



METHODOLOGICAL EXPLANATION

Nina Češek Vozel

HOURS WORKED

This methodological explanation relates to the data releases:

- Hours worked, Slovenia, quarterly (First Release)



September 2024

Content	
1	PURPOSE..... 3
2	LEGAL FRAMEWORK..... 3
3	UNIT DESCRIBED BY THE PUBLISHED DATA..... 3
4	SELECTION OF OBSERVATION UNIT..... 3
5	SOURCES AND METHODS OF DATA COLLECTION..... 4
6	DEFINITIONS..... 4
7	EXPLANATIONS..... 6
8	PUBLISHING..... 8
9	REVISION OF THE DATA..... 8
10	OTHER METHODOLOGICAL MATERIALS..... 9

1 PURPOSE

The purpose of publishing data on hours worked is to present quarterly volume and trends in the hours actually worked in Slovenia by activities, used for analysing business (economic) cycles, for calculating the labour cost index per hour (actually) worked and for calculating the labour productivity in national accounts.

The key statistics are:

- Total number of hours worked
- Total number of paid hours
- Average monthly number of hours worked per person in paid employment
- Average monthly number of paid hours per person in paid employment
- Total number of hours worked indices

2 LEGAL FRAMEWORK

- [Annual Programme of Statistical Surveys \(LPSR\) \(only in Slovene\)](#)
- [National Statistics Act \(OJ RS, No. 45/95 and 9/01\)](#)
- Regulation (EC) 450/2003 of the European Parliament and of the Council of 27 February 2003 concerning the labour cost index (CELEX: 32003R0450)
- Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics, repealing 10 legal acts in the field of business statistics (CELEX: 32019R2152)

3 UNIT DESCRIBED BY THE PUBLISHED DATA

Units described by the published data on hours worked are hour worked and paid hour by activity.

4 SELECTION OF OBSERVATION UNIT

Observation unit is a person in paid employment by legal person (i.e. business entity or its unit) in the private/public sector or by registered natural person, both registered for performing their activity on the territory of the Republic of Slovenia, which has received a wage and/or a non-refunded wage compensation paid by the employer (i.e. from the employers resources) in the observed (reference) quarter.

Coverage is complete. The survey covers all persons in paid employment with signed contracts of permanent or fixed-term employment for full- or part-time job.

The survey *does not cover* self-employed persons, farmers, persons in paid employment who did not receive any of the earnings types (i.e. a wage or a non-refunded wage compensation) paid by the employer (i.e. from the employers resources) in the observed period (temporarily laid-off employees who did not receive a wage and/or a non-refunded wage compensation paid by the employer are also not covered), employed persons engaged in community work schemes, persons in paid employment under work contract, contract for a copyrighted work and similar contracts (i.e. pupils and students on practice, labour force hired through temporary work agencies, etc.), posted workers and persons in paid employment who were absent from work due to sick leave over 30 working days, maternity, paternity or parental leave in case they did not receive a wage and/or a non-refunded wage compensation paid by the employer.

5 SOURCES AND METHODS OF DATA COLLECTION

Data are collected quarterly.

Data are obtained exclusively from the existing (available) statistical and administrative data sources.

Statistical data sources used in this survey are:

- other statistical surveys: Earnings (EARNINGS), Labour Force Survey (ANP) and Working Time Structure Survey (ZAP-SDČ);
- Statistical Register of Employment (SRDAP);
- calendar (data on the number of public holidays and other non-working days, determined by the legislation).

Additional information on data from the statistical surveys Earnings, ANP and ZAP-SDČ is available in Methodological explanations (please see chapter Other methodological materials).

In the survey data from the administrative record 'Temporary/Permanent Absence from Work due to Illness, Injury, Care, Escort and Other Reasons (NIJZ 3)' are also used. These data are monthly transmitted to SURS by NIJZ.

6 DEFINITIONS

Number of paid hours is the total number of hours in the observed quarter for which persons in paid employment received a wage and/or a non-refunded wage compensation paid by the employer. Paid hours *include* paid hours worked during the normal working time (full- or part-time) and overtime (paid overtime hours), paid hours for time spent at the place of work on tasks such as preparing the site and short rest periods, paid hours within the inactive part of the working time, i.e. time spent for meal breaks and temporary layoff hours (e.g. due to delays and stoppages arising from the objective reasons), and

hours not worked with non-refunded wage compensation paid by the employer, which consist of the following absences from work: annual, special and training leave, public holidays and other non-working days, determined by the legislation, sick leave up to 30 working days and other paid hours not worked.

Paid hours *do not include* hours worked in community work schemes, time used for commuting between home and work, hours worked without wage compensation and reimbursed hours (e.g. for maternity, paternity or parental leave, sick leave over 30 working days, reimbursed hours of trainees and of disabled, and reimbursed hours for the duration of the COVID-19 epidemic).

Number of hours worked is the total number of hours actually worked in the observed quarter by persons in paid employment during ordinary working time (normal working hours), hours worked in addition to those (paid and unpaid overtime), paid hours for time spent at the place of work on tasks such as preparing the site and time of short rest periods at the work place. The concept of hours worked *excludes* hours worked in community work schemes, time used for commuting between home and work, reimbursed hours (e.g. for maternity, paternity or parental leave, sick leave over 30 working days, reimbursed hours of trainees and of disabled, and reimbursed hours for the duration of the COVID-19 epidemic), time spent for meal breaks and hours not worked with non-refunded wage compensation paid by the employer, which consist of the following absences from work: annual, special and training leave, public holidays and other non-working days, determined by the legislation, sick leave up to 30 working days and other paid hours not worked.

Person in paid employment is a person who received regular, overdue or extra payment from the employers resources in the observed period. In case a person in paid employment receives two or all three payments simultaneously, this counts only as one person. If a person in paid employment was temporarily laid-off and did not receive a wage and/or a non-refunded wage compensation paid by the employer, it is not counted as a person in paid employment.

Average monthly number of hours worked per person in paid employment is an average monthly number of hours actually worked by a person in paid employment who received a wage and/or a non-refunded wage compensation paid by the employer in the observed quarter.

Average monthly number of paid hours per person in paid employment is an average monthly number of hours for which a person in paid employment received a wage and/or a non-refunded wage compensation paid by the employer in the observed quarter.

Total number of hours worked index measures the changes in the total number of hours worked. We publish moving base indices (current quarter/previous quarter, current quarter/same quarter of previous year) and the fixed base index (current quarter/2008 average).

7 EXPLANATIONS

7.1 CLASSIFICATIONS

SKD – Standard Classification of Activities. Data are available at the 1-digit (i.e. section) level of SKD. For more, see: [Economic classification](#).

7.2 DATA PROCESSING

DATA EDITING

Data were edited with the combination of systematic corrections, individual corrections and imputation procedures. The following imputation methods were used: logical imputations, mean imputations, hot-deck imputations and historical imputations.

For more, see the general methodological explanations [Statistical data editing](#).

WEIGHTING

Weighting was not performed.

SEASONAL ADJUSTMENT

Seasonal adjustment is not applicable.

DATA PROCESSING OTHER

Quarterly statistics on hours worked is compiled using the **component method**. The basis for estimating the number of hours worked is the number of paid hours from the statistical survey Earnings. The estimation of the number of hours worked (OP_UR) is derived from the number of paid hours (PL_UR), which already include paid overtime hours (PL_NADUR). The number of paid hours is further increased by the estimated number of unpaid overtime hours (NEPL_NADUR) and reduced by other components of working hours, i.e. the estimated number of annual leave hours (D_UR), the estimated number of sick leave hours up to 30 days chargeable to the employer (B_UR), the estimated number of public holidays hours (P_UR) and the estimated number of meal breaks hours (M_UR), which can be described by the following formula:

$$OP_UR = PL_UR + NEPL_NADUR - D_UR - B_UR - P_UR - M_UR$$

Calculations are performed separately for the individual components of working hours. Quarterly data on the number of hours within each component are calculated or estimated separately for persons employed by legal persons and persons employed by registered natural persons.

Data on the *number of persons in paid employment*, data on the *number of paid hours* (PL_UR) and data on the *number of paid overtime hours* (PL_NADUR) are acquired from the statistical survey Earnings.

Data sources for estimating the *component unpaid overtime hours* (NEPL_NADUR) are statistical survey ANP (data on the ratio between the number of unpaid overtime hours and the number of paid overtime hours) and estimated component paid overtime hours (PL_NADUR).

For estimating the *component annual leave hours* (D_UR) information from statistical surveys ZAP-SDČ (data on the average annual number of used annual leave hours per person in paid employment), ANP (data on the distribution of used annual leave hours by quarters) and Earnings (data on the number of persons employed by who received a wage and/or a non-refunded wage compensation paid by the employer).

The basic data source for estimating the *component sick leave hours up to 30 days chargeable to the employer* (B_UR) is administrative record NIJZ 3 (data on the number of sick leave hours chargeable to the employer). Also, available information from SRDAP (registry data on the number of persons in paid employment) and statistical survey Earnings (data on the number of persons employed who received a wage and/or a non-refunded wage compensation paid by the employer).

For estimating the *component public holidays hours* (P_UR) information from the calendar (data on the number of public holidays and other non-working days, determined by the legislation), SRDAP (registry data on the number of persons in paid employment for full-time job, the number of persons in paid employment for part-time job and the ordinary number of weekly hours of employment of individual person in paid employment) and statistical survey Earnings (data on the number of persons employed who received a wage and/or a non-refunded wage compensation paid by the employer).

Data sources for estimating the *component meal breaks hours* (M_UR) are SRDAP (registry data on the ordinary number of weekly hours of employment of individual person in paid employment) and results of the estimated working hours components PL_UR, PL_NADUR, P_UR, D_UR and B_UR.

7.3 INDICES

Total number of hours worked indices compared to the previous quarter, same quarter of previous year and 2008 average are published for the observed quarter.

7.4 PRECISION

The precision is not calculated.

7.5 OTHER EXPLANATIONS

Data that are statistically protected to respect the confidentiality of reporting units are replaced with the letter »z«.

8 PUBLISHING

- SiStat Database: [Labour Market](#) – Working hours. Absolute non-seasonally adjusted data are published (i.e. total number of hours worked and paid hours, average monthly number of hours worked and paid hours per person in paid employment) and total number of hours worked indices. Data are published according to the Standard Classification of Activities SKD at the 1-digit (i.e. section) level.
- First Release (Labour Market, Working Hours): »Hours Worked, Slovenia, quarterly«.

9 REVISION OF THE DATA

9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

With the first release of data for the 1st, 2nd and 3rd quarters of the current year data are published as provisional data. With the first release of data for the 4th quarter of the current year data for all quarters of the current year are published as final data.

Publishing of provisional and final data is planned. Due to the needs of users for timely information, provisional data are published that meet the criteria of the quality of official statistical data but do not meet the quality that can be met with complete coverage. Data are revised when recent, more complete and better data can significantly contribute to the quality of data-based decision-making.

With the first release of the data for the 4th quarter of the current year previously published data for the first three quarters of the current year are completed using more comprehensive data (i.e. information on distribution of used annual leave hours by quarters of the current year from the statistical survey ANP is used for estimating the component annual leave hours) and, if applicable, adjusted with the changes in the data sources used that have occurred since the previous releases of the data. Planned revisions occur also due to the usage of more recent information from the 4-year statistical survey ZAP-SDČ, because the results of this survey have an impact on the estimated number of hours by some of the working hours' components.

After publishing final data unplanned revision of published time series can occur only exceptionally, namely due to the inclusion of a new/more complete/supplementary data source and/or due to methodological changes.

9.2 FACTORS INFLUENCING COMPARABILITY OVER TIME

In the light of disseminated data, all data points in the available time series (i.e. from 1st quarter 1995 on) are mutually comparable, because all data for the periods before 2008 are recalculated according to the SKD 2008.

Some minor breaks are present in time series due to past unplanned revisions of data. The major break in time series is due to the fact that data on unpaid overtime hours were not used in estimating data on hours worked for the period from the 1st quarter of 1995 to the 4th quarter of 2004, because no data source for estimating unpaid overtime hours was available in the observed period. Reasons for other minor breaks in time series derive from the use of new/more complete/supplementary data source (i.e. usage of data from administrative record NIJZ 3 from the 1st quarter of 2008 on).

From the 1st quarter of 2024, we started using as one of the sources the results of the statistical survey Earnings, which replaced the survey Earnings of persons in paid employment by legal persons (ZAP/M). Data from the 1st quarter of 2024 on are not fully comparable with data up to the 4th quarter of 2023.

Methodological explanation on revision of statistical data is available on <http://www.stat.si/dokument/5299/RevisionOfStatisticalDataMEgeneral.pdf>.

10 OTHER METHODOLOGICAL MATERIALS

Methodological materials on SURS's website are available at <https://www.stat.si/statweb/en/Methods/QuestionnairesMethodologicalExplanationsQualityReports>.

- Questionnaire:
 - SURS does not collect data for this survey by using a questionnaire.
- Methodological explanation:
 - Earnings

theme: Earnings and Labour Cost, sub-theme: Earnings

- Methodological explanation:
 - Labour Force (by the Labour Force Survey)

theme: Labour Market, sub-theme: Employees, Self-Employed and Unemployed

- Methodological explanation:

- Working time structure

theme: Labour Market, sub-theme: Working Hours