

## Work Absence Rates: Data quality, concepts and methodology

### Data source

This publication uses data from Statistics Canada's **Labour Force Survey (LFS)**. The LFS is a monthly household survey that collects data on the labour market activities of working-age Canadians, namely, those 15 years of age or over. Excluded from the survey are persons living in Yukon, Nunavut and the Northwest Territories, persons living on Indian reserves, inmates of institutions, and full-time members of the Canadian Armed Forces.

The majority of LFS statistics refer to a particular week each month (the reference week). The data in this publication are based on the average of the 12 reference weeks of the year in question. Annual average data eliminate the effects of seasonal movements and, being based on larger samples, considerably reduce sampling error.

The statistical objective of the LFS from its inception has been to break 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 category.

The 1997 LFS redesign allowed, for the first time, the exclusion of maternity leave, a major factor in time lost by women for personal or family responsibilities. The LFS enhancements also added more classification variables. It is now possible, for example, to estimate work absence rates by workplace size, union coverage and job permanency. (Note that any changes in a questionnaire may yield data that differ slightly from those of earlier years.)

Tables 1 to 3 provide absence rates for 2011 by a variety of factors. Tables 4 to 10 provide time series for the period 2001 to 2011. Maternity leave is excluded from the personal or family responsibilities code. However, men on paid paternity (in Quebec only) and parental leave are included in the calculation until 2006.

All estimates have been adjusted to reflect the 2006 Census population data. Industry estimates have been reclassified from the 2002 to the 2007 North American Industry Classification System (NAICS). Occupation estimates have been reclassified from the 2001 to the 2006 National Occupational Classification for Statistics (NOC-S). Geography boundaries have been updated from the 2001 to the 2006 Standard Geographical Classification (SGC), which mainly affects boundaries of census metropolitan areas and census agglomerations. There was also an update of seasonal adjustment. For an overview of the effect of these changes on the estimates, see "The 2011 revisions of the Labour Force Survey (LFS)," which is available as part of the Improvements to the Labour Force Survey series ([71F0031X](#), free).

For a fuller description of the LFS objectives, coverage, sampling techniques, concepts, definitions and data quality, see the Labour Force Historical Review (Statistics Canada Catalogue no. [71F0004XCB](#)) or the [Guide to the Labour Force Survey](#).

## **What is absenteeism?**

There are many kinds of work absence. Some, like annual vacation, are generally considered beneficial for both the organization and the employee. Since they are usually scheduled, their effect on the organization can be fairly easily absorbed; the same can be said of statutory holidays. Other absences, like those caused by illness and family-related demands, are generally unavoidable, as are those due to inclement weather.

Absenteeism, a term used to refer to absences that are avoidable, habitual and unscheduled, is a source of irritation to employers and co-workers. Such absences are disruptive to proper work scheduling and output, and costly to organizations and the economy as a whole. Although absenteeism is widely acknowledged to be a problem, it is not easy to quantify. The dividing line between avoidable and unavoidable is difficult to draw, and absenteeism generally masquerades as legitimate absence. The Labour Force Survey (LFS) can provide measures of time lost because of personal reasons—that is, illness or disability, and personal or family responsibilities. However, within these categories, it is impossible to determine if an absence is avoidable or unscheduled. LFS data on absences for personal reasons can, however, be analyzed to identify patterns or trends that indicate the effect of absenteeism.

This publication presents absence rates due to personal reasons, which accounted for 28% of all time lost by full-time paid workers each week in 2011. Vacations, which accounted for 40% of total time away from work, are not counted in this report, nor are statutory holidays, which represented 12%. Maternity leave accounted for 12% and other reasons, 7%.

## **Reasons for absence**

The LFS redesign in 1997 resulted in changes being made to the reasons for being away all or part of the week. This publication provides data incorporating both the pre- and post-redesign reasons. In this way, new data can be examined and a time series can be maintained for comparison purposes.

Before the 1997 redesign, the LFS grouped the reasons as follows:

- illness or disability
- personal or family responsibilities
- weather (part-week absence)
- labour dispute
- vacation
- holiday (part-week absence)
- working short time (part-week absence)
- laid off during week
- new job started during week

seasonal business (full-week absence)

other

The first two reasons are referred to as absences from work for personal reasons. Persons absent because of illness or disability include those who missed work because of medical or dental appointments or other temporary health-related absences. Absence for personal or family responsibilities includes taking care of children, attending funerals, appearing in court, serving on a jury, and taking care of a sick family member. Longer absences, such as maternity leave, are also included.

After the redesign, reasons were changed to read:

own illness or disability

caring for own children

caring for elder relative (60 years or older)

maternity leave (women only)

other personal or family responsibilities

vacation

labour dispute (strike or lockout)

temporary layoff due to business conditions

holiday (legal or religious)

weather

job started or ended during week)

working short time (because of material shortages, plant maintenance or repair, for instance)

other

Illness or disability remain unchanged, whereas personal or family responsibilities now consist of caring for own children, caring for elder relative, and other personal or family responsibilities. Maternity leave is excluded from the estimates.

The elimination of maternity leave has led to an overall decline in women's work absence estimates for personal or family responsibilities.

### **How absences are measured**

This publication uses three measures of absence.

The **incidence** of absence is the percentage of full-time employees reporting some absence in the reference week. In calculating incidence, the length of work absence-whether an hour, a day, or a full week-is irrelevant.

The **inactivity rate** shows hours lost as a proportion of the usual weekly hours of all full-time employees. It takes into account both the incidence and length of absence.

**Days lost per worker** are calculated by multiplying the inactivity rate by the estimated number of working days in the year (250).

The estimated number of working days in the year (250) is in line with other research in the field. This number assumes that the typical full-time employee works a 5-day week (the 1995 Survey of Work Arrangements showed that 75% of full-timers worked a 5-day week) and is entitled to all statutory holidays (around 10 days a year). Thus, the potential annual labour supply of a typical worker would be 52 weeks multiplied by 5, less 10 statutory holidays, or 250 days. This allows the days lost per worker in a year to be calculated.

Varying the number of working days would slightly alter the number of person-days lost in the year, but not the thrust of the findings as they relate to different industries, demographic groups, and so forth.

### **Frequently asked questions**

**Q.** What is the data source for these absence rates?

**A.** The data are based on annual averages from the Labour Force Survey (see Data source), not a special survey of absenteeism.

Although the LFS was not specifically designed to capture the incidence and level of absence from work, it is the best source of data on the subject. Use of a household survey to provide such data is not unique to Canada. All countries belonging to the Organisation for Economic Co-operation and Development (OECD) have surveys like the LFS that provide data on persons 'with a job but not at work.' Many of these surveys look at the reasons for the difference between usual and actual hours worked (that is, number of hours absent) in the reference week; these data can be used to generate work absence rates. Unfortunately, differences in the classification of reasons for work absence, and in periodicity, etc., have made international comparisons difficult. Both the OECD and the International Labour Office are currently making efforts to promote the gathering and publication of comparable data.

Most firms and institutions in Canada keep records on worker absences for administrative and accounting purposes. Again, differences in coverage, periodicity and definitions limit comparability or across-industry aggregation of the data into meaningful national rates by sex, age, industry, occupation, and so forth.

**Q.** Is maternity leave included in the absence data?

**A.** As of 1997, women with a full-time job but on maternity leave are excluded from the data. Prior to the 1997 redesign, this was not possible. Maternity leave is not considered a reason for absenteeism since it is often scheduled and thus entails minimal disruption at the workplace.

**Q.** How are long-term disability absences treated?

**A.** The LFS does not distinguish between long- and short-term disability absences. Those who are absent but consider themselves 'employed,' and who receive full or partial pay from their employer, are included in the illness or disability category, irrespective of length of absence. In 2001, an average of 16,000 employees each week had been absent from work for over a year because of illness or disability. Their exclusion would have had a minimal effect on the overall findings.

**Q.** Are absences resulting from work-related injuries or illness included in the data?

**A.** The LFS does not ask if an illness or disability is work-related. Thus, all such absences are included in the data in this publication.

**Q.** Do the data include both paid and unpaid absences?

**A.** Yes, both are included. However, only persons on full-week absences are asked whether they received any wages from their employer for any time lost from work. Those on part-week absences are not asked this question.

**Q.** Does the LFS measure the effect of stress?

**A.** Not directly. While stress may be an important factor in explaining work absences, this reason and others, such as worker boredom (with repetitive work, for example), employer-employee relations, and poor working conditions-all of which affect work attendance-are not listed separately in the LFS response categories. Answers to such questions are often difficult to substantiate.

### **Data quality**

The Labour Force Survey produces estimates based on information drawn from a sample survey of households. Somewhat different estimates might have been obtained if a complete census had been taken using the same questionnaire, interviewers, supervisors, processing methods, and so forth. The difference between the estimates obtained from the sample and a complete count taken under similar conditions is called the sampling error of the estimate.

While the sampling error is not known, it can be estimated from the sample data. One measure used is the coefficient of variation (CV), which is the standard deviation expressed as a percentage of the estimate. Since it can be very time-consuming and expensive to compute CVs for a large number of estimates from a complex survey such as the LFS, an indirect measure of reliability may be used. Generally speaking, the larger the estimate, the smaller its CV. Analysis has shown that LFS estimates of less than 1,500 typically have high CVs, making them unreliable.

In this publication, absence rates at the national level are considered reliable enough if they are derived from estimates of at least 1,500. For example, in 1997 the estimated number of male full-

time employees aged 65 and over was 32,700. Since the estimated number of these men with absences was below the reliability threshold of 1,500, no rates are shown. Estimates not reliable enough to be published are shown as 'F'.

For provinces and regions, reliability thresholds are as follows:

**Text table 1**  
**Reliability thresholds**

<b>Provinces and regions</b>	<b>Number</b>
Atlantic provinces	500
Newfoundland and Labrador	500
Prince Edward Island	200
Nova Scotia	500
New Brunswick	500
Quebec	1,500
Ontario	1,500
Prairies	500
Manitoba	500
Saskatchewan	500
Alberta	1,500
British Columbia	1,500

Errors that are not related to sampling may occur at almost any phase of a survey operation. Interviewers may misunderstand instructions, respondents may make errors in answering questions, answers may be incorrectly entered on the questionnaire, or errors may be introduced in the processing and tabulation of the data. These are all examples of non-sampling errors.

Over a large number of observations, randomly occurring errors will have little effect on estimates derived from the survey. However, errors occurring systematically will contribute to biases in the survey estimates. Considerable time and effort was taken to reduce non-sampling errors in the survey. Quality-assurance measures, implemented at each stage of the data collection and processing cycle, included the use of well-trained and highly skilled interviewers, the observation of interviewers to detect problems of questionnaire design or misunderstanding of instructions, the use of procedures to ensure that data-capture errors were minimized, and the provision of coding and edit quality checks to verify the processing logic.