

SURVEY ON LABOUR COST INDEX

LEGAL BASIS

The Quarterly Labour Cost Index Survey has been conducted since 2011 on the basis of data from the Monthly Labour Force Survey and Structure of Earnings Survey (RAD-1) under the Law on Official Statistics ("Official Journal of the RS", number 104/09), as well as on the basis of data from the records of the Pension and Disability Insurance Fund of the Republic of Serbia and the National Employment Service.

METHODOLOGICAL BASIS

Objective and scope of the survey

The Labour Cost Index (LCI) shows the development of labour costs per hourly costs. The objective of the survey is to become harmonized and adapted to the statistical system of the European Union in view of having prerequisites to compare labour costs on Serbian labour market with those on the international market. Labour costs expressed hourly are an important factor for the analysis of short-term and medium-term indicators of economic development. Having labour cost index data on time is crucial for the evaluation of inflationary pressure resulting from labour market movements. The LCI is also significant for social partners when negotiating earnings levels, as well as for decision-making by the Government concerning the measures to take as to short-term trends of labour costs and the increase of the competitiveness of the whole economy.

The Survey is conducted based on the Law on Official Statistics ("Official Journal of the RS", number 104/09) and Programme of Statistical Surveys 2011-2016.

Reporting and statistical units

The units of observation and reporting units in the Labour Cost Survey are legal units (enterprises, institutions, cooperatives and other organisations) as well as their incorporated units on municipal level according to the organisational and geographical principle.

If an enterprise or another organisation has organisational units (parts) which are engaged in an activity other than that of the parent organisation (whatever the municipality of their location) or which are located outside the municipality of the parent organisation (whatever the activity they are dealing with), those units are also observed because they transmit a separate report according to the activity they are engaged in, i.e. municipality they are located in.

Exceptionally, persons engaged through Temporary Employment Agencies are regarded as employees of employment agencies and are recorded under that activity (codes 78.20 and 78.30 CA 2010), but not under the activity of the units they are actually working, which is in accordance with the Regulation (EC) 1503/2006.

Coverage of the survey

The statistical survey on Labour Cost Index covers the persons who are in employment with an employer for a fixed or indefinite time (whether working full-time or part-time) and who have a formal employment contract. Excluded are persons who work under a service contract or contract of temporary jobs.

The Survey is conducted on a purposive sample of legal units.

The sample covers approximately 8000 reporting units, which is about 65% of the total number of employees in enterprises, institutions, cooperatives and other organisations.

The frame for sample selection/up-date is made of all enterprises, institutions and other organisations as well as their geographically separate units registered in the Statistical Business Register.

The criterion used for the selection of the sample is the number of employees in a reporting unit, the selection being made in a descending order, from large to small reporting units. The sample is updated in March every year, and if a reporting unit has ceased its activity, a new one is selected from the population, according to the characteristics of the replaced unit.

The Survey does not include the employees of the Ministry of Defence and Ministry of Internal Affairs of the Republic of Serbia neither individual farmers.

Since 1999, the Statistical Office of the Republic of Serbia has no available data for AP Kosovo and Metohia, therefore they are not included in the data for the Republic of Serbia (total).

Method, period and sources for data collection

The Survey uses reporting method of data collection through the questionnaire RAD-1, which is completed for every unit selected in the sample.

The data related to the labour costs index in the questionnaire RAD-1 are derived from accounting records on paid earnings and the number of paid hours of work. The reporting units are due to return completed questionnaires for the previous month to the related regional office of the Statistical Office of the Republic of Serbia, i.e. the Statistics Sector of the Secretariat for the Administration of the City of Belgrade where data are entered, controlled (logical and computing control), not later than the 7th of the current month. The questionnaires are to be transmitted to the Statistical Office of the Republic of Serbia for further processing, up to the 15th in the month.

Obligation to protect personal data

The obligation to protect individual data is laid down in Article 3 of the Provision of Data Providers Protection and Articles 44, 45, 46, 47, 48 and 49 of the Provision of Confidentiality of the Law of Official Statistics ("Official Journal of the RS", number 104/09). Individual data are subject to professional secret, used exclusively for statistical purposes and cannot be published nor made accessible to users.

The data collected from enterprises, institutions, cooperatives or other organisations are treated as confidential and cannot be published individually nor made available to users. The users can have access only to aggregated data on specific classification levels. The Law on Official Statistics (Article 48) specifies that only research institutions can have access to individual data, excluding identifiers.

The same law (Article 49) stipulates that the data on small aggregates can be published upon written approval from economic units within small aggregates.

Definitions of the main concepts

Total labour costs (D) include direct wages and salaries paid to employees and employers' social security contributions minus subsidies received for labour costs.

Direct wages and salaries costs (D11) include wages and salaries with taxes and contributions borne by the employer and transport costs paid to employees allowances paid to employees for travelling to and from work.

Contrary to the earning concept, as defined in Article 105 of the Law on Labour, which includes regular wages and salaries with taxes and social contributions borne by the employees as well as the increased wages and salaries, remunerations, regular and periodic bonuses and other remunerations for which taxes and social contributions are to be paid, this survey does not include in wages and salaries sick leave allowances up to 30 days because they are regarded as social security contributions.

Employer's social security contribution costs (D12) include contributions borne by the employer, sick leave allowances up to 30 days and statutory retiring allowances.

Total labour costs minus bonuses (D-TXB) are obtained when deducting bonuses paid to employees every month (holiday bonuses, 13th month pay and other quarterly and annual bonuses).

Total paid hours include all hours for which an employee has received wages salaries, whether those hours have been actually worked. Besides hours (actually) worked, total hours include also hours of annual leave, religious and public holidays, hours of daily break (short rest periods) as well as other hours paid but not worked.

Hours (actually) worked include hours actually worked by employees. Included are both regular hours and hours of paid overtime.

Formula for the calculation of the labour cost index

The labour cost index is calculated by the Laspeyres formula. The base year changes every four year, and since 2015 the base for the calculation of the index is 2012. The index is calculated according to the hours actually worked for the following variables:

1. total labour cost (including bonuses) index – D;
2. Wages and salaries cost index – D11;
3. Total social security contribution index – D12;
4. Total labour cost (excluding bonuses) index – D-TXB.

The Laspeyres formula for the calculation of the LCI for quarter t in year j , with base year k , is:

$$ITR_{tj(k)} = \frac{\sum_i w_i^{tj} h_i^k}{\sum_i \omega_i^k h_i^k} = \frac{\sum_i \left(\frac{w_i^{tj}}{\omega_i^k} \right) \omega_i^k h_i^k}{\sum_i \omega_i^k h_i^k} = \frac{\sum_i \left(\frac{w_i^{tj}}{\omega_i^k} \right) w_i^k}{\sum_i w_i^k},$$

where:

w_i^{tj} = labour cost per hour worked of employees in sector of activity i , in quarter t in year j ;

ω_i^k = labour cost per hour worked of employees in sector of activity i , in base year k ;

h_i^k = hours worked by employees in sector of activity i , in base year k ;

$W_i^k = \omega_i^k h_i^k$ = labour cost of employees in sector of activity i , in base year k ;

i = sector of activity
 t = quarter ($1 \leq t \leq 4$)
 j = current year
 k = base year

The data for the section of activity and section classes are listed in the technical guide SDMAX for the LCI (version 1.3 – 05/09/2014), regulated by EUROSTAT. Section A (Agricultural, forestry and fishing) is excluded from the processing of data on the labour cost index.

The amount of paid severance payments is estimated according to the statutory severance payments and the number of employees who have retired in the given quarter.

Actual hours worked are calculated as the difference between the total number of paid hours worked and the sum of hours paid but not worked and the estimated number of hours of daily break (short rest period).

Hours paid but not worked include: hours of sick leave up to 30 days, hours of annual leave, hours of daily break (short rest period), hours of holidays and other non-working days.

Paid allowances for sick leave up to 30 days are estimated according to the number of hours of sick leave and average hourly wages and salaries (hours of sick leave * 0.65 of average wages and salaries per hour paid).

Hours of daily break (short rest period) are of the product of the number 0.0625 and number of hours worked.

Seasonally adjusted data

The labour cost index belongs to the group of short-term statistical indicators for which series of raw and seasonally adjusted data are published. Seasonal adjustment is performed because short-term indicators are often affected by seasonal changes and other effects such as the calendar and trading and working days which can conceal relevant short-term and long-term trends of time series and disturb clear understanding of the statistical presentation of economic phenomena, for instance trends, inflection points and cycles as well as the consistency of those indicators with other ones.

There are three series of the index in the dissemination database of the SORS:

- Raw series (Neither seasonally nor working day adjusted – gross data: $N = y$),
- Seasonally adjusted series (working day and seasonal adjusted – wda&sa: $Y = sa$) and
- Working day adjusted series (working day adjusted not seasonal adjusted – wda not sa: $W = ycal$).

Seasonal adjustment has been carried out according to EUROSTAT recommendations (*ESS Guidelines on seasonal adjustment, 2015 addition, EUROSTAT*).

Seasonal adjustment has been done in two phases:

- The first phase consists in the pre-treatment of data of the raw series.
- The second phase is the seasonal adjustment, i.e. final adjustment.

The phase of the pre-treatment of the raw LCI includes the calculations for a reliable evaluation of the seasonal and calendar effects. X13-ARIMA Program within Jdemetra + software (vers. 1.3.2 and 2.0.0) contains automatic outlier detection. In the pre-treatment one uses the general national calendar for the Republic of Serbia, including non-working days (public holidays, Orthodox Christmas, Orthodox Easter, five major orthodox feast days) and working days regressor. Usually, the calendar is up-dated and uploaded in the programme in February of every calendar year.

As for most of the economic series, the official statistics of Serbia uses for the LCI the multiplicative model, log transformation of time series data and ARIMA (0,1,1) (0,1,1) seasonal model. However, the programme model, model selection and transformation from quarter to quarter (None, Auto, etc.) are always checked out.

Direct seasonal adjustment is applied on the LCI. Refresh with new data is performed during the calendar year at the end of the quarter by Partial concurrent adjustment Parameters.

Level of representativeness

Labour cost index data derived from this Survey are representative on the level of activity division (two-digit level of CA 2010).

Harmonisation with international recommendations, standards and practice

Data on the labor cost index are harmonized with the Regulation of the European Parliament and of the Council (EC) No 450/2003 and the regulations of the European Commission (EC) 1216/2003 and (EC) 224/2007.

DESCRIPTION OF SURVEY MANAGEMENT

Monthly questionnaire RAD-1 is used to collect, besides the data referring to payments in the months, the following data concerning payments for the month:

- payroll,
- taxes and contributions borne by the employees,
- number of employees who received pay for the reporting/reference month,
- number of paid hours of work,
- paid allowances for employees' travelling to and from work.

The estimation of the data on paid retiring allowances builds on the data on the number of retired persons derived from the records of the Pension and Disability Insurance Fund of the Republic of Serbia as well as on average wages and salaries on the basis of which the allowance is paid in the related month.

As the total labour costs are calculated after the deduction of received subsidies, the data on allocated subsidies are obtained from the National Employment Service.

Bodies in charge of the survey management

As laid down in the Programme of statistical surveys, the Statistical Office of the Republic of Serbia is in charge of the preparation, organisation and conduction of this Survey.

The employees of the Division of labour and earning statistics in the head office are involved in the survey carrying out, as well as those in all 15 regional offices of the Statistical Office of the Republic of Serbia and in the Statistics department of the Secretariat for the administration of the City of Belgrade.

Obligation to provide data

The obligation to provide data is stipulated in Article 26 of the Law on Official Statistics ("Official Journal of the RS" number 104/09). Penalty provisions in case of refusal or incorrect or incomplete data provided are laid down in Article 52 of the cited Law.

Timetable of the main phases of the survey

The raw files based on the questionnaire RAD-1 are collected from the regional offices and Statistics department for the administration of the City of Belgrade not later than the 15th in the month. The Pension and Disability Insurance Fund of the Republic of Serbia is due to transmit the data (on the number of retired employees) and the National Employment Service (data on paid subsidies) 45 days following the end of the quarter.

SURVEY TOOLS

To conduct the Survey, which provides the basic data for the calculation of the LCI, the following is used:

- questionnaire RAD-1,
- instructions for filling in the questionnaire.

The following classifications are used in the Survey:

- Classification of Activities (2010), which is pursuant to the Law on the Classification of Activities ("Official Journal of the RS", number 104/09) regulated by the Government Regulation ("Official Journal of the RS 54/10). This classification is comparable with the classification of activities of the European Union (NACE rev. 2);
- List of municipalities drawn in line with the Regulation on the nomenclature of statistical territorial units ("Official Journal of the RS", number 109/09, 46/10).

The mentioned classifications are available on the official website of the Statistical Office of the Republic of Serbia.

LIST OF PUBLICATIONS

The results of the Labour Cost Index Survey are not disseminated for the time being in printed publications, but are available on the website of the Statistical Office of the Republic of Serbia.

Link: <http://webrzs.stat.gov.rs/WebSite/public/ReportView.aspx>

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