



REPUBLIC OF MACEDONIA
STATE STATISTICAL OFFICE

**Policy on Access to Anonymised Microdata
for Scientific-Research Purposes**

November 2016

Introduction

The issue on the access to the anonymised microdata (anonymised microdata means individual statistical data which are modified in order to minimise, in accordance with the current best practices, the risk of identification of the statistical units to which they refer) for scientific-research purposes is a huge challenge to National Statistical Offices. Therefore, a balance between the confidentiality protection and the increased use of anonymised microdata should be made. In order to achieve this balance, combining different measures and activities is inevitable, necessary to cover legal, technical, administrative and methodological aspects.

In the State Statistical Office (SSO), the protection of data collected for statistical purposes is guaranteed by the Law on State Statistics.

Regarding the definitions of scientific-research work, this policy is also based on the provisions of the Law on Scientific-Research Activity ("Official Gazette of the Republic of Macedonia" No. 46/08, 103/2008, 24/2011, 147/2013, 41/2014, 145/2015, 154/2015, 30/2016 and 53/2016) used in this Law:

- "Scientific-research activity" comprises the fundamental and applied research whose results contain authenticity/originality, and are directed towards expanding and improving the activity and overall knowledge;
- "Researcher" is an individual who does scientific-research activity and scientific research in scientific-research entities;
- "Project manager" is a researcher who manages scientific-research projects;
- "Individual researcher" is an individual who does scientific-research activity on his own in accordance with the Law on Scientific-Research Activity.

In accordance with the law, the term "scientific-research community" means researchers, individual researchers, as well as entities that do scientific-research activity and are registered in the Register of entities performing scientific-research activity in the Republic of Macedonia. In order to observe the scientific-research activity in the Republic of Macedonia, the Ministry of Education ensures conditions for establishing and providing databases for research institutions and databases for scientific researchers and collaborators.

The aim of the document is to define the policy on access to anonymised microdata and the need to define the access. The policy on access to anonymised microdata for scientific-research purposes is not aimed at limiting the access, but rather to make the access procedure simpler for the "scientific-research community" with a view to establishing clear and transparent procedures.

The term "anonymised microdata" refers to individual data without identification data on the reporting unit, without the possibility for direct or indirect identification. These may be data collected by the SSO or data obtained from administrative sources according to specially defined procedures.

1. Basic principles

One of the fundamental principles of the official statistics defined by the United Nations refers to the statistical confidentiality:

“Individual data collected by statistical organisations for statistical compilation, whether they refer to natural persons or legal entities, are strictly confidential and are only used for statistical purposes”.

The access rules have to be consistent with this fundamental principle; in addition, the following principles should be taken into account with respect to data protection.

Principle 1

Data collected for the needs of official statistics can be used for scientific-research purposes if their direct or indirect identification is not endangered, i.e. there is no risk of disclosure of the individuality of the data.

Principle 2

Anonymised microdata can only be made available for statistical purposes.

Principle 3

The provision of anonymised microdata should be consistent with legal provisions that ensure the protection of confidentiality of released data.

Principle 4

The procedures for researcher access to anonymised microdata as well as the rules for using microdata should be transparent and publicly available.

2. Needs of the scientific-research community

The SSO is aware of the importance it has in supporting the scientific-research community and the added value of the collected and processed data through their effective usage for research purposes.

It is a matter of public interest when detailed analyses based on anonymised microdata are available to decision makers as well as the entire public. The interest of the SSO in providing microdata is reflected in the fact that the feedback of the analyses can significantly contribute to the improvement of statistical data quality.

The provision of anonymised microdata for non-statistical purposes, e.g. administrative, legal or tax purposes, or for verification of the statistical unit that would be used against it, is strictly prohibited.

In this case, giving access to anonymised microdata does not go against the sixth fundamental principle of UN. Otherwise, in order to respond to its task, the scientific-research community may start its own data collection that, on the one hand, is an additional expenditure and greater burden for the reporting units, and on the other hand, the data collected in that way are usually of inferior quality. In this context, the advantage of giving access to anonymised microdata is manifold:

- reduced expenditures and workload due to the absence of multiple data collection,
- reduced burden on the reporting units,
- provision of high-quality and timely data for the policy makers.

With respect to the legal provisions mentioned in Principle 3, for the protection of confidential data, access to anonymised microdata can be granted only on the basis of previously adopted rules and legal acts. These shall be complemented with technical and administrative measures that will protect the data from disclosure.

Principle 4 should increase the public confidence that data are appropriately treated and that the decision on their availability is based on previously adopted rules in accordance with legal regulations. Only the SSO can decide whether and to whom anonymised microdata may be given, but the decision has to be in accordance with the Policy on Access to Confidential Data and the Rulebook on procedures and measures for the protection of data collected through the Programme of Statistical Surveys of the Office (internal document).

3. Necessary input elements for access approval

Access to anonymised microdata is only allowed for scientific-research purposes and policy making, but each case is individually considered by the Statistical Confidentiality Committee in the Office. In order for a decision to be reached, the request has to contain enough details, among which are:

- The objective and the result of the scientific-research work,
- Sufficient information about the person requiring access to the data,
- Details concerning the analytical tools to be used such as the software
- The request has to truly show that there are no other data sources except the data in the Office.
- Manner and time of presentation and dissemination of results of the scientific-research work
- Proof that the person requesting access to anonymised microdata is a registered domestic researcher, while for foreign researchers, an equivalent document as for the domestic researchers.

The Director of the SSO makes the decision concerning the approval of access to anonymised microdata based on the opinion given by the Statistical Confidentiality Committee. When giving access to data, their quality should always be taken into account. Data that give relevant information at aggregated level can have unsatisfactory quality at lower or individual level.

In addition, in accordance with the rules, the SSO must have insight in the results of the scientific-research work based on the allowed access to anonymised microdata, i.e. there should not be any data disclosure at aggregated level or inappropriate interpretation of the input of the statistical data.

4. Statistical Confidentiality Committee

The Statistical Confidentiality Committee of the SSO is established as an advisory body to the Director of the Office. The Committee is responsible for the following tasks:

- To follow the evolution of the rules for access to anonymised microdata in the European Statistical System,
- To define and, if needed, to revise the procedures for access to anonymised microdata,
- To prescribe standard forms for requesting access to micro data.
- To review each request for anonymised microdata and to prepare an opinion which is delivered to the Director of the SSO,
- To review specific situations and to advise the Director on cases that have not been covered by the general rules on statistical confidentiality,
- To follow the evolution of the rules for access to anonymised microdata,
- To take care of the implementation of the procedures and measures for statistical data protection,
- To follow the regulations and the developments in the area of establishing a safe room for access to anonymised microdata for research purposes,
- To prepare an annual report regarding the usage of anonymised microdata for research purposes and to deliver it to the Director of the Office,

The committee members are appointed by the Director of the SSO.

5. Data protection rules and procedures

The available anonymised microdata databases should be constructed in such a way that the possibility for identification of individuals is extremely low, or impossible. All possible measures for protection of data disclosure should be undertaken.

- Access will be provided only to the data on statistical units which are of interest for the scientific-research work.

- Only variables that are necessary will be given. Regarding the variables (classifications and measures), the Office will take account of which level of detail is required.
- Special confidentiality rules, different from case to case, are implemented for complex data sets where more data sets are linked.
- The maximum level of detail that can be given should be determined for some variables where the disclosure possibility is higher.
- Direct identifiers, i.e. identification data have to be removed from data sets.

Giving access to anonymised microdata means at the same time giving access to the necessary metadata which enable effective usage of data. These include: lists of codes, coverage, and necessary information about data quality (such as non-response, sampling error, etc.).

6. Research anonymised microdata

Research anonymised microdata are individual records that do not contain direct identifiers and identifications, but they are sensitive data and there is a significant risk of disclosure through indirect identification if they are linked with some other data. Access to these data is much more restrictive and is limited to:

- Persons who are registered researchers
- Persons who are employed in scientific - research institutions and are appointed to a scientific title.

Registered users must sign an agreement and a declaration of confidentiality, and the use of data is only possible in a protected safe room of the Office, on a personal computer on which removable media and Internet connection are disabled, and the use of mobile phones is prohibited.

7. Obligations of the scientific-research community

- In case of public release of results from the scientific-research work, a copy should be obligatorily submitted to the SSO. In case the results are not planned to be published, the request should contain explicit information concerning the purpose of data processing
- Anonymised microdata whose usage is approved for one purpose can not be used for another purpose without prior consent by the SSO.
- Each person/institution granted access to microdata must sign a declaration of data confidentiality protection
- The person/institution that has gained access to anonymised microdata may not transfer the rights of use to another person/institution.

8. Registration of researchers

Each researcher who is interested in having access to anonymised microdata for the purpose of scientific-research work needs to submit a request to the Office and it must be approved by the Director General of the Office. Approved researchers that used anonymised microdata in the Office are registered and in that way they are included in the list of potential data users.

The registration is based on the described scientific-research work and proven competence of the researcher in the field of statistics, because access to the data is granted only for statistical purposes.

The register of researchers should be part of the metabase that is created for managing the access to anonymised microdata. For the management of access to anonymised microdata a special database is created which may be part of the central metabase.

9. International institutions

The Office has a commitment to submit anonymised microdata to international organisations such as Eurostat, OECD, UN/ECE and others with whom the Republic of Macedonia cooperates and of which it is a member.

This delivery is always based on government agreements with international organisations, and other international agreements. These deliveries of anonymised microdata are not topics reviewed by the Statistical Confidentiality Committee.

10. About the regulations

The access to anonymised microdata must be supported by appropriate regulations, which clearly define the legal limitations, ensure consistency in how researcher requests are treated and, at the same time, they will be the basis for dealing with offenders. The regulations cover the following aspects:

- What is allowed and for what purposes,
- conditions under which data are given,
- consequences from breaking the rules (even the attempt for data disclosure is considered as breach of the rules).

The practical application of the Policy on Access to Anonymised Microdata will be supported by appropriate rulebooks, guidelines and procedures.

10.1 The regulations

1. Law on State Statistics (“Official Gazette of the Republic of Macedonia” No. 54/1997, 21/2007, 51/2011, 104/2013, 42/2014, 192/2015 and 27/16)
2. Regulation (EU) 2015/579 of the European Parliament and of the Council of 29 April 2015

3. Law on Scientific-Research Activity (“Official Gazette of the Republic of Macedonia” No. 46/08, 103/2008, 24/2011, 80/2012, 24/2013, 147/2013, 41/2014, 145/2015, 154/2015, 30/2016 and 53/2016)

10.2 Other documents (guidelines, rulebooks, procedures)

1. Form for requesting access to anonymised microdata
2. Confidentiality declaration
3. Project description and information regarding the data user
4. Agreement on granting access to anonymised microdata
5. Rules on work organisation in the protected safe room
6. Rulebook on managing user requests for access to anonymised microdata
7. Rulebook on procedures and measures for protection of data collected under the Programme of Statistical Surveys of the SSO.