**Coherence with average wages and salaries from the RAD-1 survey**

Differences between variable D11 - Wages and salaries and gross wages and salaries from RAD-1 survey can be explained by differences in methodology, i.e. definitions and coverage of the survey.

* **Definition of employees.**
  + In RAD-1 survey, persons who have an employment contract with an employer for a fixed or indefinite time, whether working full-time or part-time, are regarded as employees. Persons working on the basis of a service contract or formal contract on performing temporary and occasional jobs are not regarded as employees.
  + In LCS, persons who work under a contract on performing temporary and occasional jobs are also regarded as employees.
* **Definitions of the variables being compared.**
  + In RAD-1 survey, (gross) wages and salaries, as laid down in Article 105 of the Law on Labour, are wages and salaries including taxes and contributions payable from the earnings/wages and salaries realised by the employees for work done during the working time, then enhanced wages and salaries, remunerations and other income (except: allowances for travel costs to and from work, for time spent on business trips in the country or abroad, retirement severance pay, solidarity aid, jubilees, funeral costs and compensations for occupational injuries or disease).
  + Wages and salaries (D11) have a broader definition and, unlike (gross) wages and salaries defined by the RAD-1 survey, also include allowances for employees' travel costs to and from work if they are cash transactions paid in each pay period, jubilee awards, cost-of-living allowance, stock options and share purchase schemes, payments in kind and other payments to employees which are not regarded as earnings, such as gifts for children of employees (up to 15 years old for Christmas and New Year) in value up to non-taxable amount which are excluded from earnings (gifts on March 8th and other holidays, gifts for children over 15 years old, etc.) and all other cost allowances which are excluded from earnings. In addition, given the different definition of employees, remuneration for performing temporary and occasional jobs is also included. On the other hand, allowance for sick leave/for the period of absence from work due to temporary inability to work up to 30 days, which is included in gross wages and salaries in RAD-1 survey, in LCS it is regarded as employers' imputed social contributions (D122).
* **Coverage of the survey and sample methodology.**
  + Monthly survey on employees and their salaries and wages (RAD-1) is carried out on a purposive sample of legal entities. The criterion for the selection in the sample is the number of employees, on the basis of which reporting units are selected in the sample, from large to small ones. The sample covers approximately 8000 reporting units, being about 65% of the total number of employees in enterprises, institutions, cooperatives and other organisations. The sample provides representativeness of data on total average wages and salaries on the municipal level, while for regions (territorial level NSTJ 2) data are representative on the level of activities’ divisions (two-digit CA 2010 level). The survey does not include the employees of the Ministry of Defence and Ministry of the Interior of the Republic of Serbia. The data on wages and salaries paid to employees working for entrepreneurs are taken from the records of the Tax Administration and joined to those from the monthly survey. Approximately 65% of entrepreneurs are covered. Entrepreneurs (persons performing independently an activity/occupation) without the status of employees are excluded from the calculation of average wages and salaries.
  + LCS is a survey based on the random sample, which includes enterprises (legal entities and entrepreneurs) with 10 or more employees.

**Other differences.**

* + In RAD-1 survey, average (gross) wages and salaries are calculated by dividing the total sum of wages and salaries paid in the reference month/year by the number of employees according to data from the human resources records at the end of the reference month (for annual data – by the sum of employees for all 12 months of the year). The data on average wages and salaries refer to all employees from the human resources records, whether being remunerated or not in the month.
  + Only those employees who received earnings or wage compensation are taken into account in the LCS, while the total wages and salaries (D11), referring to calendar year, are divided by the number of employees expressed in full-time equivalents (FTE).

**Graph:** Gross wages and salaries (RAD-1) and Wages and salaries (LCS)

- Average monthly amounts in the year and indices (2012=100) –

On the total/national level, average monthly wages and salaries (D11) in 2016 were higher than the average monthly (gross) wages and salaries in the year by 13.7%. The reason for that is primarily the fact that average monthly wages and salaries (D11) have broader definition, i.e. include payments to employees, which are not, under Article 105 of the Law on Labour, regarded as earnings, although other methodological differences between these two surveys cannot be ignored. Ranking of sections of activities, in both surveys, according to the amount of (gross) wages and salaries (RAD-1) and wages and salaries (LCS) in 2016 gives approximately the same picture. According to both surveys, wages and salaries are the highest in the following five sections of activities: Financial and insurance activities, Professional, scientific and technical activities, Information and communication, Mining and quarrying, Electricity, gas, steam and air-conditioning supply, with minor deviations from the order. On the other hand, section Accommodation and food service activities is at the very bottom according to the amount of wages and salaries, in both surveys.

According to LCS, average monthly wages and salaries (D11) increased, in 2016 comparing to 2012, by 5.2%, while, in the same period, according to RAD-1 survey, average monthly (gross) wages and salaries in the year increased by 10.5%. If having in mind the above mentioned differences in definition of the variables being compared, as well as differences in sample methodology and coverage of the survey, it can be concluded that there is a high level of coherence between RAD-1 survey and LCS. Somewhat smaller increase of the average monthly wages and salaries (D11) (LCS) than the average (gross) wages and salaries (RAD-1), in time period from 2012 to 2016, implies that so called basic wages and salaries of employees in "long-term employment" (who have an employment contract with an employer for a fixed or indefinite time) were increasing much more than the other components of wages and salaries, such as allowances for travel costs, jubilee awards, payments in kind and the like, which probably stayed on the same level in this period. The increase of the number of employees performing temporary and occasional jobs, who are not covered by RAD-1 survey, and who have, as a rule, lower earnings than the employees in "long-term employment", is also contributing to smaller increase of wages and salaries (D11) recorded in LCS.

Based on the data from both surveys, the greatest increase of (gross) wages and salaries (RAD-1) and wages and salaries (D11), (LCS), in 2016 in relation to 2012, was recorded in section Information and communication and amounts to 39.8% (RAD-1), i.e. 38.8% (LCS). This section of activity is one of the three sections in which there is the greatest level of coherence in trends of (gross) wages and salaries (RAD-1) and wages and salaries (LCS). The other two sections are Human health and social work activities and Financial and insurance activities, where the difference in trend of wages and salaries in observed period amounts to about one percentage point.

The difference in trends of (gross) wages and salaries (RAD-1) and wages and salaries (LCS) is the greatest in sections Real estate activities, Accommodation and food service activities and Other service activities. While according to the LCS data for 2016, wages and salaries (D11) recorded decrease in relation to 2012, according to the data of RAD-1 survey, average (gross) wages and salaries were increasing, in the same period. However, this opposite trend dynamics can be interpreted in favour of coherence between these two surveys. Namely, typically for these sections is that they are being performed within smaller enterprises, who are representative in LCS, considering that the random sample is stratified according to the size of the enterprise, unlike the RAD-1 survey where the sample methodology is such that the majority of enterprises are not covered. Likewise, for mentioned sections of activities it is also typical that they are hiring persons on temporary and occasional jobs which are not covered by RAD-1 survey and whose wages and salaries (and other employers’ costs) are significantly smaller than the wages and salaries of employees in "long-term employment".