



NEW BRUNSWICK'S GUIDE TO THE LABOUR FORCE SURVEY 2013 Edition (Full Report)



Prepared by the Labour Market Analysis Branch of the



Department of Post-Secondary Education, Training and Labour



The Labour Force Survey (LFS) is the only **official source of monthly labour force statistics in Canada and the provinces**. It is from this survey that the official unemployment rate is calculated. Of all federal statistics, the unemployment rate produced by the LFS is one of the most widely used indicators of the health of the economy and its labour market. The Labour Force Survey divides the working-age population (aged 15 years and over) into three categories: employed, unemployed, and not in the labour force.

The primary intent of this document is to help users improve their understanding of the Labour Force Survey, including its history and the concepts and terminology used, so users can confidently understand and use the datasets and labour market information produced from this vital survey. This guide will also introduce the reader to some of the monthly provincial releases that are produced in New Brunswick from the results of this survey. The LFS is not without limitations and those limitations are also explored in this document.

This document was produced by the Department of Post-Secondary Education, Training and Labour using significant amounts of information that also can be found in Statistics Canada's 2013 Guide to the Labour Force Survey (Catalogue number: 71-543-GWE). The Statistics Canada Guide to the Labour Force Survey contains an extremely detailed dictionary of concepts and definitions and covers numerous topics in extensive detail such as survey methodology, data collection, data processing and data quality. It also contains information on products and services, sub-provincial geography descriptions as well as the survey questionnaire.

If you have any questions or concerns about this document, please contact;

Pierre Renault
Research Analyst, Labour Market Analysis Branch
Department of Post-Secondary Education, Training and Labour
470 York Street
P.O. Box 6000
Fredericton, New Brunswick
E3B 5H1
Tel: (506) 453-8660 Fax: (506) 453-3780
Email: pierre.renault@gnb.ca

Table of Contents

1.0	THE LABOUR FORCE SURVEY.....	4
1.1	Brief Description of the Labour Force Survey (LFS).....	4
1.2	History of the Labour Force Survey.....	5
1.3	Data Collection and Release.....	7
1.4	LFS Concepts and Definitions.....	8
1.5	Geography	15
1.6	Industry and Occupation	16
1.7	Seasonal Adjustment	17
1.8	Reliability of Estimates	17
2.0	SURVEY DESIGN AND METHODOLOGY	18
3.0	MONTHLY BRIEFING MATERIAL ON THE LFS	21
3.1	<i>Labour Force Statistics Highlight Tables.....</i>	21
3.2	<i>Labour Force Statistics Briefing Package</i>	21
3.3	<i>Monthly Newsletter</i>	21
4.0	FREQUENTLY ASKED QUESTIONS.....	22

1.0 The Labour Force Survey

1.1 Brief Description of the Labour Force Survey (LFS)

The Labour Force Survey (LFS), which is a monthly snapshot of the labour market, is the only officially recognized source of monthly labour force statistics across Canada. These statistics are not based on actual counts of population variables (such as the number of unemployed), but are estimates based on surveying a representative sample of the population. Parliamentary legislation has made it mandatory for people to participate in this survey because of the vital information it provides about Canada's labour market. Results of the LFS are extremely timely as estimates for a particular month are available within the first two weeks of the following month.

The most widely used information about our labour market in New Brunswick comes from the LFS. This includes the monthly employment figures, unemployment figures, and other vital information that is used to adjust programs and services that are designed to help people find and keep employment, and to respond to regional disparities. The unemployment rate collected from the monthly labour force survey is one of the criteria used by the Employment Insurance program to determine the maximum duration of an EI claim in a given region. (You can receive EI from 14 weeks up to a maximum of 45 weeks, depending on the unemployment rate in your employment insurance region at the time of filing your claim and the number of insurable hours you have accumulated in the last 52 weeks or since your last claim, whichever is shorter.)

The LFS covers persons in the Canadian population who are 15 years of age or older, excluding persons living on Aboriginal reserves, inmates of institutions, and full-time members of the Canadian Armed Forces. Each month, Statistics Canada contacts approximately 56,000 households from one end of the country to the other. The number of households is occasionally reviewed and adjusted. In New Brunswick, 2,840 households are surveyed. The results of the survey are normally released the first Friday of the following month.

The main objective of the LFS is to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force – and to provide descriptive and explanatory data on each of these. The survey is also used to develop rates for unemployment, labour force participation and employment.

The survey also collects vital information on a number of other labour market conditions. Some examples include peoples' activities prior to unemployment, the reason for leaving their last job, and the duration of their unemployment. The survey is also used to determine the average number of hours and days persons were absent from work, the reasons why persons were absent from work or unemployed, and the average age of retirement. Data collected from the survey is also used to produce detailed labour estimates by each of the following: age, region, educational attainment, industry, or broad occupational category.

The Survey collects information on the work activities of the respondents during the week containing the **15th** day of the month. This is known as the **reference week**.

1.2 History of the Labour Force Survey

Since its inception in 1945, the objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force - and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates.

The Canadian Labour Force Survey was developed following the Second World War to satisfy a need for reliable and timely data on the labour market. Information was urgently required on the massive labour market changes involved in the transition from a war-time to a peace-time economy. The survey was designed to provide estimates of employment by industry and occupation at the regional as well as the national level. A quarterly survey initially, the LFS became a monthly survey in 1952.

In 1960, the Interdepartmental Committee on Unemployment Statistics recommended that the LFS be designated the source of the official measure of unemployment in Canada. This endorsement was followed by a demand for a broader range of labour market statistics; in particular, more detailed regional data.

The Canadian Labour Force Survey (LFS) has seen a number of major revisions to its questionnaire, the design, collection technology and processing systems. The information generated by the survey has expanded considerably over the years with a major redesign of the survey content in 1976 and again in 1997, and it provides a rich and detailed picture of the Canadian labour market.

The LFS is the only source of monthly estimates of total employment including self-employment, full and part-time employment, and unemployment. It publishes monthly standard labour market indicators such as the unemployment rate, the employment rate and the participation rate. The LFS is a major source of information on the personal characteristics of the working-age population, including age, sex, marital status, educational attainment, and family characteristics.

Employment estimates include detailed breakdowns by demographic characteristics, industry and occupation, job tenure, and usual and actual hours worked. The survey incorporates questions permitting analyses of many topical issues, such as involuntary part-time employment, multiple jobholding, and absence from work. Since January 1997, it also provides monthly information on the wages and union status of employees, as well as the number of employees at their workplace and the temporary or permanent nature of their job.

Unemployment estimates are produced by demographic group, duration of unemployment, and activity before looking for work. Information on industry and occupation, and reason for leaving last job is also available for persons currently unemployed or not in the labour force but with recent labour market involvement. In addition to providing national and provincial estimates, the LFS also releases estimates of labour force status for sub-provincial areas such as Economic Regions and Census Metropolitan Areas.

Significant Changes to the Labour Force Survey

The 1976 revision of the LFS - a major revision year - resulted from more than three years of development and consultation with users. Prior to 1976, persons aged 14 years and over were covered by the survey; following the revisions, only those aged 15 years and over were covered. Data produced by the LFS before 1976 is not comparable to the data produced by the LFS after 1976.

In 1990, the LFS was again revised, this time in the area of the questions used to measure the educational attainment of respondents.

In 1996, some questionnaire changes were introduced, including modifying the definition of full-time and part-time employment; limiting job description information and reason for leaving last job to those with recent work experience; and collecting information on work absence and overtime paid for paid employees only.

In 1997 - another major revision year - a new questionnaire was implemented. While it continued to deliver most of the information collected by the previous questionnaire, it also collected additional information on the volume and quality of jobs (e.g. wages, union membership, permanency of job, hiring's and separations, workplace size etc.). The LFS also converted its method of data collection from paper and pencil to Computer Assisted Interview (CAI). The 1997 initiative to redesign the questionnaire arose from three concerns:

- the need to address data gaps in the current LFS that had emerged as a result of significant changes in the Canadian labour market. Since 1976, there had been a tremendous influx of women, especially young mothers, into the labour market. Employment had become increasingly polarized in terms of work hours, wages, benefits and job security, with much of this change occurring since the 1981/82 economic recession. The incidence of on-call, part-time, shift, contract and temporary employment had grown sharply. A national labour force survey had to not only identify labour force status, but should also characterize degrees of employment, underemployment, and marginal labour force attachment. Extensive consultation confirmed the need for new questions that would enable analysis of the quality as well as the quantity of job formation or loss.
- the importance of improving data quality through changes in question wording and sequence; and
- the need to further increase data quality by more fully exploiting the potential of computer assisted interviewing.

In 2000, all Labour Force Survey historical data were revised to reflect a new method of estimation. With the adoption of the new method of estimation (called "composite estimation"), detailed seasonally adjusted data at the provincial level were now published on a monthly basis rather than as three-month moving averages. This new method of estimation had the advantage of reducing the volatility of month-to-month changes for a number of variables. In addition, all estimates produced by the Labour Force Survey were adjusted to reflect population counts based on the 1996 Census. All previously published LFS estimates at that time, dating back to January 1976, were changed to reflect the Census 1996 re-basing and introduction of "composite estimation".

In 2005, the Labour Force Survey (LFS) estimates underwent extensive revisions. Revisions included four major changes. All estimates were adjusted to reflect 2001 Census population counts; industry estimates were re-classified from the 1997 to the 2002 North American Industry Classification System (NAICS); occupation estimates were re-classified from the 1991 Standard Occupation Classification to the National Occupational Classification - Statistics 2001 (NOC-S). Lastly, geography boundaries were changed from the 1996 Standard Geographical Classification (SGC) to the 2001 SGC, which affected boundaries of census metropolitan areas only.

In 2006, five new questions were added to the LFS to identify the immigrant population. More specifically, questions were added to identify the country of birth of the respondent, whether or not the respondent was a "landed immigrant", the month and year he/she became a landed immigrant, and the country where the respondent received his/her highest level of education. These questions are comparable to those used in the Census questionnaire.

In 2011, the Labour Force Survey (LFS) estimates underwent extensive revisions. Revisions included four major changes. All estimates were adjusted to reflect 2006 Census population counts; industry estimates were re-classified from the 2002 to the 2007 North American Industry Classification System (NAICS); occupation estimates were re-classified from the 2001 National

Occupational Classification for Statistics (NOC-S) to the 2006 NOC-S. Lastly, geography boundaries are now based on 2006 census boundaries rather than the 2001 boundaries. With this change, six new CMAs have been added: Moncton, New Brunswick; Peterborough, Brantford, Barrie and Guelph in Ontario; and Kelowna, British Columbia. At the same time, the boundaries of seven CMAs were modified. Boundaries for economic regions and employment insurance regions remain unchanged.

1.3 Data Collection and Release

Data collection for the LFS is carried out during the week following the reference week. Statistics Canada interviewers contact each of the households in the selected sample through personal and/or telephone interviews to obtain the information needed to produce the labour force data. The data are released on the first Friday of the first full week of each month.

2013 Labour Force Survey Monthly Release dates

Release date	Reference period
January 4, 2013	December 2012
February 8, 2013	January 2013
March 8, 2013	February 2013
April 5, 2013	March 2013
May 10, 2013	April 2013
June 7, 2013	May 2013
July 5, 2013	June 2013
August 9, 2013	July 2013
September 6, 2013	August 2013
October 11, 2013	September 2013
November 8, 2013	October 2013
December 6, 2013	November 2013

1.4 LFS Concepts and Definitions

The Working Age Population of New Brunswick

The working age population is composed of all persons 15 years of age and over, excluding persons living on Aboriginal reserves, inmates of institutions, and full-time members of the Canadian Armed Forces.

The New Brunswick Labour Force

The labour force consists of the number of people aged 15 and over who, during the reference week, are either employed (that is, those who currently have a job or jobs – including the self-employed) or unemployed (that is, those who do not have jobs but who are actively looking for work).

Reference week

It is usually the week containing the 15th day of the month. The interviews are conducted during the following week, called the Survey Week, and the labour force status determined is that of the previous (reference) week.

Determining Labour Force Status

The concepts of employment and unemployment are derived from the theory of the supply of labour as a factor of production; therefore, only those receiving paid employment or seeking paid employment are included in determining labour force attachment. For this reason, unpaid housework and volunteer work are not counted as work by the survey, although these activities need not differ from paid work, either in purpose or in the nature of the tasks completed.

While the logical and precise unit of measurement of total labour supply is person-hours, the conceptual terms of reference for the survey require that individual members of the population be classified as employed, unemployed, or not in the labour force. Accordingly, persons who are supplying services in the reference period, regardless of the quantity supplied, are classified as employed while those who provide evidence that they are offering their labour services to the market (again regardless of quantity) are classified as unemployed. The remainder of the population, those neither currently supplying nor offering their labour services, are referred to as persons not in the labour force.

Employed

Employed persons are those who, during the reference week:

- A. Did any work at all at a job or business; or
- B. Had a job but were not at work due to factors such own illness or disability, personal or family responsibilities, vacation, labour dispute or other justifiable reasons.

Persons on layoff and those with a job to start at a future date are excluded.

Work includes activities carried out for pay or profit; that is, paid work in the context of an employer-employee relationship, or self-employment. It also includes unpaid family work, which is defined as unpaid work contributing directly to the operation of a farm, business or professional practice owned and operated by a related member of the same household.

Unemployed

Unemployed persons are those, who during the reference week:

- A. were on temporary layoff during the reference week with an expectation of recall and were available for work, or
- B. were without work, had looked for work in the past four weeks, and were available for work, or
- C. had a new job to start within four weeks from reference week, and were available for work.

Not in the Labour Force

Persons not in the labour force are those who, during the reference week, were unwilling or unable to offer or supply labour services under conditions existing in their labour markets, that is, they were neither employed nor unemployed.

Discouraged workers—persons who are not seeking work because they believe the prospects of finding it are extremely poor—are not counted as unemployed or as part of the labour force.

Determining the Unemployment, Participation, and Employment rates

The results from the Labour Force Survey have many uses. One of these is to determine the unemployment, participation, and employment rates for a particular segment or group.

The unemployment rate is a key indicator of the health of the economy and of society more generally. When economic growth is strong, the unemployment rate tends to be low and a person who wants a job is likely to experience little trouble finding one. On the other hand, when the economy is stagnating or in recession, unemployment tends to be higher.

The employment rate shows an economy's ability to put its population to work and thereby generate income for its citizens. Jurisdictions with higher employment rates are likely to have higher standards of living, other things being equal.

Unemployment Rate (UR)

The unemployment rate is the percentage of the labour force that actively seeks work but is unable to find work at a given time.

Mathematical Equation for the Unemployment Rate:

$$\text{Unemployment Rate (UR)} = \frac{\text{Unemployed}}{\text{Labour Force}} \times 100$$

To calculate an unemployment rate for a particular region or group you take the number of unemployed people found in your region or group and divide this by the number of people that are in your labour force (those employed and unemployed) in your region or group and multiply this by 100.

The number of persons unemployed does not necessarily equate to the number of people receiving Employment Insurance benefits, since not all unemployed people are eligible for those benefits, while some people receiving EI benefits for reasons such as maternity leave and fishing benefits may not be considered unemployed.

Participation Rate (PR)

The participation rate represents the total labour force expressed as a percentage of the working age population (persons 15 years of age and older). The participation rate represents the proportion of the working age population that is either employed or actively seeking employment. The participation rate for a particular group (age, sex, marital status, province, etc.) is the labour force in that group expressed as a percentage of the working age population for that group.

Mathematical Equation for the Participation Rate:

$$\text{Participation Rate (PR)} = \frac{\text{Labour Force}}{\text{Working Age Population}} \times 100$$

To calculate the participation rate for a particular region or group you take the total size of your labour force in your region or group and divide this by the total size of the working age population for that region or group (everybody that is 15+) and multiply this by 100.

Employment Rate (ER)

The employment rate - also called the employment-to-population ratio - represents the percentage of working age people who are employed. The employment rate for a particular group (age, sex, marital status, province, etc.) is the number employed in that group expressed as a percentage of the working age population for that group.

The employment rate shows a jurisdiction's ability to put its population to work and thereby generate income for its citizens. The employment rate reflects, to a certain extent, the state of an economy. A high employment rate indicates the ability of an economy to employ a large percentage of its working age population. Jurisdictions with higher employment rates are likely to have higher standards of living, other things being equal.

Mathematical Equation for the Employment Rate:

$$\text{Employment Rate (ER)} = \frac{\text{Employment}}{\text{Working Age Population}} \times 100$$

To calculate the employment rate for a particular region or group you take the total number of people employed in your region or group and divide this by the total size of the working age population for that region or group (everybody that is 15+) and multiply this by 100.

Various Concepts used about Employment

Main job

When a survey respondent holds more than one job, the job involving the greatest number of usual hours worked is considered to be the main job. The full- or part-time status and industry and occupation information available from the survey refer to the main job, as does information on wages, union status, job permanency, and workplace size. Information collected on the second job of multiple job holders and the former job of those who changed jobs during the reference week is limited to: usual hours, actual hours worked, and status in employment.

Industry

Survey respondents are asked about the general nature of the business carried out by the employer for whom they worked in their main job. This allows their employment to be classified by industry. If a person did not have a job during the survey reference week, the information is collected for the last job held, providing the person worked within the previous twelve months.

Occupation

Survey respondents are asked about the kind of work they were doing during the reference week in their main job, including a description of their most important duties. This allows their employment to be classified by occupation. For those not currently employed, information on occupation is collected for the most recent job held within the previous year.

Full-time and Part-time Employment

Full-time employment consists of persons who usually work 30 hours or more per week at their main or only job.

Part-time employment consists of all other persons who usually work less than 30 hours per week at their main or only job.

Job Permanency

Beginning in January 1997, information is collected to allow the classification of paid jobs as either permanent or temporary. This classification is based on the intentions of the employer, and characteristics of the job, rather than the intentions of the employee. If a job that was formerly considered permanent is ending in the near future because of downsizing or closure, it is still regarded as permanent.

Permanent employment is expected to last as long as the employee wants it, given that business conditions permit. That is, there is no pre-determined termination date.

Temporary employment has a predetermined end date, or will end as soon as a specified project is completed. Temporary jobs can be further broken down into specific sub-groups: seasonal; term or contract; or temporary / casual job.

- **Seasonal Employment:** has a predetermined end date attributable to seasonal factors.
- **Term / Contract Employment:** is a regular full-time, or a regular part-time employment for a specific period of time. The duration of employment may vary and may provide the option for extension or renewal.
- **Temporary / Casual Employment:** is when employment is established for a specific and limited purpose, or for the duration of a specific project, or group of assignments.

Full Employment

Full employment occurs when the economy is producing to its maximum sustainable capacity, using labour, technology, land, capital and other factors of production to their fullest potential. In a situation of full employment, some workers may still be unemployed if they are temporarily between jobs and searching for new employment (this is called 'frictional unemployment').

Various Concepts used about Unemployment

Availability

Persons are regarded as available if they reported that they could have worked in the reference week if a suitable job had been offered (or recalled if on temporary layoff); or if they could not take a job because of their own illness or disability, personal or family responsibilities; because they already have a job to start in the near future; or because of vacation (prior to 1997, those on vacation were not considered available). Full-time students currently attending school and looking for full-time work are not considered to be available for work during the reference week. They are

assumed to be looking for a summer or co-op job or permanent job to start sometime in the future.

Reason for Leaving Last Job

All persons classified as unemployed or not in the labour force who last worked within the previous year are asked their reason for leaving their last job.

Reason for not Looking for Work

Beginning in January 1997, respondents who were not employed and did not search for work, but said they wanted work during reference week, are asked their reason for not looking for work.

Future Starts

Persons who did not have a job during the survey reference week and did not search for work within the previous four weeks, but were available to work and had a job to start within the next four weeks are classified as unemployed. In contrast, those with jobs to start at a later time than the next four weeks are designated as long-term future starts and are classified as not in the labour force since they are not part of current labour supply.

Job leavers

Job leavers are persons who are currently not employed, who last worked within the previous year, and left that job voluntarily. That is, the employer did not initiate the termination. Detailed reasons collected are: own illness, personal or family responsibilities, going to school, no specific reason, or changed residence, dissatisfied with job, or retired. Since 1997, further detail is available, including business sold or closed down (self-employed only), or pregnancy.

Job losers

Job losers are persons who are currently not employed, who last worked within the previous year and left that job involuntarily (employer initiated because of business conditions, downsizing etc.). Prior to 1997, this category was broken down into those on temporary layoff and those laid off on a permanent basis. Since January 1997, more detail for reason for permanent layoff is available: end of seasonal job; end of temporary, term or contract job; casual job, no work; company moved; company went out of business; laid off due to business conditions with no expectation of recall; dismissal by employer; or other reasons.

Duration of Unemployment

The duration of unemployment is the number of continuous weeks during which a person has been on temporary layoff or without work and looking for work. Respondents are required to look for work at least once every four weeks; they are not required to undertake job search activities each week in order to be counted as unemployed. The LFS measures the duration of incomplete spells of unemployment, since the information is collected only from those currently unemployed. A spell of unemployment is interrupted or completed by any period of work or withdrawal from the labour force.

The Different Types of Unemployment

1. Cyclical Unemployment

Cyclical Unemployment occurs as a result of a temporary downturn in the job market. The most common form of cyclical unemployment occurs when workers are temporarily laid off as a result of downturns in an industry (e.g. if paper prices on the world market are down then paper producers may temporarily lay off workers until prices increase – therefore minimizing their loss of profits).

2. Frictional Unemployment

Frictional unemployment occurs when participants in the labour force change their job status. This includes people between jobs and new labour force entrants such as those returning to the labour force after completing school or raising children.

3. Structural Unemployment

Structural Unemployment occurs when workers are unable to fill available jobs because they lack the necessary skills, do not live where jobs are available or are unwilling to work at the wage rate offered in the market. A classic example in New Brunswick would be when fish plant workers in the Northeast are out of work, while at the same time, agricultural producers in the Northwest and Central regions are having difficulties finding labourers – this is Structural Unemployment - because the workers in the Northeast are unable or unwilling to move to the Northwest and Central Regions to fill these vacant positions.

Goods-Producing vs. Services-Producing Industries

Industries are often referred to as **Goods** (producing a product) or **Services** (producing a service) industries. Industries are classified according to the North American Industrial Classification System (NAICS).

Goods-Producing Industries

These sectors include: agriculture, forestry, and fishing; mining, and oil and gas extraction; utilities (electricity, power, gas, and water); construction; and manufacturing industries.

Services-Producing Industries

These sectors include: trade; transportation and warehousing; finance and insurance; real estate and leasing; professional, scientific and technical services; management of companies and enterprises; administrative and other support services (including waste management and remediation); educational services; healthcare and social assistance; information and cultural industries; arts, entertainment, and recreation; accommodation and food services; other services (except public administration); and public administration.

Educational Attainment

Educational attainment refers to the highest level of schooling completed. Data on primary and secondary education reflects the highest grade completed. This provides a more consistent measure for those who accelerate or fail a grade than number of years of school. A question on high school graduation has also been added since it is generally believed that persons who have never completed their secondary education have greater difficulty competing in the labour market. Any education that could be counted towards a degree, certificate or diploma from an educational institution is taken as post-secondary education. The change allows more persons into the post-secondary education category. For example, trades programs offered through apprenticeship, vocational schools or private trade schools do not always require high school graduation. Finally, more information is now collected on the type of post-secondary education, including: 1) some post-secondary; 2) trades certificate or diploma from a vocational or apprenticeship training; 3) Non-university certificate or diploma from a community college, CEGEP, school of nursing, etc.; 4) University certificate below bachelor's degree; 5) Bachelor's degree; and 6) University degree or certificate above bachelor's degree.

School Attendance

A question on school attendance establishes whether or not a respondent is attending an educational establishment. For those who are students, information is collected on the type of school, and whether enrolment is full- or part-time, as designated by the educational establishment.

Returning Students

Since a majority of students are not attending school during the summer, supplementary questions are asked from May to August to identify those who are on summer break so that their labour market situation can be monitored. Youths (aged 15 to 24) are given the status of "returning student" if they reported that they were attending school full-time in the previous March and intend to return to school full-time in the fall. Information is also available for those who were

full-time students in the previous March but do not intend to return to school full-time or are unsure of their intentions.

1.5 Geography

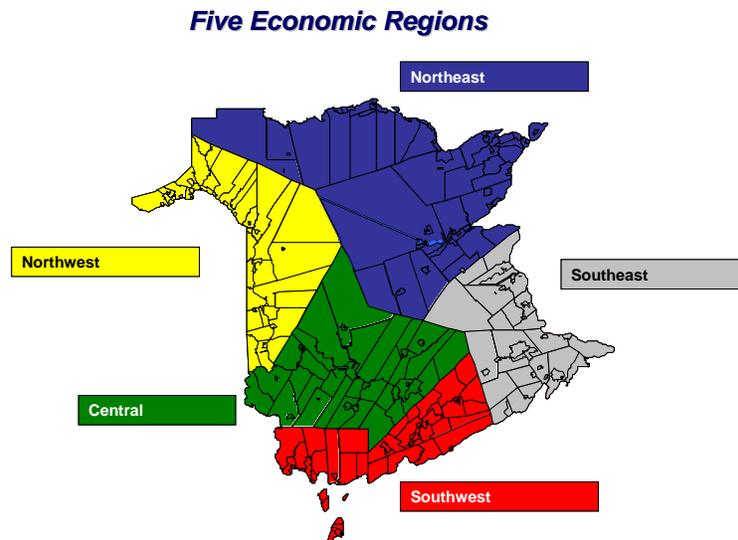
The LFS sample is allocated to provinces and regions within provinces to meet the need for reliable estimates at various geographic levels. These include national, provincial, census metropolitan areas and census agglomerations (large and medium sized cities), economic regions and employment insurance regions.

Economic Regions and the Employment Insurance Regions

It is very important when comparing data to compare the same area and to know how areas are defined. In New Brunswick, there are five (5) economic regions as defined by Statistics Canada and three (3) Employment Insurance regions as defined by Employment and Social Development Canada. Obviously, those regions have different boundaries; the data collected from each are not used for the same purposes. Users should not compare unemployment rates estimated for the Economic Regions to the Employment Insurance regions. All labour market indicators are available for the five economic regions while only the unemployment rate is calculated for the three Employment Insurance regions.

The Five Economic Regions are:

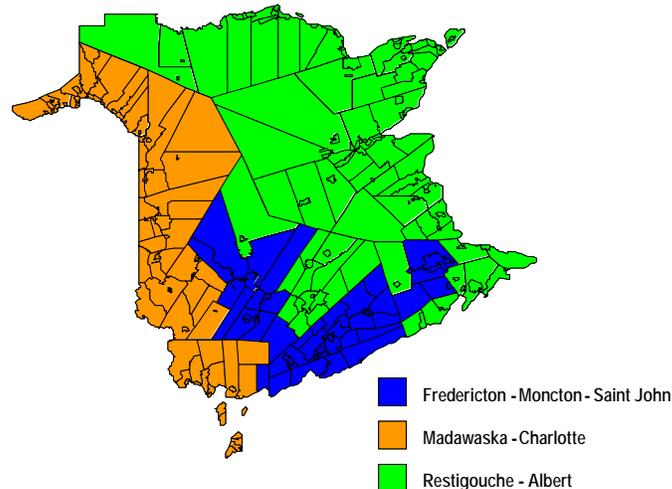
1. Northeast (LFS Region 310) – includes Gloucester, Northumberland and Restigouche Counties.
2. Southeast (LFS Region 320) – includes Westmorland, Kent and Albert Counties.
3. Southwest (LFS Region 330) – includes Charlotte, Saint John and Kings Counties.
4. Central (LFS Region 340) – includes York, Sunbury and Queens Counties.
5. Northwest (LFS Region 350) – includes Madawaska, Victoria and Carleton Counties.



The Three Employment Insurance Regions are:

1. Fredericton / Moncton / Saint John Region
2. Madawaska / Charlotte Region
3. Restigouche / Albert Region

Employment Insurance Regions



Census Metropolitan Area (CMA) and Census Agglomeration (CA)

Metropolitan areas are part of the standard statistical areas and include the census metropolitan areas and the census agglomerations. These areas that are defined by Statistics Canada are formed by one or more adjacent municipalities centred on a large urban area (known as the urban core). A census metropolitan area (CMA) has a total population of at least 100,000 of which 50,000 or more live in the core. A CA must have a core population of at least 10,000. To be included in the CMA or CA, other adjacent municipalities must have a high degree of integration with the urban core, as measured by commuting flows derived from census place of work data. At present there are only two CMA's in the Province – The Saint John CMA, which comprises the city of Saint John and adjacent communities. The Moncton CMA, which comprises the cities of Moncton, Riverview, Dieppe and adjacent communities. There are five CA's located in New Brunswick; Fredericton, Miramichi, Edmundston, Campbellton, and Bathurst.

Rural and Small Town Areas

Rural and small town areas are areas located outside the commuting zone of census metropolitan areas (CMAs) and census agglomerations (CAs). They are defined as follows:

Rural areas - which are sparsely populated lands lying outside small towns, villages and other populated places, with less than 1,000 population according to the previous census.

Small towns - which are urban areas with a population of 1,000 to 9,999 and with a population density of 400 inhabitants per square kilometre, based on the previous census.

1.6 Industry and Occupation

Industry and occupation codes are assigned using the respondent's job description on the questionnaire. The first step is an attempt to code each record using a computerized procedure. If this is unsuccessful, the coding is performed manually. In both cases, codes assigned are based on the classifications described in the North American Industry Classification System (NAICS) and the National Occupational Classification for Statistics (NOC-S).

1.7 Seasonal Adjustment

Fluctuations in employment, labour force and unemployment estimates can be caused by seasonal movements, cyclical movements or by sample error. A seasonally-adjusted series is one from which seasonal movements have been eliminated. Seasonal movements are defined as those which are caused by regular annual events, such as climate, crop cycles, holidays and vacation periods. It should be noted that seasonally-adjusted series may still contain irregular movements or variations due to sampling error, as well as longer-term cyclical fluctuations. These results are due to the impact of the business cycle.

In making comparisons over time, it is more appropriate to use seasonally adjusted statistics rather than the unadjusted (actual) statistics. Seasonal events such as spring break-up, seeding and harvesting times, summer job creation, and the Christmas season can have a dramatic effect on the level of employment. With these effects being removed by the process of seasonal adjustment, changes in the statistics can be interpreted more realistically.

For example, monthly unadjusted (actual) employment figures normally peak during the summer period but drop to the lowest levels of the year in the winter months. The seasonal adjustment process would lower the unadjusted employment figures for the summer months but increase them during the winter period.

Similarly, unadjusted unemployment rates for the summer months would be increased by the seasonal adjustment process but reduced somewhat during the winter.

Unfortunately, seasonal adjustment cannot be applied on regional or sub-provincial labour data series. Because of the small sample size of most regional areas, sub-provincial labour market statistics do not show enough variations for seasonal adjustment. Therefore, these data sets are released based on a three month moving average which considers the most recent month in conjunction with the previous months of data available

As a rule of thumb, for short term analysis, research institutions and the media focus mainly on the adjusted figures.

1.8 Reliability of Estimates

Statistics produced by the Labour Force Survey are subject to two types of error: sampling and non-sampling errors.

Estimates from the Labour Force Survey are based on a sample of households. If, however, a complete census or full count were undertaken using the same questionnaires, interviewers, and processing methods, the results produced could be somewhat different than those produced from the sample survey. The difference is called the sampling error.

Sampling error is not the same for all estimates. Of two estimates, the larger one will likely have a smaller percent sampling error. For these reasons, estimates of employment levels are more reliable or accurate than estimates of unemployment which are smaller in size.

Similarly, estimates of employment by industry, occupation, region or city are subject to a higher amount of variability because they are generally represented in small numbers.

In recent years, in response to budget restraint, Statistics Canada has reduced the number of households covered in the monthly survey. This has somewhat reduced the reliability of sub-provincial, industry and occupational estimates. To avoid making erroneous interpretation of monthly statistics, Statistics Canada has suggested that estimates that are based on three-month moving averages should be used whenever possible.

Non-sampling errors are normally the result of human errors. Interviewers may misunderstand instructions; respondents may provide wrong answers; and the answers may be incorrectly entered on the questionnaire, or processed incorrectly.

Because of the existence of these two types of errors, the monthly changes in labour force statistics reflect not only changes in the economy, but also the errors that are inherent in the estimates. It is therefore unwise to draw conclusions based on variations from one month to the next.

A useful rule of thumb is to observe the statistics over a three-month period. If increases or decreases occur consistently over three consecutive months, it is safe to conclude that a trend may have developed due to changes in economic conditions.

Survey Design and Methodology

The current LFS questionnaire was introduced in 1997. At that time, significant changes were made to the questionnaire in order to address existing data gaps, improve data quality and make more use of the power of Computer Assisted Interviewing (CAI).

The changes incorporated included the addition of many new questions. For example, questions were added to collect information about wage rates, union status, job permanency and workplace size for the main job of currently employed employees, and expanded response category lists that split existing codes into more detailed categories.

The questionnaire was also extensively restructured in terms of the order of the questions and the flows between questions. For example, the job description questions about the current (or most recent) job were moved near the beginning of the questionnaire so that this information (especially the class of worker) could be used to control some of the question flow, question wording and applicable response categories in later questions. As well, some questions known to be problematic were modified through rewording or the inclusion of additional questions (e.g., the hours of work question series and the identification of persons on temporary layoff).

Since the existing questionnaire had been designed as a paper questionnaire, the questionnaire redesign represented an opportunity to make extensive use of the power of CAI. This included the incorporation of question wording that depended upon answers to earlier questions, more complex question flows and an extensive set of on-line edits checking for logical inconsistencies.

The implementation of the new questionnaire followed an extensive process of user consultations, questionnaire development and questionnaire testing. The questionnaire was phased in over a five-month period between September 1996 and January 1997.

Sampling

The Labour Force Survey is a sample survey with a cross-sectional design.

The LFS uses a probability sample that is based on a stratified multi-stage design. Each province is divided into large geographic strata. The first stage of sampling consists of selecting smaller geographic areas, called clusters, from within each stratum. The second stage of sampling consists of selecting dwellings from within each selected cluster.

The LFS uses a rotating panel sample design so that selected dwellings remain in the LFS sample for six consecutive months. Each month about 1/6th of the LFS sampled dwellings are in their first month of the survey, 1/6th are in their second month of the survey, and so on. One

feature of the LFS sample design is that each of the six rotation groups can be used as a representative sample by itself.

Within selected dwellings, basic demographic information is collected for all household members. Labour force information is collected for all civilian household members who are aged 15 and over.

The monthly LFS sample size is approximately 56,000 households in Canada. It should be noted that the LFS sample size is subject to change from time to time in order to meet data quality or budget requirements.

Data Collection

Responding to the LFS is mandatory, according to legislation. Data are collected directly from survey respondents.

LFS interviews are conducted by telephone by interviewers working out of a regional office CATI (Computer Assisted Telephone Interviews) site or by personal visit from a field interviewer. Since 2004, dwellings new to the sample in urban areas are contacted by telephone if the telephone number is available from administrative files, otherwise the dwelling is contacted by a field interviewer.

Proxy interviews are allowed for the LFS, which means that information can be collected for the entire household from any responsible household member. Such proxy reporting accounts for approximately 65% of information collected.

To save on collection costs and respondent burden in subsequent interviews, some information collected in the previous interview is not re-asked, but rather is pre-filled in the computer questionnaire and then verified with the respondent. This includes the list of household members, basic demographics, and some job description information for persons eligible for the labour force questions. As well, to minimize respondent burden for the elderly, persons aged 70 and over are not asked the labour force questions in subsequent interviews, but rather their labour force information is carried forward from their first interview.

Error detection

The LFS CAI questionnaire incorporates many features that serve to maximize the quality of the data collected. There are many edits built into the CAI questionnaire to compare the entered data against unusual values, as well as to check for logical inconsistencies. Whenever an edit fails, the interviewer is prompted to correct the information (with the help of the respondent when necessary). For most edit failures the interviewer has the ability to override the edit failure if they cannot resolve the apparent discrepancy. As well, for most questions the interviewer has the ability to enter a response of "Don't Know" or "Refused" if the respondent does not answer the question.

Once the data is received back at head office an extensive series of processing steps is undertaken to thoroughly verify each record received. This includes the coding of industry and occupation information and the review of interviewer entered notes. The editing and imputation phases of processing involve the identification of logically inconsistent or missing information items, and the correction of such conditions. Since the true value of each entry on the questionnaire is not known, the identification of errors can be done only through recognition of obvious inconsistencies (for example, a 15 year-old respondent who is recorded as having last worked in 1940).

Imputation

All identified discrepancies, logical inconsistencies and missing information, are resolved either automatically by the head office processing system or through manual intervention. This is accomplished through the imputation of logically consistent values.

Wherever possible, deterministic imputation is used to resolve any inconsistent or missing information using other information provided by the respondent. When this is not possible, information for an individual may be carried forward from the previous month (if it exists) under certain circumstances. In other instances, hot deck imputation is used, which involves copying information from another individual (i.e., a 'donor') with similar characteristics.

Estimation

The final step in the processing of LFS data is the assignment of a weight to each individual record. This process involves several steps. Each record has an initial weight that corresponds to the inverse of the probability of selection. Adjustments are made to this weight to account for non-response that cannot be handled through imputation. In the final weighting step all of the record weights are adjusted so that the aggregate totals will match with independently derived population estimates for various age-sex groups by province and major sub-provincial areas. One feature of the LFS weighting process is that all individuals within a dwelling are assigned the same weight.

In January 2000, the LFS introduced a new estimation method called Regression Composite Estimation. This new method was used to re-base all historical LFS data. It is further described in the research paper Improvements in 2000 to the LFS.

Quality evaluation

Selected data from the LFS are regularly compared to similar data from the Survey of Employment, Payroll and Hours (SEPH), Employment Insurance data, the Survey of Labour Income and Dynamics (SLID), and the Census.

As well, economists working with the LFS often compare GDP data with that of the LFS to see if labour market trends are in line with general economic performance. Other comparisons include: manufacturing shipment data to LFS manufacturing employment data; dwelling starts, building permits and construction employment; retail and wholesale sales and trade employment; and help-wanted index and unemployment.

Disclosure Control

Statistics Canada is prohibited by law from releasing any data which would divulge information obtained under the Statistics Act that relates to any identifiable person, business or organization without the prior knowledge or the consent in writing of that person, business or organization. Various confidentiality rules are applied to all data that are released or published to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent direct or residual disclosure of identifiable data.

The LFS produces a wide range of outputs that contain estimates for various labour force characteristics. Most of these outputs are estimates in the form of tabular cross-classifications. Estimates are rounded to the nearest hundred and a series of suppression rules are used so that any estimate below a minimum level is not released.

The LFS suppresses estimates below the following levels:

Canada - 1,500	British Columbia - 1,500
Newfoundland - 500	
Prince Edward Island - 200	
Nova Scotia - 500	
New Brunswick - 500	
Quebec - 1,500	
Ontario - 1,500	
Manitoba - 500	
Saskatchewan - 500	
Alberta - 1,500	

Revisions and Seasonal Adjustments

Most estimates associated with the labour market are subject to seasonal variation, that is, annually-recurring fluctuations attributable to climate and regular institutional events such as vacations, and holiday seasons. Seasonal adjustment is used to remove seasonal variations from almost 3,000 series, in order to facilitate analysis of short-term change for major indicators such as employment and unemployment by age and sex, employment by industry, and class of worker (employee or self-employed). Many of these indicators are seasonally adjusted at national and provincial levels. Main labour force status estimates are also seasonally adjusted for census metropolitan areas (CMAs), and published as three-month moving averages to reduce irregular movements caused by relatively small sample sizes.

At the start of each year the seasonally adjusted series are updated and revised according to the latest data and information for seasonal models and factors. The seasonally adjusted series are usually revised back three years.

Adjustments are also made to LFS data every five years after new population estimates become available following the most recent census. At that time, all LFS data back to the previous census is re-weighted using the new population estimates (since the new population estimates will cover the inter-censal period between the two most recent censuses), and all corresponding historical LFS estimates are revised. In 2011, the Labour Force Survey (LFS) estimates underwent revisions, which included adjusting estimates to reflect 2006 Census population counts.

MONTHLY BRIEFING MATERIAL ON THE LFS

This section presents examples of the material which the Labour Market Analysis Branch compiles monthly for use by the Premier, the Minister of Post-Secondary Education, Training and Labour, the Cabinet, Members of the Caucus, departmental officials, and the general public. Below is a list of the briefing material contained in the Labour Force Statistics Package:

- Labour Force Statistics Highlight Tables
- Labour Force Statistics Briefing Package
- Monthly Newsletter

3.1 Labour Force Statistics Highlight Tables

On the morning of the release of the Labour Force Survey data, a set of brief analytical highlight tables are prepared based upon the data contained in the survey.

3.2 Labour Force Statistics Briefing Package

On the day of the release of the Labour Force Survey data, a briefing package is prepared for senior officials, government researchers, and other key stakeholders, that consists of the most recent Labour Force Statistics Highlight Tables, and Historical Labour Force Data tables dating back 10 years. Covered in this package are all key labour force characteristics – Population, Labour Force, Employment, Unemployment, Unemployment Rates, Participation Rates, and Employment Rates. This release is normally available by end of day.

3.3 Monthly Newsletter

Each month the Labour Market Analysis Branch prepares a newsletter entitled “Labour Market Information Monthly”. This monthly on-line newsletter provides up-to-date economic and labour market information. It generally includes an article of interest on some area of labour market information, an economic update, and the latest labour force statistics from Statistics Canada’s Labour Force Survey.

2.0 Frequently Asked Questions

1) What is the Labour Force Survey (LFS)?

The Labour Force Survey is a household survey carried out monthly by Statistics Canada. It is from the survey that the official unemployment rate is calculated. The LFS covers the civilian, non-institutionalized population 15 years of age and over. The Labour Force Survey divides this population into three categories: employed, unemployed, and not in the labour force.

2) Who is surveyed?

The survey is conducted with approximately 56,000 households across Canada. It is conducted nationwide, in both the provinces and the territories. In New Brunswick, 2,840 households are surveyed. Excluded from the survey's coverage are: persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Armed Forces and the institutionalized population in hospitals, penitentiaries, and long-term care facilities. These groups together represent an exclusion of less than 2% of the Canadian population aged 15 and over.

3) If you are chosen to be surveyed, how long will you remain in the survey?

Respondents remain in the survey for six consecutive months.

4) Am I required to participate in the survey?

Yes. Parliamentary legislation has made it mandatory for people to participate in this survey because of the vital information it provides about Canada's labour market.

5) Why and how was my household selected?

It would be costly and impractical to survey each and every household in Canada. Instead, Statistics Canada employs a statistical method known as sampling. Sampling is an established way to determine the characteristics of an entire population by using the answers of a much smaller, randomly chosen sample. In order to ensure that the sample is an accurate reflection of the population as a whole, the survey results from all sampled households must be collected.

6) How are the statistics gathered?

The LFS is conducted every month. Statistics Canada interviewers contact dwellings in person or by phone during the week following the reference week, which is the week containing the 15th day of the month.

7) Is the information my household provides confidential?

Yes. Information submitted by individuals and households is kept strictly confidential. Under the Statistics Act, all Statistics Canada employees must take an oath of secrecy. Moreover, only employees who need to work directly with the questionnaires have access to them.

8) What information does the Labour Force Survey collect?

The LFS provides a wide range of information on employment, unemployment, and labour participation. The information is available by demographic characteristics such as age, sex, level of education, and family characteristics. Information is also produced by industry, occupation, job tenure, class of worker, weekly hours, wages, and union coverage. Results are available by province, census metropolitan area, and sub-provincial area.

9) Who uses the survey data? Why is it important?

The results from the Labour Force Survey have many uses. All levels of government rely on employment and unemployment information from the survey. For example, its information is used to determine Employment Insurance eligibility as well as the size and duration of the program's benefits.

Data from the survey are also factored into the calculation of Gross Domestic Product, an aggregate measure of economic production. Among its many other uses, the Gross Domestic Product is an important factor in determining the size of transfers from the federal government to the provinces.

The survey's data also help determine the Bank of Canada interest rate. The Bank is constantly monitoring the effects of its policies to see if they are having the intended effect on financial markets, spending, production, employment and ultimately inflation. Financial markets also look to the survey's numbers to predict what the Bank of Canada might do with interest rates.

Because it provides valuable information on the success of various programs (or potentially the need for new ones), the Labour Force Survey is closely monitored by a number of government departments. For example, those concerned with adjustments to retirement and pension funding monitor information on the employment situation of older workers. Also closely watched by policy and program developers are data on youth employment and unemployment to see how these young people are entering the work force.

Trends in self-employment by sector are followed closely by those interested in the role played by small and medium-sized businesses in job creation and economic growth.

Finally, each month the media gives much coverage to the survey results as they are recognized as one of the most important signs of how the economy is performing.

10) What components make up the labour force?

The labour force is made up of two components: the employed and the unemployed.

11) Who is not in the labour force?

The portion of the population that is under 15 years of age is not part of the labour force. Also not included are those that are 15 years and older who do not have a job and are not actively seeking employment. Lastly, people living on Aboriginal Reserves, inmates of institutions, and full-time members of the Canadian Armed Forces are not considered part of the labour force.

12) Who is counted as employed? Who is counted as unemployed?

Employed persons are those who, during the reference week did any work for pay or profit, or had a job and were absent from work. People are classified as unemployed if, during the reference week, they were available for work and: a) were on temporary layoff during the reference week with an expectation of recall; or b) were without work, and had looked for work in the past four weeks; or c) had a new job to start within four weeks.

13) Is frictional unemployment primarily voluntary?

Yes, it is considered voluntary because people chose to leave for personal reasons, or to find better work. (Frictional unemployment occurs when participants in the labour force change their job status. This includes people between jobs and new labour force entrants such as those returning to the labour force after completing school or raising children).

14) Is some unemployment a good thing?

Yes. An unemployment rate of 5% is considered healthy for a region. Otherwise the job market is too tight and labour shortages can arise. A labour shortage is indicated when the unemployment rate is lower than 3%.

15) Why don't the employment rate and unemployment rate add up to 100%?

The employment rate is the percentage of the working age population that is employed, while the unemployment rate is the percentage of the labour force that is unemployed. The working age population and the labour force are not equal in size because there are people in the working age population who are unwilling or unable to offer labour services.

16) What is the difference between unadjusted and seasonally adjusted data?

During the year, the number of employed and unemployed persons fluctuates in a pattern that tends to repeat itself year after year. The pattern reflects holidays, starting and ending of the school year, vacations, and weather. Due to these seasonal occurrences it is difficult to determine whether developments between any two months reflect economic conditions or merely seasonal fluctuations. The statistical technique called seasonal adjustment is used to smooth out normal seasonal fluctuations so that data for a month can be meaningfully compared to data of a different month.

17) Can we get information for smaller counties/towns (i.e. Rogersville, St. Stephen, etc.) from the LFS?

No, information on smaller towns, villages, parishes, etc. is not accessible due to their small sample size. In New Brunswick, any sample sizes under 500 are suppressed, because anything under this amount is too small to produce reliable results.

18) How can labour force information help job seekers?

Labour force information can help job seekers analyze the labour market in which they reside. Prospective job seekers can find out which occupations are in demand and which ones will be in demand in the future. Trends from LFS data can also help us assess what is likely to occur in the future.

19) What are the benefits of labour force statistics to employers, educators, etc.?

Employers can use labour force statistics to find out the availability of workers, local and national economic conditions, and/or the need for expansion or downsizing. Educators can use these statistics as one indicator of what jobs are in demand, where these jobs will be located, the training and skill requirements of these jobs, and which jobs will be in demand in the future.

20) What is the difference between “employment insurance beneficiaries” and persons classified “unemployed?”

The number of people unemployed is based on Statistics Canada's Labour Force Survey. The number of Employment Insurance (EI) Beneficiaries is obtained by counting the number of people who collect EI Benefits from administrative data on the EI program. This information is obtained by Service Canada. The number of EI Beneficiaries is based on administrative criteria and program eligibility criteria and is not a good measure of actual unemployment. For example, an unemployed person may not be in receipt of EI Benefits because they have not worked long enough to qualify. Someone on maternity leave, on the other hand, would not be looking for work and therefore would not be considered “unemployed”, but could be drawing Employment Insurance benefits. To further emphasize this;

- The monthly number of Employment Insurance beneficiaries:
 - May include persons on sick or maternity leave, or receiving retirement benefits;
 - Includes Aboriginals on reserves;
 - Excludes new entrants in the labour force, those without sufficient weeks of employment to qualify, those whose benefit periods have expired, or who are waiting for benefits to begin or waiting for a disqualification period to end; and
 - May include part-time workers and persons participating in work-sharing programs.

- The monthly number of unemployed persons in the labour force (as per the LFS):
 - Excludes persons on sick or maternity leave, or receiving retirement benefits because they would be considered ‘not in the labour force’, i.e. not looking for work, by the Labour Force Survey;
 - Excludes Aboriginals on reserves;
 - Includes new entrants in the labour force, as long as they are looking for work; and
 - Excludes part-time workers and those on work-sharing, because they are not considered unemployed.