

Statistical survey on doctors of science (who have defended a doctoral thesis)

E_VOI.70_A_EN_2024_1

Reference Metadata in SIMS 2.0 structure

S.1	Contact
S.1.1	Contact organisation
State Statistical Office	
S.1.2	Contact organisation unit
Department for education and science	
S.1.3	Contact name
Hamzi Ismani	
S.1.4	Contact person function
Associate	
S.1.5	Contact mail address
Dame Gruev 4, 1000 Skopje, Republic of Macedonia	
S.1.6	Contact email address
hamzi.ismani@stat.gov.mk	
S.1.7	Contact phone number
00389 2 3249 441	
S.1.8	Contact fax number
00389 2 3111 336	
S.2	Metadata update
S.2.1	Metadata last certified
S.2.2	Metadata last posted
S.2.3	Metadata last update

25/01/2017	
S.3	Statistical presentation
S.3.1	Data description
Doctors of science by type of tertiary education institution where they have obtained their doctor's degree, scientific branch of the doctoral dissertation, age and sex; Doctors of science by scientific branch of the doctoral dissertation and ethnic groups.	
S.3.2	Classification system
National Classification of Activities - NKD Rev.2; Nomenclature of Territorial Units for Statistics - NTES, 2013 The education system in the Republic of Macedonia in terms of ISCED2011 - International Standard Classification of Education MSKOB (2013) Manual fields (areas) of education and training in ISCED 2013.	
S.3.3	Sector coverage
Sector P / M-Education, class 85.42, Higher education, according to NKD Rev. 2.	
S.3.4	Statistical concepts and definitions
Faculty is a higher education institution conducting higher education, scientific research and applied work in one or more related scientific and specialized fields. Scientific Institute can provide higher education for studies of second and third cycle of studies within the scientific field it was established, if it satisfies the requirements for providing higher education, it is accredited to provide these studies and has a decision for starting to work. Scientific degree doctor of science is obtained with completion of the third cycle of study and defence of a doctoral dissertation.	
S.3.5	Statistical unit
Higher education institutions (faculties and scientific institute) belonging to sector P / M-Class Education, 85.42.	
S.3.6	Statistical population
Persons who defended doctoral dissertation on the faculties and scientific institutes that are belonging to the sector P / M-Education, class 85.42.	
S.3.7	Reference area
Municipalities	
S.3.8	Time coverage
Since 1958 year.	
S.3.9	Base period
S.4	Unit of measure
Number.	
S.5	Reference period
Year.	

S.6	Institutional mandate
S.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 2023-2027 (Official Gazette of the Republic of North Macedonia No. 29/23). International: Regulation (EU) No 88/2011 of 2 February 2011 for implementing Council Regulation (EC) No 452/2008 of the European Parliament and the Council concerning the production and development of statistical data for education and lifelong learning, as regards statistical data on education and training systems, OJ L 29, 2011/03/02. Law on State Statistics	
S.6.2	Data sharing
"Time Series of 1998: via eDAMIS to Eurostat with ""UNESCO / OECD / Eurostat data collection on education and training statistics""."	
S.7	Confidentiality
S.7.1	Confidentiality - policy
Individual data are protected by the Law on State Statistics. 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 contains the basic principles used in the SSO.	
S.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.	
S.8	Release policy
S.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 and is updated quarterly.	
S.8.2	Release calendar access
Advance Release Calendar	
S.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.	

S.9	Frequency of dissemination
Yearly.	
S.10	Accessibility and clarity
S.10.1	News release
News release: " https://www.stat.mk/en/stat/population-and-living-conditions/education/doctors-of-science/doctors-of-science-2024/ "	
S.10.2	Publications
S.10.3	On-line database
S.10.3.1	AC1. Data tables - consultations
https://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/MakStat_ObrazovanieNauka_VisokoObrazovanie_DipolmiraniStudenti_DipTretCiklus/266_VsObr_RSM_T13_ml.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef	
S.10.4	Micro-data access
According to the Law on State Statistics (Article 41) and the Policy on Access to Anonymised Microdata for scientific purposes, 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. http://www.stat.gov.mk/ZaNas_en.aspx?id=22	
S.10.5	Other
Survey data are sent to Eurostat and they are released on the web site of this institution.	
S.10.5.1	AC 2. Metadata - consultations
S.10.6	Documentation on methodology
"The methodological explanations are released on the State Statistical Office website: http://www.stat.gov.mk/MetodoloskiObjasSoop.aspx?id=21&rbrObl=5 Methodological explanations that are part of the publication ""Graduated students, 2014 (first, second and third cycle)"". http://www.stat.gov.mk/Publikacii/2.4.15.23.pdf "	
S.10.6.1	AC 3. Metadata completeness - rate
S.10.7	Quality documentation
A National Quality Report is sent to Eurostat. http://ec.europa.eu/eurostat/cache/metadata/en/educ_uoe_enr_esqrs_mk.htm	
S.11	Quality management
S.11.1	Quality assurance

The commitment of the SSO to ensuring quality of products and services is described in the Law on State Statistics, 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/pdf/Politika_za_kvalitet_en.pdf), as well as in the continuous efforts for harmonisation with the European Statistics Code of Practice. The main aspects and procedures for quality management in the phases and sub-phases 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".

S.11.2 Quality assessment

S.12 Relevance

S.12.1 User needs

The data are used by Government, ministries, agencies and local government for their use in determining and conducting development policy, by students, researchers, as well as international institutions, UNESCO, OECD, Eurostat and others.

S.12.2 User satisfaction

The State Statistical Office conducts the User Satisfaction Survey at the domain level. This Survey is conducted every three years and the last one was in 2019.
User Satisfaction Survey 2019

S.12.3 Completeness and R1. Data completeness - rate for U

In terms of the indicators provided by Regulation. 88/2011 of the European Commission, SSO provides about 100% of them.

S.12.3.1 R1. Data completeness - rate for P

In terms of the indicators provided by Regulation. 88/2011 of the European Commission

S.13 Accuracy and reliability

S.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.

S.13.2 Sampling error and A1. Sampling errors - indicators for U

Not applicable (survey is with total coverage).

S.13.2.1 A1. Sampling errors - indicators for P

S.13.3 Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U

Coverage errors: Providing 100% coverage. Data providers are reminded timely to fulfil its obligation. During conducting the survey, the questionnaires are collected from the field daily,

in order to control the scope and timely detection of errors. The collected data are controlled by the obliged person for the survey, if an error is detected in the questionnaires by contacting with the reporting units they are adjusted. Errors in data processing: Data entry is made through pre-defined application for entry in manual mode. During the data entry, there are applied automatically controls and controls over input, as well as additional control after completing the entry.	
S.13.3.1	Coverage error
S.13.3.1.1	A2. Over-coverage - rate
S.13.3.1.2	A3. Common units - proportion
S.13.3.2	Measurement error
Not applicable (survey is with total coverage)	
S.13.3.3	Non response error
S.13.3.3.1	A4. Unit non-response - rate
S.13.3.3.2	A5. Item non-response - rate
S.13.3.4	Processing error
S.13.3.5	Model assumption error
S.14	Timeliness and punctuality
S.14.1	Timeliness and TP2. Time lag - final results for U
T+90	
S.14.1.1	TP1. Time lag - first results for P
S.14.1.2	TP2. Time lag - final results for P
S.14.2	Punctuality and TP3. Punctuality - delivery and publication for U
Data are disseminated within the established deadlines in accordance with the Release Calendar.	
S.14.2.1	TP3. Punctuality - delivery and publication for P
S.15	Coherence and comparability
S.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.	
S.15.1.1	CC1.Asymmetry for mirror flow statistics - coefficient
S.15.2	Comparability - over time and CC2. Length of comparable time series for U
Comparability of the data is provided since 1958 without interruption over time. The number of reference periods of time series - 58.	
S.15.2.1	CC2. Length of comparable time series for P
S.15.3	Coherence - cross domain
Comparisons were made with the data at micro level and the administrative data.	
S.15.3.1	Coherence - sub annual and annual statistics
S.15.3.2	Coherence - National Accounts
S.15.4	Coherence - internal
Internal coherence of data is ensured.	
S.16	Cost and burden
S.17	Data revision
S.17.1	Data revision - policy
In accordance with the Statistical Data Revision Policy. http://www.stat.gov.mk/ZaNas.aspx?id=25	
S.17.2	Data revision - practice and A6. Data revision - average size for U
S.17.2.1	A6. Data revision - average size for P
S.18	Statistical processing
S.18.1	Source data
The data are obtained using the survey with full coverage. Data sources are questionnaires received from reporting units - faculties and scientific institutes. Each reporting unit (faculty, scientific institute) delivers individual questionnaires for each student who had gained the title Doctor of Science in the calendar year.	
S.18.2	Frequency of data collection
Yearly.	

S.18.3	Data collection
The data are collected via method of self fulfilment of the statistical questionnaire for each person who had gained the title Doctor of Science (Form SHV.70) from the students, confirmed and certified from the faculty in which they graduated i.e. reporting units. The self fulfilment is done manually and delivered in paper form to the SSO. Completed questionnaires are delivered each quarter no later than (T+15).	
S.18.4	Data validation
Data validation is done in accordance with the defined criteria for control. Initial check of the data is done by the responsible person for the survey in the subject matter department while receiving the completed questionnaires. Verification of the data is done using logical and mathematical control.	
S.18.5	Data compilation
The data are obtained on paper, controlling the scope of the reports received. The reports are systematized by universities, faculties and departments within the faculty. By the person responsible for the survey if it is necessary the faculties and scientific institute are contacted about the scope and completeness of questionnaires. Controlled questionnaires by the person responsible for the survey, are entered in the application with inserted mathematical and logical controls, as well as additional controls after the data entry. If errors are detected in the questionnaires the reporting units are contacted additionally and the errors are adjusted. The data are controlled, compared and analysed, also and before their publication, at an aggregate level.	
S.18.5.1	A7. Imputation - rate
S.18.6	Adjustment
Data adjustment is not performed.	
S.18.6.1	Seasonal adjustment
S.19	Comment
A.1	Annexes