

# JOB VACANCY STATISTICS

## QUALITY REPORT 2012

Country
ROMANIA

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## GENERAL DESCRIPTION

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A. Sources, coverage and periodicity	
Identification of the source of the data	The sole data source for job vacancies collection is a business survey named Job Vacancy Survey ( <b>JVS</b> ), which was carried out, since 2005 on quarterly basis, by the National Institute of Statistics (INS).
<b>Coverage</b>	
- Geographical	All country was covered. Data were representative at NUTS0, NUTS1 and NUTS2 level.
- NACE	All NACE sections were covered (except sections T - activities of households as employers and U - activities of extraterritorial organisations and bodies). Data were collected at division level and disseminated at section level (A to S including O, excluding armed forces and assimilated).
- Enterprise size	All size classes were included in the sample survey.
Reference dates	The reference period was the last day of the middle month of the quarter.
Periodicity of national publication	Data were disseminated as follows: <ul style="list-style-type: none"> <li>▪ <b>quarterly</b> in the Press releases after 60 days of the reference quarter; the Monthly Statistical Bulletin and the TEMPO (on-line) database, after 65 days of the reference quarter;</li> <li>▪ <b>yearly</b> in the Press releases and TEMPO (on-line) database, after 90 days of the reference year; the Romanian Statistical Yearbook according to national dissemination schedule.</li> </ul>
Definition of the statistical unit	The statistical unit was the enterprise. According to the communitarian rules was defined as the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit. The local unit was defined as the unit of observation. If the enterprise had local units, which were situated in other counties than the one where headquarter is located and/or carried out a different economic activity than the headquarters, the enterprise reported data for each local unit. If the enterprise had no local units or were in the same county and carried out the same activity as the headquarters, the enterprise did not report data by local units, only by total enterprise.
Remarks	None

<b>B. Sample survey</b>	
<b>B.1. Sampling design</b>	
Base used for the sample	The sampling frame used for the sample selection was drawn from the Romanian Business Register (REGIS), which contained all enterprises, authorities and organisations as well as their local units that carried out any economic activity irrespective of their size or if they belong to the private or public sector. The Business Register was updated, yearly, on the balance sheets and contains the latest information on each enterprise in the statistical population such as the identification items (unique identification code, address etc.), economic activity codes (NACE Rev.2), number of employees (giving the enterprise size class).
Sampling design	A stratified sampling technique was used as sampling method. The enterprises with 50 employees and more were exhaustively surveyed, irrespective of their economic activity or their location. The sample covered the entire country and also was representative at region level (NUTS 2). The public units from the public administration (O), education (P), human health and social work (Q) activities were exhaustively included in the survey, except local public administration units, for which data at level of local communal councils were collected based on representative sample at level of county (about 770 units). The private units from the education (P), human health and social work (Q) activities were sampled.
Retention/renewal of sampling units	The same sample was used every quarter. If new units, from the exhaustive area, were established, during the year, they were also included in the survey sample.
Sample size	The sample size was about 22.500 enterprises.
Stratification	The stratification variables were given by the economic activity (2 digit - division level), the size classes of the enterprise (less than 10 employees, 10-49 employees, 50 employees and over).
<b>B.2. Weighting</b>	
Brief description of the weighting method	The results of the survey were adjusted using the HORVITZ-THOMPSON estimator, weighted with the response probability in order to compensate the non-responses. The treatment of non-response is regarding to the survey status of enterprises and its response.
Weighting dimensions	-
<b>B.3. Data collection</b>	
Brief description of the data collection method(s)	Self-registration was the method used. The variables were collected on paper questionnaires (posted on the INS website) and transmitted by post or on line, web based application ( <a href="http://www.insse.ro/cms/files/Site_eSOP_v2/index.html">http://www.insse.ro/cms/files/Site_eSOP_v2/index.html</a> ). If completed <b>on paper</b> , the data were collected until the 19 <sup>th</sup> day of the month following the reference period. If completed <b>on line</b> , the data were collected until around the 25 <sup>th</sup> day of the month following the reference period.
Remarks	For 2012, the on line data collection on job vacancies statistics was a bit less than 5% from the total responding units.

**C. Other sources**

Maintenance agency	-
Updating frequency	-
Rules for clearance (of outdated information)	-
Voluntary/compulsory reporting and sanctions	-
Remarks	-

**D. Disclosure rules**

Brief description of when data have to be deleted for reasons of confidentiality

For 2012, the annual data at NUTS2 level for certain economic activities were flagged due to small number of cases observed.

**E. Seasonal adjustment**

Brief description of seasonal adjustment procedures, in particular with regard to the European Statistical System guidelines on seasonal adjustment which have been endorsed and supported by the SPC.

No seasonal adjustment procedures were performed.

## RELEVANCE

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'Relevance' refers to whether all statistics that are needed are produced and the extent to which the concepts used (definitions, classifications etc.) reflect user needs.

Description of missing variables and missing breakdowns of the variables	No variables or breakdowns were missing.
Report progress on the implementation measures regarding quarterly job vacancies statistics of <a href="#">Regulation (EC) No 453/2008</a> , including - a detailed plan and timetable for completing implementation - a summary of the remaining deviations from EU concepts	There was no deviation from EU concepts. The regulation was fully implemented into the national survey.
Summary comprising - a description of the national users - their main needs - the extent to which their needs are satisfied (voluntary)	<p>The <u>main national users</u> are grouped as following:</p> <ul style="list-style-type: none"> <li>- <i>governmental bodies</i>: Ministry of Labour, Family , Social Protection and Elderly Persons, National Agency for Employment;</li> <li>- <i>employers and employers' associations</i>;</li> <li>- <i>trade unions</i>;</li> <li>- <i>professional associations</i>;</li> <li>- <i>research institutes and universities</i>.</li> <li>- <i>mass-media</i>;</li> <li>- <i>students, doctorates</i>.</li> </ul> <p><u>Their main needs:</u></p> <p>The Job Vacancy Survey outcomes are used by policy makers in establishing the actions and measures for economic development strategies as well as for implementing the programs on active measures for reducing the unemployment.</p>
Remarks	None

## ACCURACY

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### 2. ACCURACY

**'Accuracy', in the general statistical sense, refers to the closeness of estimates to the unknown true values of the variable under consideration.**

#### 2.1. Sampling errors

As an indication of accuracy, the coefficient of variation taking into account the sampling design shall be calculated and transmitted for the number of job vacancies for the latest version of the NACE at section level and broken down by size classes (1-9/10 + employees).

If the coefficient of variation cannot be calculated, the estimated sampling error in terms of the absolute number of vacant posts shall be provided instead.

#### Description

The **sampling unit** is the **enterprise**.

The **sample of enterprises** has been taken according to stratification sampling design (stratification with simple random sampling within strata). The samples within strata have been taken without replacements. Strata were constructed by dividing the sampling frame by the main economic activity coded according to NACE Rev.2 and size class given by the number of employees.

All sections were included (except sections T - activities of households as employers and U - activities of extraterritorial organisations and bodies).

Data were collected at division level and disseminated at section level (A to S including O, excluding armed forces and assimilated). The strata are defined by the cross-classification of NACE categories with 2 size classes (less than 10, 10+ employees).

The sample size for each stratum was determined by using the Neyman allocation:

$$n_h = n \frac{N_h \sigma_h}{\sum N_h \sigma_h}$$

where:

$h$  = index of strata

$n_h$  = the number of units in the sample, in the stratum  $h$

$n$  = the number of units in the sample

$N_h$  = the number of units in the sampling frame, in the stratum  $h$

$\sigma_h$  = the standard deviation

(computed by using the number of employees) in the stratum  $h$

The overall sample of enterprises was designed in a way that leads to representative results for the national economy (NUTS0), macro-regions (NUTS1) and regions (NUTS2).

The sample size was computed under the premise of the estimated error (computed by using the number of employees) equal to 0.02 and a confidence level of 95%.

#### Description of the calculation of the final weights

The computation of the final weights was performed according to the following steps:

- Calculation of a selection weight ( $\pi_{ih}$ ) for each unit. The selection weight is a Horvitz-Thompson weight and is computed as the inverse of the selection probability.

where:

$$\pi_{ih} = \frac{1}{p_{ih}} = \frac{N_h}{n_h}$$

$p_{ih}$  = the selection probability of unit  $i$  for stratum  $h$

$N_h$  = the number of units in the

	<p>sampling frame, in the stratum <math>h</math>  <math>n_h</math> = the number of units in the sample, in the stratum <math>h</math></p> <ul style="list-style-type: none"> <li>○ Calculation of a non-response weight (<math>c_{ih}</math>). The non-response weight is computed at each stratum level, as the inverse of the response probability. The purpose of this coefficient is to compensate the non-respondent units, under the assumption that these non-respondent units have the same training patterns compared with the respondent units in the same stratum. Another considered premise is the fact that answering and non-answering is a random variable.</li> </ul> <p>where:  <math>n_h</math> = the number of units in the sample, in the stratum <math>h</math>  <math>m_h</math> = the number of respondent units selected in the sample, in the stratum <math>h</math></p> $c_h = \frac{n_h}{m_h}$ <p>Calculation of the final weight (<math>COEF_{ih}^{ext}</math>)</p> $COEF_{ih}^{ext} = \pi_{ih} \cdot c_h$ <p>The estimator used for computing the estimated data and the estimated variance is Horvitz-Thomson estimator, as the fraction between the number of units in the sampling frame in the stratum <math>h</math> and the number of respondent units in the sample in the same stratum (<math>N_h/m_h</math>).</p> <p>The estimation is based on the next assumptions:</p> <ul style="list-style-type: none"> <li>• The response is stochastic and there is a response distribution.</li> <li>• All units within a stratum respond with the same probability.</li> </ul> <p><b>Outlier detection and treatment:</b>  The procedures referred only to the indicator “job vacancy” and were done after the weighting procedures were applied to the raw data.  The initial checking for all outliers was part of the data validation routine. The procedures applied for the job vacancy outlier examination were mainly based on graph representations of the data by NACE sections, size classes and geographical regions.  When outliers were detected and the reason for it was the unit weight applied, the grossing-up factor for the “number of job vacancies” was made equal with 1. The weight of other observations was increased in a way that the sum of the weights still corresponds with the number of observations in sampling frame.</p> <p><b>Coefficients of variation:</b>  The formulas used in order to compute the coefficients of variation for the requested indicators are:</p> $C_v = \sqrt{V\left(\hat{p}\right) / \hat{p}}$ <p>Coefficients of variation were computed taking into account the number of job vacancies, at section level (NACE Rev. 2) and broken down by size classes (less than 10 employees, 10 + employees).</p> <p>The computations of coefficients of variation were produced using <b>PROC SURVEYMEANS</b>, a SAS macro.</p> <p><b>See Annex 1 - tables no 1,2,3,4</b></p>
<b>2.2.Non-sampling errors</b>	
<b>2.2.1 Coverage errors</b>	<p>Please add as .xls in an extra file the <b>table</b> showing the number of business units of the sample and the percentage of the business units represented in the sample(s)/register(s), broken down by size class (strata)</p> <p>N.B. Where individual administrative data used, a similar analysis shall be provided, based on the administrative reference file, including reporting and deregistration errors.</p>
Description of any difference between the reference	Errors were due to discrepancies between the sampling frame and the target population and sub-populations refer to over-coverage, under-coverage,



population and the study population	<p>misclassifications.</p> <p>In the observed sample there were:</p> <ul style="list-style-type: none"> <li>- 108 out-of-scope units, for the 1<sup>st</sup> quarter;</li> <li>- 106 out-of-scope units, for the 2<sup>nd</sup> quarter;</li> <li>- 107 out-of-scope units for the 3<sup>rd</sup> quarter;</li> <li>- 106 out-of-scope units for 4<sup>th</sup> quarter.</li> </ul> <p>These units are not counted in response set.</p> <p><b>See Annex 1 - tables no 5, 6, 7, 8</b></p> <p>To perform the adjustments of the over- and under coverage by weighting procedure a model assumption (about the over- and under coverage) was used, applied for each stratum:</p> <ul style="list-style-type: none"> <li>▪ The over coverage rate among the respondents is the same as among the non-respondents.</li> <li>▪ The number of over coverage enterprises in the frame is the same as the number of under coverage enterprises.</li> <li>▪ The mean value of any variable of interest is the same in the accessible part of the target population as in the under coverage part.</li> </ul>
Description of classification errors	The measure of misclassification by NACE sections is presented in <b>Annex 1 - tables no 9, 10, 11, 12.</b>
Description of any difference between the reference dates and the reference quarter	The reference date is the last day of the middle month of the quarter.
Any other relevant information	None
<b>2.2.2. Measurement and processing errors</b>	
Information on variables with non-negligible measurement and processing errors	<p>The IT solution for Romanian Job Vacancy Survey 2012 was developed to find out the measurement and processing errors occurred in different stages of the survey. The application was designed for on line data collection and validation.</p> <p><b>The IT solution</b> allowed to perform on line data entry and validation at unit level. Also, the IT solution allowed to perform data entry and validation for questionnaires received on paper by post/email at county level (42 counties in total – NUTS3 level).</p> <p>The IT solution contained the following categories of logical tests that check:</p> <ul style="list-style-type: none"> <li>- the primary data from the questionnaires;</li> <li>- the logical flows among the questionnaire chapters;</li> <li>- the data integrity and correctness;</li> <li>- the data comparability with the previous quarter.</li> </ul> <p>The logical tests have the scope:</p> <ul style="list-style-type: none"> <li>- to follow and check the logical flows of the questionnaire;</li> <li>- to correlate data from related chapters of the questionnaire;</li> <li>- to define and check certain limits to which the indicators should belong compared to their evolution over time and between them;</li> <li>- to find out the outliers or non-logical values.</li> </ul> <p>The tests for data integrity check the identification information from the sample of units with the information from respondent files.</p> <p><b>At central level</b> more accurate and detailed procedures were developed using Visual Fox for checking data integrity and correctness:</p> <ul style="list-style-type: none"> <li>- data comparison with the previous quarter and the same quarter related to the previous year;</li> <li>- data comparison with other sources (Monthly survey on wages and salaries for the number of occupied posts, Wages survey for month October for the distribution of employees by major groups of occupations);</li> <li>- non-weighted procedures;</li> <li>- adjustment and weighting procedures;</li> <li>- data tabulation;</li> <li>- automatic transformation of final results into the standard format designed by Eurostat;</li> <li>- data transmission to Eurostat.</li> </ul> <p>As concerning the logical test in total 42 logical tests were performed for data checking and correlation on number of occupied posts and job vacancies.</p>

	<p>Since the same tests were conducted at local level (unit and county) as well as at central level, the largest part of the errors found was solved from the beginning (at local level). The figures were corrected after re-contacting the corresponding enterprises.</p> <p>The questionnaire design, detailed explanatory notes and the IT solution developed had as result a complete and of good quality data set.</p> <p>The non-negligible measurement for both collected variables (number of occupied posts and job vacancies) concerns mainly the breakdown by major groups of occupation where discrepancies were noticed from quarter to quarter.</p> <p>The information below was an estimation of <b>errors at central level</b>, after the data files were received from all over the country. Statistics on the first level of checking (local level) are not available. If the figures correspond to reality due to unusual phenomena, figures were accepted as such and no correction was made.</p> <p>Most frequent errors that occurred during data checking period:</p> <ul style="list-style-type: none"><li>- <b>22.41%</b> of errors coded AT2 and AT26 (in Romanian Logic tests); the number of occupied posts in the current quarter in the enterprise/local unit, does not vary with more than 20 percent compared with the number of occupied posts from the previous quarter, by total and by major groups of occupation;</li><li>- <b>18.28%</b> of errors coded AT3 and AT19; the number of job vacancies of the enterprise/local unit is less or equal with 20 percent of the number of occupied posts, by total and by major groups of occupation;</li><li>- <b>14.86%</b> of errors coded AT4 and AT30; the number of job vacancies in the current quarter in the enterprise/local unit, does not vary with more than 20 percent compared with the number of job vacancies from the previous quarter, by total and by major groups of occupation;</li><li>- <b>9.12%</b> of errors coded AT1 and AT5; units with more than 50 employees and public administration units must have at least one person in major group 1 (management personnel);</li><li>- <b>5.21%</b> of errors coded AT9 and AT24; the number of employees in major group 9 (elementary occupations) in the enterprise/local unit from public sector can not be higher than 25% compared to all other groups of occupations.</li><li>- <b>3.84%</b> of errors coded AT7 and AT20; the number of employees in major group 1 (management personnel) in the enterprise/local unit from public sector can not be higher than 25% compared to all other groups of occupations.</li></ul> <p>The number of cases needed to be corrected was not significant to have an impact on the accuracy of the final results.</p>									
Information on main sources of (non-negligible) measurement and processing errors and, if available, on methods applied for correction	None									
2.2.3. Non-response errors	N.B. Where individual administrative data used, non-availability of the administrative record or item replaces non-response.									
Unit response rate	<p>The treatment of non-response concerns the survey status of enterprises and its response. The non-response type used to the collection data phase is:</p> <p><b>Type of non-response of survey data collection:</b></p> <table><tr><td>Code 2 - Refused to answer</td></tr><tr><td>Code 3 - Contact not established</td></tr><tr><td>Code 4 - Outside scope of survey</td></tr><tr><td>Code 5 - Unidentified enterprise</td></tr><tr><td>Code 7 - Ceased enterprises</td></tr></table> <p><b>Type of response of survey data collection:</b></p> <table><tr><td>Code 1 - Responded to questionnaire</td></tr><tr><td>Code 6 - Dormant enterprises</td></tr><tr><td>Code 8 - Answer provided by other unit</td></tr><tr><td>Code 9 - Without data because of the events</td></tr></table> <p>The estimation method involves multiplying the value for each sampled business (<math>y_i</math>) by a combination of weights, one being outlier weight (<math>w_{ih}</math>), one resulting from the sample design (<math>a_{ih}</math>).</p>	Code 2 - Refused to answer	Code 3 - Contact not established	Code 4 - Outside scope of survey	Code 5 - Unidentified enterprise	Code 7 - Ceased enterprises	Code 1 - Responded to questionnaire	Code 6 - Dormant enterprises	Code 8 - Answer provided by other unit	Code 9 - Without data because of the events
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	<p>An outlier weight is computed as a Windsor weight. The units having the normal score (z score) out of interval [-3, 3] are outlier units. The normal score, which determines the outlier units, is computed taking into account the stratification used in sample design.</p> <p>In order to perform the adjustment of non-response is computed a weight resulting from the sample design, as the sample weight adjusted by the inverse of response probability:</p> $a_{ih} = \pi_h \cdot v_h \quad \text{Where:} \quad \pi_h = \frac{N_h}{n_h}; \quad v_h = \frac{n_h}{m_h}$ <p><math>N_h</math> = sample frame size of stratum h  <math>n_h</math> = sample size of stratum h  <math>m_h</math> = number of responses in stratum h</p> <p>So, for each response unit the final weight is:</p> $weight_{ih} = w_i \cdot a_{ih} = w_{ih} \cdot \pi_h \cdot v_h$ <p>The response rates by NACE Rev.2 sections and size classes are presented in <b>Annex 1 - tables no 13,14,15,16</b></p>
Item imputation rate and methods and, where possible, the effect of imputation on the estimates for the variables transmitted	<p>In order to improve the overall estimations, in the first two quarters 2012 where applied imputations from other data sources (Monthly survey on wages and salaries, Wages and salaries survey for October) and starting with the 3<sup>rd</sup> quarter 2012 the imputations where applied from administrative data sources, on the number of occupied post distributed by major groups of occupations and local units.</p> <p>The imputation rates reported to the number of respondent enterprises are presented below by quarters:</p> <ul style="list-style-type: none"> <li>- 0.03% for the 1<sup>st</sup> quarter;</li> <li>- 0.53% for the 2<sup>nd</sup> quarter;</li> <li>- 1.13% for the 3<sup>rd</sup> quarter;</li> <li>- 2.43% for 4<sup>th</sup> quarter.</li> </ul>
<b>2.2.4 Model assumption errors</b>	<p>N.B.: Where individual administrative data are used, there shall be comments on the correspondence between the administrative concepts and the theoretical statistical concepts. Any changes in national legislation that lead to changes in definitions applied and, where possible, the impact on the results shall be reported.</p>
If modelling is used, include a description of the models used. Particular emphasis should be given to models for imputation or grossing-up to correct for unit non-response.	<p>In Romania, fiscal year fully corresponds to the calendar year. Thus, no adjustment is necessary. Romanian Job Vacancy Survey 2012 covered all enterprises irrespective of their size.</p> <p>According to the Council Regulation no.19/2009 and the Commission Regulation no. 483/2008, Romania provided data for the number of occupied posts and number of job vacancies by</p> <ul style="list-style-type: none"> <li>➢ economic activities (section level),</li> <li>➢ major groups of occupation (1 digit level, except MGO)</li> <li>➢ geographical areas (NUTS0, NUTS1 and NUTS2) for size classes +1 and +10 employees</li> </ul> <p>No registered or administrative data were used. All data were obtained exclusively from the Job Vacancy Survey.</p>
<b>2.2.5. Revisions</b>	
Provide a revision history, including the revisions in the published number of job vacancies and a summary of the reasons for the revisions.	No revision was made on the variables collected through JVS.
<b>2.2.6. Estimation of bias</b>	
An assessment of the non-sampling errors, in terms of the absolute number of vacant posts, shall be transmitted for the total number of job vacancies and, where possible,	<p>Where the non-response bias and non-response relative bias is negative, then the average number of employees for the respondent units is lower than the average number of employees for all the units in the sample.</p> <p>As seen above, in most of cases, the units with a number of employees below the average respond to a greater extent than the units with a number of</p>

for aggregation level of NACE Rev. 2 specified in Annex 1 to this Regulation and size classes (1-9, 10 + employees).	employees above the average. <b>See Annex 1 - tables no 17,18,19,20</b>
Remarks	<p>Relative non-response bias can be estimated by using the following formula:</p> $B(X) = \frac{\overline{X_m} - \overline{X_n}}{\overline{X_n}},$ <p>Where:</p> <p>n=the number of units selected in the sample;  <math>\overline{X_n}</math> =The average value of the characteristics of the units selected in the sample;  m=the number of respondent unit selected in the sample;  <math>\overline{X_m}</math> = the average value of the characteristics of the respondent units selected in the sample.  The characteristics considered for the non-response bias is the number of employees taken from the sampling frame.</p>

## TIMELINESS AND PUNCTUALITY

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3. Timeliness and punctuality	
3.1. Timeliness	<p>'Timeliness' of information reflects the length of time between its availability and the event or phenomenon it describes.</p> <p>The quality reports should contain information on the time span between the release of data at national level and the reference period of the data.</p>
Description	<p>All the activities carried out by INS during a year are scheduled through the Activity Plan with several months earlier. Annually, INS issues for the users a press release calendar and a catalogue of statistical products and services containing the names, periodicity, short descriptions and release dates for all publications.</p> <p>The activities for preparing and carrying out of the quarterly Job Vacancy Survey 2012 are described in the <b>Annex 2</b>.</p>
3.2. Punctuality	<p>'Punctuality' refers to the time lag between the release date of data and the target date when the data should have been delivered, for instance with reference to dates announced in official release calendars, laid down by Regulations or previously agreed among partners.</p> <p>In order to understand and to remove problems related to punctuality, information on the process of survey implementation at national level for the last four quarters should be delivered, with a special emphasis on the correspondence between scheduled and actual dates:</p>
Deadlines for the respondents to reply, also covering recalls and follow-ups	<p>The process concerning the <b>deadlines for the respondents to reply</b> was performed as follows:</p> <ul style="list-style-type: none"> <li>- the units have to fill in the paper questionnaires and send them to the territorial statistical offices until 19<sup>th</sup> of the last month of the respective quarter.</li> <li>- the units can also fill in the on line questionnaires until around 25<sup>rd</sup> of the last month of the respective quarter.</li> </ul> <p>The date in question was referring at the month following the reference period. The reference periods were: February, May, August and November.</p> <p>The process concerning the <b>covering recalls and follow-ups</b> was performed as follows:</p> <ul style="list-style-type: none"> <li>- from 19<sup>th</sup> till the last day of the month of the quarter, the territorial statistical offices had to perform data entry and data checking. On the last day of the reference quarter the statistical offices had the task of sending the data files to the central level.</li> </ul> <p>In this phase, <b>the covering recalls and follow-ups</b> are taking place. The statisticians from the local offices contact or re contact the units/respondents who did not sent the data, irrespective of their size classes, but the stress was more on the enterprises with more than 50 employees, who are exhaustively surveyed and on those from the public sector. Since not all respondents comply with the deadline requested, a small proportion of questionnaires reach with delay the territorial statistical offices.</p>
Period of the fieldwork	<p>The field work was undertaken mainly by the territorial statistical offices and consisted in:</p> <ul style="list-style-type: none"> <li>- field identification of the sample units;</li> <li>- updating the identification data of the sampled units (i.e. organisational changes, economic activities, addresses etc.);</li> <li>- distribution of survey tools;</li> <li>- methodological assistance for filling in the questionnaires.</li> </ul>
Period of data processing	<p>Data processing steps and the related periods were:</p> <p><b>At local level (regional/county statistical office)</b> the data processing consisted in:</p> <ul style="list-style-type: none"> <li>- data collection – until 19<sup>th</sup> of the following month of the reference period;</li> <li>- data entry and validation- from 19<sup>th</sup> of the following month of the reference period till the last day of the month after the reference period;</li> </ul> <p><b>At central level (INS)</b> the data processing consisted in:</p> <ul style="list-style-type: none"> <li>✓ data validation – errors were detected and sent for correction or explanations to the statistical offices;</li> <li>✓ comparative analysis with the previous quarter and with other data</li> </ul>

	<p>sources;</p> <ul style="list-style-type: none"> <li>✓ the analysis of the non-weighted data;</li> <li>✓ the weighting procedures;</li> <li>✓ the analysis of the weighted data;</li> <li>✓ transposing into the standard format for data transmission designed by Eurostat;</li> <li>✓ transmission of final results to Eurostat;</li> <li>✓ quarterly and annually data preparation for dissemination in the press releases, the Monthly Statistical Bulletin, the TEMPO (on-line) database and the Romanian Statistical Yearbook.</li> </ul>
Dates of publication of first results	<p>The publication dates for the quarterly and annual JVS2012 results were disseminated in accordance with the legal requirements as follows:</p> <ul style="list-style-type: none"> <li>▪ <i>European level</i> (Eurostat): <b>10.05.2012</b> – quarter 1; <b>13.08.2012</b> -quarter 2; <b>14.11.2012</b> - quarter 3; <b>13.02.2013</b> - quarter 4 and <b>25.03.2013</b> - annual data</li> <li>▪ <i>National level:</i> <ul style="list-style-type: none"> <li>○ <i>Press releases:</i> <b>30.05.2012</b> – quarter 1; <b>29.08.2012</b> – quarter 2; <b>29.11.2012</b> – quarter 3; <b>01.03.2013</b> – quarter 4; <b>26.03.2013</b> – annual data;</li> <li>○ <i>Monthly Statistical Bulletin (MSB) and TEMPO data base:</i> <b>07.06.2012</b> – quarter 1; <b>05.09.2012</b> – quarter 2; <b>06.12.2012</b> – quarter 3; <b>11.03.2013</b> – quarter 4; the annual data are not published in the MSB only in the TEMPO database - <b>03.04.2013</b>;</li> <li>○ <i>Romanian Yearbook – for 2012 annual data – 19.06.2013.</i></li> </ul> </li> </ul>
Remarks	<p>The annual data for the number of occupied posts and job vacancies were calculated as simple averages of the quarterly data.</p>

## ACCESSIBILITY AND CLARITY

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## 4. Accessibility and clarity

<b>4.1. Accessibility</b>	'Accessibility' refers to the physical condition in which users can obtain data on the following: where to go, how to get access, delivery time, convenient marketing conditions (copyright, etc.), availability of micro or macro data, various formats and data carriers (paper, files, CD-ROM/DVD, Internet ...), etc.
Dissemination scheme, including to whom the results are sent	The main results of the survey were disseminated through <b>press releases</b> posted on INS web-site. Also, the results of the Job Vacancy Survey were published in the <b>Monthly Statistical Bulletin</b> (quarterly data) <b>Statistical Yearbook and Romania in Figures</b> (annual data), which are available in printed form, on CD-ROM and on-line ( <a href="http://www.insse.ro">www.insse.ro</a> ), both in Romanian and English language. The <b>national database (TEMPO)</b> , available on INS website, both in Romanian and English language, contains data on job vacancies and job vacancies rates. On request, data can be provided to a variety number of other users (internal and international). At European level the data were sent only to Eurostat.
References for publications of core results, including those with commentary in the form of text, graphs, maps, etc.	The survey results were also commented in the above mentioned publications in form of text, graphs, tables.
Information on what results, if any, are sent to reporting units included in the sample	No information resulting from the survey was sent to the reporting units included in the sample.
<b>4.2. Clarity</b>	'Clarity' refers to the degree of comprehensibility, including information about the data information environment, i.e. whether data are accompanied by appropriate metadata, illustrations such as graphs and maps, whether information on their quality is available (including limitation on use) and the extent to which additional assistance is provided.
Description of and references for metadata provided	The Job Vacancy Survey data were disseminated together with comprehensive and clear metadata, irrespective of the release form or user category. It contains: <ul style="list-style-type: none"> <li>✓ description of the survey (scope, coverage, periodicity, sample size, non-response rate),</li> <li>✓ definitions of the indicators,</li> <li>✓ results tables on the indicators: <ul style="list-style-type: none"> <li>number of job vacancies,</li> <li>job vacancies rate,</li> </ul> </li> </ul> by economic activities (section level), size classes of the enterprises (1+employees and 10 employees (Eurostat), +1 employees (national level), macro-regions and regions of economic development (NUTS1 and NUTS2). The <b>press release</b> contained the main results of the survey (number of job vacancies and job vacancy rate) and comparative analysis by economic activities, by major occupational groups and over time (previous quarter and the same quarter of the previous year). Also, methodological explanations were available. The tables in the <b>Monthly Statistical Bulletin</b> and the <b>Statistical Yearbook</b> were accompanied by methodological notes describing the data sources, the concepts and definitions of the indicators presented. The <b>databases</b> contained metadata on the released indicators, data sources, survey coverage, periodicity, sample size.
References for core methodological documents relating to the statistics provided	<a href="http://happy:81/metadata/viewStatisticalResearch.htm?researchId=2111">http://happy:81/metadata/viewStatisticalResearch.htm?researchId=2111</a>
Description of main actions carried out by the national statistical services to inform users about the data	The users were informed by the INS on the publications that are to be issued over the year, through the "Catalogue of statistical products and services", which was available on printed form, but also on-line ( <a href="http://www.insse.ro">www.insse.ro</a> ). The catalogue contained the INS yearly publications, periodicals, quick information, electronic publications, publication in stock and statistical services.
Remarks	None



## COMPARABILITY

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5. Comparability	
5.1. Geographical comparability	
<p>The quality reports shall contain information on differences between national and European concepts, and — to the extent possible — their effects on the estimation.</p>	<p>Comparability between national and European concepts on:</p> <ul style="list-style-type: none"> <li>• <b>Definition of statistical units - There is no deviation from European concepts:</b></li> </ul> <p>The <b>unit of selection</b> was the <b>enterprise</b> defined according to the communitarian rules for enterprises statistics as: „the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit”.</p> <p>The <b>observation unit</b> of the Job Vacancy Survey was the <b>local unit</b>. If the enterprise had local units, which were situated in other counties than the one where the headquarter is located and/or carried out a different economic activity than the headquarters, the enterprise reported data for each local unit. If the enterprise had no local units or were in the same county and carried out the same activity as the headquarters, the enterprise did not report data by local units, only by total enterprise.</p> <p><b>Populations - There is no deviation from European concepts:</b></p> <p>The Romanian Business Register was designed and implemented based on the administrative files (REGIS, which is the Fiscal Register, updated annually) and statistical sources in addition (Trade Register, Balance Sheet files, VAT files, feedback from other surveys, used as consultation data sources for improving the quality of the register data).</p> <p>According to the Council Regulations, REGIS contained the following types of statistical units: legal unit, enterprise, and local unit. All the enterprises having the main activity in the section A to S - NACE Rev.2, whatever their size (number of employees) were covered.</p> <p>The Romanian Business Register contained all enterprises, authorities and organisations as well as their local units in Romania that carried out any economic activity irrespective of their size or if they belong to the private or public sector. There were covered the following institutional sectors:</p> <ul style="list-style-type: none"> <li>o Non-financial corporate and quasi-corporate enterprises</li> <li>o Central and local administration</li> <li>o Social security institutions and private non-profit institutions serving households</li> </ul> <p>In respect to the budgetary institutions and public administration REGIS was the most complete register in Romania, based on Official Journal and the collaboration with a lot of administration institutions.</p> <p><b>Reference times - There is no deviation from European concepts:</b></p> <p>The statistics on job vacancies were produced for 2012, with a quarterly periodicity as requested in the European regulations.</p> <p><b>Classifications - There is no deviation from European concepts:</b></p> <p>The national classification of economic activities is covered by CAEN Rev.2 fully harmonized with NACE Rev.2</p> <p>The size classes of enterprises correspond to the size classes requested.</p> <p><b>Definitions of variables - There is no deviations from European concepts:</b></p> <p>The definitions of Job Vacancy Survey 2012 variables were developed and adopted in accordance with European standards (Commission Regulation (EC) no 19/2009 implementing Regulation (EC) No 453/2008 of the European Parliament and of the Council on quarterly statistics on Community job vacancies, as regards the definition of a job vacancy, the reference dates for data collection, data transmission specifications and feasibility studies.</p>
5.2. Comparability over time	



The quality reports shall contain information on changes in definitions, coverage and methods in any two consecutive quarters, and their effects on the estimation.	The Romanian Job Vacancy Survey has been carrying out quarterly since 2005. The only significant change was in the definition of the job vacancy variable (after the regulation 453/2008 entered into force). The change consisted in the period for which a job was considered vacant – from three months period until 2009 to indefinite period. No estimation was ever used because no significant changes were noticed after the methodological update.
Remarks	None

## COHERENCE

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6. Coherence	
	'Coherence' of statistics refers to their adequacy to be reliably combined in different ways and for various uses. However, it is generally easier to show cases of incoherence than to prove coherence.
The quality reports shall contain comparisons of data on the number of vacant jobs from other relevant sources when available, in total and broken down by NACE at section level when relevant, and shall indicate the reasons if the values differ considerably.	<p>No other data source was available for comparative analysis on the number of job vacancies by total or broken down by NACE at section level</p> <p>Within <i>Eurostat grants for 2009 Theme: 1.02 - Title: "Labour Market", Actions: 1) Labour Force Survey – 2010 ad hoc module on reconciliation between work and family life; 2) Job Vacancy statistics</i>, an alternative administrative source was tried to be used with the scope of burden reduction on enterprises with less than 10 employees. But due to the difficulties occurred and non-coherence between the two data sources, the administrative source was dropped and was decided that the JVS will still be further used as the sole data source for collecting vacancies irrespective of the size classes.</p> <p>For further information on the project please see the final report sent to Eurostat on 27.09.2010.</p> <p>In 2012, the Romanian National Institute of Statistics contracted an Eurostat Grant (Theme: 1.02 - "Labour Market", Title: Job Vacancy Statistics) with a duration of 18 months (September 2012-February 2014) having as objectives the following:</p> <ol style="list-style-type: none"> <li>1. for the small business units (less than ten employees) improving the quality of the job vacancies statistics and reduce the burden on responding units by using the data from administrative sources.</li> <li>2. for all size classes - improving the quality of the job vacancies statistics broken down by occupations using the data from administrative sources.</li> </ol> <p>At the end of May 2013, an Interim Report was sent to Eurostat in which are detailed the steps taken so far.</p>
	<b>Additional information to be given for the first quality report</b>
Description of the sources used for the back data and the methodology employed	Concerning the methodology, the changing in the definition of the job vacancy variable explained at chapter 5.2 did not affect the data. The number of job vacancies by economic activities and major occupation groups kept the same trend as before, so no recalculation was necessary.
Description of any differences between the coverage (economic activities, employees, variables) of the back data and that of the current data	The new classification NACE Rev.2 was implemented since Q2 2008. For the reference quarters 2 <sup>nd</sup> to 4 <sup>th</sup> 2008, the Romanian JVS was conducted in double coding (NACE Rev.1 and NACE Rev.2). Data for the 1 <sup>st</sup> quarter 2008 was estimated using conversion matrices based on the results of the other quarters. Starting with 2011 the new International Standard Classification of Occupations (ISCO-08) was used.
Description of the comparability of the back data and the current data	Data are comparable over time.
Remarks	None

## Annex 1 – Accuracy

Table1. Coefficients of variation regarding the number of job vacancies in the 1st quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees		Section level
	less than 10 employees	10 employees and more	
A	NJV	21.91%	<b>21.91%</b>
B	NJV	50.37%	<b>50.37%</b>
C	85.64%	9.72%	<b>9.70%</b>
D	NJV	30.65%	<b>30.65%</b>
E	NJV	25.01%	<b>25.01%</b>
F	NJV	18.93%	<b>18.93%</b>
G	26.88%	12.53%	<b>12.08%</b>
H	40.07%	19.40%	<b>19.23%</b>
I	NJV	38.09%	<b>38.09%</b>
J	NJV	36.46%	<b>36.46%</b>
K	16.69%	15.49%	<b>14.19%</b>
L	NJV	49.38%	<b>49.38%</b>
M	NJV	18.92%	<b>18.92%</b>
N	NJV	29.53%	<b>29.53%</b>
O	NJV	13.60%	<b>13.60%</b>
P	NJV	39.39%	<b>39.39%</b>
Q	NJV	28.67%	<b>28.67%</b>
R	49.44%	28.49%	<b>26.09%</b>
S	73.47%	34.51%	<b>31.26%</b>
<b>Size class level</b>	<b>14.76%</b>	<b>5.87%</b>	<b>5.78%</b>

Table2. Coefficients of variation regarding the number of job vacancies in the 2nd quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees		Section level
	less than 10 employees	10 employees and more	
A	NJV	22.13%	<b>22.13%</b>
B	NJV	54.13%	<b>54.13%</b>
C	NJV	9.82%	<b>9.82%</b>
D	NJV	23.49%	<b>23.49%</b>
E	NJV	23.45%	<b>23.45%</b>
F	NJV	17.74%	<b>17.74%</b>
G	24.43%	11.89%	<b>11.62%</b>
H	NJV	21.38%	<b>21.38%</b>
I	NJV	28.77%	<b>28.77%</b>
J	32.97%	35.84%	<b>35.17%</b>
K	16.35%	17.30%	<b>15.68%</b>
L	NJV	57.40%	<b>57.40%</b>
M	NJV	40.54%	<b>40.54%</b>
N	NJV	33.28%	<b>33.28%</b>
O	NJV	14.36%	<b>14.36%</b>
P	NJV	42.88%	<b>42.88%</b>
Q	NJV	30.78%	<b>30.78%</b>
R	49.51%	27.89%	<b>25.62%</b>
S	74.01%	40.06%	<b>35.22%</b>
<b>Size class level</b>	<b>13.80%</b>	<b>6.05%</b>	<b>5.96%</b>

Table3. Coefficients of variation regarding the number of job vacancies in the 3rd quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees		Section level
	less than 10 employees	10 employees and more	
A	NJV	21.62%	21.62%
B	NJV	44.55%	44.55%
C	NJV	9.75%	9.75%
D	NJV	23.69%	23.69%
E	NJV	26.80%	26.80%
F	NJV	26.15%	26.15%
G	23.04%	12.61%	12.15%
H	93.66%	19.69%	19.47%
I	NJV	38.95%	38.95%
J	32.41%	24.47%	24.27%
K	17.80%	15.85%	14.73%
L	NJV	52.65%	52.65%
M	NJV	40.64%	40.64%
N	NJV	36.59%	36.59%
O	33.49%	13.10%	13.04%
P	NJV	45.56%	45.56%
Q	NJV	24.54%	24.54%
R	60.46%	26.43%	24.81%
S	68.64%	41.04%	35.04%
Size class level	17.25%	6.64%	6.57%

Table4. Coefficients of variation regarding the number of job vacancies in the 4th quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees		Section level
	less than 10 employees	10 employees and more	
A	NJV	25.44%	25.44%
B	NJV	62.53%	62.53%
C	NJV	10.98%	10.98%
D	NJV	22.16%	22.16%
E	NJV	27.64%	27.64%
F	NJV	17.96%	17.96%
G	30.77%	16.73%	16.22%
H	NJV	21.86%	21.86%
I	NJV	33.82%	33.82%
J	NJV	26.41%	26.41%
K	18.68%	15.88%	14.62%
L	NJV	47.88%	47.88%
M	NJV	28.53%	28.53%
N	NJV	32.59%	32.59%
O	28.85%	13.22%	13.15%
P	65.63%	43.05%	45.13%
Q	NJV	24.20%	24.20%
R	66.16%	24.64%	23.34%
S	86.38%	43.15%	41.10%
Size class level	18.80%	6.88%	6.81%

Table5. Table regarding the number of business units of the sample and the percentage of the business units represented in the registers, broken down by strata, for the 1st quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees					
	less than 10 employees			10 employees and more		
	Number of business units of the sample	Number of business units of the frame population	Coverage -%-	Number of business units of the sample	Number of business units of the frame population	Coverage -%-
A	162	13162	1.23%	501	2047	24.47%
B	44	857	5.13%	124	291	42.61%
C	627	32891	1.91%	4626	13369	34.60%
D	57	695	8.20%	227	229	99.13%
E	71	1850	3.84%	366	714	51.26%
F	244	38718	0.63%	1634	7036	23.22%
G	1332	158493	0.84%	3468	14273	24.30%
H	189	29072	0.65%	786	2968	26.48%
I	79	19742	0.40%	372	3063	12.14%
J	95	15063	0.63%	429	1578	27.19%
K	144	5437	2.65%	440	727	60.52%
L	83	12017	0.69%	135	668	20.21%
M	229	48635	0.47%	779	2571	30.30%
N	126	12893	0.98%	915	2505	36.53%
O	82	83	98.80%	2020	2021	99.95%
P	42	2347	1.79%	200	463	43.20%
Q	216	7681	2.81%	515	1065	48.36%
R	184	3847	4.78%	575	864	66.55%
S	139	8653	1.61%	218	739	29.50%
<b>Total</b>	<b>4145</b>	<b>412136</b>	<b>1.01%</b>	<b>18330</b>	<b>57191</b>	<b>32.05%</b>

Table6. Table regarding the number of business units of the sample and the percentage of the business units represented in the registers, broken down by strata, for the 2nd quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees					
	less than 10 employees			10 employees and more		
	Number of business units of the sample	Number of business units of the frame population	Coverage -%-	Number of business units of the sample	Number of business units of the frame population	Coverage -%-
A	162	13162	1.23%	501	2047	24.47%
B	43	857	5.02%	125	294	42.52%
C	623	32896	1.89%	4612	13369	34.50%
D	58	695	8.35%	226	231	97.84%
E	70	1850	3.78%	362	715	50.63%
F	245	38720	0.63%	1631	7037	23.18%
G	1329	158493	0.84%	3455	14274	24.20%
H	191	29073	0.66%	782	2969	26.34%
I	80	19743	0.41%	372	3064	12.14%
J	97	15066	0.64%	427	1578	27.08%
K	144	5438	2.65%	440	727	60.52%
L	86	12018	0.72%	135	668	20.21%
M	230	48636	0.47%	777	2572	30.21%
N	129	12896	1.00%	911	2505	36.37%
O	85	87	97.70%	2021	2022	99.95%
P	44	2349	1.87%	200	463	43.20%
Q	219	7684	2.85%	510	1065	47.89%
R	186	3847	4.83%	573	864	66.32%
S	139	8654	1.61%	216	739	29.23%
<b>Total</b>	<b>4160</b>	<b>412164</b>	<b>1.01%</b>	<b>18276</b>	<b>57203</b>	<b>31.95%</b>



Table7. Table regarding the number of business units of the sample and the percentage of the business units represented in the registers, broken down by strata, for the 3rd quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees					
	less than 10 employees			10 employees and more		
	Number of business units of the sample	Number of business units of the frame population	Coverage -%-	Number of business units of the sample	Number of business units of the frame population	Coverage -%-
A	164	13162	1.25%	500	2047	24.43%
B	47	861	5.46%	125	294	42.52%
C	628	32899	1.91%	4615	13370	34.52%
D	60	697	8.61%	226	231	97.84%
E	71	1851	3.84%	362	715	50.63%
F	245	38720	0.63%	1629	7037	23.15%
G	1330	158493	0.84%	3453	14274	24.19%
H	192	29073	0.66%	782	2970	26.33%
I	79	19743	0.40%	372	3064	12.14%
J	96	15066	0.64%	428	1578	27.12%
K	144	5438	2.65%	440	727	60.52%
L	86	12018	0.72%	134	668	20.06%
M	233	48638	0.48%	776	2572	30.17%
N	129	12896	1.00%	911	2505	36.37%
O	85	87	97.70%	2022	2022	100.00%
P	43	2349	1.83%	200	463	43.20%
Q	221	7685	2.88%	509	1065	47.79%
R	186	3847	4.83%	573	864	66.32%
S	139	8654	1.61%	216	739	29.23%
<b>Total</b>	<b>4178</b>	<b>412177</b>	<b>1.01%</b>	<b>18273</b>	<b>57205</b>	<b>31.94%</b>

Table8. Table regarding the number of business units of the sample and the percentage of the business units represented in the registers, broken down by strata, for the 4th quarter of 2012

NACE Rev.2 (section level)	Size class – by number of employees					
	less than 10 employees			10 employees and more		
	Number of business units of the sample	Number of business units of the frame population	Coverage -%-	Number of business units of the sample	Number of business units of the frame population	Coverage -%-
A	164	13162	1.25%	500	2047	24.43%
B	49	862	5.68%	124	294	42.18%
C	638	32905	1.94%	4609	13371	34.47%
D	64	701	9.13%	224	231	96.97%
E	74	1854	3.99%	361	715	50.49%
F	244	38720	0.63%	1637	7037	23.26%
G	1333	158495	0.84%	3452	14274	24.18%
H	191	29073	0.66%	779	2970	26.23%
I	83	19744	0.42%	371	3064	12.11%
J	96	15066	0.64%	428	1578	27.12%
K	142	5438	2.61%	439	727	60.39%
L	85	12019	0.71%	135	668	20.21%
M	235	48639	0.48%	777	2572	30.21%
N	132	12898	1.02%	912	2505	36.41%
O	55	90	61.11%	2016	2023	99.65%
P	43	2349	1.83%	200	463	43.20%
Q	221	7685	2.88%	508	1065	47.70%
R	187	3848	4.86%	572	864	66.20%
S	140	8654	1.62%	216	739	29.23%
<b>Total</b>	<b>4176</b>	<b>412202</b>	<b>1.01%</b>	<b>18260</b>	<b>57207</b>	<b>31.92%</b>

Table9. Measure of misclassification by NACE category (percentage) 1st quarter 2012

NACE category according to the sampling frame	NACE Rev.2 category according NACE category to the observed sample																			Grand Total
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
A	99.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.95%
B	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.75%
C	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.37%
D	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.26%
E	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.94%
F	0.00%	0.00%	0.00%	0.00%	0.00%	99.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.35%
G	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	99.98%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.35%
H	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.34%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.01%
J	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.33%
K	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.60%
L	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.97%
M	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	4.49%
N	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	99.90%	0.00%	0.00%	0.00%	0.00%	0.00%	4.63%
O	0.15%	0.00%	0.00%	0.00%	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%	99.95%	0.00%	0.00%	0.00%	0.00%	9.37%
P	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	1.08%
Q	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	3.25%
R	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	3.38%
S	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	1.59%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table10. Measure of misclassification by NACE category (percentage) 2nd quarter 2012

NACE category according to the sampling frame	NACE Rev.2 category according NACE category to the observed sample																			Grand Total
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
A	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.96%
B	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.75%
C	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.33%
D	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.27%
E	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.93%
F	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.36%
G	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.32%
H	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.34%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.01%
J	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.34%
K	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.60%
L	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.99%
M	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.49%
N	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.64%
O	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	9.39%
P	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	1.09%
Q	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	3.25%
R	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	3.38%
S	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	1.58%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



[illegible][illegible]





Table13. Unit response rates by NACE and size classes 1st quarter 2012

NACE Rev.2 (section level)	Size class of enterprise (by number of employees)		Total (section level)
	less than 10 employees	10 employees and more	
A	95.68%	98.80%	98.04%
B	84.09%	95.97%	92.86%
C	87.24%	96.28%	95.20%
D	87.72%	97.36%	95.42%
E	84.51%	96.99%	94.97%
F	84.02%	96.39%	94.78%
G	85.81%	93.80%	91.58%
H	86.24%	94.91%	93.23%
I	81.01%	93.28%	91.13%
J	81.05%	93.24%	91.03%
K	83.33%	95.91%	92.81%
L	63.86%	94.07%	82.57%
M	81.22%	93.32%	90.58%
N	83.33%	90.05%	89.24%
O	95.12%	99.80%	99.62%
P	80.95%	98.00%	95.04%
Q	97.69%	97.09%	97.26%
R	93.48%	96.35%	95.65%
S	88.49%	94.50%	92.16%
<b>Total</b>	<b>86.44%</b>	<b>95.67%</b>	<b>93.97%</b>

Table14. Unit response rates by NACE and size classes 2nd quarter 2012

NACE Rev.2 (section level)	Size class of enterprise (by number of employees)		Total (section level)
	less than 10 employees	10 employees and more	
A	95.06%	98.80%	97.89%
B	88.37%	96.00%	94.05%
C	87.96%	96.57%	95.55%
D	89.66%	97.79%	96.13%
E	88.57%	98.07%	96.53%
F	84.90%	96.69%	95.15%
G	86.98%	94.47%	92.39%
H	85.34%	95.65%	93.63%
I	80.00%	94.62%	92.04%
J	83.51%	95.32%	93.13%
K	83.33%	96.14%	92.98%
L	68.60%	94.07%	84.16%
M	81.30%	94.47%	91.46%
N	86.05%	90.34%	89.81%
O	92.94%	99.85%	99.57%
P	86.36%	98.50%	96.31%
Q	98.17%	98.63%	98.49%
R	95.16%	97.21%	96.71%
S	92.09%	96.30%	94.65%
<b>Total</b>	<b>87.50%</b>	<b>96.21%</b>	<b>94.59%</b>

Table15. Unit response rates by NACE and size classes 3rd quarter 2012

NACE Rev.2 (section level)	Size class of enterprise (by number of employees)		Total (section level)
	less than 10 employees	10 employees and more	
A	93.90%	98.80%	97.59%
B	89.36%	96.00%	94.19%
C	88.06%	97.42%	96.30%
D	91.67%	96.90%	95.80%
E	88.73%	99.17%	97.46%
F	84.90%	96.75%	95.20%
G	86.84%	94.90%	92.66%
H	85.42%	96.16%	94.05%
I	82.28%	95.70%	93.35%
J	82.29%	95.56%	93.13%
K	83.33%	96.36%	93.15%
L	70.93%	92.54%	84.09%
M	81.97%	95.75%	92.57%
N	87.60%	90.78%	90.38%
O	94.12%	99.80%	99.57%
P	88.37%	98.50%	96.71%
Q	98.64%	99.02%	98.90%
R	94.62%	98.08%	97.23%
S	93.53%	97.22%	95.77%
<b>Total</b>	<b>87.72%</b>	<b>96.68%</b>	<b>95.02%</b>

Table16. Unit response rates by NACE and size classes 4th quarter 2012

NACE Rev.2 (section level)	Size class of enterprise (by number of employees)		Total (section level)
	less than 10 employees	10 employees and more	
A	94.51%	99.40%	98.19%
B	89.80%	95.97%	94.22%
C	88.09%	97.83%	96.65%
D	92.19%	96.88%	95.83%
E	89.19%	98.89%	97.24%
F	84.84%	97.31%	95.69%
G	87.32%	95.45%	93.19%
H	86.91%	96.15%	94.33%
I	83.13%	95.96%	93.61%
J	83.33%	97.20%	94.66%
K	82.39%	96.58%	93.12%
L	71.76%	91.85%	84.09%
M	82.98%	95.88%	92.89%
N	86.36%	91.67%	91.00%
O	90.91%	99.90%	99.66%
P	88.37%	99.00%	97.12%
Q	98.64%	99.41%	99.18%
R	95.72%	98.08%	97.50%
S	93.57%	97.22%	95.79%
<b>Total</b>	<b>88.00%</b>	<b>97.07%</b>	<b>95.38%</b>

**Table17. Non-response relative bias by NACE (section level) and size class for the 1st quarter of 2012**

NACE Rev.2 (section level)	Size class –by number of employees	
	less than 10 employees	10 employees and more
A	-0.96362	-0.34302
B	-0.85379	-0.01362
C	-0.92594	-0.15717
D	-0.44165	0.02690
E	-0.85495	-0.06620
F	-0.97276	-0.32138
G	-0.95425	-0.35545
H	-0.97085	-0.14755
I	-0.98738	-0.56104
J	-0.96449	-0.19641
K	-0.82942	-0.01974
L	-0.96426	-0.40925
M	-0.96994	-0.25884
N	-0.95286	-0.13911
O	0.02338	0.00115
P	-0.94635	0.00766
Q	-0.95633	-0.01402
R	-0.82540	-0.13698
S	-0.94585	-0.28826

**Table18. Non- response relative bias by NACE (section level) and size class for the 2nd quarter of 2012**

NACE Rev.2 (section level)	Size class –by number of employees	
	less than 10 employees	10 employees and more
A	-0.96365	-0.34302
B	-0.86249	-0.01316
C	-0.92599	-0.15707
D	-0.43547	0.02713
E	-0.85425	-0.06727
F	-0.97282	-0.32569
G	-0.95410	-0.35586
H	-0.97084	-0.15067
I	-0.98739	-0.56408
J	-0.96456	-0.20135
K	-0.83014	-0.02188
L	-0.96549	-0.40925
M	-0.97018	-0.26179
N	-0.95295	-0.13969
O	0.04127	0.00115
P	-0.94604	0.00339
Q	-0.95557	-0.02055
R	-0.82469	-0.13832
S	-0.94599	-0.28807

**Table19. Non- response relative bias by NACE (section level) and size class for the 3rd quarter of 2012**

NACE Rev.2 (section level)	Size class –by number of employees	
	less than 10 employees	10 employees and more
A	-0.96371	-0.33935
B	-0.86453	-0.01266
C	-0.92622	-0.15792
D	-0.43654	0.00952
E	-0.85418	-0.07652
F	-0.97277	-0.32456
G	-0.95421	-0.34996
H	-0.97088	-0.15016
I	-0.98764	-0.54540
J	-0.96435	-0.21129
K	-0.83010	-0.02272
L	-0.96616	-0.40081
M	-0.97018	-0.25461
N	-0.95299	-0.11940
O	0.03395	0.00151
P	-0.94746	0.00386
Q	-0.95519	-0.02385
R	-0.82444	-0.12658
S	-0.94679	-0.29286

**Table20. Non- response relative bias by NACE (section level) and size class for the 4th quarter of 2012**

NACE Rev.2 (section level)	Size class –by number of employees	
	less than 10 employees	10 employees and more
A	-0.96373	-0.34212
B	-0.85759	-0.01266
C	-0.92621	-0.16002
D	-0.43855	0.00067
E	-0.85395	-0.07417
F	-0.97289	-0.32566
G	-0.95414	-0.35367
H	-0.97090	-0.15024
I	-0.98768	-0.54597
J	-0.96439	-0.20254
K	-0.82938	-0.02433
L	-0.96590	-0.44785
M	-0.97069	-0.25538
N	-0.95334	-0.12582
O	0.03222	0.00115
P	-0.94746	-0.00115
Q	-0.95519	-0.02730
R	-0.82390	-0.12658
S	-0.94679	-0.29286



**Annex 2**  
**Scheduled activities of the Romanian Job Vacancy Survey 2012**

No	Activity	Activity Description	Deadline
1	Programming of survey activities and documentation study	1.1. Identification of the activities and operations to be carried out in order to successfully run the JVS	30/12/2011
		1.2. Documentation study	
		- <i>National level</i> (changes in legislation, collective agreements, labour code etc.)	30/12/2011
		- <i>European level</i> (Council and Commission regulations, working group and gentlemen agreements documents etc.)	30/12/2011
2.1.	Redesigning of survey tools	2.1. Redesigning of the survey tools (questionnaires, explanatory notes, classifications)	06/01/2012
		2.2. Sending the survey tools for comments and observations to main collaborators and users (Ministry of Labour, Social Solidarity, National Agency for Employment and to some statistical territorial offices)	11/01/2012
		2.3. Receiving comments and observations from the main users and the statistical territorial offices	18/01/2012
		2.4. Operating the changes based on comments and observation received and redesigning the final version of survey tools	20/01/2012
		2.5. Approval of the final version of survey tools	25/01/2012
2.2.	Dispatching survey tools in the territory	2.6. Sample selection of enterprises	05/01/2012
		2.7. Sending for checking the samples selected to each territorial statistical office	11/01/2012
		2.8. Updating the samples based on the updates received from the territorial statistical offices (organisational changes, identified / not - identified, activity changed etc.)	27/01/2012
		2.9. Printing the survey tools (questionnaires, methodological notes) according to the number of selected enterprises, by county	06/02/2012
		2.10. Dispatching the survey tools (questionnaires, methodological notes, logical tests) to the territorial statistical offices	08/02/2012
3	IT solutions	3.1. Designing the questionnaire for on line data collection	06/02/2012
		3.2. Designing the logical tests for data entry, data checking, correction and validation	09/02/2012
		3.3. Testing the IT solution at local level	23/02/2012
		3.4. Testing the IT solution at central level	05/03/2012
4	Fieldwork and data checking	4.1. Data collection (paper or on line)	Qb+80
		4.2. Data entry, checking and validation at local level	Qb+90
		4.3. Data files reception and listing of occurred errors	Qb+90
		4.4. Data validation and processing at central level	Qb+100
		4.5. Data checking and errors correction	Qb+110
		4.6. Tabulation of non-weighted data	Qb+110
		4.7. Weighting procedures and validation of weighted data	Qb+115
		4.8. Tabulation of weighted data	Qb+125
		4.9. Analysis of final results	Qb+133
5	Dissemination of survey results	5.1. Dissemination of final results on the quarterly number of occupied jobs and job vacancies to Eurostat	Q+45
		5.2. Release of the press release on quarterly job vacancies rate and the number job vacancies	Q+60
		5.3. Updating the national databases and publications with the results of the quarterly job vacancies rate and the number of job vacancies	Q+65
	Annual data	6.1. Data compiling for all quarters	14/03/2013
		6.4. Data analysis with the previous year	19/03/2012
		6.5. Dissemination of final results on the annual number of occupied jobs and job vacancies to Eurostat	25/03/2013
		6.6. Release of the press release on annual job vacancies rate and the number job vacancies	26/03/2013
		6.7. Updating the national databases and publications with the results of the annual job vacancies rate and the number of job vacancies	03/04/2013

Qb = beginning of the reference quarter

Q = end of the reference quarter