Statistical survey on job vacancies

L_ASRM_Q_EN_2021_0

Reference Metadata in ESMS 2.0 structure

1	Contact
1.1	**Contact organisation**
State Statistical Office	
1.2	**Contact organisation unit**
Wages department	
1.3	**Contact name**
Jane Mircheski	
1.4	**Contact person function**
Junior Associate	
1.5	**Contact mail address**
Dame Gruev 4, 1000 Skopje, Republic of North Macedonia	
1.6	**Contact email address**
jane.mirceski@stat.gov.mk	
1.7	**Contact phone number**
+389 2 3295-835	
1.8	**Contact fax number**
2	**Metadata update**
2.1	**Metadata last certified**
31/12/2021	
2.2	**Metadata last posted**
31/12/2021	
2.3	**Metadata last update**
18/01/2022	

3	Statistical presentation
3.1	**Data description**

Data on the number of employees, number of job vacancies and job vacancy rate.

3.2	**Classification system**

- National Classification of Activities - NKD Rev. 2;

- National Classification of Occupations, 2015.

3.3	**Sector coverage**

Sectors from B to S of the National Classification of Activities - NKD Rev. 2.

B/Б - Mining and quarrying

C/В - Manufacturing

D/Г - Electricity, gas, steam and conditioning supply

E/Д - Water supply; sewerage, waste management and remediation activities

F/Ѓ - Construction

G/Е - Wholesale and retail trade; repair of motor vehicles and motorcycles

H/Ж - Transportation and storage

I/З - Accommodation and food service activities

J/S - Information and communication

K/И - Financial and insurance activities

L/J - Real estate activities

M/К - Professional, scientific and technical activities

N/Л - Administrative and support service activities

O/Љ - Public administration and defence; compulsory social security

P/М - Education

Q/Н - Human health and social work activities

R/Њ - Arts, entertainment and recreation

S/О - Other service activities

3.4	**Statistical concepts and definitions**

Job vacancy can be a newly created paid post, unoccupied or already existing post that is about to become vacant and for which the employer takes active steps for finding suitable candidate from outside the enterprise. The vacancy should be publicly announced and the employer should intend to fill the post either immediately or in the near future. For job vacancies which require approval by a competent authority, such approval should be obtained. The post is considered vacant as long as active steps for finding a suitable candidate are being taken.

Job vacancy rate is the ratio between job vacancies and the sum of the vacant and occupied posts, shown as a percentage.

3.5	Statistical unit

Business entities belonging in sectors from B to S of the National Classification of Activities - NKD Rev. 2 with three or more employees.

3.6	Statistical population

All business entities belonging in sectors from B to S of the National Classification of Activities - NKD Rev. 2 with three or more employees.

3.7	Reference area

NTES 3 (Statistical Regions)

3.8	Time coverage

From first quarter 2012.

3.9	Base period

| | |

4	Unit of measure

Number of persons, rate (%).

5	Reference period

Quarter (15th of every month in the reference quarter).

6	Institutional mandate

| | |

6.1	Legal acts and other agreements

National:

Law on State Statistics ("Official Gazette of the Republic of Macedonia" No. 54/97, 21/07, 51/11, 104/13, 42/14, 192/15, 27/16, 83/18 and 220/18 and "Official Gazette of the Republic of North Macedonia" No. 31/20), Programme of Statistical Surveys 2018-2022 ("Official Gazette of the Republic of Macedonia" No. 22/18, 224/18 and "Official Gazette of the Republic of North Macedonia" No. 18/20 and 300/20).

International:

Regulation (EC) No 453/2008 of the European Parliament and of the Council

Commission Regulation (EC) No 1062/2008, implementing Regulation (EC) No 453/2008

Commission Regulation (EC) No 19/2009, implementing Regulation (EC) No 453/2008

Methodologies for Job Vacancy Statistics, 1st and 2nd International Workshops, Proceedings, Eurostat, 2010

6.2	Data sharing
Time series of quarterly data: from first quarter 2012 via eDAMIS to Eurostat.	

7	Confidentiality

7.1	Confidentiality - policy

Individual data are protected by the Law on State Statistics http://www.stat.gov.mk/ZakonZaStatistika_en.aspx .

Data collected with statistical surveys from the reporting units or indirectly from administrative or other sources are confidential data and are used only for statistical purposes. Results from the statistical processing may also generate information considered as confidential, for example: anonymised individual data, tables with low level of aggregation, as well as unreleased data.

The Policy on Statistical Confidentiality http://www.stat.gov.mk/ZaNas_en.aspx?id=32 contains the basic principles used in the SSO.

7.2	Confidentiality - data treatment

All individual or personal data, in each phase of statistical processing, are treated as confidential data and may be used only for statistical purposes. When releasing data from this survey at an aggregated level, there is no need for additional data treatment for the purpose of ensuring confidentiality.

8	Release policy

8.1	Release calendar

Data are released in accordance with the Release Calendar, which is published on the web site of the State Statistical Office.

The Release Calendar is prepared annually before the beginning of each year.

8.2	Release calendar access

The Release calendar http://www.stat.gov.mk/Kalendar_nov_en.aspx

8.3	User access

In accordance with the dissemination policy, all users have equal access to statistical data at the same time. Data are released on the web site at the same time for all users, which are informed with the Release Calendar, and no user has privileged access.

9	Frequency of dissemination

Quarterly.

10	Accessibility and clarity

10.1	News release

Quarterly news release: "Job vacancies" https://www.stat.gov.mk/pdf/2021/2.1.21.17_mk.pdf

10.2	Publications

Not applicable, data are not published in a thematic publication.

10.3	On-line database

MAKStat-database is available on the website of the SSO.

 http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef

Number of hits on the tables from the database is 268.

10.4	Micro-data access

According to the Law on State Statistics http://www.stat.gov.mk/ZakonZaStatistika_en.aspx (Article 41) and the Policy on Access to Anonymised Microdata for scientific purposes http://www.stat.gov.mk/ZaNas_en.aspx?id=22 , data collected for the purpose of official statistics may be used for scientific purposes if there is no risk of direct or indirect identification, i.e. disclosure of data individuality. Access to microdata is possible only in the safe room at the SSO, based on a submitted and approved request and a signed agreement.

10.5	Other

Survey data are sent to Eurostat and they are released on the web site of this institution.

10.6	Documentation on methodology

The methodological explanations are available on the website of the State Statistical Office.
 http://www.stat.gov.mk/MetodoloskiObjasSoop_en.aspx?id=112&rbrObl=14

10.7	Quality documentation

Metadata for 2021, by the SSO, http://172.16.1.48/Meta_godini_en.aspx
Number of metadata views = 2.
Quality Report for 2020, from the SSO, to Eurostat
 https://ec.europa.eu/eurostat/cache/metadata/EN/jvs_esqrs_mk.htm

11	Quality management

11.1	Quality assurance

The commitment of the SSO to ensuring quality of products and services is described in the Law on State Statistics (http://www.stat.gov.mk/ZakonZaStatistika_en.aspx), the Strategy of the State Statistical Office (http://www.stat.gov.mk/ZaNas_en.aspx?id=6) and the Quality Policy of the State Statistical Office (http://www.stat.gov.mk/ZaNas_en.aspx?id=24), as well as in the continuous efforts for harmonisation with the European Statistics Code of Practice (http://www.stat.gov.mk/pdf/Politika_za_kvalitet_en.pdf).

The main aspects and procedures for quality management in the phases and sub-processes of the Statistical Business Process Model, as well as the good practices for ensuring quality are documented in the internal document called "Guide for ensuring quality of statistical processes". Input and output metadata, as well as relevant quality indicators for certain sub-processes are described in the document "Guide for survey managers".

11.2	Quality assessment

A Quality Report has been prepared in ESQRS format, and sent to Eurostat through ESS Metadata Handler.

12	Relevance

12.1	User needs

Data from this survey are used to monitor macroeconomic developments and policies in the labour market. The rate of vacancies, along with the unemployment rate, is used for evaluation, improvement and understanding of the overall situation in terms of employment in the country. Data on job vacancies broken down by economic activity and size of the enterprise are used in order to analyse the level and the structure of the demand in the labour market. The main users of these data:

- **National users:** Government of the Republic of Macedonia, Ministry of Labour and Social Policy, other Government institutions and the media.

- **International users:** Eurostat.

12.2	User satisfaction

The State Statistical Office conducts the User Satisfaction Survey at the domain level. http://www.stat.gov.mk/ZaNas_en.aspx?id=33 This survey was conducted in 2009, 2012, 2015, 2017 and last in 2019.

12.3	Completeness

The Job Vacancy Survey is fully compliant with EU regulations concerning statistics on job vacancies. In terms of the indicators required by EU Regulations, listed in 6.1 concept, SSO provides 100% of them.

13	Accuracy and reliability

13.1	Overall accuracy

Data accuracy is ensured by working on decreasing sampling and/or non-sampling errors, as well as with additional data comparisons and analysis before dissemination.

13.2	Sampling error

Detection of outliers: Outliers are identified separately for employees and for vacancies using thresholds.

- In the size class of enterprises with less than 10 employees, enterprises are considered as outliers if their number of employees is more than 49 or their number of vacancies is more than 9.
- In the size class of enterprises with 10 to 49 employees, enterprises are considered as outliers if their number of employees is more than 99 or their number of vacancies is more than 49.

Treatment of Outliers: weight equals one.

Coefficient of variation for vacancies and occupied jobs in 2021 (in%)

2021 year	Q1	Q2	Q3	Q4
Occupied jobs	1.6	1.6	1.7	1.8
Job vacancies	11.9	7.0	5.2	5.6

The calculation of the coefficient of variation is made using PROC SURVEYMEANS.

13.3	Non-sampling error

Measurement errors: Reporting units are notified by sending an automatic message from the eStat system for electronic data collection. The data collected are checked in the SSO for errors.

Data entry errors: The entry is made directly by business entities in the eStat system. In the system, there are integrated logical and mathematical controls, and data are checked after the collectioin. Reporting units that have submitted incomplete reports, i.e. there is item non-response, are contacted by telephone in order to provide the requested information. To reduce the errors, the data collected are checked, the reporting units are re-contacted for validation, correction or amendment of the answers in the questionnaire. Reduction of non-response is achieved by repeated calls, sending e-mails and data collection via phone / email.

Non-response errors: Unit non-response rate for 2021 by quarters is as follows:

Q1	Q2	Q3	Q4
43.9	47.8	46.5	48.3

14	Timeliness and punctuality

14.1	Timeliness

T+60

14.2	Punctuality

Data are disseminated within the established deadlines in accordance with the Release Calendar.

15	Coherence and comparability

15.1	Comparability - geographical

There is geographical comparability of the released data at national and regional level. With respect to geographical comparability with other EU countries, it is also ensured because data are collected in line with EU regulations.

15.2	Comparability - over time

Comparability of data is ensured from the first quarter of 2012 without break in time series. The number of reference periods in the time series is 40.

15.3	Coherence - cross domain

Comparisons of data at micro level are made with data from the ""Statistical survey on employees and wages"" (TRUD.1, TRUD.1G). Also, the data on occupied posts from this survey are compared with data on number of employees from the ""Labour Force Survey".

15.4	Coherence - internal

Internal coherence of data is ensured, data are checked and analysed in the production process.

16	Cost and burden

Burden on reporting units is controlled with the method of sample selection.

17	Data revision

17.1	Data revision - policy

In accordance with the Statistical Data Revision Policy http://www.stat.gov.mk/ZaNas_en.aspx?id=25

17.2	Data revision - practice

The data published are final data and there has been no revision.

18	Statistical processing

18.1	Source data

The job vacancy survey is a sample-based survey. The sample is stratified random sample, and the stratification is made according to NKD Rev.2. section level, and number of employees in the business entities: 3-9, 10-49, 50-249 and 250+ employees. The sample consists of 3764 reporting units. Reporting units are business entities.

18.2	Frequency of data collection

Quarterly

18.3	Data collection

The data from survey are collected by self-administered statistical questionnaire "Job vacancy survey" through the eStat system or by post.

18.4	Data validation

In the web data entry form in the eStat system, there are incorporated mathematical and logical controls. Additional validation rules that are not part of the logical control in the data entry form are also applied in order to improve data quality. Data are checked at aggregated level as well, i.e. comparison and analysis are done with data from the previous reference period.

18.5	Data compilation

Aggregate data are produced by weighting the data from the sample. The weighting is carried out using Horvitz-Thompson estimator, i.e. the weight is equal to the inverse probability of selection of the selected item. The final weight is produced by multiplying the weight with the coefficient for adjustment of non-response.

18.6	Adjustment

Not applicable, no adjustment is made to the time series and seasonal adjustment to the data.

19	Comment

A.1	Annexes