ratios***
These ratios are measures of the homogeneity and completeness in terms of defining activities of SIC industries as collected, compiled and published in the Annual Survey of Manufactures. The ratios are shown at the 4 digit SIC, major group and all manufacturing level.

***Industrial organization and concentration in manufacturing industries***
Concentration statistics summarize the size distribution of units within an industry. Numerous measures have been used for various purposes. The data available presents the two most common: concentration ratios (CR) and Herfindahl indexes (HI). The CR measures the importance of the largest enterprises directly while the HI takes the entire size distribution of enterprises into account. These statistics are classified by 4 digit SIC and are for Canada.

***Manufacturing and other related data (The Industrial Monitor)***
The data presented in this integrated product called the Industrial Monitor encompass over 165 manufacturing industries in 22 sectors. Data presented for each manufacturing industry include: demand indicators, constant and current dollar perspectives, short/medium/long term perspectives, period-to-period change, price and inflation-related indicators, employment and related indicators, supply and related indicators. All these profiles are updated monthly. Presently, the data are only available in print format (publication 15F0017XPE to 15F0038XPE); a CD-ROM version will be available in 1996.

## ENERGY

The data covered includes the production, transformation, transportation and consumption of coal, crude oil, natural gas, natural gas by-products, electricity and refined petroleum products. In addition, information is available on the consumption of coke, spent pulping liquor, wood and refuse by Canadian industry. The statistical programs are carried out in collaboration with other government agencies such as Natural Resources Canada, the National Energy Board, and various provincial energy departments. The data are available in a number of publications that provide information on specific energy forms. Data are either on a monthly, quarterly or annual basis. Also available on a **monthly** basis is the Energy Statistics Handbook, an integrated product which provides a single and comprehensive source of information on the production, availability and use of energy in Canada; data are presented by energy type, with supportive sections on prices, energy trade, reserves and economic indicators (publication no. 57-6010XPB, available on diskette in mid-1996).

**Crude petroleum:** ***on a monthly basis,*** available are data on production by oil type, deliveries to Canadian refineries, imports, exports, inventories. ***On an annual basis***, we have information on the number of establishments, number of employees, salaries and wages, cost of electricity and materials used, value added, drilling completions, capital and operating expenditures, reserves, and supply and disposition of crude oil.

**Oil pipeline transport:** ***on a monthly basis,*** available are data on volumes of crude oil, petroleum gases and petroleum products received and delivered, and inventory levels. **On an annual basis,** we have information on pipeline distances, pumping stations and selected financial and operating data.

**Refined petroleum products:** ***on a monthly basis,*** we have refinery production by type of product, materials and crude oil used, imports, exports, inventories, provincial movements and domestic sales of refined petroleum products. Imports of crude oil by country of origin are also available.

**Natural gas:** ***on a monthly basis,*** available are data on production, imports, exports and domestic sales. ***On an annual basis,*** we have information on the number of establishments, number of employees, salaries and wages, cost of electricity and materials used, value added, drilling completions, capital and operating expenditures, reserves, and supply and disposition of natural gas.

**Natural gas utilities:** ***on a monthly basis***, we have receipts of Canadian natural gas, imports, exports, inventories, domestic sales by sector (volume and value), number of customers and degree days. ***On an annual basis***, we have information on receipts and disposition of natural gas by utilities, sales by sector (volume and revenue), number of customers, number of employees, salaries and wages, pipeline distances by size of pipe, number of compressor stations, and selected financial and operating data.

**Coal and coke:** ***on a monthly basis***, we have production of coal and coke, imports, exports, inventories and domestic consumption. ***On an annual basis,*** for coal mines, available are revenues, operating expenses, employment, payroll, value added, production by coal type, imports, exports, inventories and domestic consumption.

**Electricity:** ***on a monthly basis,*** we have data on electric power generation by fuel type, imports, exports and domestic availability. ***On an annual basis***, we have financial and operating statistics,

including revenues, operating expenses, number of employees, wages and salaries. Also available are data on current and forecasted capability and peak load or producers of electricity, power generation by utilities and industry, imports, exports, fuels used and domestic sales by sector (volume and value). In addition, available is a listing of generating stations in Canada, by ownership, showing the location, year of installation and name-plate rating.

**Energy balances:** ***on a quarterly basis***, a set of energy balance sheets are available, in natural units and heat equivalent in primary and secondary energy forms, each showing data on production, imports, exports, interprovincial movements, transformation, and consumption by sector. Details on non-energy use of energy products are also available. The energy balances have a provincial dimension and allow for studies on such topics as fuel substitution (e.g. off oil onto natural gas), self-sufficiency and reliance on off-shore supplies, inventory levels of strategic fuels, efficiency in the transformation process (e.g. conversion of coal to electricity), atmospheric emissions and conservation trends.

**Fuel and Electricity Consumption:** ***on an annual basis,*** available are data on the amount of energy used in Canadian industry. The data are used to monitor energy consumption and intensity, in support of the Canadian Industry Program for Energy Conservation, which promotes industrial energy efficiency initiates. Data are available in natural units and in heat equivalent.

## RETAIL TRADE

Retail trade data included on **SABAL** are retail sales and number of locations of incorporated retailers, by Census Metropolitan Area (CMA) and Census Agglomeration (CA). Outlined below are some of the additional ways that we could respond to your specialized needs. Some of these data are classified by trade groups which are:

- supermarkets and grocery stores
- all other food stores
- drugs & patent medicine stores
- shoe stores
- general merchandise stores
- other retail stores
- men's clothing stores
- women's clothing stores
- other clothing stores
- household furniture & appliance stores
- other semi-durable goods stores
- household furnishings stores
- motor and recreational vehicle dealers
- gasoline service stations
- automotive parts, accessories, & services
- other durable goods stores

**More geographical detail**

Using the same database used to develop retail trade estimates for **SABAL**, we can produce estimates of sales and number of locations of incorporated retailers for any level of Census or Postal Code geography, at up to a 3 digit SIC level of detail. It would be possible, for instance, to examine retail trade for individual municipalities within a county or regional municipality. It would also be possible to look at sales by forward sortation area (first three digits of the postal code) within a municipality.

**More timely or frequent data**

Statistics Canada conducts a ***monthly*** survey of retail trade that provides sales, receipts and number of retail locations within two months of the reference period. The sample is comprised of large stores (4 locations or more and 5 million dollars per year of sales within a trade group). Our publication offers sales by trade group and by province/territory (publication 63-0050XPB). We can also generate, as special tabulations:

- monthly sales by trade group for Vancouver, Winnipeg, Montreal and Toronto;
- more industrial detail (four digit SIC): monthly sales at the national and at the provincial level for Ontario, Quebec, British Columbia and Alberta and higher SIC aggregations for other provinces;
- two questions can be added to this survey targeting special respondents.

**More financial data on retailers**

Trade profiles are available on an ***annual*** basis. These profiles are provided for each individual province/territory and are comprised of: number of locations, total operating revenues, cost of goods sold, gross margin and employee earnings and benefits. Our cost publication (publication 63-2360XPB) offers, at the national level, for each trade group, the following performance indicators: sales to inventory, cost of goods sold to inventory, gross margin and profit margin. Also provided at the national level are total operating revenues, number of locations for independent and for chain store organizations, the number of retail businesses by trade group and total operating revenues by 3 digit SIC. We can also provide users with other tabulations upon request, such as:

- selected operating statistics by performance groupings as specified by client e.g., sales size, profitability, etc.
- 4 digit SIC data for Ontario, Quebec, British Columbia and Alberta for operating revenues, number of locations, cost of goods sold, gross margin, selected operating statistics and employee earnings.

**More detail on chain and department stores**

Our ***monthly*** survey of department stores allows us to develop estimates of sales and stocks by commodity groupings (40) where sales are provided by province and selected metropolitan areas (publication 63-0020XPB). Data are available ***on an annual basis*** for sales by chain and department stores, by type of business, by province/territory, by number of stores operated and by annual sales volume, for selected Canadian metropolitan areas. Also provided are statistics on inventories on hand at year end, cost of goods sold and gross margins; distributions covering sales volume, physical size, sales per square foot (metre), department stores commodity groupings and “major” and “discount type” department stores, and a list of chain and department stores (publication 63-2100XPB). As special tabulations, we also offer:

- location data at the CMA or CA level for retail chain and department stores
- data on sales by size of retail chain stores

**More information on new vehicle sales**

Statistics Canada reports, on a ***monthly*** basis, sales by type of vehicle: commercial vehicles, buses and coaches, passenger cars; by origin of manufacture and by province of sale. Average price of vehicles sold and market share data are available (publication 63-0070XPB). If our standard publication does not have enough detail for you, we can provide the following special tabulations:

- provincial breakdowns by origin and type of vehicle and between the BIG 3 (Chrysler, Ford and General Motors) and other companies;

- market share by type of vehicle, origin and by the BIG 3 and other companies;
- average price of vehicles sold by type, origin and BIG 3 and other companies;
- sales in dollars by origin and type of vehicle and between the BIG 3 and other companies.

**Information on direct selling**
***Annual*** data are available on sales from specialized direct sellers, manufacturers and some primary producers broken down by method of distribution, i.e. personal selling, direct mail, and other methods. Some commodity information is also available (publication 63-2180XPB).

**Commodity data**
Retail sales by commodity were last collected **i**n 1989. These data include sales distribution data for about 300 commodity groupings sold by 16 types of retail outlets in all the provinces and territories (publication 63-5410XPB).

## WHOLESALE TRADE

Data are available relating to businesses acting as intermediate distributors for the following 11 trade groups (9 for 1993 and prior years):

- food, beverage, drug & tobacco products
- household goods
- metals, hardware, plumbing & heating equipment & supplies
- other machinery, equipment & supplies
- **computers and package software (starting in 1994)**
- apparel and dry goods
- motor vehicles, parts & accessories
- lumber and building materials
- farm machinery, equipment & supplies
- other products
- **food (single category starting in 1994)**

**On a monthly basis**, we have sales and inventory data at the province/territory level (publication 63-0080XPB). As a special tabulation, we also offer the possibility of adding two questions to the questionnaire used to collect the data.

**On an annual basis**, we have number of locations, total operating revenues, cost of goods sold, gross margin and employee earnings and benefits; performance indicators by trade group at the national level including: sales to inventory, cost of goods sold to inventory, gross margin and profit margin are provided. Revenues are also available by class of customers (publication 63-2360XPB). As special tabulations, we also offer 3 and 4 digit SIC data for selected provinces/territories for operating revenues, cost of goods sold, gross margin and employee earnings.

**On an occasional basis.** In 1990, we collected estimates for approximately 100 commodity groupings on the origin and destination by province/country of wholesale merchants' shipments for the 9 major trade groups mentioned earlier in the wholesale section (publication 63-5420XPB).

For more information...

---

**In addition to the products and services mentioned above, Industry Division can conduct surveys for clients, add questions to existing surveys, integrate various data from different sources and provide analytical expertise and consulting services.**

For more information on the products and services offered by Industry Division, consult the Statistics Canada catalogue, our regional offices (see listing,,,,,,,,,) or contact directly: Catherine Boies (613) 951-3500; fax (613) 951-3522; or by Internet at boiecat@statcan.ca

**For more information...**

---

## **MANUFACTURING INDUSTRIES OF CANADA: SUB-PROVINCIAL AREA** - 1992

Data packages of principal statistics for manufacturing industries by sub-provincial area are available for 1992 as shown below. Statistics are shown for all publishable 2, 3, and 4-digit SIC industries. Data are available in either printed or electronic format for the prices indicated. Statistics may also be obtained for selected regions, census divisions, etc., subject to a minimum charge of $50. Québec statistics were compiled by the Québec Bureau of Statistics using microdata from Statistics Canada. For further details, contact the Information and Classification Section, Industry Division, Statistics Canada, Ottawa, K1A 0T6, or telephone (613) 951 9497, or your nearest Statistics Canada regional office.

| Registration Number - Numéro d'enregistrement | Province | Geography(#) Géographie(#) | Price Prix |
|---|---|---|---|
| 31C0009 | Newfoundland/Terre Neuve | Cen Div/Div de rec | $50 |
| 31C0010 | New Brunswick/Nouveau Bruns | Econ Reg/Rég écon | $50 |
| 31C0011 | Nova Scotia/Nouvelle Écosse | Cen Div/Div de rec | $50 |
| 31C0012 | P.E.I./ Î.P.É | Cen Div/Div de rec | $50 |
| 31C0013 | Québec | (4 levels of geography compiled by Québec Bureau of Statistics - 4 niveaux de géographie compilés par le Bureau de la statistique du Québec) | (*) |
| 31C0014 | Ontario | Cen Div/Div de rec | $200 |
| 31C0015 | Manitoba | Econ Reg/Rég econ | $50 |
| 31C0016 | Saskatchewan | Econ Reg/Rég econ | $50 |
| 31C0017 | Alberta | Cen Div/Div de rec | $80 |
| 31C0018 | British Columbia - Colombie-Britannique | Cen Div/Div de rec | $80 |
| **31C0019** | | **All provinces(@) - Toutes les provinces(@)** | **$400** |

(#) Cen Div = Census Division (county)
(#) Div de rec = Division de recensement (comté)
Econ Reg = Economic Region
Rég econ = Région Economique
(*) Québec statistics are available in the publication "Statistiques manufacturières régionales, Edition 1995" produced by the Québec Bureau of Statistics, (Price $35; electronic $105).
(*) Les statistiques pour le Québec sont disponibles dans la publication "Statistiques manufacturières régionales, Edition 1995" préparée par le Bureau de la statistique du Québec, (Prix $35, électronique $105).

(@) Package includes Québec data by economic region.
(@) Le paquet comprend les données pour le Québec par région économique.

---

For more information...

---

***Investment and Capital Stock Division***
(Building permits, Housing Starts from CMHC)

Beside the information on the present CD-ROM, you can obtain additional data related to the construction domain, broken-down at lower geographical details.

At the national and provincial levels, the Investment and Capital Stock Division offers the most complete and precise statistics on capital expenditures in construction machinery and equipment by industry. Capital expenditures are detailed by type of assets; that is, by type of construction (residential and non-residential) and by categories of machinery and equipment. Historical series, in both current and constant dollars from 1961 to 1994, are also available.

Also, we offer the most recent statistics on the market related to private and public investment by detailed producing goods and services industries at national and provincial levels. The investment data are gathered from a sample of 25,00 businesses, institutions and governments.

All data mentioned earlier can be obtained based on **your specifications** and in the medium of your choice (eg: paper, diskette, CD-ROM). For any additional information or to order customized tabulations, please call:

Nathalie Léveillé
Tel (613) 951-2025
Fax (613) 951-0196

Michel Labonté
Tel (613) 951-9690
Fax (613) 951-0196

For more information...

---

Beside the information on the present CD-ROM, you can obtain additional data related to the housing domain through Canada Mortgage and Housing Corporation publications like:

- **Canadian Housing Market**
  provides you with information on:
  -per cent of renters who can afford to buy a home by CMA
  -costs and income for affordability indicator
  -supply of housing available to average renter households
  -economic and housing market indicators
  -feature articles on housing market trends

- **National Housing Outlook**
  features the most comprehensive presentations of:
  -housing trend analysis and statistics
  -national and provincial forecasts(prices, vacancy rates, housing rates)

- **Mortgage Market Trends**
  offers you an in-depth presentation of:
  -mortgage credit growth and market share
  -mortgage rate movements, etc

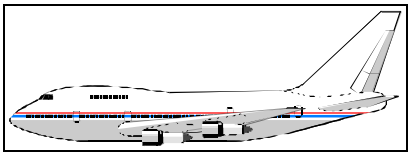
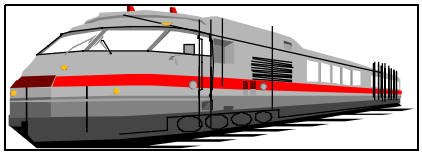
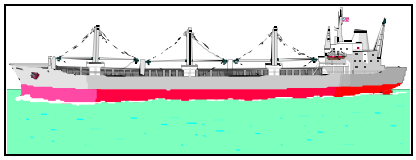
- **Six New Renovation Market Publications**
  five regional and one national publication featuring:
  -recent trends in renovation spending
  -homeowner renovation markets and much more

For further information, call the Market Analysis Centre directly:
Tel. No: (613) 789-2969
Fax No: (613) 748-2402

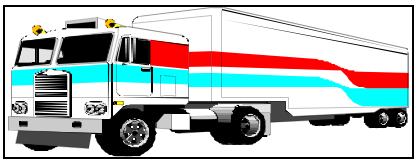
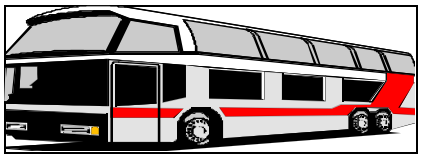
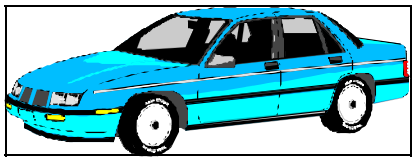
For more information...

---

# LET TRANSPORTATION DATA GUIDE YOUR WAY!

☞ Click on the IMAGES ☜

Deregulation, free trade and global integration all affect the face of transportation . In a rapidly changing market, Statistics Canada offers valuable information for you to be up-to-date on the effects of these changes. In addition to publications, our specialized statistical services cover all modes of transport - **air, marine, rail** and road **( trucking, bus and motor vehicles)**.

**Air:** financial and operating statistics for Canadian air carriers; passenger traffic (domestic and international); fare basis data; airport activity data; aircraft inventory and use data.

**Marine:** Commodity origin/destination data (including vessel traffic and port statistics; containerization; vessel characteristics); financial and operating statistics for Canadian water carriers.

**Rail:** financial and operating statistics; origin and destination of freight movements; carloadings.

**Trucking:** financial and operating statistics; size, structure and economic performance of the for-hire and private trucking industry; and origin and destination of cargo (domestic and international).

**Bus:** financial and operating statistics on the passenger bus and urban transit industries.

**Motor Vehicles:** fuel sold for consumption on public roads by type of fuel; numbers and types of vehicle registrations by area.

**TELEPHONE: (613) 951-2486 FAX: (613) 951-0579 E-MAIL: laroque@statcan.ca**

For more information...

---

***Transportation Division*** (Motor Vehicle Registrations)

## AIR TRANSPORT

### - Airport Activity

Rolf Hakka

Tel: (819) 953-3347
Fax: (819) 953-8499

**Description:**

Data is collected for all Canadian airports by:

- aircraft point of origin
- final aircraft destination
- type of flight (passenger or cargo)
- type of aircraft
- load capacity

Last station arrived from or next station departed to:

- arriving
- departing
- revenue passengers and cargo
- enplaned
- deplaned

**Periodicity:** Monthly

**Publication:**

| | |
|---|---|
| 51-0040XPB | Aviation - Service Bulletin (M) ($99, $US119, $US139) |
| 51-0050XPB | Air Carrier Traffic at Canadian Airports (Q) ($130, $US156, $US182) (last issue 4Q94) (Tables are available) |
| 51-2030XPB | Air Carrier Traffic at Canadian Airports (A) Forthcoming |
| 51-5010XPE | Aviation in Canada (O) ($48, $US58, $US67) |

For more information...

---

## - Air Passenger Origin and Destination - Scheduled Services


Mike Burchell Tel: (819) 997-0198
Fax: (819) 953-8499


**Description:**

Sample covers all Level I and II Canadian air carriers who enplaned 300,000 or more scheduled revenue passengers. A 10% sample of flight coupons of all Canadian and U.S. carriers meeting universe requirements is used. Data are available on the number of passengers by city of origin and destination (both domestic and Canada - United States).

**Periodicity:** Quarterly

**Publication:**

| | | |
|---|---|---|
| 51-0040XPB | Aviation - Service Bulletin (M) | ($99, $US119, $US139) |
| 51-2040XPB | Air Passenger Origin and Destination, Domestic Report (A) | ($39, $US47, $US55) |
| 51-2050XPB | Air Passenger Origin and Destination, Canada - United States (A) | ($45, $US54, $US63) |
| 51-5010XPE | Aviation in Canada (O) | ($48, $US58, $US67) |

## - Air Passenger Activity - Regional and Local Scheduled Services


Rolf Hakka Tel: (819) 953-3347
Fax: (819) 953-8499


**Description:**

Survey includes Canadian and foreign carriers Level II, III, IV, and V operating scheduled services who enplaned less than 300,000 scheduled passengers. Data are available on the number of passengers enplaned and deplaned and the number of departing flights by airport.

**Periodicity:** Quarterly

**Publication:**

| | | |
|---|---|---|
| 51-0040XPB | Aviation - Service Bulletin (M) | ($99, $US119, $US139) |
| 51-0050XPB | Air Carrier Traffic at Canadian Airports (Q) | ($130, $US156, $US182) (Last issue 4Q94) (Tables are available) |
| 51-2030XPB | Air Carrier Traffic at Canadian Airports (A) | Forthcoming |
| 51-5010XPE | Aviation in Canada (O) | ($48, $US58, $US67) |

For more information...

---

## - Air Charter


Francesca Thibeault

Tel: (819) 997-6173
Fax: (819) 953-8499


**Description:**

Survey includes Canadian and foreign commercial air carriers performing domestic and international charter services. Data are available on:

- number of passengers
- charter types
- air carrier names
- city pairs
- country

**Periodicity:** Monthly

**Publication:**

| | | | |
|---|---|---|---|
| 51-0040XPB | Aviation - Service Bulletin | (M) | ($99, $US119, $US139) |
| 51-2070XPB | Air Charter Statistics | (A) | ($39, $US47, $US55) |
| 51-5010XPE | Aviation in Canada | (O) | ($48, $US58, $US67) |

## - Fare Basis


Lisa Di Piétro

Tel: (819) 997-6176
Fax: (819) 953-8499


**Description:**

The survey represents a regular and comprehensive source of fare type-specific data on passengers and revenue. It covers the scheduled domestic and international operation of the largest Canadian air carriers. This survey provides direct estimates (passengers and revenue) and derived estimates (passenger-kilometers, average fare, yields) on a quarterly and annual basis. The estimates are broken down by geographical sector (e.g. domestic, southern, northern, international), by province and fare type group. A series of air fare indices is also produced by geographical sector and fare type group.

**Periodicity:** Quarterly

**Publication:**

| | | | |
|---|---|---|---|
| 51-0020XPB | Air Carrier Operations in Canada (last issue 4Q94) (Tables are available) | (Q) | ($99,$US119,$US139) |
| 51-0040XPB | Aviation - Service Bulletin | (M) | ($99, $US119, $US139) |
| 51-2060XPB | Canadian Civil Aviation | (A) | ($39, $US47, $US55) |
| 51-5010XPE | Aviation in Canada | (O) | ($48, $US58, $US67) |

For more information...

---

## - Canadian Civil Aviation - Quarterly


Robert Lund — Tel: (819) 997-6188
Andrea Mathieson — (819) 997-6190
Fax: (819) 953-8499


**Description:**

This survey produces a summary of the civil aviation activities for approximately 300 Canadian air carriers. Quarterly data on:

- market share
- employment
- commercial activity
- affiliate carriers
- fuel consumed
- other financial data

**Periodicity:** Quarterly

**Publication:**

| | |
|---|---|
| 51-0040XPB | Aviation - Service Bulletin (M) ($99, $US119, $US139) |
| 51-0020XPB | Air Carrier Operations in Canada (Q) ($99,$US119,$US139) (last issue 4Q94) (Tables are available) |
| 51-2060XPB | Canadian Civil Aviation (A) ($39, $US47, $US55) |
| CANSIM Matrix 385 | |

## - Canadian Civil Aviation - Annual


Robert Lund — Tel: (819) 997-6188
Andrea Mathieson — (819) 997-6190
Fax: (819) 953-8499


**Description:**

This survey of approximately 800 domestic air carriers collects data on:

- market share
- employment
- commercial activity
- fuel consumed
- affiliate carriers
- income statements
- balance sheets
- other financial data

**Periodicity:** Annual

**Publication:**

| | |
|---|---|
| 51-0040XPB | Aviation - Service Bulletin (M) ($99, $US119, $US139) |
| 51-0020XPB | Air Carrier Operations in Canada (Q) ($99,$US119,$US139) (last issue 4Q940 (Tables are available) |
| 51-2060XPB | Canadian Civil Aviation (A) ($39, $US47, $US55) |
| 51-5010XPE | Aviation in Canada (O) ($48, $US58, $US67) |
| 11-0100XPB | Canadian Economic Observer (M) ($220, $US264, $US308) |
| CANSIM Matrix 385 | |

For more information...

---

## - Air Carrier Fleet


Robert Lund  Tel: (819) 997-6188
Fax. (819) 953-8499


**Description:**

This survey produces data on the fleet of Canadian air carriers by:

- weight group
- aircraft type
- carrier name

**Periodicity:** Quarterly

**Publication:**

| | | | | |
|---|---|---|---|---|
| 51-0040XPB | Aviation - Service Bulletin | (M) | ($99, $US119, $US139) |
| 51-2060XPB | Canadian Civil Aviation | (A) | ($39, $US47, $US55) |
| 51-5010XPE | Aviation in Canada | (O) | ($48, $US58, $US67) |

## - Aircraft Movement Statistics


Paul Weiser  Tel: (819) 997-6177
Andrea Mathieson (819) 997-6190
Fax: (819) 953-8499


**Description:**

Data are available on commercial, private and state aircraft landings and take-offs at over 120 Canadian airports.

**Periodicity:** Monthly and Annual

**Publication:**

| | | | |
|---|---|---|---|
| 51-0040XPB | Aviation - Service Bulletin | (M) | ($99, $US119, $US139) |
| 51-0050XPB | Air carrier Traffic at Canadian Airports (last issue 4Q94) (Tables are available) | (Q) | ($130, $US156, $US182) |
| 51-2030XPB | Air Carrier Traffic at Canadian Airports | (A) | Forthcoming |
| 51-5010XPE | Aviation in Canada | (O) | ($48, $US58, $US67) |

For more information...

---

## - Civil Aircraft Activity in Canada


| | | | |
|---|---|---|---|
| Paul Weiser | Tel: | (819) | 997-6177 |
| Andrea Mathieson | | (819) | 997-6190 |
| | Fax: | (819) | 953-8499 |


**Description:**

Data collected from administrative documents on aircraft hours flown for all Canadian registered aircraft, private and commercial, by aircraft type, model and province of registration, accident data and accident rates by specific model are also available.

**Periodicity:** Monthly and Annual

**Publication:**

| | | | |
|---|---|---|---|
| 51-0040XPB | Aviation - Service Bulletin | (M) | ($99, $US119, $US139) |
| 51-5010XPE | Aviation in Canada | (O) | ($48, $US58, $US67) |

For more information...

---

## - MARINE TRANSPORT

### - Coastwise Shipping


Michel Cloutier Tel: (613) 951-8699
Doug O'Keefe (613) 951-0291
Fax: (613) 951-0579


**Description:**

This survey measures the level of domestic shipping activity along the Canadian coast. Data are filed by ship agents & representatives on an on-going basis for all commercial vessels of 15 GRT or more departing from Canadian ports.

- cargo tonnage
- origin
- handling port
- commodity
- destination

**Periodicity:** Quarterly

**Publication:**

54-2050XPB Shipping in Canada (A) ($50, $US60, $US70)
50-0020XPB Surface and Marine Transport - Service Bulletin (8 issues per year) ($80, $US96, $US112)

### - International Shipping


Michel Cloutier Tel: (613) 951-8699
Doug O'Keefe (613) 951-0291
Fax: (613) 951-0579


**Description:**

Data collected from administrative customs documents cover all international shipping vessels arriving at or departing from a Canadian port.

- commodity and tonnage loaded and unloaded
- containerization
- handling port
- type, size and vessel nationality
- origin and destination of vessel and cargo

**Periodicity:** Quarterly

**Publication:**

54-2050XPB Shipping in Canada (A) ($50, $US60, $US70)
50-0020XPB Surface and Marine Transport - Service Bulletin (8 issues per year) ($80, $US96, $US112)

For more information...

---

## - Water Transportation


| | | | |
|---|---|---|---|
| Michel Cloutier | Tel: | (613) | 951-8699 |
| Doug O'Keefe | | (613) | 951-0291 |
| | Fax: | (613) | 951-0579 |


**Description:**

This survey includes all For-hire, Private, and Government water carriers domiciled in Canada that reported total gross operating revenues or gross operating expenses of $500,000 or more.

- employment and salaries
- fuel consumption and cost
- financial statement
- property value and ownership

**Periodicity:** Annual

**Publication:**

| | | | |
|---|---|---|---|
| 54-2050XPB | Shipping in Canada | (A) | ($50, $US60, $US70) |
| 50-0020XPB | Surface and Marine Transport - Service Bulletin | (8 issues per year) | ($80, $US96, $US112) |

For more information...

---

## RAIL TRANSPORT


Yasmin Sheikh — Tel: (613) 951-2518
Angus MacLean — (613) 951-2528
Fax: (613) 951-0579


### Weekly Railway Carloadings


Yasmin Sheikh — Tel: (613) 951-2518
Angus MacLean — (613) 951-2528
Fax: (613) 951-0579


**Description:**

Data are collected 4 times a month from 19 railway operating in Canada by region on:

- the number of cars loaded
- tonnage of revenue freight loaded
- 69 commodity grouping

**Periodicity:** Weekly

**Publication:**

11-0010XPE Statistics Canada Daily (D) ($175, $US210, $US245)
CANSIM Matrix 1431

### Monthly Railway Carloadings


Yasmin Sheikh — Tel: (613) 951-2518
Angus MacLean — (613) 951-2528
Fax: (613) 951-0579


**Description:**

Survey includes 19 railways operating in Canada:

- the number of cars loaded
- tonnage of revenue freight loaded
- region

**Periodicity:** Monthly

**Publication:**

52-0010XPB Railway Carloadings (M) ($100, $US120, $US140)
CANSIM Matrix 1431

For more information...

---

## Rail Transport Survey - Commodity Statistics


Yasmin Sheikh Tel: (613) 951-2518
Angus MacLean (613) 951-2528
Fax: (613) 951-0579


**Description:**

Survey covers traffic statistics by commodity and by geographic area from 19 railways operating in Canada.

- number of railway cars
- tonnage loaded and unloaded
- tonnage to and from U.S.A
- 320 commodity groups

**Periodicity:** Monthly

**Publication:**

52-2160XPB Rail in Canada (A) ($50, $US60, $US70)

## Railway Transport Survey - General Statistics


Yasmin Sheikh Tel: (613) 951-2518
Angus MacLean (613) 951-2528
Fax: (613) 951-0579


**Description:**

Data from 28 railways operating in Canada:

- railway financial
- operating and traffic
- equipment and fuel
- employment

**Periodicity:** Annual

**Publication:**

52-2160XPB Rail in Canada (A) ($50, $US60, $US70)

## Railway Operating Statistics


Yasmin Sheikh Tel: (613) 951-2518
Angus MacLean (613) 951-2528
Fax: (613) 951-0579


**Description:**

Survey covers 7 selected railways operating in Canada

- freight car-km
- passenger car-km
- average km of track operated
- tonnage
- ton-km of revenue freight
- number of revenue passenger

For more information...

---

- non-revenue freight - total revenue

**Periodicity:** Monthly

**Publication:**
52-0030XPB Railway Operating Statistics Service Bulletin (M) ($120, $US144, $US168)

## Railway Commodity Origin and Destination Statistics


Yasmin Sheikh Tel: (613) 951-2518
Angus MacLean (613) 951-2528
Fax: (613) 951-0579


**Description:**

Data from Canadian National and Canadian Pacific Railways:

- tonnage - revenue - number of cars
- origin - destination - commodity

**Periodicity:** Annual

**Publication:**

52-2160XPB Rail in Canada (A) ($50, $US60, $US70)

-

For more information...

---

## - TRUCKING TRANSPORT

### - Motor Carriers of Freight Survey


Fred Barzyk — Tel: (613) 951-2493
Gilles Paré — (613) 951-2517
Fax: (613) 951-0579


**Description:**

Sample of for-hire carriers earning gross operating revenues of $1 million or more. Also a sample of For-Hire carriers and owner-operators earning $25,000 to $1 million. Data collected are:

- balance sheet
- equipment
- operating expenses
- fuel
- operating revenue
- income account

Census of private carriers in Canada with annual operating expenses of $1,000,000 or more. Data collected are:

- equipment
- operating expenses
- fleet
- fuel
- major intercity commodities
- employment
- movements

**Periodicity:** Annual

**Publication:**

53-2220XPB Trucking in Canada (A) ($50, $US60, $US70)
50-0020XPB Surface and Marine Transport - Service Bulletin (8 issues per year) ($80, $US96, $US112)

### - Quarterly Motor Carriers of Freight Survey


Fred Barzyk — Tel: (613) 951-2493
Gilles Paré — (613) 951-2517
Fax: (613) 951-0579


**Description:**

Sample includes for-hire carriers earning gross operating revenues of $1,000,000 or more. Information includes:

- revenues by type of activity
- distance travelled
- employment by type
- operating expenses
- cost of fuel
- salaries and wages
- type of movement

**Periodicity:** Quarterly

For more information...

---

**Publication:**

| | |
|---|---|
| 50-0020XPB | Surface and Marine Transport - Service Bulletin (8 issues per year) ($80, $US96,$US112) |
| 53-2220XPB | Trucking in Canada (A) ($50, $US60, $US70) |

## - For-hire Trucking (Commodity Origin and Destination) Survey


Kathie Davidson Tel: (613) 951-8779
Wendy Christoff (613 951-2498
Fax: (613) 951-0579


**Description:**

Sample of intercity commodity movements from for-hire trucking companies shipping documents. Information includes domestic and international shipments:

| | | |
|---|---|---|
| - origin | - destination | - commodity |
| - revenue | - weight | - ton-kilometers |

**Periodicity:** Quarterly

**Publication:**

| | |
|---|---|
| 50-0020XPB | Surface and Marine - Service Bulletin (8 issues per year) ($80, $US96, $US112) |
| 53-2220XPB | Trucking in Canada (A) ($50, $US60, $US70) |

For more information...

---

## - BUS TRANSPORT

### Passenger Bus and Urban Transit - Quarterly


Robert Larocque Tel: (613) 951-2486
Larry McKeown Tel: (613) 951-6153
Fax: (613) 951-0579


**Description:**

This survey covers public bus companies with annual gross operating revenues (including subsidies) of $200,000 and more. The industries covered are urban transit, scheduled intercity carriers, school bus operations, charter and sightseeing bus services and limousine service to airports and stations. Only school bus companies with annual revenues of $2 million or more are surveyed quarterly. Data collected on a quarterly basis are:

- operating revenues and expenses
- employment, wages and salaries
- type of service provided
- distance run and passengers carried

**Periodicity:** Quarterly (data are released in the Service Bulletin 50-002)

**Publication:**

| | |
|---|---|
| 50-0020XPB | Surface and Marine Transport - Service Bulletin (8 issues per year) (($80, $US96, $US112); replaces 53-0030XPB (last issue, Dec. 94) |
| CANSIM Matrix | 346 (Urban Transit)<br>347 (Passenger Bus) |

### Passenger Bus and Urban Transit - Annual


Robert Larocque Tel: (613) 951-2486
Larry McKeown Tel: (613) 951-6153
Fax: (613) 951-0579


**Description:**

The annual survey collects information supplementary to that collected on a quarterly basis. The survey covers public bus companies with annual gross operating revenues (including subsidies) of $200,000 and more. The industries covered are urban transit, scheduled intercity carriers, school bus operations, charter and sightseeing bus services and limousine service to airports and stations. Data collected on an annual basis are:

- statement of assets and liabilities
- equipment operated and fuel consumed

**Periodicity:** Annually

**Publication:**

| | |
|---|---|
| 53-2150XPB | Passenger Bus and Urban Transit Statistics (A) ($38, $US46, $US54) |

For more information...

---

## - MOTOR VEHICLES

### - Road Motor Vehicles - Fuel Sales


Yasmin Sheikh
Angus Maclean

Tel: (613) 951-2518
(613) 951-2528
Fax: (613) 951-0579


**Description:**

Data obtained from provincial and territorial fuel sales tax administrative records on amount of fuel sold for consumption on public roads by type of fuel.

**Periodicity:** Annual

**Publication:**

53-2180XPB Road Motor Vehicles - Fuel Sales (A) ($25, $US30, $US35)
50-0020XPB Surface and Marine Transport - Service Bulletin (8 issues per year) ($80, $US96, $US112)

For more information...

---

## - Road Motor Vehicles - Registrations


Yasmin Sheikh Tel: (613) 951-2518
Angus MacLean (613) 951-2528
Fax: (613) 951-0579


**Description:**

Data obtained from provincial and territorial registration records on the numbers of vehicle registrations by type of vehicle registrations and by area.

**Periodicity:** Annual

**Publication:**

53-2190XPB Road Motor Vehicles - Registrations (A) ($25, $US30, $US35)
50-0020XPB Surface and Marine Transport - Service Bulletin (8 issues per year) $80, $US96, $US112)
CANSIM Matrix 356

For more information...

---

## Prices Division Indexes, Services and Publications

## PRICE INDEXES and Contact Persons

| | | |
|---|---|---|
| **Apartment Building Construction Price Indexes** | Bernard Lebrun | 951-3389 |

These indexes measure changes in contractors' selling prices for new apartment building construction. The indexes relate to both general and trade contractors' work and exclude the cost of land, land assembly, design, development and real estate fees.

| | | |
|---|---|---|
| **Canadian Telecommunications Plant Price Indexes** | Les Graham | 951-9615 |

These indexes measure price change through time for annual capital expenditures of the Canadian telecommunications industry. The movement of the index reflects purchase price changes between consecutive years for a matched sample of goods.

| | | |
|---|---|---|
| **Construction Union Wage Rates and Indexes** | Yoon Hwang | 951-9616 |

Construction union wage rates and indexes (1986 = 100) comprise union wage rates for 16 trades in 22 metropolitan areas (including the basic rate and rates that include selected supplementary payments) and indexes for those cities where a majority of trades are covered by current collective agreements.

| | | |
|---|---|---|
| **Consulting Engineers' Output Price Indexes** | Jennifer Winters | 951-3373 |

These indexes measure the price changes of the services provided by consulting engineers. These services, which include advisory work, design work and supervision of its implementation, and project management, are provided for a variety of projects and in different parts of the country.

For more information...

---

| | | |
|---|---|---|
| **Consumer Price Indexes**<br><br>The CPI Is a general indicator of the rate of price change over time for consumer goods and services and is used to measure the impact of price change on the purchasing power of the dollar. | Sandra Shadlock | 951-9606 |
| **Farm Input Price Indexes (1986 = 100)**<br><br>The Farm Input Price indexes (FIPI), 1986 = 100, measure the price changes of a basket of goods and services purchased by Canadian farmers for use in agricultural production. The basket is made up of the inputs bought by farmers in 1986. These indexes are calculated by comparing current prices for those inputs to the average of their prices in 1986. | Vaclav Krabicka | 951-3342 |
| **Electric Power Selling Price Indexes (Non-residential)**<br><br>These indexes are published for two broad industrial customer categories of sales; for bills less than 5000 kW and for sales of 5000 kW or more. Prices are reported by electric utilities for non-interruptible power contracts with manufacturing, service, and other Canadian industrial customers. | Pierre Després | 951-9603 |
| **Electric Utility Construction Price Indexes**<br><br>These indexes measure price changes for the construction of five separate models of electric utility plant. Each model portrays an average mix of materials, labour and equipment developed from a variety of products in a specific base period. | Adrian Fisher | 951-9612 |
| **Fabricated Structural Steel Price Indexes**<br>(Terminated with 1st Quarter 1995 data)<br><br>These indexes measure price changes in the supply, fabrication and field erection of structural steel on construction projects. | Bernard Lebrun | 951-3389 |
| **Highway Construction Price Indexes**<br>(Terminated with 1993 Annual data)<br><br>These indexes measure price changes for work in place of a fixed program of highway construction. As output prices, the indexes include the cost of materials, labour, use of fuel and equipment, taxes, job overhead and profit. Also included are estimates of price change for materials such as pipe and asphalt which the provincial departments (except in Newfoundland and Ontario) provide to the road contractors. | Yoon Hwang | 951-9616 |

For more information...

---

| | | |
|---|---|---|
| **Industrial Product Price Indexes** | Lorne Stanton | 951-9602 |

These indexes measure price changes for major commodities produced and sold by Canadian manufacturers. These indexes are grouped by commodity and commodity aggregations and also by industry and industry groups.

| | | |
|---|---|---|
| **Machinery and Equipment Price Indexes** | Les Graham | 951-9615 |

These indexes measure price changes for annual gross additions to capital for machinery and equipment by industry of purchase. Price indexes are calculated for industries, major groups of industries and the total of all industries and are also calculated for commodities.

| | | |
|---|---|---|
| **New Housing Price Indexes** | Albert Near | 951-3386 |

These indexes measure changes over time in the contractors' selling prices of new residential houses, where detailed specifications remain the same between two consecutive periods.

| | | |
|---|---|---|
| **Non-residential Building Construction Price Indexes** | Bernard Lebrun | 951-3389 |

These indexes measure selling price changes of general and trade contractors for non-residential building construction (i.e., commercial, industrial, institutional). The indexes exclude the cost of land, design and real estate fees. Coverage includes seven major metropolitan areas (Halifax, Montréal, Ottawa, Toronto, Calgary, Edmonton and Vancouver) and a composite for Canada.

| | | |
|---|---|---|
| **Precast Concrete Price Indexes**<br>(Terminated with Second Half 1994 data) | Bernard Lebrun | 951-3389 |

These indexes measure price changes in the supply, fabrication and field erection of precast concrete on construction projects.

| | | |
|---|---|---|
| **Raw Materials Price Indexes** | Lorne Stanton | 951-9602 |

These indexes measure price changes for the purchase of raw materials by Canadian industry.

For more information...

---

| | | |
|---|---|---|
| **Selected Financial Indexes** | Yoon Hwang | 951-9616 |

These financial indexes are derived from rates published in the *Bank of Canada Review* and are provided as complements to materials and wages input indexes. They include: chartered bank 5 year mortgage rates, prime business loans, bond yield averages and exchange rates.

For more information...

---

## PUBLICATIONS

**Industry Price Indexes (Catalogue No. 62-011, Monthly)** — Lorne Stanton — 951-9602

This publication contains: Industry Price Indexes, Raw Materials Price Indexes, Electric Power Selling Price Indexes. Also included are technical notes on important concepts and practices and a monthly section which explains the most recent price movements.

Price: Canada: $21.00 per issue
$210.00 annually

United States: US$26.00 per issue
US$252.00 annually

Other Countries: US$30.00 per issue
US$294.00 annually

**The Consumer Price Index (Catalogue No. 62-001, Monthly)** — Sandra Shadlock — 951-9606

This monthly release of the Consumer Price Index for Canada and for the 18 regional cities, provides a descriptive capsule summary of retail price movements and the factors underlying them. It also contains the following tabular information: latest price index movements for the eight major components; price index changes on one and 12-month base or an extensive number of components and groups; historical monthly information; and price indexes reclassified according to categories of goods and services.

Price: Canada: $10.00 per issue
$100.00 annually

United States: US$12.00 per issue
US$120.00 annually

Other Countries:US$14.00 per issue
US$140.00 annually

For more information...

---

**Consumer prices and price indexes (Catalogue No. 62-010, Quaterly)** — Sandra Shadlock — 951-9606

This publication highlights the current and historical statistics on consumer prices and related price indexes. A comparative index contains retail price differentials for 11 major cities by selected groups of consumer goods and services. The edition for the last quarter of the calendar year includes a supplement examining price movements in retrospect for the last 12 months. It includes definitions and data analysis.

Price: Canada: $24.00 per issue
$80.00 annually

United States: US$29.00 per issue
US$96.00 annually

Other Countries: US$34.00 per issue
US$112.00 annually

**Farm Input Price Index (Catalogue N0. 62-004, Quaterly)** — Vaclav Krabicka — 951-3342

The publication shows price indexes of commodities and services used in Canadian farming for Atlantic Provinces, Québec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. In addition the publication provides indexes for eastern, western and all Canada. It contains up to five years of quaterly and annual statistics. It also includes technical notes and data analysis.

Price: Canada: $24.00 per issue
$80.00 annually

United States: US$29.00 per issue
US$96.00 annually

Other Countries: US$34.00 per issue
US$112.00 annually

For more information...

---

| | | |
|---|---|---|
| **Average prices of selected farm input (Catalogue No. 62-012, Seasonal)** | Vaclav Krabicka | 951-3342 |

This publication shows average prices of selected commodities and services used in Canadian farming for each Atlantic province and for up to seven sub-provincial regions for each of the other provinces. It contains data for the indicated period only. It also includes commentary and technical notes.

Price: Canada: $9.00 per issue
$48.00 annually

United States: US$11.00 per issue
US$58.00 annually

Other Countries: US$13.00 per issue
US$68.00 annually

For more information...

---

**SERVICES**

**Letterhead Services :**

**Standard or 'Off the shelf' products**

Price : $250.00 Annual Subscription for **monthly** data service for up to 20 series or 150 data points
$140.00 Annual Subscription for **quarterly** data service for up to 20 series or 150 data points
$20 Annual cost for every 5 additional **monthly** series
$10 Annual cost for every 5 additional **quarterly** series
$35 for a single request

**Custom retrievals :**

Telephone, facsimile, mail or official letter of confirmation of data for non-standard or special tabulations
(e.g. tables merging current and historical data)
Price : Minimum $35 for a single request, fee negotiable depending on effort needed.

**Custom tabulations or Client Specified Special Indexes :**

If products and services listed do not satisfy a client's needs, a custom tabulation (e.g. rebasing and
linking series for historical analysis) or special index calculation may be produced following client
specifications to the extent possible, and with the understanding that the resulting information must be non-confidential as determined by Statistics Canada staff in order to be released. This service may also include custom-tailored analysis and reports.
Price : Fees negotiable depending on effort needed.

**For further information on these services contact Prices Division Client Services at (613) 951-9606 or (613) 951-3350, FAX (613) 951-2848**

**Existing Cost Recovery series currently available :**
Costs per series include letterhead service
For more information contact the person named

For more information...

---

**Chemical and Mineral Processing Plant Price Indexes (Proxy)** — Les Graham — 951-9615

This series measures the price change for construction of a processing plant representative of those used in industries with a heavy processing element: chemical, petroleum, pulp and paper, cement and lime, mining, smelting and refining. The Chemical and Mineral Processing Plant Price Indexes and Chemical and Petrochemical Processing Plant Price Indexes were discontinued in February 1990 with the publication of estimates for the fourth quarter of 1989. Because of demand for a replacement series, a proxy for the former price index series was constructed.

Price : $35.00 per quarterly update
$140.00 per annum, includes available historical series to 1986

**Construction Machinery and Equipment (Imported) Price Index** — Les Graham — 951-9615

This series measures the US producer price index changes over time for a selection of machinery and equipment commodities used in the building construction and heavy civil engineering industries. The index is adjusted for US dollar to Canadian dollar exchange rate changes and applicable federal tax and tariff changes.

Price : $1700.00 per annum for monthly letterhead updates,
includes available historical series

**Construction Building Materials Price Indexes (Residential, Non-residential)** — Les Graham — 951-9615

These indexes measure the price changes over time for a selection of principal commodities used in the building construction industry. Indexes are provided for both residential and non-residential construction and are subdivided into four classes: structural, architectural, mechanical and electrical materials.

Price : $340.00 per annum for monthly letterhead updates,
includes available historical series

For more information...

---

**OTHER PRODUCTS AND SERVICES FROM STATISTICS CANADA**

**CANSIM :**

The Canadian Socio-economic Information Management (CANSIM) system is Statistics Canada's computerized databank and its supporting software. Most of the series referred to in this brochure, as well as many other data series are available from CANSIM via terminal, on computer printouts, or in machine readable form (including CD-ROM and diskette).

For further information, write to Marketing Division, Statistics Canada, R. H. Coats Building, Ottawa, K1A 0T6 or call (613) 951-8200.

**To order publications write to Marketing Division, Publications Sales, Statistics Canada, Ottawa, Ontario K1A 0T6, or call 1-800-267-6677.**
**Orders from outside Canada or the US call (613) 951-7277 or**
**FAX to (613) 951-1584.**

For more information...

---

***EDUCATION, CULTURE AND TOURISM DIVISION***

## AVAILABLE PRODUCTS

## i) CANADIAN TRAVEL SURVEY (CTS)

### a) Publication

**TOURISCOPE - DOMESTIC TRAVEL - Canadians travelling in Canada**
**Catalogue no. 87-504** (Canada: 35$ per issue; United-States: 42$ US per issue; Other countries: 49$ US per issue)

This 70-page publication presents data, charts, map and analytical text on trips and socio-economic characteristics of Canadians travelling within Canada. Trip information includes purpose, activities, mode of transportation, length of stay, origin and destination, and expenditures. In addition to providing national data, the publication also includes some tables presenting provincial and metropolitan detail.

**Contact:** The nearest Statistics Canada Regional Reference Centre or call 1-800-267-6677.

### b) Statistical Profile

Should you require information that is not publish in our regular publication, you can call us and we are able to produce a customized product to answer your need: *the statistical profile*.

The *statistical profile* provides our clients with a complete profile of a specific sector. Whether you are interested in looking at characteristics of trips or travellers whose destination is Ontario or travellers who used a car as a mode of transportation,... a profile will provide you the required information.

A *statistical profile* is a table presenting more than 30 characteristics included in the CTS. Those can be cross-tabulated with any characteristics of your choice, for a given population and survey year. For example, you require information on travellers who stated Vancouver as a destination by trip purpose (business, pleasure, personal, VFR).

For more information...

---

We are able to construct a profile providing you with this information. On your profile, you will first find the specifications of your selection, in our case travellers whose destination is Vancouver, unit of measure (person-trip) and the survey year. Below this heading you will find a table showing on the left side (Y axis), some 30 travel characteristics. In the columns of the table (X axis), will appear the four purposes of trips stated above. This profile will be produced for three specific segments of the population the same day travellers, the overnight travellers and the total. This profile should provide you with the required information.

For your information, parts of the variables appearing on a profile are presented in table PROVEVC, NGTEVC, ACTEVC, ACCEVC, and AVGEVC.

The cost of a profile is $350.

It is also possible to obtain the profiles in an elctronic format (ASCII, Lotus, Excel or other) for an additional $15 per table.

**Contacts:**

Susie Rochon
Marketing Officer
Travel, Tourism and Recreation Section
Education, Culture and Tourism
17-H R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6

Tel.: (613) 951-6321
Fax. : (613) 951-2909

Sylvie Bonhomme
Senior Analyst
Travel, Tourism and Recreation Section
Education, Culture and Tourism
17-H R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6

Tél.: (613) 951-1672
Fax. : (613) 951-2909

For more information...

---

**c) Micro data Files**

For researchers who want to conduct their own analysis, micro data files containing the non-aggreated, anonymous records are also available. Those files allow researchers to perform their own extraction of the required information.

The cost of the micro data files is $1000. per quarter for the complete file or $500. per quarter for the acquisition of any sub-flows.

**Contacts:**

Susie Rochon
Marketing Officer
Travel, Tourism and Recreation Section
Education, Culture and Tourism
17-H R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6

Tel.: (613) 951-6321
Fax.: (613) 951-2909

Sylvie Bonhomme
Senior Analyst
Travel, Tourism and Recreation Section
Education, Culture and Tourism
17-H R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6

Tél.: (613) 951-1672
Fax.: (613) 951-2909

For more information...

---

## ii) INTERNATIONAL TRAVEL SURVEY (ITS)

### a) Frontier counts

### 1) Publication

**TOURISCOPE. International Travel. Advance Information**, Catalogue 66-001P.
(Canada: $7 per issue, $70 annually; United States: US$9 per issue, US$84 annually; Other Countries: US$10 per issue, US$98 annually)
A monthly four page document listing the preliminary figures in more detail is usually available six weeks after the reference month. Page one breaks down the visitor traffic and re-entries by Canadian residents by mode of transport and length of stay. Page two outlines a selected list of categories of foreign tourists to Canada by province of entry. Page three gives a detailed list of Canada's major overseas travel markets and page four provides a breakdown of Canadian tourists returning by province of re-entry from both the United States and all other countries.

**Contact:** The nearest Statistics Canada Regional Reference Centre or call 1-800-267-6677.

### 2) Tables

Tables are available on request. Most are year-to-date (ie. show all months of the year) and include quarterly and annual totals. It is also possible to order partial tables (eg. 1 port, 1 province, 1 country, etc.).

The following counts are available by entry port, with province and Canada totals:

- U.S. vehicles entering Canada and Canadian vehicles returning from the U.S.

- United States residents entering Canada and Canadian residents returning from the U.S., by auto, plane, train, bus, boat and other means

- residents of countries other than the U.S. entering Canada and Canadian residents returning from countries other than the U.S., direct entry or via the U.S.

- other travellers between Canada and other countries - Immigrants and former residents, foreign and Canadian crews

It is also possible to obtain the counts of cesidents of countries other than the U.S. entering Canada by:

- country of residence, with continent and world totals;
- province of entry and country of residence;

- category of entry and country of residence.

A series of detailed tables on foreign travellers entering Canada, by province of entry, country of residence, type of transportation and intended length of stay, as well as Canadian travellers returning from the United States and other countries by type of transportation and length of stay is also available each quarter. It also provides the preliminary estimates of receipts and payments on the travel account for the quarter.

**b) Questionnaire Surveys**

**1) Publication**

**TOURISCOPE. International Travel. Travel between Canada and other countries**, Catalogue 66-001P. (Canada: $40; United States: US$48; Other Countries: US$56) This 90-page annual publication summarizes findings of travel to and from Canada which has been collected by questionnaires. It provides a profile of international travel and travellers by country/province/state/region of residence or destination, transportation mode, trip purpose, lenght of stay, expenditures, age groups and sex in the form of tables, charts, maps and an analytical review.

**Contact:** The nearest Statistics Canada Regional Reference Centre or call 1-800-267-6677.

**2) Tables**

**Standard tables** are available quarterly or annually on request, at $75 or $100 each. They usually are a cross-tabulation of 2 characteristics from the following:

spending (total, average per trip, average per night), person-nights, trip purpose or main trip reason, age group, sex, mode of transportation, trip or visit duration;

plus

for Canadian residents: province of residence, states visited (trips to the U.S.), countries visited (trips to overseas countries), activities, accommodations used

for overseas visitors: country of residence;

for U.S. visitors: state of residence

for foreign visitors: province of entry, province visited

**Customized tables** can also be ordered. Additional charges for the development of the table formats and the validation of data may be applicable.

**3) Profiles**

Another form of customized report is known as a **travel profile**. A profile not only presents in the same report all the relevant characteristics listed above (plus the travelling party size, the trip spending by category and the trip or visit spending range), but it also allows a client to segment a population by different geographic and demographic characteristics. The client can select the type of traveller he/she wants to target and also specify the main characteristic of interest. The cost is $300 for each profile, with rebates of 10% if 2 to 4 are ordered at the same time and 25% for 5 or more. Additional charges for the development of the tables formats and the validation of data may be applicable.

Additional charges also apply when the data is sent by fax (Canada: $1.50 per page; other countries: $US2.50 per page). It is also possible to obtain the tables in an elctronic format (ASCII, Lotus, Excel or other) for an additional $15 per table.

**4) Micro-data**

**Micro-data files** are available at $1,000 per flow per quarter (sub-populations are less expensive). There are four flows: Canadian residents returning from the U.S., Canadian residents returning from overseas countries, United States residents visiting Canada and residents from overseas countries visiting Canada. A sub-population would be, for example, Ontario residents to Florida or overseas residents to British Columbia.

**Contact**

For more information, please contact:

Michel Campbell
Marketing Officer
International Travel Section
Education, Culture and Tourism
R.H. Coats Building, 17-I
Tunney's Pasture
Ottawa, Ontario
K1A 0T6

Phone: (613) 951-9169
Fax: (613) 951-2909

**iii) OTHER RELATED PRODUCTS RELATED TO BOTH SURVEYS**

**a) Publication**

For more information...

---

**TOURISCOPE - TRAVEL-LOG Catalogue no. 87-003** (Canada: $10 per issue, $40 annually; United States: US$12 per issue, US$48 annually; Other Countries: US$14 per issue, US$56 annually)

Each quarter this publication presents a diverse range of tourism topics in an easy-to-read and attractive format, drawing together the latest data from several tourism-related surveys conducted by Statistics Canada. Each issue includes a feature article and the latest national tourism indicators.

**Contact for subscription:** The nearest Statistics Canada Regional Reference Centre or call 1-800-267-6677.

**Contact for information:**

Monique Beyrouti
Editor
Travel-Log
Education, Culture and Tourism
17-H R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6

Tel.: (613) 951-1673
Fax.: (613) 951-2909

For more information...

---

***CENSUS DIVISION***

**Refer to Regional Reference Centres**

Statistics Canada's regional reference centres provide a full range of census products and services. Each reference centre is equipped with a library and a sales counter where users can consult or purchase publications, microcomputer diskettes, microfiche, maps and more.

The staff of the regional reference centres provides consultative and research services in addition to providing after-sales service and support, including seminars and workshops on the use of Statistics Canada information.

Each centre has facilities to retrieve information from Statistics Canada's computerized data retrieval systems CANSIM and E-STAT. A telephone inquiry service is also available with toll-free numbers for regional users outside local calling areas. Call, write, fax or visit the nearest regional reference centre for more information.

Atlantic Region

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

Advisory Services
Statistics Canada
Viking Building, 3rd Floor
Crosbie Road
St. John's, Newfoundland
A1B 3P2

Toll-free service: 1-800-565-7192
Fax number: (709) 772-6433

Advisory Services
Statistics Canada
North American Life Centre
1770 Market Street
Halifax, Nova Scotia
B3J 3M3

Toll-free service: 1-800-565-7192
Local calls: (902) 426-5331
Fax number: (902) 426-9538

For more information...

---

Quebec Region

Advisory Services
Statistics Canada
200 René Lévesque Blvd. W.
Guy Favreau Complex
Suite 412, East Tower
Montréal, Quebec
H2Z 1X4

Toll-free service: 1-800-361-2831
Local calls: (514) 283-5725
Fax number: (514) 283-9350

National Capital Region

Statistical Reference Centre (NCR)
Statistics Canada
R.H. Coats Building Lobby
Holland Avenue
Ottawa, Ontario
K1A 0T6

If outside the local calling area, please
dial the toll-free number for your region.

Local calls:  (613) 951-8116
Fax number: (613) 951-0581

Ontario Region

Advisory Services
Statistics Canada
Arthur Meighen Building, 10th Floor
25 St. Clair Avenue East
Toronto, Ontario
M4T 1M4

Toll-free service: 1-800-263-1136
Local calls: (416) 973-6586
Fax number: (416) 973-7475

For more information...

---

Pacific Region

Serving the province of British Columbia and the Yukon Territory.

Advisory Services
Statistics Canada
Sinclair Centre, Suite 300
757 West Hastings Street
Vancouver, British Columbia
V6C 3C9

Toll-free service: 1-800-663-1551
Local calls:  (604) 666-3691
Fax number: (604) 666-4863

Prairie Region

Serving the provinces of Manitoba, Saskatchewan, Alberta and the Northwest Territories.

Advisory Services
Statistics Canada
MacDonald Building, Suite 300
344 Edmonton Street
Winnipeg, Manitoba
R3B 3L9

Toll-free service: 1-800-563-7828
Local calls: (204) 983-4020
Fax number: (204) 983-7543

Advisory Services
Statistics Canada
Avord Tower, 9th Floor
2002 Victoria Avenue
Regina, Saskatchewan
S4P 0R7

Toll-free service: 1-800-563-7828
Local calls: (306) 780-5405
Fax number: (306) 780-5403

For more information...

---

Advisory Services
Statistics Canada
First Street Plaza, Room 401
138 - 4th Avenue South-East
Calgary, Alberta
T2G 4Z6

Toll-free service: 1-800-563-7828
Local calls: (403) 292-6717
Fax number: (403) 292-4958

Advisory Services
Statistics Canada
Park Square, 8th Floor
10001 Bellamy Hill
Edmonton, Alberta
T5J 3B6

Toll-free service: 1-800-563-7828
Local calls: (403) 495-3027
Fax number: (403) 495-5318

Telecommunications Device for the Hearing Impaired: 1-800-363-7629

Toll Free Order Only Line (Canada and United States): 1-800-267-6677


Small Area
Data
Données
régionales

For more information...

---

## *SMALL AREA AND ADMINISTRATIVE DATA DIVISION*

# *Precision Pinpointing with Administrative Data*

Whether you are a market researcher, business or policy decision-maker, you know the value of quality data. With ***taxfiler*** data you receive the most timely and precise information available for Census Metropolitan Areas (CMA). Plus, you can get data for areas as small as a letter carrier's walk — *allowing you to pinpoint even further!*

## Looking for more CMA data on Families and Individuals?

On this CD-ROM you have seen just a small sample of the available taxfiler CMA data. The Family Data provided in SABAL contains the information from just one table. *Fifteen* more tables are available from the family series. And, CMA data are also available in 6 other specialized databanks produced by Small Area and Administrative Data Division (SAADD). These are:

- Labour Force Income Profiles
- Economic Dependency Profiles
- Unemployment Insurance Beneficiaries
- Migration Data
- Neighbourhood Income & Demographics
- Seniors Data

## Interested in Areas Smaller than CMAs?

Taxfiler data are available for most geographic levels in Canada, including **24,000+** postal regions. Most of the databanks listed above, plus 7 others, can give you data for areas as small as a postal walk. These additional databanks are:

- RRSP Contributors
- RRSP Contribution Limit (Room)
- Canadian Investment Income
- Charitable Donors
- Canadian Savers
- Canadian Investors
- Canadian Taxfilers

Based on 20 million+ current taxfilers, the data from SAADD are the most recent data available anywhere. Numbers are released only months, or even weeks, after the files are received from Revenue Canada. ***We guarantee it!***

## You can use taxfiler data to:

gain insight to the family structures of specific neighbourhoods
understand the economic and demographic situations of individuals in an area
locate the upscale, empty nesters
identify the postal walks of individuals with a history of donations to charities
pinpoint potential RRSP contributors
find populations with the most investment potential and understand their savings habits
learn about the economic dependency of an area, including types of transfer payments
identify the emerging migration patterns of a region
*and much, much more.*

Because no two clients are the same, our databanks are custom-designed to address individual circumstances, preferences and needs. Our knowledge and expertise can help you build a complex database easily. ***Ask us what we can do for you.***

## Want to Know More?

Contact our dedicated team of experienced professionals at (613) 951-9720, fax: (613) 951-4745, or via e-mail on Internet: saadinfo@statcan.ca.

***Your preferences are our directives.***

For more information...

---

***Labour and Household Surveys Division***

For further information, call Marc Lévesque at (613)951-2793.

# *LABOUR FORCE HISTORICAL REVIEW CD-ROM*

---

## Track the Past to Plan the Future

The labour market affects everyone's business including yours, regardless of whether you are involved in commerce, trade, manufacturing, government planning or academic research. Changes in the labour market since 1976 have been dramatic. The lean and mean 90's have resulted in significant shifts in the employer / employee work relationship. For example, part-time work is becoming an increasingly popular option for both employees and employers. View just a few of these **TRENDS**. These are just glimpses of the big picture presented on the ***Labour Force Historical Review CD-ROM.***
Supplying you with thousands of cross-classified data series spanning the twenty year period from 1976 to 1995 the ***Labour Force Historical Review CD-ROM*** also provides you with software tools to manage such a huge data resource. A core of over 100 cross-classified TABLES of annual averages and monthly estimates gives you a focus on specific aspects of the labour market. The second issue of this already popular CD-ROM will be released in February 1996 and contains important **REVISIONS** in the data that reflect recent changes in Labour Force Survey concepts and definitions.

## Control the View of the Data Most Appropriate to Your Needs

Thanks to CD-ROM technology and the Ivision **BROWSER** employed on the ***Labour Force Historical Review CD-ROM***, this large library of multi-dimensional statistics can now be effortlessly analyzed. You no longer have to spend hours delving into and sorting through reams of paper to identify and then digest the correlations which indicate the trends important to your decision making. Manipulate the tabular information contextually. With a click of your mouse rearrange the data dimensions in a table to see different views or select the data you want and hide the rest or sort columns or rows in ascending or descending order and so much more. Recognize trends immediately as you browse optional chart and map displays of your data selections.

For more information...

---

The ***Labour Force Historical Review CD-ROM*** runs from a Windows 3.1 or Windows 95 / MS-DOS operating system in combination with your CD-ROM reader. Click here for minimum **SYSTEM REQUIREMENTS**. To have a closer look at this data product **DOWNLOAD** the demonstration file which features two tables from the CD-ROM.

If tracking of the labour market is a factor in your planning , you are a **POTENTIAL USER**. The ***Labour Force Historical Review CD-ROM*** is attractively priced at $395 for a single copy. Selected discounts plus LAN and Bulk **PRICES** are available.

To acquire your copy of the ***Labour Force Historical Review CD-ROM*** simply click on the **ORDER** button or contact the Statistics Canada Regional Reference Centre nearest to you.

For more information...

---

# *Income and Housing Data*

For any questions about these data contact the Income, Expenditure and Housing Data Dissemination Unit at:


Telephone: **(613) 951-4643**
**(613) 951-4633**

FAX: **(613) 951-3012**

Internet: **income@statcan.ca**

or by mail at:

Statistics Canada
Household Surveys Division
Jean Talon Building
5th Floor, Section B-7
Tunney's Pasture
Ottawa, Ontario
K1A 0T6


Additional information on special request tabulations and the purchase of microdata files can be obtained from the contacts above.

For more information...

---

## CATALOGUED PUBLICATIONS

Seven annual catalogued publications are produced.

*Income distributions by size in Canada* (catalogue # 13-207): This publication presents income distributions by selected characteristics, low income and quintile data for individuals, economic families, and unattached individuals. Analytical text and historical text tables precede the data tables. Cost: $44

*Family incomes - census families* (catalogue # 13-208): This publication presents income distributions by various characteristics for census families and persons not in families. Analytical text and historical text tables precede the data tables. Cost: $27

*Income after tax, Distributions by size in Canada* (catalogue # 13-210): This publication presents after-tax income distributions by various characteristics and quintile data for individuals, economic families, and unattached individuals. Analytical text and historical text tables, including the impact of transfer payments and taxes on income distributions, precede the data tables. Cost: $30

*Characteristics of dual earner families* (catalogue # 13-215): This publication examines two-spouse families, comparing single-earner with dual-earner families. It presents average incomes and percentage distributions of family types by various characteristics, low income, and selected household facilities. Analytical text precedes the data tables. Cost: $27

*Earnings of men and women* (catalogue # 13-217): This publication examines the earnings of individuals, concentrating on the differences between male and female earnings. Analytical text and historical text tables precede the data tables. Cost: $27

*Household facilities and equipment* (catalogue # 64-202): This publication presents estimated number of households for Canada and the provinces by various housing and facilities variables. Analytical text and historical text tables precede the data tables. Cost: $30.

*Household facilities by income and other characteristics* (catalogue # 13-218): This publication presents distributions of housing and facilities data within household income groups, by low income and within quintile categories. Analytical text and historical text tables precede the data tables. Cost: $35

For more information...

---

## OTHER PAPER PRODUCTS

Annual uncatalogued publications:

*Statistics Canada low income cut-offs - historical* (Product number 135510XPB): free

*SCF low income persons- historical* (Product number 135690XPB): $60

*SCF low income measures persons- historical* (Product number 135820XPB): $30

*SCF low income cut-offs/low income measures (deficiency/surplus) - historical* (Product number 135870XPB): $60

*SCF low income family units - historical* (Product number 135910XPB): $60

*SCF low income after tax* - historical (Product number 135920XPB): $60

*SCF microdata file documentation* (Product number 13F0012XPB): $60

*SCF family income- CMA level (16 CMAs)* (Product number 13F0013XPB): $100/3yrs

*SCF family income after tax- CMA level (16 CMAs)* (Product number 13F0014XPB): $100/3yrs

*SCF household income- CMA level (16 CMAs)* (Product number - 64F0001XPB): $100/3yrs

For more information...

---

## ELECTRONIC PRODUCTS

Five public-use microdata files are produced annually. Each file costs $2,000.

*Individual file* (Product number 13M0004XDB):

*Census families* (Product number 13M0001XDB):

*Economic families* (Product number 13M0002XDB):

*Household income, facilities and equipment (HIFE)* (Product number 64M0002XDB): NB: Occasionally Shelter Cost & Environment data were added to the HIFE file. Cost $2,500 to $3,000 depending on content.

*Key file* (Product number 13M0005XDB):

The first three files contain demographic, labour force and income information at the respective level. The HIFE file contains demographic, labour force, income, housing, facilities, and rent information at the household level. When available, Shelter Cost and Environment data were added to the file. The Key file allows users to link any of the files. All files are screened for confidentially as a linked data set to ensure that no respondent can be identified.

Two Asset and Debt files are available for 1977 and 1984. These are economic family files, containing demographic, labour force, income, asset, debt, housing and unicorporated business data.

For more information...

---

## SERVICES

A central dissemination unit exists to serve clients of both the “Income and housing surveys” and “Family expenditure surveys” sections.

Services include:

User-sponsored questions on the HFE survey. Priced to recover costs, client-requested variables are included as part of the HFE content, edited according to standard HFE procedures and included on the HIFE public-use microdata file.

Ad-hoc supplements such as the Asset and Debt survey and the Household Environment survey. Priced to recover costs, supplements can be added to the current survey vehicle. The common sample allows the linkage of all data to provide an expanded database for the user community. Costs for the supplement are either charged completely to the client or handled by a cost-sharing arrangement. Collected data are included on a microdata file.

Custom Tabulations (Product number 13C0010-13C0013; 64C0022; 62C0021): Priced to recover costs, these are for users who do not wish or are unable to do their own data retrieval and for users requesting data suppressed from the public-use microdata file. For some users, user-defined variables are created for addition to their microdata file on a cost-recovery basis.

Photocopying (Product number 64C0019): Standard departmental charges apply.

Faxing Service (Product number 64C0020): This refers to ad-hoc faxing from publications or other print documents. Standard departmental charges apply.

For more information...

---

**Products and Services from Education Subdivision**

*Education Quarterly Review (EQR)*, Catalogue No. 81-003-XPB ($66 in Canada, US $80 in the United States, and US $93 in other countries), the flagship analytical publication from Education Subdivision, analyses and reports on current issues and trends in education using information from a variety of statistical sources. It serves as a focal point for education statistics and provides a forum for communication with stakeholders and the public. Its goal is to present information and analysis that are relevant, authoritative, timely and accessible. EQR provides information and analysis from education surveys and administrative records through a combination of feature articles, methodology notes and summary statistics. Key objectives for this publication are to integrate related information from a variety of statistical sources on education, to analyse and interpret the survey data, and to publish the results. For further information, please contact Jim Seidle (613) 951-1500, Analytic Outputs and Marketing Section, Education, Culture and Tourism Division, or fax (613) 951-9040.

*Education in Canada (EIC)*, Catalogue No. 81-229-XPB ($49 in Canada, US $59 in the United States, and US $69 in other countries), is the annual review of statistics on Canadian education. The report summarizes information on institutions, enrolment, graduates, teachers and finance for all levels of education. Its objective is to present a comprehensive overview of the key variables in Canadian education. It also serves as a complement to *Education Quaterly Review*, which analyses and reports on current issues and trends in education, using information from a variety of statistical sources. EIC is based primarily on information from the regular statistical output of the education statistics program. Demographic data are based on Census of Canada, while educational attainment of the adult population is derived from the Census and Labour Force Survey. For further information, please contact Daniel Perrier (613) 951-7474, Analytic Outputs and Marketing Section, Education, Culture and Tourism Division, or fax (613) 951-9040.

For more information...

---

***Adult Education and Training***

If you are interested in getting more on the issue of adult education and training, in addition to subscribing to the Education Quarterly Review, you can either order the following free documents or consult one of our specialists to obtain more detailed information to suit your needs.

- "The 1990 Adult Education and Training Survey" Employment and Immigration Canada and Statistics Canada, 1993.

- "The 1992 Adult Education and Training Survey" Human Resources Development Canada and Statistics Canada, 1996

**CANADIAN CENTRE FOR JUSTICE STATISTICS**

**STATISTICS CANADA**

## SECTION 1: INTRODUCTION

Established in 1981, the Canadian Centre for Justice Statistics (CCJS) has a mandate to produce information on the extent and nature of crime and the administration of criminal, civil and administrative justice in Canada. Its purpose is to develop Canada's system of justice statistics and information in order to support the administration of justice in Canada, and to ensure that accurate information regarding trends in crime, how the justice system operates and its costs are available to the Canadian public.

The CCJS is guided by a board of directors composed of federal, provincial and territorial deputy ministers responsible for justice, and the Chief Statistician of Canada. This enterprise has become known as the National Justice Statistics Initiative. The term "Initiative" refers to the "partnership" among the federal, provincial and territorial departments with justice responsibility and Statistics Canada. The National Justice Statistics Initiative is unique in that it represents a collaborative effort in which all jurisdictions share responsibility for developing and achieving common justice information and statistical objectives.

To ensure autonomy, clarity of purpose and impartiality, the Centre is located outside justice policy departments, and within Statistics Canada. Canada's justice statistics program is highly centralized with the Centre having the sole responsibility to produce all national information pertaining to crime and the administration of justice. It also offers a clear focal point for the user community.

### The Organization

The Centre has three main operational areas. The first, Statistics and Information Directorate, is responsible for the development and on-going operation of statistical surveys, their analysis and special studies. The second, Technical Assistance Directorate, provides technical and financial assistance to individual jurisdictions as well as technical support for internal Centre projects. The third, Information and Client Services, is responsible for responding to information requests, marketing and client relations.

At the present time information is collected on the following justice sectors: policing services, adult and youth courts, corrections, legal aid and prosecutorial services. For each of these sectors, four types of information are collected: caseload and case characteristics data quantify the volume and describe the nature of the cases dealt with; qualitative information describes the structure, legislative authority and programs of each sector; and, revenues, expenditures and personnel data (REP) quantifies the costs of administering the system. Data collection is on-going resulting in the availability of time series information.

## SECTION 2: DESCRIPTION OF PRODUCTS AND SERVICES

As described below, different types of products and services are offered by the Canadian Centre for Justice Statistics (CCJS). While charges apply to all products and services (e.g. photocopying, faxing), catalogued CCJS reports and publications are distributed to various libraries through the Library Depository Services Program and to the Statistics Canada (STC) Regional Reference Centres where they may be referenced by the public free of charge. To locate the STC Reference Centre nearest you, check the blue pages or your telephone directory under Statistics Canada.

**1)** **Catalogued Products** are products and publications that carry a fixed price. While the majority of CCJS catalogued products are in paper format, some may be electronic. **Catalogued shelf tables** also fall under this category. Shelf tables are catalogued sets of tables which present data from a specific survey and may focus on a particular subject or theme (e.g. Break & Enter, Family Violence). These tables are available in paper or electronic format and carry a fixed price. Please refer to Section 5 for details on "How To Order CCJS Catalogued Products. Catalogued products and publications can be ordered from Operations & Integration Division, Circulation Management, 120 Parkdale Avenue, Ottawa, Ontario, K1A 0T6 (1-800-267-6677 or 1-613-951-7277).

**2)** **Non-catalogued Products** are products that were produced prior to STC's current product registration procedures and are therefore only available through the CCJS. These CCJS products, all in paper format, carry a fixed price regardless of whether they are in original or photocopy format. Please refer to Section 5 for details on "How To Order CCJS Uncatalogued Products".

**3)** **Ad-hoc Tables** are tables which are not packaged as a product and have previously been created for CCJS to respond to requests. These tables are only available in paper format, carry a fixed price, and are available only through the CCJS. Please refer to Section 5 for details on how to contact the CCJS.

**4)** **Custom requests** are requests which require CCJS staff to conduct special research or data analysis to respond to a client's particular needs. For example, a custom request includes customized sets of data (i.e. paper or electronic) derived from CCJS databases according to parameters defined by the client. The cost of a custom request depends on the resources needed to complete it. If you would like to discuss a custom request, please refer to Section 5 for details on how to contact CCJS.

## SECTION 3: CCJS SURVEY DESCRIPTIONS

### Uniform Crime Reporting Survey

The Uniform Crime Reporting (UCR) survey was developed by Statistics Canada with the cooperation and assistance of the Canadian Association of Chiefs of Police. The UCR survey became operational in 1962. It covers crime and traffic statistics reported by all police agencies across Canada. UCR survey data reflect reported crime that has been substantiated through police investigation. The survey collects numbers of criminal incidents, and numbers of persons charged. To date, the UCR survey has thus produced a continuous 33-year historical record.

### The Revised Uniform Crime Reporting Survey

In 1983, the Canadian Centre for Justice Statistics began a major revision of the Uniform Crime Reporting (UCR) Survey in order to collect more detailed information on the characteristics of an incident and basic data on the persons involved in an incident, both victims and accused. In 1988, two police agencies began reporting to the "Revised" UCR Survey. By 1994, 111 police agencies, representing about 33% of the national volume of reported crime, were responding to the new survey.

### Homicide Survey

The Homicide Survey has collected police-reported data on homicide incidents and characteristics of the victims and accused since 1961. Whenever a homicide becomes known to the police, an officer from the police department in whose jurisdiction it is committed completes a survey questionnaire. This questionnaire remained virtually unchanged from 1961 to 1990. In 1991, in an effort to respond to changing information needs, the survey was revised to add new data elements as well as to improve some existing ones.

### Police Administration Survey

The Police Administration Survey collects information on police personnel and expenditures from all municipal and provincial police forces in Canada, as well as the Royal Canadian Mounted Police (RCMP). Personnel data are available by type of personnel (police, special constables, civilians), gender and major function. Expenditures are available by major financial category. Detailed RCMP expenditures are collected, including the cost-sharing of municipal and provincial policing contracts.

### Adult Criminal Court Survey

The Adult Criminal Court Survey (ACCS) has two primary components: caseload and case characteristics. The Case Characteristics component of the survey collects detailed information on each appearance of an accused charged with a Criminal Code or Other Federal Statute offence. The survey collects all appearances in provincial courts for 'completed' charges within a certain reference period. As of March 1994, Case Characteristics data are collected from five jurisdictions: Prince Edward Island, Nova Scotia, Quebec, Saskatchewan and the Yukon. The Caseload Component of the

ACCS is designed to collect aggregate information on charges, persons and appearances on a quarterly basis from all jurisdictions in Canada. As of March 1994, six jurisdictions participate in the caseload component of the survey: Prince Edward Island, Nova Scotia, Quebec, Ontario, Saskatchewan and the Yukon. As a result, the coverage of provincial and territorial adult criminal court caseload in Canada is approximately 30 percent for the Case Characteristics component and 65 percent for the Caseload component.

**Youth Court Survey**

The Youth Court Survey (YCS) is a census of Criminal Code and other Federal Statute offences heard in youth court for youths aged 12 to 17 years at the time of the offence. On each charge, data are collected which describe the nature of the offence, the court decision and disposition, and the age and gender of the accused. Data have been available since 1984-85 for all jurisdictions except Ontario and the Northwest Territories. YCS data for Ontario became available in 1991-92. Data for the Northwest Territories are not available for fiscal years 1986-87 through 1988-89.

**Adult Corrections Survey**

The Adult Corrections Survey (ACS) collects aggregate caseload and case characteristics data for custodial and non-custodial correctional services at both the federal and provincial levels. As well, the survey gathers information on resources, expenditures and personnel. Descriptive data on organizational structure and service delivery are also collected. The ACS became operational in 1979-80 and collects data from all jurisdictions.

**Corrections Key Indicator Report for Adult and Young Offenders**

The Key Indicator Report (KIR) Project provides data on "average daily institutional counts" for all provincial, territorial and federal facilities across Canada. Key indicator data on adults were first gathered for the fiscal year 1981-82 and data on youths for the fiscal year 1985-86. Information is supplied to the Canadian Centre for Justice Statistics by the ten provinces, two territories and Correctional Services Canada.

**The Violence Against Women Survey**

Between February and June 1993 and on behalf of Health Canada, Statistics Canada conducted a national survey on male violence against women. A random sample of approximately 12,300 women 18 years of age and older residing across the ten provinces were interviewed in depth by telephone about their experiences of physical and sexual violence since the age of 16. Measures of violence were confined to Criminal Code definitions of physical and sexual assault. Information was also collected about the respondents' perceptions of personal safety. Random selection helps ensure that the women who responded are statistically representative of all Canadian women and that the results of the survey can be generalized to Canada's adult female population at large.

**The General Social Survey**

In 1988, a survey on personal risk related to criminal victimization was initiated as part of Statistics Canada's General Social Survey program. The survey collected data on personal risk, examining the prevalence and social and demographic distribution of eight specific types of criminal victimization experiences. Respondents were asked about their experiences with crime during 1987 and all measures of victimization were restricted to Criminal Code definitions. The survey also examined details surrounding the incident, Canadians' levels of fear, and their perceptions of crime and the criminal justice system. This survey was replicated in 1993. Two main differences exist between the 1993 and 1988 surveys. First, the 1993 survey asked respondents about their experiences with crime during the twelve months prior to the survey rather than during the previous calendar year. Second, the definition of sexual assault was broadened in the 1993 survey to better capture these incidents as defined by the Criminal Code: while the 1988 survey asked only about experiences of "rape", the 1993 survey asked about forced sexual activity and unwanted sexual touching. Both surveys conducted telephone interviews with a random sample of approximately 10,000 Canadians aged 15 years and older residing in households across the ten provinces.

## SECTION 4: RECENT CCJS RELEASES

***Juristat*** is a 15-35 page document which highlights and analyzes data from one or several surveys. Each *Juristat* focuses on one particular topic or theme (e.g. Break & Enter, Family Violence). The Canadian Centre for Justice Statistics produces approximately 15-20 of these each year and are available on an individual or subscription basis. Refer to page Section 5 on how to order. The catalogue number for Juristat is 85-002.

Apart from *Juristat*, the CCJS also produces many other documents. These are referred to as "**publications**" and may be either catalogued or uncatalogued.

Publications offer much more detail in terms of both data and analysis than the Juristat series. Refer to page Section 5 on how to order.

### (A) JURISTAT: 1995-1996 Releases

| **Issue** | **Juristat (catalogue no. 85-002)** |
|---|---|
| Vol.15,No.16 | **Recidivism in Youth Courts 1993-94**<br>La récidive dans les tribunaux de la jeunesse 1993-1994 |
| Vol.15,No.15 | **Children and Youths as Victims of Violent Crime**<br>Les enfants et les jeunes victimes de crimes de violence |
| Vol 15,No.14 | **Impaired Driving - Canada, 1994**<br>Conduite avec facultés affaiblies - Canada, 1994 |
| Vol.15, No.13 | **Breaking and Entering in Canada**<br>Les introductions par effraction au Canada |

| | |
|---|---|
| Vol.15, No.12 | **Canadian Crime Statistics, 1994**<br>Statistique de la criminalité au Canada, 1994 |
| Vol.15, No.11 | **Homicide in Canada - 1994**<br>L'homicide au Canada - 1994 |
| Vol.15, No.10 | **Factfinder on Crime and the Administration of Justice in Canada**<br>Recueil de données sur la criminalité et l'administration de la justice au Canada |

| **Issue** | **Juristat** |
|---|---|
| Vol.15, No.9 | **Fear and Personal Safety**<br>La peur et la sécurité personnelle |
| Vol.15, No.8 | **Police Personnel and Expenditures in Canada - 1993**<br>Effectif policier et dépenses au chapitre des services de police au Canada-1993 |
| Vol.15, No.7 | **Youth Custody and Probation in Canada, 1993-94**<br>Le placement sous garde et la probation chez les adolescents au Canada, 1993-1994 |
| Vol.15, No.6 | **Victims' Use of Police and Social Services**<br>Le recurs à la police et aux services sociaux par les victimes |
| Vol.15, No.5 | **Correctional Services in Canada: Highlights for 1993-94**<br>Les services correctionnels au Canada : Faits saillants de 1993-1994 |
| Vol.15, No.4 | **The Use of Community Corrections in Canada: 1993-94**<br>Le recours aux services correctionnels communautaires: 1993-1994 |
| Vol. 15, No.3 | **Youth Court Statistics 1993-94 Highlights**<br>Statistiques sur les tribunaux de la jeunesse faits saillants de 1993-1994 |
| Vol.15, No.2 | **Risk of Personal and Household Victimization' 1993**<br>Risques de victimisation des personnes et des ménages, 1993 |
| Vol.15, No.1 | **Public Perceptions of Crime**<br>La criminalité et les perceptions du public |

**(B) PUBLICATIONS: 1994-1996 Releases**

For more information...

---

**Catalogue No. Publication**

85-205 E/F
Canadian Crime Statistics 1994
Canada: $40.00; U.S.: US$48.00; Other countries: US$56.00
Statistiques de la criminalité au Canada 1994
Canada: 40 $; É-U.; 48 $ US; Autres pays: 56 $ US

85-217
Legal Aid in Canada: Description of Operations - October 1995
Canada: $35.00; U.S.: US$42.00; Other countries: US$49.00
L'aide juridique au Canada: Une description des opérations - Octobre 1995
Canada: 35 $; É-U.; 42 $ US; Autres pays: 49 $ US

uncatalogued
Summary Report: **A Description of Family Maintenance/Support Enforcement Programs and Legislation in Canada.**
Canada: $30.00; U.S.: US$36.00; Other countries: US$42.00
Rapport sommaire: Description des Programmes et de la législation régissant l'exécution des ordonnances alimentaires au Canada.
Canada: 30 $, É-U: 36 $ US, Autres pays: 42 $ US

uncatalogued
Family Law Special Study: **An Overview of Family Maintenance/Support Enforcement Legislation in Canada.**
Canada: $30.00, U.S.: US$36.00, Other countries: US$42.00
Étude spéciale sur les droit de la famille: Aperçu de la législation régissant l'exécution des ordonnances alimentaires au Canada.
Canada: 30 $, É-U: 36 $ US, Autres pays: 42 $ US

uncatalogued
Family Law Special Study: **A Description of Family Maintenance/Support Enforcement Programs in Canada.**
Canada: $30.00, U.S.: US$36.00, Other countries: US$42.00
Étude spéciale sur les droit de la famille: Description des Programmes d'exécution des ordonnances alimentaires au Canada.
Canada: 30 $, É-U: 36 $ US, Autres pays: 42 $ US

85F0016XPB
**Selected Police Administration Characteristics of Municipal Police Departments, 1993.**
Canada: $30.00, U.S.: US$36.00, Other countries: US$42.00
Certaines caractéristiques de l'administration policière dans les corps policiers municipaux, 1993.
Canada: 30 $, É-U: 36 $ US, Autres pays: 42 $ US

85F005XPB
**Understanding the Canadian Criminal Justice System: Process Chart and Handbook.** Canada: $15.00
Le système de justice pénale du Canada: Guide et schéma du processus.
Canada: 15 $

For more information...

---

85F0015XPB **Legal Aid in Canada: Resource and Caseload Statistics, 1993-94.**
Canada: $32.00, U.S.: US$39.00, Other countries: US$45.00
L'aide juridique au Canada: Ressources et nombre de cas, 1993-1994.
Canada: 32 $, É-U: 39 $ US, Autres pays: 45 $ US

85-522 **Youth Court Statistics 1993-94.**
Canada: $35.00, U.S.: US$42.00, Other countries: US$49.00
Statistiques sur les tribunaux de la jeunesse 1993-1994.
Canada: 35 $, É-U: 42 $ US, Autres pays: 49 $ US

85-219E/F **Adult Criminal Court Caseload Trends 1991-92 to 1993-94.**
Canada: $30.00, U.S.: US$36.00, Other countries: US$42.00
Nombre de causes entendues devant les tribunaux de juridiction criminelle pour adultes - rapport sur les tendances 1991-1992 à 1993-1994.
Canada: 30 $, É-U: 36 $ US, Autres pays: 42 $ US

85-214E/F **Adult Criminal Court Statistics 1993.**
$30.00, U.S.: US$36.00, Other countries: US$42.00
Statistiques sur les tribunaux de juridiction criminelle pour adultes.
Canada: 30 $, É-U: 36 $ US, Autres pays: 42 $ US

85-211 **Adult Correctional Services in Canada 1993-94.**
Canada: $32.00, U.S.: US$39.00, Other countries:US $45.00
Services correctionnels pour adultes au Canada 1992-1994.
Canada: 32 $, É-U: 39 $ US, Autres pays: 42 $ US

85-205 **Canadian Crime Statistics 1993.**
Canada: $42.00, U.S.: US$51.00, Other countries: US$59.00
Statistique de la criminalité au Canada 1993.
Canada: 42 $, É-U: 51 $ US, Autre pays: 59 $ US

85-217 **Legal Aid in Canada: Description of Operations.**
Canada: $35.00, U.S.: US$42.00, Other countries: US$49.00
L'aide juridique au Canada : Une description des opérations.
Canada: 35 $, É-U: 42 $ US, Autres pays: 49 $ US

85-538E\F **Criminal Justice Processing of Sexual Assault Cases.**
Canada: 35.00, U.S.: US$42.00, Other countries: US$49.00
L'administration de la justice pénale dans les cas d'agression sexuelle.
Canada: 35 $, É-U: 42 $ US, Autres pays: 49 $ US

85-510 **National Directory of Courts in Canada.**
Canada: $20.00, U.S.: US$24.00, Other countries: US$28.00
Répertoire national des tribunaux au Canada.
Canada: 20 $, É-U: 24 $ US, Autres pays: 28 $ US

For more information...

---

85-211 **Youth Court Statistics 1992-93 (revised, JULY 1994).**
Canada: $35.00, U.S.: US$42.00, Other countries: US$49.00
Statistiques sur les tribunaux de la jeunesse 1992-1993 (révisé, JUILLET 1994).
Canada: 35 $, É-U: 42 $ US, Autres pays: 49 $ US

89-5410XPE **Family Violence in Canada.**
Canada: $35.00, U.S.: US$42.00, Other countries: US$49.00
La violence familiale au Canada.
Canada: 35 $, É-U: 42 $ US, Autres pays: 49 $ US

## SECTION 5: HOW TO ORDER JURISTATS AND/OR PUBLICATIONS

### How To Order Juristats and Catalogued Publications

**To order Juristats and catalogued publications by phone:**
Please refer to the title, catalogue number, volume number, issue number. Payment can be made by VISA, Mastercard or cheque made payable to Receiver General for Canada.

In Canada and the United States call: 1-800-267-6677
From other countries call: 1-613-951-7277
Or fax your order to: 1-613-951-1584

**To order a catalogued publication by mail write:** Operations & Integration Division, Circulation Management, Statistics Canada, 120 Parkdale Avenue, Ottawa, K1A 0T6. Include a cheque or money order payable to Receiver General for Canada/Publications. Canadian customers add 7% G.S.T.

Statistics Canada Regional Reference Centres provide a full range of the Agency's products and services. For the reference centre nearest you, check the blue pages or your telephone directory under Statistics Canada.

### How To Order Uncatalogued Publications

Cost for uncatalogued reports: Canada: $30.00, U.S.: US$36.00 and Other countries: US$42.00.

**To order uncatalogued publications by phone:**
Please call the Canadian Centre for Justice Statistics and refer to the Title. Payment can be made by VISA , Mastercard or cheque made payable to Receiver General for Canada.

In Canada call: 1-800-387-2231 or 1-613-951-9023
From other countries call: 1-613-951-9023
Or fax your order to: 1-613-951-6615

**To order an uncatalogued publication by mail write:** Information and Client Services Program, Canadian Centre for Justice Statistics, Statistics Canada, 19th floor, R.H. Coats Building, Ottawa, Ontario, K1A 0T6. Include a cheque or money order payable to Receiver General of Canada. Canadian customers add 7% G.S.T.

For more information...

---

**DEMOGRAPHY DIVISION**

For off the shelf and custom demographic data ...

* population
* births and deaths
* international and internal migration
* demographic and social characteristics (age, sex, ethnicity, ...)
* families and households

for the time period of your choice ...

* historical data
* current estimates
* projected population and components of growth

for information on how to obtain demographic data for any user-defined areas, please contact

**Estimates**
Lise Champagne
Tel: (613) 951-2320
Fax: (613) 951-2307

**Projections**
Lucette Dell'Oso
Tel: (613) 951-2304
Fax: (613) 951-2952

For more information...

---

# *Family Expenditure Products and Services*

For any questions about our products or services, contact the Income Expenditure and Housing Data Dissemination Unit at:


Telephone: **(613) 951-4643**
**(613) 951-4633**

FAX: **(613) 951-3012**

Internet: **expenditures@statcan.ca**

or by mail at:

Statistics Canada
Household Surveys Division
Jean Talon Building
5th Floor, Section B-7
Tunney's Pasture
Ottawa, Ontario
K1A 0T6

For more information...

---

## CATALOGUED PUBLICATIONS

One annual catalogued publication and two occasional publications are produced.

- *Family Expenditure in Canada* (catalogue # 62-555): This occasional publication presents annual household spending patterns. The data relates household expenditure to household income and other household characteristics. This publication presents summary expenditure item tables except for the first one which presents detailed expenditures item. Cost: $60

- *Family Food Expenditure in Canada* (catalogue # 62-554): This occasional publication provides in detail, weekly household food expenditure patterns. The data relates food expenditure patterns with income and various household characteristics. This publication presents summary expenditure tables except for the first one which presents detailed expenditures and quantities. Cost: $50

- *Homeowner Repair and Renovation Expenditure in Canada* (catalogue # 62-201): This annual publication presents data on homeowners' expenditures on repairs and renovations. The data relates homeowner repairs and renovations with income and various household characteristics. Cost: $30

## OTHER PAPER PRODUCTS

- Standard detailed expenditure tables for family expenditure survey are available.
  - On paper (Product number 62F0009XPB). Cost: $80 per table.
  - On microfiche (Product number 62F0009XMB). Cost: $10 per table.

- Standard table detailing expenditure and quantities for family food expenditure survey are available.
  - On paper (Product number 62F0010XPB). Cost: $80 per table.
  - On microfiche (Product number 62F0010XMB). Cost: $10 per table.

Uncatalogued publications:

For more information...

- *Family Expenditure microdata file documentation* (Product number 62F0012XPB): Cost: $50
- *Homeowner Repair and Renovation Expenditure - all Canada historical tables, 1987-94* (Product number 64C0018) Cost: $100
- *Homeowner Repair and Renovation Expenditure - one province historical table detailed only* (Product number 64C0018) Cost: $30
- *Homeower repair and Renovation Expenditure 1994 Tables 1-6* (Product number 64C0018) Cost: $30

## ELECTRONIC PRODUCTS

- Standard detailed expenditure tables on diskette (WK1 format) for family expenditure survey (Product number 62F009XDB) and food survey (Product number 62F0010XDB) are available. Cost: $150.00 per table.

- Family Expenditure publication tables (Product number 62-555) on diskette (WK1 format) (Product number 62-555XDB) are available. Cost: $150.00 per diskette.

- Food Expenditure publication tables (Product number 62-554) on diskette (WK1 format) (Product number 62-554XDB) are available. Cost: $150.00 per diskette.

Several public-use microdata files are available.

- *Family Expenditure 1992,* (Product number 62M0001XDB92000): Cost: $3000
- *Family Expenditure 1969, 74, 78, 82, 84, 86 & 90* (Product number 62M0001XDB): Cost: $1500 each year.
- *Family Food Expenditure 1992* (Product number 62M0002XDB92000): Cost: $2000
- *Family Food Expenditure 1984, 86 & 90* (Product number 62M0002XDB): Cost: $1500 each year.
- *Shelter Cost and Household Facilities by income and other characteristics 1987 & 1990 only* (Product number 64M00035XDB88000/91000): Cost: $2600 each year.

The first four files contain expenditure data relating to household incomes and other household characteristics. The Shelter Cost file contains demographic, labour force, income, housing, facilities, and rent information at the household level including shelter costs. All files are screened for confidentially as a linked data set to ensure that no respondent can be identified.

For more information...

## SERVICES

- Ad-hoc supplements (Product number NA): Priced to recover costs, supplements can be added to the current survey vehicle. The common sample allows the linkage of all data to provide an expanded database for the user community. Costs for the supplement may be charged completely to the client, though cost-sharing arrangements have become more common. Collected data are included on a microdata file.

- Custom Tabulations (Product number 62C0005 ; 62C0007; 64C0018): Priced to recover costs, these are for users who do not wish or are unable to do their own data retrieval and for users requesting data suppressed from the public-use microdata file. For some users, user-defined variables are created for addition to their microdata file.

- Folio Extractions (Product number 62F0009XMB; 62F0010XMB): This facility utilizes the standard tables from the publication as well as other unpublished data and formats it to a user friendly product which can be tailored to the users needs. It allows users to have tables for specific expenditure items by specific household characteristics, demographics and/or income levels . The cost is based on the number of expenditures items asked and on the number of tables requested.

- Customized profiles (Product number NA): This table includes household characteristics by level of expenditure for one or more expenditure items. Cost $100 for the first one and $75 for each additional one, for different selection criterias.

- Photocopying (Product number 62C0003): Standard departmental charges apply.

- Faxing Service (Product number 62C0004): This refers to ad-hoc faxing from publications or other print documents. Standard departmental charges apply.

- A central dissemination unit exists to serve clients of both the "Family expenditure surveys" and "Income and housing surveys" sections

For more information...

---

***GEOGRAPHY DIVISION***

# Geographic Products Available from Statistics Canada

Purchasers of the SABAL database who also use Geographic Information Systems (GIS) will find a wealth of digital geographic products from the 1991 Census available for both spatial and attribute information. *Spatial files* give the shape and location of relevant geographic features such as boundaries or streets while *attribute files* give descriptive information about these features, e.g., names.

The spatial files described below are available in formats for use with geographic analysis and mapping software such as ArcInfo® and MapInfo®.

**Digital Boundary Files** are the official boundaries for all Statisitics Canada's standard levels of geography from census enumeration areas up to provinces and territories. Digital Boundary Files provide the framework for geographic analysis and mapping. With appropriate software, they can also be used to create new geographic areas by aggregating standard geographic areas.

**Digital Cartographic Files** are geography boundary files with shorelines of oceans, large lakes and major rivers added as reference features for mapping applications. They are available for standard levels of geography such as provinces, counties, municipalities and urban neighbourhoods called census tracts.

**Skeletal Street Network Files** contain major streets with street names and some railway features in major urban centres and are intended to provide additional locational information for mapping applications using the census tract Digital Cartographic Files.

**Street Network Files** are available for most large urban centres in Canada and include digital representations of streets, railroad tracks and other pertinent physical features, as well as attribute information such as street names and address ranges. In combination with a user's appropriate software, Street Network Files are useful for route planning, delivery services and catchment area mapping.

Several of the attribute files that are available are described below. These flat ASCII files can be used in conjunction with the spatial files described above to support data linkage, geographic analysis and mapping.

The **Postal Code Conversion File** provides the codes and names of 1991 Census geographic areas for each six-character postal code in Canada. With this file, users are able to relate information they may have by postal code to standard Census geographic areas such as sub-provincial regions, counties, and major urban areas. The file also provides *x,y* coordinates for a point representing the approximate location of each postal code to support mapping applications. The Postal Code Conversion File is updated on a semi-annual basis and is available as a standard package for all Canada and for individual provinces/territories.

For more information...

---

- The **Postal Code/Federal Riding File** links six-character postal codes to the codes and names of Canada's federal electoral districts. A *federal electoral district* (commonly referred to as a *federal riding*) is a pre-defined area entitled to return a member of Parliament (MP) to serve in the House of Commons. Users can take data that they have organized by postal code and relate it to the federal ridings to derive useful information about these constituencies.

The **Geographic Attribute File** links each 1991 Census enumeration area (the basic geographical unit of census data collection) to all higher standard geographic levels by codes and names. For each enumeration area, the file also includes a point location (*x*,y coordinates) which can be mapped, as well as the 1991 population and private occupied dwelling counts. The information in this file is available with software in a product called **GEOREF**.

The **Block-face Data File** links the block-face to all higher levels of geography (enumeration areas and above) by geographic codes. A *block-face* is one side of a city street between two consecutive intersections, and is the smallest geographical unit available from Statistics Canada. The file includes the 1991 Census population and dwelling counts for block-faces, an *x*,*y* point representing the approximate mid-point of the block-face for mapping and linkage purposes, and street names with address ranges from the beginning to end of each block-face. This file is available for areas within census metropolitan areas and census agglomerations that have a corresponding Street Network File.

The **Place Name Master File** contains place names with 1991 Standard Geographical Classification (SGC) codes and enumeration area (EA) codes (where known) together with additional names or alternative names/spellings of places encountered by the census representatives during 1991 Census collection. The population counts of all census subdivisions, as well as unincorporated places linked to enumeration areas are also included. An *unincorporated place* refers to a cluster of five or more permanently occupied dwellings in a rural area.

In addition to the standard packages of digital geographic products described above, custom orders for all products are available upon request. For users with special geographic areas such as school districts, planning zones, etc., the **Geocoding Service** offered by Geography Division may be of interest. This service allows users to define their own geographic areas for census data tabulations. For further information about these and other geographic products and services, contact the nearest **Statistics Canada Reference Centre**.

**These geographic products and others will be updated with 1996 Census information and will be available in April, 1997.**

For more information...

---

***STANDARDS DIVISION***

**Standard Classifications**

Standards Division develops and maintains the Standard Classifications used by Statistics Canada to collect and disseminate data. The main classifications in use are:

- the 1980 Standard Industrial Classification (1980 SIC) Catalogue nos. 12-501-XPE and 12-501-XDE;
- the 1992 Standard Classification of Goods ( 1992 SCG) Catalogue no. 12-580-XPE and its annual updates;
- the 1991 Standard Occupational Classification (1991 SOC) Catalogue nos. 12-565-XPE and 12-565-XDE;
- the 1991 Standard Geographical Classification (1991 SGC), volumes 1 to 3, Catalogue nos. 12-571-XPB, 12-572-XPB, and 12-573-XPB.

Classifications are revised periodically.

- The 1980 SIC will be replaced in 1997 by the North American Industrial Classification System (NAICS), an industrial classification system developed for the use of Canada, Mexico and the United States.
- The SCG is updated annually.
- The 1991 SOC will be revised in 2001.
- The 1991 SGC will be revised in 1996.

There are International Standard Classifications produced by international organisations such as the International Standard Industrial Classification (ISIC Rev. 3) of the United Nations Statistical Division, the Harmonised Commodity Description and Coding System (HS) of the World Customs Organization (formerly the Customs Co-operation Council), and the International Standard Classification of Occupations (ISCO) of the International Labour Office. Countries, such as the U.S., and areas, such as the European Union, have their own standard classifications.

For more information...

---

## Concordances

Standards Division produces concordances that relate current Canadian classifications to their previous vintages and to many of the important national and international classifications.

The classifications and concordances described above are available, in published form, from the Marketing Division of Statistics Canada and in electronic form on diskette from Standards Division, 8-D8 Jean Talon Building, Tunney's Pasture, Ottawa, Ont., K1A 0T6, and from Statistics Canada's Regional Offices located in major cities across Canada. Further information can be obtained from Standards Division, Tel. 613-951-8576, Fax no. 613-951-8578, Internet address: standards@statcan.ca.

For more information...

---

**Small Business and Special Surveys Division**

**Small Business Data Program**

## THE SMALL BUSINESS PROFILES

**WHAT:** The Small Business Profiles provide detailed financial and employment data on small businesses with *total business incomes before taxes* of between $25 thousand and $5 million. These data cover both *incorporated and unincorporated businesses* with employees, as well as without employees (for example, individual consultants). Profiles are provided by industry for Canada, the provinces and the territories.

Industries are defined by the *1980 Standard Industrial Classification (SIC)*, and data are available at the detailed 4-digit SIC level.

Each industry profile has five sections: expense items, profitable vs non-profitable businesses, balance sheet items, financial ratios and employment data. Balance sheet items and financial ratios are available only for incorporated businesses. Within each of the five sections, businesses are divided into groups based on their *total operating revenues before taxes* for the whole industry, the upper and lower halves, and four quartiles.

**WHEN:** The Profiles have been produced every two years since 1985, with 1993 being the most current reference year available. Whether you're starting a new business, or expanding an existing one, these data can help for financial planning. The data can show how you measure up with other businesses in the same industry.

For more information...

---

**EMPLOYMENT DYNAMICS**

**WHAT:** The Employment Dynamics provide detailed data on employment, payroll and number of firms with employees for Canada, the provinces and territories. Both private and public sector businesses or organizations (including public administration) are covered. The data are presented by *size of business* and by *life status of business*. Both *incorporated* and *unincorporated businesses* are covered.

The Employment Dynamics are presented by industry, defined by the *1980 Standard Industrial Classification (SIC)*, and data is available at the 1-digit SIC level (Industry Divisions) and the 2-digit SIC level (Major Groups).

**WHEN:** The Employment Dynamics have been produced annually since 1985 and 1993 is the most current reference year available.

**Special Surveys Program**

Clients can hire Statistics Canada to conduct customized surveys that exactly meet their information needs. This service is provided on a cost-recovery basis, at competitive rates, and can include questionnaire development, design and testing, sample design and selection, data collection, capture and processing and analysis of survey results.

Statistics Canada is an acknowledged world leader in information gathering and statistical analysis. Quality services are provided by a team of experts in survey methodology, information processing, and survey operations. Statistics Canada can respond flexibly and effectively to your specific requirements by pulling together a survey team from across the agency. The Small Business and Special Surveys Division manages these project, which deliver *quality data* in a *timely manner.*

Examples of recent surveys conducted on behalf of external clients:

1. **Survey of Small and Medium-Sized Businesses in Atlantic Canada**
   **Client:** Atlantic Canada Opportunities Agency (ACOA)
   The objective of this survey is to measure the effectiveness of ACOA programs for their program review.

2. **Enquête sur les caractéristiques de la demande de main d'oeuvre au Québec**
   **Client:** HRD Canada/Société Québécoise de Développement de la Main-d'oeuvre
   A large survey of businesses in Quebec concerning job vacancies, hiring plans and training needs, by detailed occupation.

---

**3. Survey of Operating and Financing Practices**

**Client:** UBC/Ernst and Young/Bank of Montreal

A survey of 4,000 firms that have been in business for about 10 years to determine the factors that have contributed to their success.

**4. Attractions Sector Survey**

**Client:** Canadian Tourism Commission (CTC), Industry Canada

SBSS has been asked to conduct a review and planning of a national survey on tourist attractions in Canada.

**5. Survey on the Characteristics of Bankrupt Firms**

**Client:** Industry Canada

Industry Canada wishes to examine the causes of business failure, as reported through corporate bankruptcies. The results of the study will be used to provide information to businesses on both the identification and the avoidance of problems that can lead to bankruptcy.

**6. Advanced Materials Sector Study**

**Client:** Industry Canada

SBSS has been asked by the Advanced Materials and Plastics Branch of Industry Canada to conduct a study of the Advanced Materials Sector to determine its size, structure and importance in the Canadian economy.

**7. Aircraft Repair and Overhaul Sector Study**

**Client:** Industry Canada - Aeronautics Branch

SBSS has been asked by the Aeronautics Branch of Industry Canada to conduct a mail-out survey of about 1300 firms involved in aircraft repair and overhaul.

## Data Integration Program

Client information needs are not necessarily met through new special surveys only. Existing survey data and data from administrative sources such as Revenue Canada can brought together in new ways to shed light on many questions of interest to businesses, researchers and policy makers. SBSS conducts these data integration projects on a cost-recovery basis by tapping the numerous data sources throughout the Agency, providing “one-stop shopping” for clients who do not know the ins and outs of the national statistical system. Of particular interest are longitudinal datasets, which track the same individual business units over time.

For more information...

---

Examples of recent data integration projects:

**1. Business Integrated Database (BID)**

Database providing a single access point to wide array of production, employment and financial statistics for industries classified at the 4-digit SIC. Covers all of the manufacturing sector and some services industries.

**2. Information Technology Project**

**Client:** Information Technology Branch - Industry Canada

Project to construct a database of all IT producers, linking data available in current statistical programs.

For more information concerning the Small Business Program, the Special Surveys Program or the Data Integration Program, contact:


Small Business and Special Surveys Division
Statistics Canada
13 C-7 Jean Talon Building
Ottawa, Canada
K1A 0T6
Telephone: (613) 951-9045
Fax: (613) 951-1572

# IVISION™ 4.0

## *The Fastest, Simplest Way to Deliver Numbers™*

IVISION is a multi-dimensional numeric data software package. IVISION provides a complete development and delivery system for information providers who need to distribute numeric data. Typically, these include large research firms, statistical and economic agencies, and government organizations that manage huge, complex volumes of numeric data. They count on IVISION for distributing information in an easily accessible, visual format that includes CHARTBROWSE™ and MAPBROWSE™ capabilities. It empowers users to quickly examine and understand data relationships, for example, historic and geographic trends. Tables can be documented to communicate the context of the information, minimizing the need for direct user support. With IVISION, you can send your data across the office or around the world--by disk or electronically.

The **IVISION** family of Windows software products helps you to organize, deliver and publish numeric information. With the **IVISION BUILDER**, the **IVISION BROWSER** and the **IVISION DISTRIBUTOR** you can:

- Build, document and update multi-dimensional data tables using large volumes of data from many sources – without programming.
- Deliver survey statistics, time series financials, operational data and other numeric information quickly and simply to non-technical decision makers.
- Provide network access to multi-dimensional tables, and publish data tables on diskette, CD-ROM or the Internet.
- Give information users the **IVISION BROWSER** – a simple, point and click, drag and drop interface that lets them explore tables, browse charts and maps, and create their own tables from **IVISION** extracts.
- Save time and money with **IVISION'S** built-in data compression and lightning-speed tabulation.
- Reduce or eliminate custom data queries by providing highly flexible and accessible information to decision makers.
- Improve the quality of decision-making by providing software tools that empower users to gain real knowledge through the examination of information in useful, visual formats.

**IVISION** is now available for Windows 95 and Windows /NT with all the same features as the current Windows version. Ivation Datasystems Inc. is an authorized MicroSoft Solution Provider.

IVISION

IVATION
DATASYSTEMS INC.

**Ivation Datasystems Inc.** develops, markets and distributes multi-dimensional software tools and professional services for numeric data management and delivery worldwide. Ivation is a wholly owned Canadian company based in Ottawa, Ontario. It was established in 1987 by an innovative group of experienced, statistical specialists and technical professionals. Ivation offers a full range of products and services including software development, maintenance and distribution; custom software applications; and EDP consulting services. Principal clients include Statistics Canada, Human Resources Development Canada, Treasury Board of Canada, the Association of Universities and Colleges, the Canadian Centre for Justice Statistics --and their clients who use **IVISION** software to easily and simply access and manipulate numeric data.

**Suite 502, 265 Carling Avenue, Ottawa, Canada K1S 2E1**
**Tel.: (613) 563-3993; Fax: 563-7233 or**
**via The Internet; http:\\www.ivation.com**