

# Guide to the Survey of Employment, Payrolls and Hours

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## Section 1: Survey objective and background

### Objective

The Survey of Employment, Payrolls and Hours (SEPH) provides a monthly portrait of the earnings, payroll jobs (i.e., occupied positions) and hours worked by detailed industry at the national and provincial/territorial levels.

The SEPH provides the principal input to labour income estimates and serves as a proxy output measure for about 15% of real gross domestic product (GDP). There are many other uses made of the data, such as the calculation of equalization payments by the Department of Finance, revisions to the pensionable earnings and retirement savings plan contribution limits of the Canada and Quebec pension plans, and the calculation of the annual increases of the maximum contribution to Registered Retirement Savings Plans. SEPH data are also used to determine wage increases for federal judges and by the private sector for contract escalation purposes, as well as wage rate determination.

Monthly survey estimates are produced by using a combination of a census of payroll deduction accounts provided by the Canada Revenue Agency (CRA) and the Business Payrolls Survey (BPS), which collects data from a sample of 15,000 businesses. This combination of CRA data with the BPS helps minimize response burden while ensuring higher quality at lower cost. The BPS also collects information on job vacancies, which is supplemental to the SEPH.

The Job Vacancy Statistics (JVS) program provides a monthly portrait of the level of unoccupied positions, job vacancy rates and unemployment-to-job vacancies ratios. All estimates are produced at various levels of cross-classification of geography and sectors based on three-month moving averages. These data are useful in assessing the presence and degree of labour shortage and labour market.

The JVS contributes to the understanding of trends in filled and unfilled labour demand in the labour market, and helps identify areas at risk of labour shortages. Federal departments such as Employment and Social Development Canada (ESDC) as well as provincial and territorial agencies, educational organizations and the private sector are interested in this kind of information.

Job vacancy data are produced based on two questions that were added to the BPS in January 2011.

For more information regarding the JVS program, select survey number 5202 in the **Related products** section or refer to Section 5: **Concepts and definitions**.

### Background

The origin of Canada's payroll employment survey dates back to 1918, when employment data were collected by the Department of Labour. In 1922, the Dominion Bureau of Statistics—now Statistics Canada—assumed responsibility for the collection and publication of the data. Initially, this census was restricted to employers with 15 or more employees, and covered only certain industries. Earnings data were added in 1941. In 1961, the employment threshold was increased to 20 employees, and a sample survey, Estimates of Employees, was conducted to collect only employment data from firms below the 20-employee threshold.

In the early 1970s, differences between external benchmarks and establishment-based estimates for labour income, as well as extensive and inconsistent revisions to the monthly estimates, caused concern. The problems were thought to result from the absence of earnings data for the entire population. This factor, combined with a desire to reduce survey response burden and to resolve conceptual and definitional problems, prompted a major review of the surveys. A new integrated survey, SEPH, was developed by adding earnings and hours data for the small business and non-commercial establishments (education, health and public administration). The SEPH data were first published for the April 1983 reference period.

In the late 1980s, to reduce the high response burden associated with the survey, Statistics Canada, with the support of the Canadian Organization of Small Businesses, asked Revenue Canada—now the Canada Revenue Agency—to add two questions (employment and gross monthly payroll information) to its payroll deductions remittance (PD7) forms. Statistics Canada believed that using the PD7 data in place of the SEPH questionnaires to gather this information would yield a net reduction in response burden for Canadian firms. Trials showed that adding these two questions did not appear to pose significant additional burden for respondents. These questions were added to the PD7 forms starting in January 1993.

In the mid-1990s, the SEPH was extensively redesigned to integrate this new data source. The redesign was intended to reduce the reporting burden on businesses by substituting administrative records for survey questionnaires and improving paid employment and payroll estimates. From a monthly sample survey of more than 70,000 establishments, the SEPH gradually migrated to an administrative data survey supplemented by a monthly sample survey, the BPS, of 10,000 establishments.

To further improve the quality of estimates, the sample of administrative records was replaced by a census beginning in January 2001 (i.e., use of all records) and the BPS sample was increased from 10,000 to 11,000 establishments. At the same time, the SEPH program switched from the Standard Industrial Classification 1980 to the North American Industry Classification System (NAICS) 1997. The NAICS is updated every five years, and the SEPH program is subsequently converted to the new system. As of the January 2018 reference month, SEPH uses the current NAICS 2017 Version 2.0 and data were historically revised back to January 2001.

Estimates of the total number of employees come from the administrative records. Hours and earnings data are derived from a combination of administrative records and the BPS, using regression techniques.

In January 2009, the estimation method was enhanced to take into account the particular characteristics of individual provinces. To move to this new estimation method, more BPS sample was required in some provinces and less in others, resulting in a redistributed and enlarged sample—15,000 establishments per month. This change ensured that each province and territory was adequately represented, enabling adjustment of the survey estimates at the provincial/territorial level.

In December 2012, BPS respondents were given the new choice of responding to the survey using an electronic questionnaire.

## **Section 2: Survey methodology**

### **Target population**

The program's target population consists of all businesses in Canada that have at least one paid employee receiving a T4 slip and have thus issued at least one payroll deduction remittance during the reference month. Excluded are businesses that are primarily involved in agriculture, fishing and trapping, private household services, religious organizations, international and other extraterritorial public administration, and the military personnel of defence services. The BPS population is taken from the list of businesses appearing on the Business Register, which is maintained by the Statistical Registers and Geography Division of Statistics Canada.

The Business Register is updated monthly using data from various surveys, business profiling and administrative data. It is built from a CRA list of businesses participating in one or more of the following programs: payroll deduction, goods and services tax, importer and exporter tax, and corporation tax. The payroll deduction source includes all employers with remittances for employee income taxes, Canadian Pension Plan (CPP) or Quebec Pension Plan (QPP), and Employment Insurance contributions.

### **Reference period**

The reference period for the SEPH is the last seven days of the month. When a reported pay period is longer than one week, the data are proportionally adjusted to reflect the number of worked days during the reference period. In certain cases, adjustments are also made to exclude employees on strike, lockout, or layoff during the reference week.

### **Data sources**

Data can be collected directly from survey respondents, extracted from administrative files or derived from other Statistics Canada surveys and other sources. Responding to the survey component of the SEPH is mandatory, as is the case with most business surveys.

The statistics compiled by the SEPH are based on a census of administrative records for all in-scope establishments with employees that can be found on the Business Register. The Canada Revenue Agency Payroll Deduction (PD7) administrative source provides two variables: the total number of employees for the last pay

period of the month and the gross monthly payrolls. The PD7 source covers all employers with remittances for employee income taxes, CPP/QPP, and Employment Insurance contributions.

Information for general government services is provided to SEPH on a monthly basis by the provincial, territorial and federal governments in the form of electronic files extracted from their payroll records. A BPS questionnaire, adapted for the public sector, is used to collect data for government entities not included in the electronic files.

The BPS, conducted monthly, is used to estimate the SEPH variables not available from the administrative sources. Estimates from the administrative sources and the BPS are combined to produce the full range of the SEPH estimates.

## Administrative records

Since 1993, CRA has used PD7 payroll deduction forms remitted by employers to gather data on two variables: (1) total gross payrolls and (2) total number of employees for the reporting period.

The payroll deductions program covers all employers who make income tax remittances, CPP/QPP and Employment Insurance contributions for their employees. Depending on the size of the remittance made to CRA, employers are required to remit on a monthly, quarterly or accelerated basis.<sup>1</sup> The remittance period for which the payroll is reported on the PD7 form varies accordingly. For quarterly and accelerated remittances, the payroll is converted to correspond to a monthly period. These payroll deduction data are then linked to the Statistics Canada Business Register.

The Business Register is a structured list of businesses that produce goods and services in Canada. Because of the census nature of the Business Register, it is always made up of the same units, except when new businesses are created and when existing businesses cease their activities during the month.

An agreement with CRA gives Statistics Canada access to total gross payrolls and total number of employees. To produce estimates, the SEPH aggregates the PD7 forms (from establishments covered by the survey) to determine these two variables in the last pay period of the month.

The use of administrative data reduces survey cost and response burden. Furthermore, the overall estimates of employment and payroll are enhanced because of the timeliness of administrative records, better coverage of the surveyed population, and because the survey is a census of all employing businesses.

## The Business Payrolls Survey

The BPS is the questionnaire component of the SEPH program. It is used to collect monthly data on the weekly components of gross monthly payrolls, total hours and the allocation of certain variables (employment, payroll and hours) among the categories of employees (paid by the hour, salaried and others) to derive variables not available from administrative records. Since 2011, the BPS has also collected summary information on job vacancies.

The survey uses a combination of two collection methods: on-line questionnaire or computer-assisted telephone interview. At the beginning of each month, participants using the on-line application receive a mail or e-mail invitation. After some time, non-responding units are followed up by telephone by the staff of Statistics Canada's regional offices. Often, the required information is provided during the call. In those cases, the computer-assisted telephone interview tool is used for the participants who chose the telephone mode. The time of the telephone interview is planned according to the participants' preferences.

## Sample design

The BPS uses a stratified simple random sample of 15,000 establishments, out of a population of 1,000,000 establishments listed in the Business Register. Generally, sampled units are removed from the BPS sample after 12 months and are not eligible for re-selection for one year. However, some 800 establishments are permanent in the sample, either because they represent a significant share of employment in their sector or because they are sufficiently different from other establishments in their sector that they can only be represented by themselves.

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1. Quarterly or monthly remittances are used by small businesses with monthly remittances of less than \$15,000 (\$12,000 or less annually in the case of quarterly remittances). In 2015 the limit for monthly remittances increased to less than \$25,000. Accelerated remittances are generally made by large businesses remitting more than once a month.

The sample is stratified based on province, NAICS 2017 sub-sector and establishment size (number of employees). Sample allocation aims to maximize the accuracy of the estimate of weekly payroll and the total number of hours at the NAICS 2017 sub-sector level for all of Canada, the provinces and the territories. The sample size and stratification are determined to meet specific coefficients of variation (CVs) for estimated weekly payroll and the total number of hours at the national and provincial/territorial level and selected industry groups. CVs at more detailed geographic and industrial levels are subsequently derived as a function of the available sample.

Each month, the BPS sampling frame is updated to reflect new establishments created on the Business Register and to eliminate those that ceased operational activities.

Although the sample is too small to produce detailed estimates directly, it is possible to provide the full range of the SEPH published variables by combining data from the BPS and data from the administrative records.

## Estimation methods

Estimating population characteristics from a survey is based on the premise that each sampled unit represents, in addition to itself, a certain number of other units in the population. A basic survey weight is attached to each record to indicate the number of units in the population that are represented by that unit in the sample.

To improve the quality of the estimates, the basic BPS weights are calibrated to ensure that estimates of total monthly payroll employment and monthly payrolls match estimates from the Canada Revenue Agency PD7 administrative source.

The calibration is done using a generalized regression estimator. The model groups are mostly defined at the national and sub-sector levels (i.e., three-digit NAICS code or, in a few instances, four-digit); in a few cases, the enterprise size (measured by number of employees) and the provincial dimensions are used. Regression coefficients, calculated at the model group level, are applied to the estimates of total employment and payrolls from the administrative sources to estimate the additional variables.

Non-farm payroll employment data are for all hourly and salaried employees, as well as for the 'other employees' category, which includes piece-rate and commission-only employees. Average weekly hours data are for hourly and salaried employees only. They exclude businesses that could not be classified with a NAICS code by the time monthly processing was completed.

All earnings data include overtime pay and exclude businesses that could not be classified to a NAICS code. Earnings data are based on gross taxable payroll before source deductions.

Average weekly earnings are derived by dividing total weekly earnings by the total number of employees.

## Section 3: Data collection and processing

### Data collection

The BPS has a regular questionnaire and a second questionnaire adapted for educational establishments. A third version of the questionnaire dedicated to the public sector entities is also used. The regular and the educational questionnaires can be filled on-line or over the telephone.

More information on the BPS collection tool can be found on Statistics Canada's Integrated Metadatabase. This database has valuable information, particularly in reference to definitions, data sources and methods. Users can access the portion of the database related to the SEPH by selecting survey number 2612 in the **Related products** section.

Reporting units that do not respond after a certain period of time are contacted by telephone by the staff of Statistics Canada's regional offices. Respondents are reminded to complete the survey, or to give the information over the telephone at that time. Non-response—when establishments do not report—can diminish the accuracy of the estimates.

Administrative data for total gross payrolls of the reporting period and for the total number of employees during the last pay period in the month are obtained from PD7 payroll deduction forms filed with the CRA. The response rate



in 2017 for these administrative data, weighted by employment, was approximately 89% for the monthly remitters and 95% for the accelerated remitters (who remit more than once a month).

Finally, information for general government services is provided to SEPH on a monthly basis by the provincial, territorial and federal governments in the form of electronic files extracted from their payroll records. However, some entities use an adapted questionnaire.

## Data processing

### Error detection

For the administrative portion of the survey, edits and verification procedures ensure that the data are of the best quality possible. Significant and unusual monthly movements at the micro level are identified and manually corrected where appropriate.

Both manual and automated editing procedures are employed to detect and correct problematic data provided by the respondent on the BPS questionnaire. Historical edits are performed at the data-collection stage, and BPS data are compared to the PD7 data. Regressions are also used to help identify outliers. Problematic records are corrected or have their weight reduced to decrease their impact on estimates.

### Imputation

The purpose of imputation is to replace missing or erroneous data by plausible values. For the administrative portion of the survey, there are four methods of imputation:

- impute to zero – set both employment and pay to zero when information from CRA does not indicate employment activity in the month;
- trend imputation – replace the missing value by projecting the previous month's value using non-imputed records with similar characteristics;
- ratio imputation – imputing by using the relationship among different variables from non-imputed records with similar characteristics;
- mean imputation – imputing by adopting the stratum averages.

For the BPS portion, units are imputed using trend imputation or donor imputation (use of data from another record with similar characteristics to replace missing or erroneous data). Imputation avoids respondent follow-up while using as much respondent-provided data as possible.

## Section 4: Data quality

### Reliability

The estimates obtained from sample surveys are subject to both sampling and non-sampling errors.

Sampling errors occur because observations are obtained from a sample rather than from the entire population. Estimates based on a sample can differ from statistics that would have been obtained if a complete census had been taken using the same instructions, interviewers and processing techniques. This difference is called the sampling error of the estimate.

The true sampling error is unknown. However, it can be estimated from the sample itself by using a statistical measure called the standard error. When the standard error is expressed as a percentage of the estimate, it is known as the relative standard error or the coefficient of variation.

Non-sampling errors may occur throughout a survey for many reasons, such as non-response, coverage and classification errors, differences in the interpretation of the question, incorrect information from respondents, as well as mistakes during data capture, coding, and processing. Efforts to reduce non-sampling errors include careful design of questionnaires, editing of data, follow-up, imputation for non-responding units, and thorough control of processing operations.

The SEPH has a quality-control program that is applied to data capture, business structure updating and data editing stages to minimize non-sampling errors. This program monitors and controls the completeness, accuracy and consistency of the reported data. Follow-up procedures are in place for non-response, and late responses may be imputed.

One of the challenges of using the PD7 forms is determining how to calculate the number of employees for an establishment that remits several forms each month. In most cases, Statistics Canada is confident that the number of employees can be properly calculated. However, there is always a risk of error. This type of risk, as well as all other non-sampling errors, are not reflected in the coefficients of variation.

## Data quality indicators

Beginning with the release of estimates for the January 2009 reference month, most of the SEPH data points have their own data quality indicators. Estimates are assigned a letter to indicate the range of their coefficient of variation. These indicators are updated each month to reflect the current estimate of quality for individual data points.

When the quality of a monthly estimate is too unreliable for publication (where data have a coefficient of variation of more than 35%), an “F” symbol replaces the actual estimate. By design, the new estimation method is dependent on the sample size to generate good quality data at the provincial and territorial level. Therefore, in cases where the sample is deemed too small to produce reliable estimates, series are no longer made available. When this occurs, it occurs mostly at the provincial/territorial, 4-digit NAICS level.

Users are encouraged to take into account the quality indicators when using the SEPH data. For this reason, steps have been put in place to ensure that most published SEPH estimates are provided with their individual quality indicator.

The quality indicators are:

- A – Excellent (CV from 0% to 4.99%);
- B – Very good (CV from 5% to 9.99%);
- C – Good (CV from 10% to 14.99%);
- D – Acceptable (CV from 15% to 24.99%);
- E – Use with caution (CV from 25% to 34.99%);
- F – Too unreliable to publish (CV greater than or equal to 35% or sample size is too small to produce reliable estimates).

## Coverage errors

Two types of coverage errors are associated with survey frames: duplication and undercoverage. Duplication occurs when PD7 records cannot be linked to their associated businesses residing on the frame, resulting in the creation of a second statistical business. Undercoverage arises when new businesses have not yet been classified on the Business Register. This may occur when a business does not yet have an industrial classification code.

To better reflect the economic reality, unclassified businesses are added to the program’s total employment by province.

## Seasonal adjustment

It is common practice to publish most economic indicators in seasonally adjusted and unadjusted forms. Fluctuations in economic time series can be caused by seasonal, cyclical and irregular movements. A seasonally adjusted series is one for which an attempt has been made to eliminate seasonal movements. Seasonal movements are those that are caused by regular annual events, such as usual changes in weather, reduced or expanded production, and the opening and closing of schools. Since these seasonal events follow a regular pattern every year, their influence on statistical trends can be eliminated by adjusting the data from one month to another.

Seasonal adjustment is difficult in cases where a time series has irregular variations that are larger than usual or are atypical. In these cases, seasonally adjusted series may be of poor quality. Unadjusted series are thus preferable.

To seasonally adjust estimates, SEPH uses X12-ARIMA Statistical Analysis Software (SAS).

## Revision practice and comparability over time

**Monthly revision:** Towards the end of each month (usually on the last Thursday of the month), SEPH statistics are published for two consecutive months: preliminary estimates for the current month and revised estimates for the previous month. Preliminary and revised estimates are released two and three months, respectively, after the reference month. For example, July revised estimates and August preliminary estimates are published at the end of October.

Revisions are necessary to account for any late returns (survey or administrative) or additional information used to correct reporting or processing errors.

**Annual/historical revisions:** Every year in March, up to four additional revision processes are done with the program's official data release:

1. Annual revisions for a small number of industries by province or territory to correct reporting or processing errors;
2. Historical revisions are occasionally done to introduce changes related to concepts, new data sources, revised classifications, as well as methodology changes;
3. Seasonally adjusted data are revised with the latest seasonal factors;
4. Confidentiality patterns are revised.

Firstly, annual revisions for a small number of industries are made to correct reporting or processing errors that occurred in the previous year. In some cases, multiple years of data for an industry and/or province or territory can be revised.

Secondly, historical revisions are statistical adjustments to maintain comparability of time series and current estimates during major changes affecting the survey. These changes may be warranted by a change in concepts, industrial or geographical classification systems and methods. This year, SEPH adopted the current NAICS 2017 Version 2.0. This revision was applied back to 2001.

Thirdly, seasonal adjustment parameters are revised to include the latest year of data and the latest seasonal factors. This revision affects mainly the most recent years, but the impact can be seen as far as 2001.

Lastly, the confidentiality patterns could be updated for employment levels. This process ensures that the SEPH program can produce estimates for a detailed range of industries while still protecting respondent confidentiality. For example, in 2018, the move from NAICS 2012 to NAICS 2017 necessitated a revision back to January 2001 and thus the creation of new patterns.

These revisions are normal in a complex survey program. Latest revisions should always be taken into consideration by users of the SEPH statistics. Since the program has undergone many changes over the years, data published earlier may not necessarily be comparable with recently published data. It is therefore highly recommended to use current time series, preferably from CANSIM, the Statistics Canada database. See the **Related products** section of this publication for a full list of CANSIM tables.

Real-time CANSIM tables that provide the revision history of the SEPH time series have been available since January 2015. For more information, consult the document Real-time CANSIM tables (<http://www.statcan.gc.ca/eng/dai/btd/rct>).

## Confidentiality

Statistics Canada is prohibited, by law, from releasing any data that would divulge information obtained under the *Statistics Act*, which relates to any identifiable person, business or organization without their prior knowledge or written consent. 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 G-CONFID software is used to control disclosure of the data. The results of the SEPH are reviewed using the appropriate security measures complying with the *Statistics Act* to assure the safeguarding of the respondent's information and to ensure that no enterprise may be identified through the release of the SEPH estimates.

## Section 5: Concepts and definitions

### Industry concepts

SEPH covers all industries in Canada, except those primarily involved in agriculture, fishing and trapping, private household services, religious organizations, international and other extraterritorial public administration, and the military personnel of the defence services.

Each establishment is assigned an industry code according to the North American Industry Classification System (NAICS) 2017 Version 2.0. A description of the industries and various groups of industries is contained in the NAICS 2017 Manual (12-501-X). Special groupings that are not part of NAICS 2017 have been created for analytical purposes.

**Durable goods manufacturing (321N):** Includes wood products manufacturing (321), non-metallic mineral products manufacturing (327), primary metal manufacturing (331), fabricated metal products manufacturing (332), machinery manufacturing (333), computer and electronic products manufacturing (334), electrical equipment, appliances and components manufacturing (335), transportation equipment manufacturing (336), furniture and related products manufacturing (337), and miscellaneous manufacturing (339).

**Education special aggregation (611N):** Includes elementary and secondary schools (6111), community colleges and CEGEPs (6112), universities (6113), business schools and computer and management training (6114), and technical and trade schools (6115).

**Forestry, logging and support (11N):** Consists of forestry and logging (113) and support activities for forestry (1153).

**Goods-producing industries (11–33N):** Consists of forestry (11N), mining (21), utilities (22), construction (23), and manufacturing (31–33).

**Industrial aggregate (11–91N):** Sum of all industries except those primarily involved in agriculture, fishing and trapping, private household services, religious organizations, international and other extraterritorial public administration, and the military personnel of the defence services.

**Industrial aggregate, including unclassified businesses (00–91N):** Sum of all industries, including the unclassified businesses category (0000). Excluded are businesses primarily involved in agriculture, fishing and trapping, private household services, religious organizations, international and other extraterritorial public administration, and the military personnel of the defence services. Only employment is available for this industry grouping.

**Non-durable goods manufacturing (311N):** Includes food manufacturing (311), beverage and tobacco products manufacturing (312), textile mills (313), textile products mills (314), clothing manufacturing (315), leather and applied products manufacturing (316), paper manufacturing (322), printing and related support activities (323), petroleum and coal products manufacturing (324), chemical manufacturing (325), plastics and rubber products manufacturing (326), and miscellaneous manufacturing (339).

**Public administration (91):** Includes only the establishments engaged in activities that are governmental in character and those serving as internal service agencies of the public service. Excludes international and other extraterritorial public administration. Government-owned establishments primarily engaged in activities assigned to other industries are classified in those industries, along with similar establishments owned by non-government bodies. Therefore, employment, earnings and hours data included in public administration do not represent the actual total number of persons employed by government at every level. Furthermore, while military personnel are excluded, civilian employees working in defence services are included.

**Service-producing industries (41–91N):** Consists of trade (41, 44–45), transportation and warehousing (48–49), information and cultural industries (51), finance and insurance, real estate and rental and leasing (53), professional, scientific and technical services (54), management of companies and enterprises (55), administrative and support services, waste management and remediation services (56), educational services (61), health care and social assistance (62), arts, entertainment and recreation (71), accommodation and food services (72), other services (except private household and religious organizations) (81), and public administration (except international and other extraterritorial public administration, and military personnel and other government services) (91).

**Trade (41–45N):** Includes wholesale trade (41) and retail trade (44 and 45).

**Unclassified businesses (0000):** Businesses that have not yet been classified to a NAICS 2017 code. This category has been available since March 1994, and data are only available for the employment variable, because an industrial code is needed to generate all other variables.

## Business, enterprise, establishment and class of worker concepts

**Business/Enterprise:** Any commercial business or institution, whether incorporated or not; comprises sole proprietorships, partnerships, companies, and other forms of organizations. A business is considered to be simple if all its establishments operate in the same province or industry classification; otherwise, a business enterprise is classified as complex.

**Employees or payroll employees:** Any person drawing pay for services rendered or for absences, and for whom the employer must complete a Canada Revenue Agency T4 form, is deemed to be an employee. The ‘employee’ concept used in the SEPH comprises full-time employees, part-time employees (those who regularly work fewer hours than the standard work week of the establishment) and casual or temporary employees. It also comprises working owners, directors, partners, and other officers of incorporated businesses.

The ‘employee’ concept used in the SEPH excludes owners or partners of unincorporated businesses and professional practices, the self-employed, unpaid family workers, persons working outside Canada, military personnel, and casual workers for whom a T4 form is not required. It also excludes persons who did not receive any pay from the employer for the entire survey reference period (e.g., persons on strike, on unpaid holidays, or receiving remuneration from an insurance plan, workers compensation or related fund). However, employees paid by the employer for a part of the reference period, but who are unemployed or on strike for the rest of that period, are counted as employees.

Employee types are classified using the following categories:

**All employees/payroll employees:** The sum of employees paid by the hour, salaried employees and other employees.

**Employees paid by the hour:** Any employee whose basic remuneration is expressed as an hourly rate.

For elementary and secondary schools (6111), community colleges and CEGEPs (6112), universities (6113), business schools and computer and management training (6114), and technical and trade schools (6115) industries, this category of employment represents non-teaching staff: all employees other than teachers and academic staff, i.e., president, vice-president, librarian, registrar, bursar, accountant, guidance counsellor, laboratory technician, personnel officer, and other services (janitor, bus driver, etc.). This variable is derived from a small sample.

**Salaried employees:** Employees whose basic remuneration is a fixed amount for at least one week.

For elementary and secondary schools (6111), community colleges and CEGEPs (6112), universities (6113), business schools and computer and management training (6114), as well as technical and trade schools (6115) industries, this category of employment represents teaching staff: all employees classified as teachers, instructors or academics in payroll records (e.g., principal, professor, dean, head of department, master, teacher), whether they teach during the day or evening. Supply or substitute teachers are excluded.

**Other employees:** Employees whose basic remuneration is in the form of commissions, piece rates, mileage allowances, etc.

For elementary and secondary schools (6111), community colleges and CEGEPs (6112), universities (6113), business schools and computer and management training (6114), as well as technical and trade schools (6115) industries, this category of employment represents supply or substitute teachers—teachers who are called in to teach whenever their services are needed, either to augment the existing staff or as a short-term replacement for a full- or part-time teacher.

**Establishment:** For statistical purposes, the smallest entity of an enterprise capable of reporting statistics of economic production, for example, a factory, mine, store, or a similar unit.

## Earnings concepts

**Average hourly earnings for employees paid by the hour (including or excluding overtime):** The gross taxable payroll (including or excluding overtime) divided by the total number of weekly paid hours (including or excluding overtime).

**Average hourly earnings for salaried employees (including or excluding overtime):** The total gross taxable payroll (including or excluding overtime) divided by the number of weekly hours (hours for salaried employees do not include overtime).

**Average weekly earnings (excluding overtime):** The gross taxable payroll (excluding overtime) divided by the number of employees. It is calculated for all employees, employees paid by the hour and salaried employees.

**Average weekly earnings (including overtime):** The gross taxable payroll (including overtime) divided by the number of employees. It is calculated for all types of employees.

**Fixed-weighted earnings index:** The fixed-weighted average hourly and weekly earnings indices have been constructed to better reflect the underlying changes in earnings by holding hours paid and employment composition among industries, provinces and territories and type of employee (hourly paid and fixed salary employees) constant through time. At present, the fixed weights (basket) are based on the 2005 annual SEPH data. The base year, which is the year in which the indices are equal to 100, is 2002.

Overtime hours and pay could skew the assessment of underlying wage trends since they tend to be volatile; therefore, overtime components are excluded from the calculation of the indices.

These indices are better indicators of the underlying trends in wage rates than the variable-weighted earnings series. They are useful for monitoring inflation due to wages, regardless of structural changes in employment.

CANSIM table 281-0039 provides a monthly fixed-weighted index of average hourly earnings for all employees, excluding overtime, by 2-digit NAICS industries. See the **Related products** section for a full list of CANSIM tables.

**Overtime pay:** Pay received for work performed in excess of the standard workday or workweek. These data are calculated for all employees, employees paid by the hour and salaried employees.

**Paid absence:** Includes statutory holidays, paid holidays, sick leave (including industrial injury), and personal leave, such as bereavement leave or jury duty.

**Payrolls:** Gross taxable payroll before source deductions. Gross monthly payrolls are obtained from administrative records. The gross weekly payroll is defined as the portion of the gross monthly payroll that reflects work performed during the reference week. It represents the gross dollar value before deductions for income taxes, employment insurance contributions, etc. Payroll includes regular pay, overtime and bonuses, commissions, and all other types of special payments. The payroll concept excludes dollar amounts that are taxable allowances and benefits, certain types of non-wage compensation, as well as employer contributions to employment insurance, Canada and Quebec pension plans, provincial medical plans, workers' compensation, and other welfare plans.

**Special payments:** Questions were included in the BPS to ensure that any additional salaries and wages are attributed to the period they were earned and not the period in which they were paid out. These special payments can be paid out at any time and are usually recorded in the books using the 'cash' basis method of accounting. Some special payments may be included with regular pay if the period the payment covers is identical to the regular pay period and the payment is included with each pay. For example, if productivity bonuses are paid out with regular pay, every pay period, they would be included with regular gross pay, but if productivity bonuses are calculated quarterly or annually, the amount would need to be reported as a special payment. Other examples of special payments are cost of living adjustments, overtime that covers a period other than the regular pay period, retroactive pay, and vacation pay, if not part of every paycheck.

## Hours concepts

**Average weekly hours for employees paid by the hour (including or excluding overtime):** Total number of hours worked (including or excluding overtime) divided by the number of employees paid by the hour.

**Average weekly hours (standard work week) for salaried employees:** Total number of hours divided by the number of salaried employees.

**Overtime hours for employees paid by the hour:** Total number of paid overtime hours. This represents actual hours worked.

**Total hours for salaried employees:** Average number of hours worked in a standard work week multiplied by the number of salaried employees (hours for salaried employees exclude overtime).

**Total hours paid for employees paid by the hour (including or excluding overtime):** All hours worked (including or excluding overtime hours), including paid absences (e.g., holidays, sick leave or jury duty) and overtime hours.

## Data collection and processing concepts

**Non-response rate:** Includes those units for which data were not received on time for the reference month.

**Refusal rate:** Includes those units that were contacted but refused to participate in the survey.

**Response rate:** Includes all units that responded during the collection phase by providing information.

## Job vacancy concepts

**Job vacancies:** Vacant positions on the last business day of the month.

A job is vacant if it meets all three of the following conditions:

- a specific position exists;
- work could start within 30 days;
- the employer is actively seeking workers from outside the organization to fill the position.

The positions include those that are full time, part time, temporary, permanent, seasonal, and on call.

Positions excluded are those

- to be filled by promotion, demotion, internal transfer, or recall from layoff;
- with start dates that are more than 30 days in the future;
- for which employees have been hired, but the employees have not yet reported for work;
- to be filled by employees of temporary help agencies, volunteers, independent contractors, or consultants.

**Job vacancy rate:** The job vacancy rate is the number of job vacancies or vacant positions on the last business day of the month, expressed as a percentage of labour demand (occupied positions and vacant positions).

**Labour demand:** Labour demand is the sum of employed individuals (met labour demand) and the number of job vacancies (unmet labour demand).

**Labour force:** Civilian non-institutional population aged 15 and older who, during the survey reference week, were employed or unemployed.

**Labour supply:** Labour supply is the sum of employed individuals and unemployed individuals.

**Unemployment:**<sup>2</sup> Unemployed people are those who, during the reference week, were available for work and were either on temporary layoff, had looked for work in the past four weeks, or had a job that would start within the next four weeks.

**Unemployment rate:** The number of unemployed people as a percentage of the labour force.

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2. Source: Labour Force Survey.

**Unemployment-to-job vacancy ratios:**

1. **All unemployed:** This ratio is calculated by dividing the total number of unemployed people, regardless of previous work experience, by the number of vacant positions. This ratio shows how many unemployed individuals are available for each vacant position, and is a measure of the overall tightness of the labour market.
2. **Unemployed, all sectors, worked within past 12 months:** This ratio is calculated by dividing the number of unemployed people who last worked in the previous 12 months by the number of vacant positions.<sup>3</sup> This excludes unemployed people who worked more than 12 months earlier, as well as new entrants to the labour market.
3. **By sector:** For each sector, the ratio is calculated by dividing the number of unemployed people who last worked in that sector (does not include industries not covered by the BPS) in the previous 12 months by the number of vacant positions in the same sector. This ratio shows how many unemployed individuals are available for each vacant position in the sector, and is a measure of the tightness of the labour market within that sector.

**Section 6: Estimates by enterprise size**

The SEPH produces quarterly and annual averages by enterprise size and type of employment for all employees, average weekly earnings and hours paid at the national, provincial and territorial levels. The enterprise size is determined by the total number of employees of the business at the national level, and is calculated using the monthly employment levels reported for the reference period. The data are produced at the sector level of NAICS and at the industrial aggregate level.

Responses are summarized based on the following categories: 0 to 4 employees, 5 to 19, 20 to 49, 50 to 99, 100 to 299, 300 to 499, 500 and more, and all sizes. There are also further aggregated categories: size groups 0 to 49 employees, 50 to 299 or 300 and more.

The data produced by enterprise size are generally more volatile than the overall monthly estimates. Estimates published by enterprise size may be affected by the movement of businesses from one size to another over time. Other events, such as strikes, temporary closures or changes in the structures of businesses on the Business Register will also cause volatility in the sizes series. While the data by enterprise size are an excellent research tool, they should not be used in contract escalation because of the potential for a higher level of volatility associated with these estimates.

**Section 7: Use of the SEPH earnings data for contract escalation**

The SEPH earnings statistics are sometimes used in the public and private sectors to index various types of labour costs, usually through contractually set pricing formulae.

Statistics Canada neither encourages nor discourages the use of the SEPH data for contract-escalation purposes, but can offer advice of a purely statistical nature on the limitations associated with the use of these data.

SEPH publishes a wide range of earnings estimates, many of which are not advisable for pricing purposes. Generally speaking, it is preferable to avoid using series for highly disaggregated industry groupings (4-digit NAICS), as well as those estimates specific to class of worker, that is hourly, salaried or other employees, as these series are based on a relatively small sample. Similarly, the national trend and level estimates for a given industry are usually more stable than their provincial/territorial counterparts. Users should always consider available quality indicators and the number of employees relevant to the earnings series they are interested in.

3. Calculated using only the industries covered by the BPS; therefore, the total does not include the agriculture sector and the provincial and federal public administration sector.



It is important to note that changes in average earnings reflect a number of factors, including wage growth, changes in composition of employment by industry, occupation and level of job experience, as well as average hours worked per week—not to mention sampling variability. As an attempt to observe earnings over time while controlling for changes in hours and employment, Statistics Canada produces a fixed-weighted index (FWI). This index is closer to the concept of a labour or employment cost index as used in other countries, but does not control for other factors that can have an impact on earnings. The FWI is only available at higher levels of aggregation, and does not include overtime earnings and earnings data from employees on commission or paid by a piece rate.

In addition, the use of month-over-month changes to escalate costs should be avoided in favour of year-over-year movements based on annual averages. If monthly calculations are required, moving averages of several months should be strongly considered.

Any indexing formula should also take into account the fact that the survey data undergo periodic revision. Users should always use current and complete data series.

For more information, contact Statistics Canada's Statistical Information Service (toll-free: 1-800-263-1136; international: 1-514-283-8300; [STATCAN.infostats-infostats.STATCAN@canada.ca](mailto:STATCAN.infostats-infostats.STATCAN@canada.ca)).

## **Section 8: Comparing the Survey of Employment, Payrolls and Hours and the Labour Force Survey**

Statistics Canada has two monthly surveys that measure employment levels and trends: the Labour Force Survey (LFS), referred to here as the household survey, and the Survey of Employment, Payrolls and Hours (SEPH), referred to here as the payroll or establishment survey.

The LFS provides the first timely picture of overall labour market conditions, with total employment, unemployment and unemployment rate, as well as information on which groups of Canadians are most affected by changes in the labour market.

Approximately two months later, the SEPH provides additional detail of the same month by industry, along with estimations of earnings and hours worked.

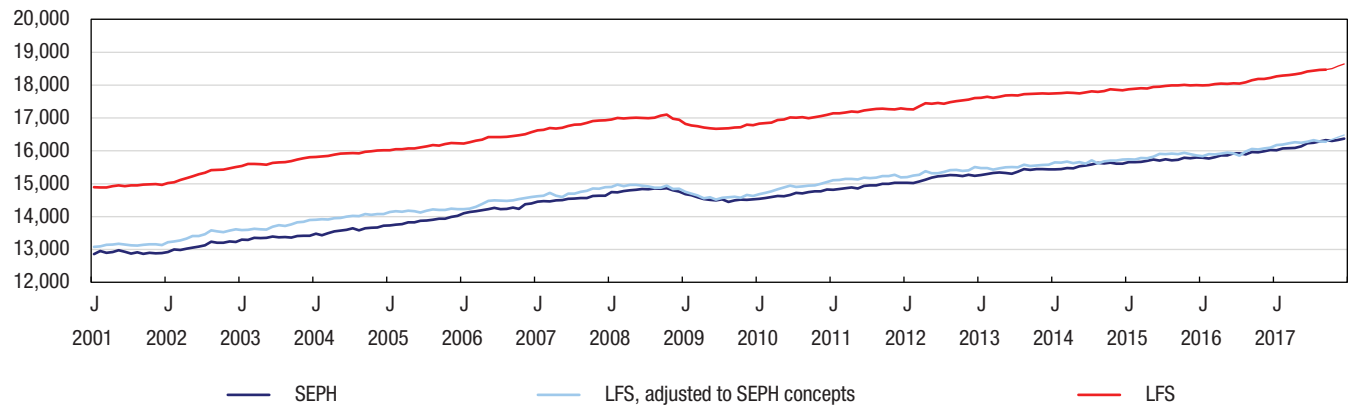
Statistics from both the household and business payroll surveys, along with those from the Employment Insurance program and the Job Vacancy program all contribute to understanding the supply and demand components of the labour market.

The household survey (LFS) provides a broader picture of employment, including employment in agriculture and the number of self-employed. The payroll survey (SEPH) provides a highly reliable gauge of monthly change in non-farm payroll employment by industry.

Because the LFS has a broader definition of employment than the SEPH, the LFS employment level exceeds the SEPH employment level. See Chart 8.1 below for more details.

**Chart 8.1**  
**SEPH and LFS employment levels, January 2001 to December 2017, seasonally adjusted**

thousands



**Sources:** Statistics Canada, Labour Force Survey and Survey of Employment, Payrolls and Hours.

For comparability purposes, an adjusted LFS series was added to Chart 8.1 to be more similar in concept and definition to SEPH employment. This adjusted series is created by subtracting agriculture, fishing and hunting employment, non-agricultural self-employed, unpaid family and private household workers, as well as workers absent without pay from their jobs, and then adding non-agricultural wage and salary multiple job holders.

The LFS adjusted series tracks much more closely with the SEPH measure; nonetheless, trend discrepancies occur occasionally. For example, during the 2008–2009 employment downturn, the decline was more pronounced in the LFS than the SEPH.

Some of the discrepancies are attributable to conceptual and measurement differences between the two surveys. The major features and distinctions of the two surveys are shown in Table 8.1.

**Table 8.1**  
**Features of the Labour Force Survey (LFS) and the Survey of Employment, Payrolls and Hours (SEPH)**

Comparison	LFS	SEPH
Population	Non-institutionalized civilian population aged 15 and over.	Non-farm wage and salary jobs.
Type of survey	Monthly sample survey of approximately 56,000 households.	Monthly census of businesses (from administrative data), plus a survey of 15,000 establishments for the earnings.
Major outputs	Labour force, employment, unemployment, by province, and associated rates with demographic details.	Employment, earnings and hours with industry and geographic details.
Reference period	Calendar week that includes the 15 <sup>th</sup> of the month. <sup>1</sup>	The last seven days of the month. <sup>2</sup>
Employment concept	Estimate of employed persons (multiple jobholders are counted only once). Includes individuals absent from work without pay.	Number of jobs (multiple jobholders counted for each non-farm payroll job). Includes only those receiving pay for the reference period.
Employment definition differences	Includes the unincorporated self-employed, unpaid family workers, agriculture, forestry, fishing and hunting, religious organization workers, private household workers, international and other extraterritorial public administration and workers absent without pay.	Excludes all of the groups listed in the column to the left, except for forestry, logging and support activities for forestry.
Size of month-to-month change in employment for a statistically significant movement	+/- 46,000 for 90% confidence (updated twice a year).	Based on a census, so there is no statistical uncertainty associated with the employment estimates.
Benchmark adjustment to survey results	No direct benchmark for employment. Adjustment to underlying population every 5 years to the census.	No benchmark adjustment.

1. Except for November and December, when the reference week is often one week earlier.

2. In fact, there is a mix of different periods, since pay period lengths and dates vary between employers and even between groups of employees working for the same employer. In all cases, the information for the most recent pay period is used in processing the administrative data.

**Sources:** Statistics Canada, Labour Force Survey and Survey of Employment, Payrolls and Hours.

## Comparing employment trends from the two surveys

The LFS is the only survey conducted by Statistics Canada designed to provide the official unemployment rate every month, with a monthly sample size of approximately 56,000 households. It is the earliest and most timely indicator of the pulse of the labour market in Canada. The sample size makes it a very reliable source for different geographic levels. It provides a complete picture as it includes employees, self-employed people, as well as unemployed. Characteristics of all three groups, including age, sex and occupation are also available.

The SEPH, also a monthly survey, is designed to provide data on payroll employment as well as average earnings and hours worked. It is a census of all payroll employees in Canada. Consequently, the SEPH does not survey the self-employed or the unemployed. However, the employment payrolls data are available at a detailed industry level.

As mentioned earlier, SEPH and LFS estimates track well over the long term, but discrepancies in trends occur occasionally. These discrepancies might be more common for sub-groups, for example, at the provincial level or in a specific industry.

Table 8.2 provides year-over-year employment change from the two sources of data.

**Table 8.2**  
**Year-over-year employment change, based on the Survey of Employment, Payrolls and Hours and the Labour Force Survey**

	December 2016 to December 2017, seasonally adjusted	
	level change, in thousands	% change
LFS employment	427.3	2.3
Adjusted LFS employment <sup>1</sup>	383.5	2.4
SEPH employment <sup>2</sup>	348.3	2.2

1. This is an internal series created from LFS employment to be more similar in concepts and definition to the SEPH employment. LFS employment is adjusted by including employees, the incorporated self-employed with employees and the additional payroll job of multiple job holders. Then, agriculture, fishing and hunting employment, unpaid family and private household workers, as well as workers absent without pay from their jobs, are subtracted.

2. Excluding the territories.

Sources: Statistics Canada, Labour Force Survey and Survey of Employment, Payrolls and Hours.

## Sampling error in the LFS

The LFS is subject to sampling and non-sampling error. While it is one of the largest sample surveys internationally, reaching 56,000 households, it covers a small portion of all employed persons. When looking at short-term trends, especially over-the-month changes, it is therefore essential to assess the statistical significance of the change.

Employment estimates from the SEPH, as they are derived from all the administrative payroll deduction forms submitted by employers to the Canada Revenue Agency, are not subject to sampling error. They are, however, subject to non-sampling error.

## Worker classification in the LFS

An adjusted LFS employment series was created to be more similar in concept and definition to the SEPH employment series, as featured in Chart 8.1. This adjusted series is calculated by subtracting agriculture and related employment; unpaid family and private household workers; workers absent without pay from their job; as well as military reservists; and adding wage and salary multiple jobholders whose second job is either as an employee or as an incorporated self-employed with employees. For the SEPH, employment data from the three northern territories are removed to make it comparable to the LFS.

This adjustment process also has some limitations. For example, some independent contractors in LFS may have mistakenly reported themselves as wage and salary workers rather than self-employed. This could lead to some overstatement in the adjusted LFS employment estimates. Separately, the adjustment for multiple jobholders adds the number of workers whose primary job is non-agricultural wage and salary, but not necessarily their secondary job. However, there are no adjustments to account for the number of multiple jobholders with three or more jobs; the adjustment process presumes all multiple jobholders only hold two jobs. This introduces some understatement into the adjusted household survey employment. These types of worker classifications issues limit the ability to fully reconcile the two employment measures.

## **‘Off the books’ employment**

Workers may be working for pay but not necessarily declared in the SEPH (for example, ‘off-the-books’ employment). The LFS could possibly include some of these workers, but it is not possible to determine the extent to which they might be reflected in the survey estimates.

## **Estimates by province**

Estimates from the LFS are based on where people usually reside. However, the SEPH counts employees in the province or territory where they work. This does not affect comparability at the national level, but can create differences at the provincial/territorial level.

## **Payroll estimates and detailed industry data**

New businesses are included in the Statistics Canada Business Register, which is used by the SEPH to obtain the industry information. However, there can be delays before all new businesses are classified, which can mean temporary under-reporting in some of the detailed industry data. Also, the Business Register regularly reviews and updates the industry and provincial classification of current establishments. This can cause changes to employment levels of updated industries, not reflecting real growth or decline.

Employment industry data available from the household survey are based on information provided by survey respondents when asked about the detailed characteristics of their employment. That information is then processed and an industrial classification code is assigned by Statistics Canada.

## **Release schedule differences**

The LFS interviews take place over the ten days following the reference week. This is followed by nine days of processing and analysis, enabling the release of the estimates 19 days after the Saturday of the reference week. The release usually takes place the first or second Friday of the month.

Businesses have until the 15<sup>th</sup> of the following month to file data from the last pay period of the reference month to the Canada Revenue Agency. These data, or approximately one million records, are provided to Statistics Canada at the beginning of the next month, or five weeks after the reference period. This is followed by three and a half weeks of processing and analysis, bringing the release to eight and a half weeks after the reference period.

## **Revision schedule**

Estimates from both surveys are revised according to different schedules. While this does not impact the overall trends, it could affect the month-to-month change.

The seasonally adjusted LFS estimates are revised yearly, going back three years and are published around the end of January. Every five years, population controls are updated according to the latest census population projections and all LFS estimates are revised historically over a longer time span. This exercise is called a rebasing and the last one occurred in January 2015. At the time of the rebasing, the latest classifications for geography, industry and occupation are updated along with the latest seasonal factors.

With the SEPH, monthly estimates are revised the month after the estimates are first publicly released. For example, when estimates for May are released, estimates for April are revised.

Every year at the end of March, the SEPH estimates undergo a historical revision. The span and the breadth of the revisions vary depending on the year. The revisions to specific industries sometimes go back as far as 2001 and can include updates to new classification systems (i.e., moving from NAICS 2012 to NAICS 2017), or sometimes will span only a few years with minimal changes. At the same time, seasonally adjusted data are revised back three years.

## Related products

### Selected CANSIM tables from Statistics Canada

281-0023	Survey of Employment, Payrolls and Hours (SEPH), employment by type of employee and detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-0024	Survey of Employment, Payrolls and Hours (SEPH), employment by type of employee and detailed North American Industry Classification System (NAICS), annual
281-0026	Survey of Employment, Payrolls and Hours (SEPH), average weekly earnings by type of employee, overtime status and detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-0027	Survey of Employment, Payrolls and Hours (SEPH), average weekly earnings by type of employee, overtime status and detailed North American Industry Classification System (NAICS), annual
281-0029	Survey of Employment, Payrolls and Hours (SEPH), average hourly earnings for employees paid by the hour, by overtime status and detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-0030	Survey of Employment, Payrolls and Hours (SEPH), average hourly earnings for employees paid by the hour, by overtime status and detailed North American Industry Classification System (NAICS), annual
281-0032	Survey of Employment, Payrolls and Hours (SEPH), average weekly hours for employees paid by the hour, by overtime status and detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-0033	Survey of Employment, Payrolls and Hours (SEPH), average weekly hours for employees paid by the hour, by overtime status and detailed North American Industry Classification System (NAICS), annual
281-0035	Survey of Employment, Payrolls and Hours (SEPH), average hourly earnings (including overtime) for salaried employees, by detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-0036	Survey of Employment, Payrolls and Hours (SEPH), average hourly earnings (including overtime) for salaried employees, by detailed North American Industry Classification System (NAICS), annual
281-0037	Survey of Employment, Payrolls and Hours (SEPH), standard work week for salaried employees, by detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-0038	Survey of Employment, Payrolls and Hours (SEPH), standard work week for salaried employees, by detailed North American Industry Classification System (NAICS), annual
281-0039	Survey of Employment, Payrolls and Hours (SEPH), fixed weighted index of average hourly earnings for all employees, by North American Industry Classification System (NAICS), monthly
281-0041	Survey of Employment, Payrolls and Hours (SEPH), employment for all employees, by enterprise size and North American Industry Classification System (NAICS), unadjusted for seasonality, quarterly
281-0042	Survey of Employment, Payrolls and Hours (SEPH), employment for all employees, by enterprise size and North American Industry Classification System (NAICS), annual
281-0043	Survey of Employment, Payrolls and Hours (SEPH), average weekly earnings (including overtime) for all employees, by enterprise size and North American Industry Classification System (NAICS), unadjusted for seasonality, quarterly
281-0044	Survey of Employment, Payrolls and Hours (SEPH), average weekly earnings (including overtime) for all employees, by enterprise size and North American Industry Classification System (NAICS), annual

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281-0045	Survey of Employment, Payrolls and Hours (SEPH), average weekly hours (including overtime) for employees paid by the hour, by enterprise size and North American Industry Classification System (NAICS), unadjusted for seasonality, quarterly
281-0046	Survey of Employment, Payrolls and Hours (SEPH), average weekly hours (including overtime) for employees paid by the hour, by enterprise size and North American Industry Classification System (NAICS), annual
281-0047	Survey of Employment, Payrolls and Hours (SEPH), employment and average weekly earnings (including overtime) for all employees by detailed North American Industry Classification System (NAICS), Canada, seasonally adjusted, monthly
281-0048	Survey of Employment, Payrolls and Hours (SEPH), employment, average hourly and weekly earnings, and average weekly hours, by type of employee and North American Industry Classification System (NAICS), Canada, seasonally adjusted, monthly
281-0049	Survey of Employment, Payrolls and Hours (SEPH), employment, average hourly and weekly earnings (including overtime), and average weekly hours for the industrial aggregate excluding unclassified businesses, seasonally adjusted, monthly
281-0063	Survey of Employment, Payrolls and Hours (SEPH), employment and average weekly earnings (including overtime) for all employees by North American Industry Classification System (NAICS), seasonally adjusted, monthly
281-8023	Historical (real-time) releases of the Survey of Employment, Payrolls and Hours (SEPH), employment by type of employee and detailed North American Industry Classification System (NAICS), unadjusted for seasonality, monthly
281-8026	Historical (real-time) releases of the Survey of Employment, Payrolls and Hours (SEPH), average weekly earnings by type of employee, overtime status and detailed North American Industry Classification System, unadjusted for seasonality, monthly
281-8047	Historical (real-time) releases of the Survey of Employment, Payrolls and Hours (SEPH), employment and average weekly earnings for all employees by detailed North American Industry Classification System (NAICS), Canada, seasonally adjusted, monthly
281-8063	Historical (real-time) releases of the Survey of Employment, Payrolls and Hours (SEPH), employment and average weekly earnings for all employees by North American Industry Classification System (NAICS), seasonally adjusted, monthly
284-0001	Survey of Employment, Payrolls and Hours (SEPH), job vacancy statistics, labour demand and job vacancy rate by North American Industry Classification System (NAICS), three-month moving average, unadjusted for seasonality, monthly
284-0002	Survey of Employment, Payrolls and Hours (SEPH), job vacancy statistics, labour demand and job vacancy rate by North American Industry Classification System (NAICS), annual
284-0003	Survey of Employment, Payrolls and Hours (SEPH), job vacancy statistics, unemployed and unemployment-to-job vacancies ratio by North American Industry Classification System (NAICS), three-month moving average, unadjusted for seasonality, monthly
284-0004	Survey of Employment, Payrolls and Hours (SEPH), job vacancy statistics, unemployed and unemployment-to-job vacancies ratio by North American Industry Classification System (NAICS), annual

## **Selected surveys from Statistics Canada**

2612	Survey of Employment, Payrolls and Hours
5202	Job Vacancy Statistics

## **Selected summary tables from Statistics Canada**

- Average weekly earnings (including overtime), by province and territory
- Average hourly earnings (including overtime) for employees paid by the hour, by province and territory
- Employment, health care and social assistance, by province and territory
- Average weekly earnings (including overtime), health care and social assistance, by province and territory
- Average weekly hours (including overtime) for employees paid by the hour, by province and territory
- Average weekly earnings (including overtime), by enterprise size, by province and territory
- Payroll employment, by province and territory
- Average weekly earnings (including overtime), by industry, annual
- Average hourly earnings (including overtime) for employees paid by the hour, by industry
- Employment, by enterprise size
- Average weekly earnings (including overtime), by enterprise size
- Employment, by enterprise size, by province and territory
- Payroll employment, by industry
- Average weekly hours (including overtime) for employees paid by the hour, by industry
- Economic indicators, by province and territory (monthly and quarterly)
- Average weekly earnings (including overtime), by industry, monthly
- Employment and average weekly earnings (including overtime), public administration and all industries
- Canada: Economic and financial data
- Employment, educational services, by province and territory
- Average weekly earnings (including overtime), educational services, by province and territory
- Latest statistics

## Appendix A

**Table 1a**  
**Average monthly sample size by sector using the North American Industry Classification System (NAICS 2017 Version 2.0), province and territory, 2017**

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	number of establishments						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>961</b>	<b>512</b>	<b>1,210</b>	<b>1,080</b>	<b>1,954</b>	<b>2,407</b>	<b>1,235</b>
Forestry, logging and support	11	x	22	24	27	14	x
Mining, quarrying, and oil and gas extraction	18	x	21	13	21	26	7
Utilities	x	x	5	7	15	31	x
Construction	112	53	112	116	137	164	113
Manufacturing	58	32	126	116	311	340	138
Wholesale trade	50	37	57	59	122	155	68
Retail trade	161	90	182	171	214	229	149
Transportation and warehousing	62	28	65	55	115	134	69
Information and cultural industries	15	5	40	21	61	85	39
Finance and insurance	26	25	32	34	65	95	48
Real estate and rental and leasing	23	15	53	39	69	95	56
Professional, scientific and technical services	71	55	64	55	180	205	73
Management of companies and enterprises	x	x	16	5	23	26	14
Administrative and support, waste management and remediation services	47	26	73	50	101	203	72
Educational services	17	9	23	19	62	107	37
Health care and social assistance	103	39	104	96	138	150	114
Arts, entertainment and recreation	25	18	37	23	51	58	28
Accommodation and food services	81	36	100	104	115	126	99
Other services (except public administration)	58	32	64	50	98	122	72
Local, municipal, regional and Aboriginal public administration	15	11	13	23	29	41	37

	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut	Canada
	number of establishments						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>1,203</b>	<b>1,805</b>	<b>1,989</b>	<b>235</b>	<b>239</b>	<b>119</b>	<b>14,948</b>
Forestry, logging and support	x	8	27	x	x	x	136
Mining, quarrying, and oil and gas extraction	32	75	26	13	7	x	259
Utilities	x	23	20	x	x	x	119
Construction	117	179	164	31	35	18	1,352
Manufacturing	112	173	223	x	x	x	1,632
Wholesale trade	79	97	108	x	10	x	851
Retail trade	167	223	221	46	34	18	1,905
Transportation and warehousing	57	114	138	14	19	6	876
Information and cultural industries	45	61	64	x	5	x	442
Finance and insurance	36	58	62	x	5	x	490
Real estate and rental and leasing	41	68	94	x	x	8	572
Professional, scientific and technical services	73	170	159	x	12	x	1,126
Management of companies and enterprises	13	23	25	x	x	x	153
Administrative and support, waste management and remediation services	49	111	164	x	15	x	924
Educational services	36	51	65	x	x	12	443
Health care and social assistance	105	94	127	24	21	16	1,131
Arts, entertainment and recreation	25	43	56	8	x	x	377
Accommodation and food services	101	115	135	25	24	10	1,070
Other services (except public administration)	64	93	74	17	18	9	771
Local, municipal, regional and Aboriginal public administration	42	27	39	10	23	10	320

x suppressed to meet the confidentiality requirements of the *Statistics Act*

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

Source: Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).



**Table 2a**  
**Average monthly sample size by subsector using the North American Industry Classification System (NAICS 2017 Version 2.0),**  
**Canada, 2017**

	Subsector code	Sample size
		number of establishments
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	...	<b>14,948</b>
Forestry and logging	113	73
Support activities for agriculture and forestry	115	63
Oil and gas extraction	211	32
Mining and quarrying (except oil and gas)	212	103
Support activities for mining, and oil and gas extraction	213	124
Utilities	221	119
Construction of buildings	236	404
Heavy and civil engineering construction	237	379
Specialty trade contractors	238	569
Food manufacturing	311	233
Beverage and tobacco product manufacturing	312	30
Textile mills	313	57
Textile product mills	314	28
Clothing manufacturing	315	56
Leather and allied product manufacturing	316	30
Wood product manufacturing	321	156
Paper manufacturing	322	64
Printing and related support activities	323	72
Petroleum and coal product manufacturing	324	25
Chemical manufacturing	325	79
Plastics and rubber products manufacturing	326	90
Non-metallic mineral product manufacturing	327	56
Primary metal manufacturing	331	55
Fabricated metal product manufacturing	332	141
Machinery manufacturing	333	100
Computer and electronic product manufacturing	334	59
Electrical equipment, appliance and component manufacturing	335	27
Transportation equipment manufacturing	336	130
Furniture and related product manufacturing	337	81
Miscellaneous manufacturing	339	62
Farm product merchant wholesalers	411	28
Petroleum and petroleum products merchant wholesalers	412	23
Food, beverage and tobacco merchant wholesalers	413	164
Personal and household goods merchant wholesalers	414	72
Motor vehicle and motor vehicle parts and accessories merchant wholesalers	415	69
Building material and supplies merchant wholesalers	416	120
Machinery, equipment and supplies merchant wholesalers	417	202
Miscellaneous merchant wholesalers	418	135
Business-to-business electronic markets, and agents and brokers	419	38
Motor vehicle and parts dealers	441	227
Furniture and home furnishings stores	442	89
Electronics and appliance stores	443	27
Building material and garden equipment and supplies dealers	444	150
Food and beverage stores	445	459
Health and personal care stores	446	161
Gasoline stations	447	141
Clothing and clothing accessories stores	448	186
Sporting goods, hobby, book and music stores	451	88
General merchandise stores	452	211

**Table 2a**  
**Average monthly sample size by subsector using the North American Industry Classification System (NAICS 2017 Version 2.0), Canada, 2017**

	Subsector code	Sample size
		number of establishments
Miscellaneous store retailers	453	131
Non-store retailers	454	35
Air transportation	481	69
Rail transportation	482	26
Water transportation	483	52
Truck transportation	484	228
Transit and ground passenger transportation	485	155
Pipeline transportation	486	23
Scenic and sightseeing transportation	487	30
Support activities for transportation	488	157
Postal service	491	39
Couriers and messengers	492	36
Warehousing and storage	493	63
Publishing industries	511	125
Motion picture and sound recording industries	512	85
Broadcasting (except Internet)	515	42
Telecommunications	517	111
Data processing, hosting, and related services	518	28
Other information services	519	51
Monetary authorities - central bank	521	1
Credit intermediation and related activities	522	163
Securities, commodity contracts, and other financial investment and related activities	523	137
Insurance carriers and related activities	524	161
Funds and other financial vehicles	526	28
Real estate	531	409
Rental and leasing services	532	137
Lessors of non-financial intangible assets (except copyrighted works)	533	27
Professional, scientific and technical services	541	1,126
Management of companies and enterprises	551	153
Administrative and support services	561	877
Waste management and remediation services	562	47
Educational services	611	443
Ambulatory health care services	621	431
Hospitals	622	117
Nursing and residential care facilities	623	275
Social assistance	624	309
Performing arts, spectator sports and related industries	711	126
Heritage institutions	712	28
Amusement, gambling and recreation industries	713	223
Accommodation services	721	284
Food services and drinking places	722	786
Repair and maintenance	811	215
Personal and laundry services	812	196
Religious, grant-making, civic, and professional and similar organizations	813	360
Local, municipal and regional public administration	913	243
Aboriginal public administration	914	77

... not applicable

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

**Source:** Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).

## Appendix B

Table 1b

**Average monthly coefficients of variation for the average weekly earnings of all employees by sector using the North American Industry Classification System (NAICS 2017 Version 2.0), province and territory, 2017**

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>0.7</b>	<b>0.9</b>	<b>0.7</b>	<b>0.7</b>	<b>0.4</b>	<b>0.5</b>	<b>0.6</b>
Forestry, logging and support	..	..	4.5	2.7	2.9	3.3	..
Mining, quarrying, and oil and gas extraction	2.2	..	4.4	3.6	3.9	3.3	..
Utilities	..	..	..	..	2.8	3.9	..
Construction	2.0	3.4	2.2	2.3	2.2	1.7	1.9
Manufacturing	4.7	3.4	2.1	1.8	1.0	1.2	0.9
Wholesale trade	4.2	6.8	3.4	4.6	2.0	1.9	2.3
Retail trade	2.3	2.3	2.0	1.9	1.4	1.3	1.6
Transportation and warehousing	1.0	1.9	1.0	1.0	1.0	1.3	1.2
Information and cultural industries	2.8	..	2.5	3.0	2.2	1.8	1.3
Finance and insurance	4.8	13.5	3.2	7.7	2.6	2.8	3.3
Real estate and rental and leasing	4.2	7.3	4.9	4.8	3.0	3.1	4.3
Professional, scientific and technical services	1.8	4.0	2.8	2.3	1.6	1.2	1.4
Management of companies and enterprises	..	..	8.2	..	7.4	8.8	8.6
Administrative and support, waste management and remediation services	2.8	2.0	5.1	5.3	2.6	2.3	3.8
Educational services	0.4	1.6	3.1	2.3	1.6	1.8	2.6
Health care and social assistance	1.8	0.7	1.4	1.1	1.2	1.2	2.1
Arts, entertainment and recreation	4.9	3.1	3.4	3.0	2.0	2.7	1.8
Accommodation and food services	2.5	3.4	2.7	2.3	2.2	1.9	2.7
Other services (except public administration)	2.9	3.4	2.2	2.7	1.7	1.6	1.7
Public administration	2.5	0.4	0.6	1.0	1.1	1.6	0.6
	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut	Canada
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>0.7</b>	<b>0.6</b>	<b>0.4</b>	<b>1.0</b>	<b>0.6</b>	<b>1.2</b>	<b>0.3</b>
Forestry, logging and support	..	..	3.2	..	..	..	2.4
Mining, quarrying, and oil and gas extraction	3.1	3.3	3.1	..	1.4	..	2.5
Utilities	2.1	3.6	2.6	..	..	..	3.1
Construction	2.0	1.9	1.7	5.9	3.2	4.7	1.2
Manufacturing	1.9	1.7	1.3	..	..	..	0.9
Wholesale trade	2.8	2.4	2.2	..	3.0	..	1.4
Retail trade	1.9	1.4	1.5	2.3	3.4	5.8	1.0
Transportation and warehousing	1.5	1.3	0.9	1.1	2.4	..	0.9
Information and cultural industries	1.6	2.2	2.0	..	..	..	1.8
Finance and insurance	9.1	3.1	2.9	..	..	..	2.3
Real estate and rental and leasing	4.7	3.7	3.5	16.8	..	1.6	2.2
Professional, scientific and technical services	2.0	1.6	1.3	3.0	3.1	..	0.9
Management of companies and enterprises	5.7	7.1	4.8	..	..	..	6.0
Administrative and support, waste management and remediation services	5.0	2.7	1.9	..	4.8	..	1.5
Educational services	2.5	2.0	1.7	..	0.2	7.7	1.0
Health care and social assistance	1.5	0.9	1.3	2.2	2.8	1.5	0.8
Arts, entertainment and recreation	2.3	2.9	2.6	4.5	..	..	1.9
Accommodation and food services	2.6	1.9	1.9	4.0	3.5	6.1	1.1
Other services (except public administration)	2.1	2.0	1.7	4.1	4.3	10.3	1.0
Public administration	0.8	1.1	1.0	1.4	0.7	1.7	0.8

.. not available for a specific reference period

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

Source: Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).

**Table 2b**
**Average monthly coefficients of variation for the average weekly hours of employees paid by the hour by sector using the American Industry Classification System (NAICS 2017 Version 2.0), province and territory, 2017**

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>0.9</b>	<b>1.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.6</b>	<b>0.8</b>
Forestry, logging and support	..	..	5.1	5.3	4.0	4.6	..
Mining, quarrying, and oil and gas extraction	2.0	..	4.1	3.9	3.0	3.0	..
Utilities	..	..	..	..	2.3	3.4	..
Construction	2.4	3.1	2.0	2.6	2.2	2.0	2.1
Manufacturing	4.2	3.1	2.1	1.8	0.9	1.0	1.0
Wholesale trade	3.5	5.6	3.5	3.5	1.7	1.9	2.3
Retail trade	2.1	2.3	1.6	1.6	1.2	1.4	1.8
Transportation and warehousing	2.5	4.0	2.8	2.8	2.1	2.0	2.0
Information and cultural industries	4.8	..	4.4	6.3	4.8	5.3	3.5
Finance and insurance	9.9	9.4	5.3	5.8	3.8	4.6	12.1
Real estate and rental and leasing	7.7	9.4	8.4	8.2	5.1	3.7	8.4
Professional, scientific and technical services	3.7	6.7	3.2	4.2	3.0	2.9	3.2
Management of companies and enterprises	..	..	11.6	..	4.9	7.6	8.8
Administrative and support, waste management and remediation services	4.7	2.0	3.1	4.7	2.7	2.8	4.9
Educational services	17.0	12.5	12.0	13.6	12.4	11.8	11.6
Health care and social assistance	2.0	0.9	1.7	1.3	1.3	1.9	2.3
Arts, entertainment and recreation	9.0	5.4	5.3	5.2	3.9	4.8	4.8
Accommodation and food services	3.6	4.9	2.9	2.8	2.2	2.4	2.7
Other services (except public administration)	4.8	5.3	3.6	4.2	2.3	2.8	3.3
Public administration	...	...	...	...	...	...	...
	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut	Canada
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>0.9</b>	<b>0.6</b>	<b>0.6</b>	<b>1.6</b>	<b>1.5</b>	<b>2.6</b>	<b>0.4</b>
Forestry, logging and support	..	..	4.5	..	..	..	3.4
Mining, quarrying, and oil and gas extraction	3.0	3.1	3.1	..	3.7	..	2.2
Utilities	2.9	3.8	2.8	..	..	..	2.9
Construction	2.0	1.8	1.9	5.1	2.8	4.5	1.2
Manufacturing	1.7	1.5	1.3	..	..	..	0.7
Wholesale trade	3.1	2.5	2.7	..	2.8	..	1.3
Retail trade	1.9	1.4	1.6	2.3	5.7	5.1	0.9
Transportation and warehousing	3.4	2.4	1.7	2.5	4.2	..	1.5
Information and cultural industries	26.0	4.8	4.6	..	..	..	4.3
Finance and insurance	30.9	8.7	4.5	..	..	..	3.3
Real estate and rental and leasing	8.6	5.8	7.6	41.8	..	2.2	2.8
Professional, scientific and technical services	4.8	3.3	3.0	7.6	3.8	..	1.9
Management of companies and enterprises	7.8	11.8	4.8	..	..	..	4.8
Administrative and support, waste management and remediation services	5.5	3.2	2.7	..	8.8	..	1.8
Educational services	9.4	14.1	11.5	..	8.6	20.0	7.8
Health care and social assistance	1.8	1.2	1.7	3.3	3.5	4.0	1.0
Arts, entertainment and recreation	4.6	5.4	4.4	18.2	..	..	3.1
Accommodation and food services	3.3	2.2	2.1	5.2	5.5	7.8	1.3
Other services (except public administration)	3.2	3.0	2.8	4.9	8.5	10.9	1.6
Public administration	...	...	...	...	...	...	...

.. not available for a specific reference period

... not applicable

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

**Source:** Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).

**Table 3b**  
**Average monthly coefficients of variation for the average weekly hours of salaried employees by sector using the North American Industry Classification System (NAICS 2017 Version 2.0), province and territory, 2017**

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>0.8</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>	<b>0.7</b>
Forestry, logging and support	..	..	3.3	2.9	3.8	3.1	..
Mining, quarrying, and oil and gas extraction	2.1	..	2.0	2.7	1.7	1.5	..
Utilities	..	..	..	..	1.5	1.5	..
Construction	1.5	3.8	1.6	2.2	2.4	1.2	2.0
Manufacturing	1.5	1.0	0.8	1.2	0.4	0.5	0.5
Wholesale trade	0.8	3.2	1.1	0.9	0.7	0.7	1.0
Retail trade	1.3	1.3	1.8	1.2	1.2	1.0	1.2
Transportation and warehousing	1.1	1.4	0.7	1.2	1.0	1.2	0.6
Information and cultural industries	1.3	..	1.1	0.9	0.9	0.8	0.4
Finance and insurance	0.9	0.7	1.0	0.8	0.9	0.9	0.6
Real estate and rental and leasing	1.5	15.4	3.1	1.7	4.0	1.8	1.7
Professional, scientific and technical services	0.8	0.9	0.9	1.5	1.0	0.7	1.3
Management of companies and enterprises	..	..	1.7	..	1.2	1.4	1.3
Administrative and support, waste management and remediation services	2.7	0.9	1.5	2.4	1.5	0.9	2.2
Educational services	0.6	0.7	2.2	2.0	1.7	2.1	3.7
Health care and social assistance	1.9	2.5	2.1	2.4	2.4	1.7	1.5
Arts, entertainment and recreation	2.5	2.2	2.0	2.5	1.4	2.5	1.7
Accommodation and food services	2.9	2.6	2.7	2.0	4.6	2.7	3.1
Other services (except public administration)	2.8	2.6	1.7	1.7	1.9	1.0	1.9
Public administration	...	...	...	...	...	...	...
	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut	Canada
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>0.7</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.2</b>	<b>0.9</b>	<b>0.3</b>
Forestry, logging and support	..	..	4.4	..	..	..	3.3
Mining, quarrying, and oil and gas extraction	1.2	0.9	1.6	..	0.3	..	0.9
Utilities	0.7	1.6	0.9	..	..	..	1.3
Construction	1.3	0.9	1.3	5.5	3.8	3.1	0.9
Manufacturing	0.5	0.6	0.5	..	..	..	0.4
Wholesale trade	1.1	0.6	0.7	..	1.1	..	0.5
Retail trade	0.8	1.0	1.1	1.2	1.5	3.5	0.7
Transportation and warehousing	1.0	1.0	0.6	1.3	1.1	..	0.7
Information and cultural industries	0.7	0.8	0.7	..	..	..	0.7
Finance and insurance	1.1	0.9	0.7	..	..	..	0.7
Real estate and rental and leasing	2.9	1.6	3.0	8.5	..	0.2	1.2
Professional, scientific and technical services	1.0	1.0	0.8	1.3	0.9	..	0.5
Management of companies and enterprises	1.4	1.3	1.5	..	..	..	1.1
Administrative and support, waste management and remediation services	1.6	1.3	1.1	..	3.3	..	0.7
Educational services	2.9	2.5	1.6	..	0.1	7.7	1.1
Health care and social assistance	1.6	1.6	1.5	7.8	1.2	0.4	1.2
Arts, entertainment and recreation	2.1	1.5	2.5	1.3	..	..	1.7
Accommodation and food services	3.9	2.4	1.9	4.4	2.0	10.0	1.6
Other services (except public administration)	1.3	1.5	2.0	1.2	1.4	1.0	0.8
Public administration	...	...	...	...	...	...	...

.. not available for a specific reference period

... not applicable

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

Source: Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).

**Table 4b**
**Average monthly coefficients of variation for the average hourly earnings of employees paid by the hour by sector using the North American Industry Classification System (NAICS 2017 Version 2.0), province and territory, 2017**

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>1.1</b>	<b>1.1</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>
Forestry, logging and support	..	..	4.0	4.4	3.8	5.2	..
Mining, quarrying, and oil and gas extraction	2.6	..	7.3	8.1	6.0	5.2	..
Utilities	..	..	..	..	3.8	6.2	..
Construction	2.5	3.0	2.5	3.2	2.8	2.5	2.3
Manufacturing	4.1	3.8	1.9	2.4	1.5	1.6	1.2
Wholesale trade	5.0	4.9	5.4	5.5	3.8	4.1	3.6
Retail trade	2.2	1.9	2.0	1.6	1.6	1.4	1.5
Transportation and warehousing	2.7	4.3	2.5	2.3	2.2	2.0	2.6
Information and cultural industries	7.4	..	6.2	12.3	6.7	5.9	4.5
Finance and insurance	40.8	10.0	7.4	14.5	4.3	6.6	14.8
Real estate and rental and leasing	5.8	10.4	7.4	7.5	4.5	5.2	8.2
Professional, scientific and technical services	6.5	8.5	4.3	8.3	5.3	4.3	3.7
Management of companies and enterprises	..	..	8.8	..	7.6	7.9	5.8
Administrative and support, waste management and remediation services	8.8	1.8	4.6	4.7	4.2	2.8	5.5
Educational services	7.9	9.4	8.9	7.8	10.7	8.4	7.6
Health care and social assistance	2.3	0.9	1.5	1.5	1.4	2.0	1.9
Arts, entertainment and recreation	6.4	3.4	3.8	3.6	3.2	3.6	3.4
Accommodation and food services	1.7	2.4	1.8	1.7	1.7	1.4	1.6
Other services (except public administration)	3.5	5.6	3.3	4.0	3.1	3.1	2.9
Public administration	...	...	...	...	...	...	...
	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut	Canada
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>1.1</b>	<b>1.0</b>	<b>0.8</b>	<b>2.2</b>	<b>1.8</b>	<b>2.4</b>	<b>0.5</b>
Forestry, logging and support	..	..	4.2	..	..	..	3.5
Mining, quarrying, and oil and gas extraction	5.4	5.5	5.1	..	6.3	..	4.3
Utilities	5.4	7.3	3.8	..	..	..	5.2
Construction	2.0	1.9	2.1	4.4	2.7	4.4	1.5
Manufacturing	2.8	2.6	2.0	..	..	..	1.3
Wholesale trade	4.8	4.2	3.8	..	5.0	..	2.7
Retail trade	2.1	1.5	1.7	2.4	5.0	6.0	1.0
Transportation and warehousing	2.8	2.5	1.9	2.2	4.1	..	1.6
Information and cultural industries	17.1	5.7	5.9	..	..	..	5.7
Finance and insurance	185.7	11.1	4.1	..	..	..	4.4
Real estate and rental and leasing	7.9	7.1	6.2	44.0	..	5.2	3.6
Professional, scientific and technical services	5.1	4.8	5.9	10.8	7.2	..	3.5
Management of companies and enterprises	8.9	14.4	8.9	..	..	..	6.1
Administrative and support, waste management and remediation services	5.3	4.6	2.1	..	5.6	..	2.1
Educational services	7.1	13.0	9.3	..	7.3	19.9	6.5
Health care and social assistance	1.9	1.3	1.9	3.1	4.8	3.2	1.1
Arts, entertainment and recreation	3.8	4.1	4.1	12.5	..	..	2.5
Accommodation and food services	1.9	1.5	1.4	4.3	3.2	5.1	0.9
Other services (except public administration)	3.3	3.4	2.9	7.2	6.9	14.7	1.9
Public administration	...	...	...	...	...	...	...

.. not available for a specific reference period

... not applicable

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

**Source:** Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).

**Table 5b**  
**Average monthly coefficients of variation for the average hourly earnings of salaried employees by sector using the North American Industry Classification System (NAICS 2017 Version 2.0), province and territory, 2017**

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>1.3</b>	<b>1.3</b>	<b>1.1</b>	<b>1.2</b>	<b>0.9</b>	<b>0.9</b>	<b>1.2</b>
Forestry, logging and support	..	..	14.3	4.1	8.7	6.1	..
Mining, quarrying, and oil and gas extraction	3.8	..	10.0	7.1	7.5	5.5	..
Utilities	..	..	..	..	4.5	5.6	..
Construction	4.0	7.4	3.7	5.7	4.0	3.8	4.5
Manufacturing	5.7	3.2	3.3	3.1	2.1	2.4	2.2
Wholesale trade	6.0	8.0	4.7	7.7	4.3	2.9	3.6
Retail trade	4.3	4.4	3.5	3.4	4.6	2.9	2.8
Transportation and warehousing	2.1	2.5	1.9	2.6	2.6	3.5	2.0
Information and cultural industries	4.7	..	3.8	4.3	3.2	3.0	2.1
Finance and insurance	3.7	5.3	3.7	4.3	4.1	3.3	4.4
Real estate and rental and leasing	7.4	9.6	8.1	6.9	8.4	7.1	9.1
Professional, scientific and technical services	2.8	3.1	3.4	4.4	3.0	2.2	3.2
Management of companies and enterprises	..	..	8.1	..	7.6	7.1	8.3
Administrative and support, waste management and remediation services	9.9	6.3	7.9	7.7	6.2	4.2	8.2
Educational services	0.7	1.4	3.8	2.8	2.1	2.6	4.9
Health care and social assistance	5.8	5.6	5.6	5.9	5.5	4.5	4.9
Arts, entertainment and recreation	6.3	7.4	3.7	5.8	3.6	4.1	6.2
Accommodation and food services	6.0	9.9	4.4	4.3	4.6	4.4	5.2
Other services (except public administration)	5.6	7.2	4.6	6.9	6.2	3.4	4.2
Public administration	...	...	...	...	...	...	...
	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut	Canada
	percent						
<b>Industrial aggregate excluding unclassified businesses<sup>1,2</sup></b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>2.1</b>	<b>0.8</b>	<b>1.6</b>	<b>0.6</b>
Forestry, logging and support	..	..	7.8	..	..	..	5.7
Mining, quarrying, and oil and gas extraction	4.7	4.5	5.4	..	1.1	..	3.7
Utilities	2.2	3.8	3.2	..	..	..	4.1
Construction	4.2	3.7	4.9	24.2	7.9	11.5	2.7
Manufacturing	3.7	3.2	2.5	..	..	..	1.9
Wholesale trade	4.9	3.6	3.5	..	6.6	..	2.2
Retail trade	3.7	2.4	3.2	4.0	4.7	7.8	2.2
Transportation and warehousing	3.0	3.1	1.8	4.3	4.4	..	2.1
Information and cultural industries	2.4	3.1	3.0	..	..	..	2.7
Finance and insurance	4.3	3.5	3.5	..	..	..	2.7
Real estate and rental and leasing	7.6	5.9	5.9	31.4	..	2.6	4.9
Professional, scientific and technical services	3.4	2.8	2.4	4.6	3.5	..	1.7
Management of companies and enterprises	5.9	7.2	6.5	..	..	..	5.5
Administrative and support, waste management and remediation services	7.5	6.2	4.1	..	11.3	..	3.0
Educational services	4.3	2.4	2.1	..	0.3	5.7	1.4
Health care and social assistance	5.2	3.1	3.7	11.9	4.3	1.7	3.2
Arts, entertainment and recreation	3.9	4.1	5.6	3.0	..	..	3.2
Accommodation and food services	5.3	4.5	4.9	10.2	6.5	15.3	2.7
Other services (except public administration)	6.1	4.6	5.4	8.1	9.3	11.0	2.7
Public administration	...	...	...	...	...	...	...

.. not available for a specific reference period

... not applicable

1. Industrial aggregate covers all industrial sectors except those primarily involved in agriculture, fishing and trapping, private household services, religious organisations and the military personnel of the defence services.

2. Unclassified businesses are businesses for which the industrial classification (North American Industry Classification System [NAICS] 2017 Version 2.0) has yet to be determined.

Source: Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH).

## Appendix C: Questionnaires

Questionnaire(s) and reporting guide(s) – Survey of Employment, Payrolls and Hours (SEPH):

- Business Payrolls Survey
- Business Payrolls Survey – Education
- Business Payrolls Survey – Public Sector

Copies of the questionnaires and reporting guides can be found using the following link: <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2612>.