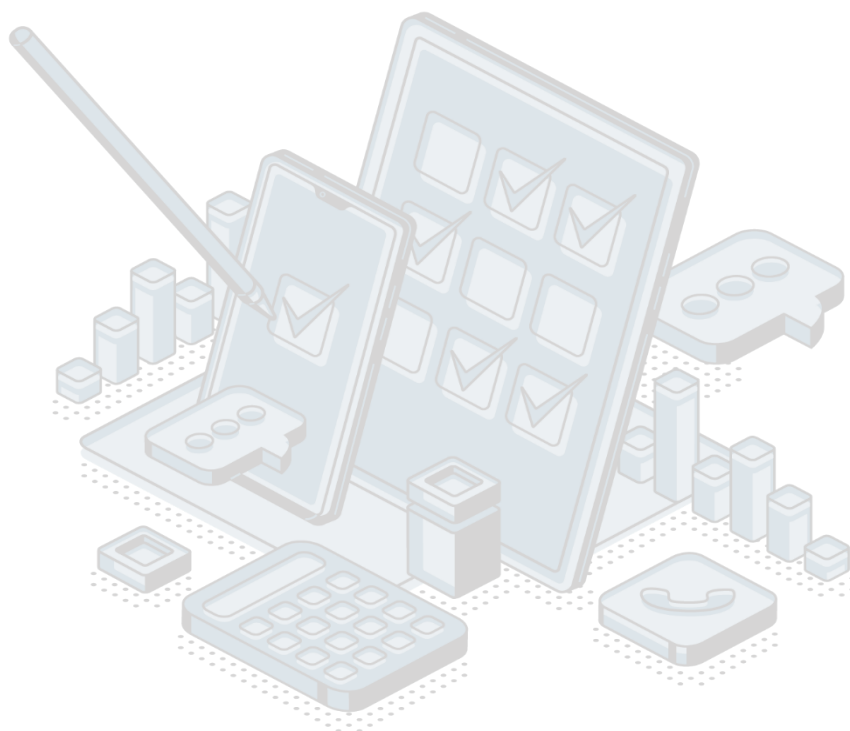QUALITY REPORT

DOCTORS OF SCIENCE
2021

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Doctors of science

Table of contents:

1. Introduction – Basic information on survey

1.1 Purpose, goal, and subject of survey

The purpose of the survey is to collect data on doctors of science for the calendar 2021 year at public and private higher education institutions in Montenegro.

The aim of the survey is to calculate indicators on this type of study in Montenegro, in order to meet the needs of the users and obtain internationally comparable data.

Data on doctors of science are the result of regular statistical surveys.

1.2 Legal basis

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12 and 47/19) defines provisions for collection, processing, and dissemination of data. The Law provides to the Statistical Office legal powers to collect and access the data necessary for the implementation of Programme and Annual Plan. The Law gives a priority to the use of administrative data and right of access to individual data that are a result of survey of other official statistical producers. As a supplement to the legal provisions, the Directorate for Statistics has signed a Memorandum of Cooperation with the University of Montenegro as the owner of administrative data.

1.3 Statistical units

Reporting units are all higher education institutions established or conducting classes in Montenegro, regardless of their status, established in accordance with the Law on Higher Education (Official Gazette of Montenegro No 044/14 of 21.10.2014, 052/14 of 16.12.2014, 047/15 of 18.08.2015, 040/16 of 30.06.2016, 042/17 of 30.06.2017, 071/17 of 31.10.2017, 055/18 of 01.08.2018, 003/19 of 15.01.2019, 017/19 of 19.03.2019, 047/19 of 12.08.2019, 072/19 of 26.12.2019, 074/20 of 23.07.2020, 104/21 of 30.09.2021).

1.4 Coverage and scope of survey

1.4.1 Sectors

Education

1.4.2 Statistical population

All students at high school institutions that have completed their doctoral studies.

1.5 Reference geographical area

Montenegro

1.6 Concepts and definitions

Higher education is provided by universities and higher education institutions that are licensed and accredited in accordance with the Law on Higher Education. Higher education is acquired in Montenegro at universities and other institutions, which can be established as public and private. The University realizes its activity through: faculties, art academies, institutes and colleges, as organizational units.

The University is an autonomous institution which, in carrying out its activities, unifies educational, scientific and research and artistic work, as part of a unique higher education process.

The Faculty is a scientific-teaching higher education institution that develops scientific-research work as the basis of teaching activity.

Faculty of Arts and Academy is a teaching and art institution of higher education that develops artistic creativity, scientific research work and performs teaching in appropriate fields.

The study program is the basic unit for classification of higher education with defined structure and number of ECTS credits which provide the individual with the learning outcomes necessary for gaining knowledge, skills and competences for the field of work from the level of higher education defined in the national framework of qualifications and issuing a diploma.

The status of the student is obtained by enrolling in the appropriate study program. A student can have a status of a budget funded or self-financing student. Primary and postgraduate study programs can be accredited as academic and applied.

Doctoral study programs can be accredited as academic.

Doctoral studies are considered as any study program which entitles them to acquire the diploma of the academic title of Doctor of Science, in accordance with the Law. The higher education institution organizes and conducts doctoral studies in the scientific fields for which it is accredited. Doctoral studies last three years (six semesters), the scope of study programs of these studies is 180 ECTS credits.

Doctoral studies for acquiring the academic title of Doctor of Science are organized after completing postgraduate studies for obtaining the academic title of Master of Science degree of 300 ECTS credits. At doctoral studies for acquiring the diploma of the academic title of Doctor of Science, education from scientific fields of study is acquired by participating in organized scientific research work and independent realization of scientific research.

A diploma is a public document proving that the acquired qualification is the result of a successfully completed higher education program. The diploma of the academic title of the doctor of science is obtained after the completion of a three-year study program, and after obtaining the diploma of the academic title of the Master of Science and defence of the doctoral dissertation.

1.7 Classifications

National Classification of Education (harmonized with the International Standard Classification of Education - ISCED 2011).

1.8 Frequency of data collection

Annual frequency of data collection.

1.9 Dynamics of data collection

Annual dynamics - final data.

1.10 Methodology

Methodological guide for higher education is available at the website of Statistical Office, link:

https://www.monstat.org/eng/page.php?id=190&pageid=75

1.11 Base period

Not relevant.

1.12 Unit of measure

Number of students who completed their doctoral studies or obtained a doctorate degree.

1.13 Data source

All higher education institutions in the territory of Montenegro that have a license and accreditation for their classes, regardless of their status.

1.14 Method of data collection

Data is collected in a combination. From a number of reporting units, data is collected through a statistical questionnaire by a reporting method and partly by administrative means.

2. Relevance – data users

2.1 User needs

International users:

- Eurostat;
- World Bank;
- UN organisations;
- International Monetary Fund (IMF)

National users:

- Ministries and other public administration bodies;
- Local governments and other local government bodies;
- Central Bank
- Non-governmental organizations
- Students;
- Researchers;
- Media.

2.2 User satisfaction

The Statistical Office has adopted the Quality Management Strategy, the Guide for the Implementation of the Quality Management Strategy, as well as the Implementation Plan for the Implementation of the Quality Policy. In order to measure the degree to which it fulfils its obligations towards users and as part of the new quality policy, the Directorate for Statistics conducted a survey on user satisfaction.

The results of the research are available on the website of the Statistical Office, link:

https://www.monstat.org/eng/page.php?id=1502&pageid=1

3. Accuracy and reliability

3.1 Accuracy – overall

The survey is conducted on the full scope of the reporting units. Reporting units are higher education institutions in Montenegro that have the data needed for this survey. This method provides a high accuracy rating.

3.2 Sampling error

Since this statistical survey is conducted on a full coverage basis, sampling errors are not relevant.

Sampling error indicators

Not relevant.

3.3 Non-sampling error

Non-sampling errors: over-coverage, under-coverage, measurement and processing errors, data editing and imputation errors, non-response.

3.3.1 Coverage error

Since survey in the field of higher education is conducted on the basis of full coverage, coverage errors have not been determined.

Error indicator coverage

Not relevant.

3.3.2 Measurement error

Measurement errors are errors that occur during data collection and cause differences between the recorded and actual values of the variable. By indirect analysis, based on the input results, a correction is made. Every year, the reporting units are asked for the same variables, which makes it easier to fill out the questionnaire.

3.3.3 Non-response error

Not relevant.

Unit nonresponse rate

In the calendar year 2021 there were no unresponsive reporting units.

Item nonresponse rate

Not relevant.

3.4 Data processing error

Not relevant.

Imputation rate

Not relevant.

3.5 Data revision

3.5.1 Data revision policy

The Statistical Office has adopted 'Revision policy' and it is available on the website: https://www.monstat.org/eng/page.php?id=1411&pageid=3

3.5.2 Data revision practice

There was no data revision. Not applicable.

3.5.3 Data revision-average size

Not relevant.

4. Timeliness and punctuality

4.1 Timeliness

The data are published in accordance with the Annual Plan of Official Statistics for 2022 and the Calendar of Publication of Statistical Data of the Administration for Statistics for 2022. The data is published on the date determined by the Statistical Data Publication Calendar. For the calendar year 2021 data were published on May 18, 2022.

Time lag of preliminary results

Not relevant.

Time lag of final data

The data is published as final. The final data are published T+135, there was no deviation between the announced date in the annual Statistical Data Publication Calendar and the actual publication date.

4.2 Punctuality

There was no deviation between the announced date in the annual Statistical Data Publication Calendar and the actual publication date.

The data are published on the date provided for in the Annual Plan and the Statistical Data Publication Calendar. The TP3 indicator is 0, i.e. there is no difference between the planned and actual announcement.

5. Availability and clarity

5.1 Statistical Release Calendar

The Law on Official Statistics and the System of Official Statistics (Official Gazette of Montenegro No 18/12 and 47/19) prescribes that the producers of official statistics prepare, update and publish the Calendar of publication of statistical data.

It is published on the website of the Administration for Statistics no later than December 20 for the following year, for all producers of official statistics, which includes the dates of publication of statistical data.

Any change in the publication date in the Calendar is announced in advance in accordance with the Procedure on unplanned revisions.

5.2 Access to Statistical Release Calendar

The calendar of publication of statistical data is available at the following link: Release Calendar

5.3 Releases

For this statistical survey realise is published once a year and is available on the website at the following link: https://www.monstat.org/eng/page.php?id=295&pageid=1

5.4 Publications

The Statistical Office publishes data on Doctors of science in the following publications:
- Statistical Yearbook,
- Montenegro in figures,
- Women and men in Montenegro.

All publications published by the Statistical Office are available at the following link:
https://www.monstat.org/eng/publikacije.php?id=100

5.5 Online database

Not available.

5.6 Access to microdata

The Law on Official Statistics and the System of Official Statistics (Official Gazette of Montenegro No 18/12 and 47/19) regulates the rules under which external users can gain access to individual data for research purposes. Article 58 defines the types of scientific and research organizations that can receive such data. The provision of individual data without identifiers is possible only at the written request of scientific and research institutions, for the purpose of carrying out scientific and research activities, as well as international statistical organizations and producers of statistics from other countries. The research subject signs the Agreement with the Statistical Office, as well as the Declaration on respect for the principle of confidentiality. Producers of official statistics keep special records on the users and on the purpose for which the statistical data are made available.

5.7 Metadata occupancy

Metadata completion rate represents the ratio of the number of completed metadata data in relation to the total number of acceptable metadata fields. For this research, the metadata data completion rate is 100%.

6. Comparability

6.1 Spatial comparability

Data publication is in accordance with the International Standard Classification of Education (ISCED-2011) and national requirements. Comparability with all countries using the same methodology is ensured.

6.2 Time comparability

A usable time series of data on Doctors of science is available since 2002 calendar year. The data are comparable over time. There have been no interruptions in the series since the beginning of data collection for this statistical survey.

Time comparability indicator

Indicator CC2 is 20