



OTTAWA 2023

64TH WORLD STATISTICS CONGRESS



WELCOME.



**OTTAWA 2023**

64TH WORLD STATISTICS CONGRESS



**CPS 842**  
**The National Data Infrastructure.**  
**Giving research access to official microdata**  
**through the facilities of Statistics Portugal**

---

Mr. José A. Pinto Martins  
Mr. Francisco Lima  
Mrs. Maria João Zilhão  
Statistics Portugal  
Monday 17 July, 5:30 PM - 6:30 PM

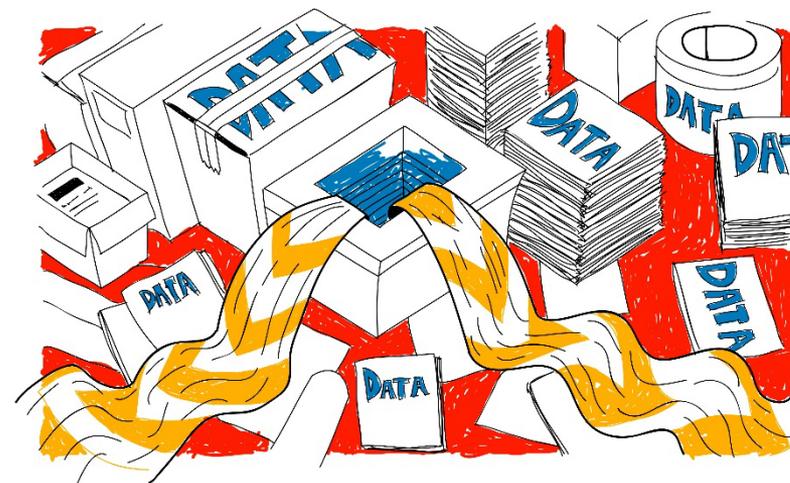
The access to anonymized official microdata by researchers in Portugal is guaranteed by Statistics Portugal.

According to the Law on the National Statistical System, individual statistical data on individuals and enterprises may be provided for scientific purposes on an anonymous basis.

Statistics Portugal (SP), as the principal national statistical authority belonging to the European Statistical System, has specific and unique competences that guarantee the independence and security of information.

The increasing digitization generates a large volume of data.

Their transformation into knowledge is only possible with adequate processes of storage, treatment, and analysis, in a safe, consistent, and reliable way.



# The National Data Infrastructure (NDI)

SP has specific and unique attributions that guarantee the independence and security of information, with a structure that ensures the protection and integrity of the data.

Statistics  
Portugal

holder and  
producer of high  
volume data

Use of  
administrative  
data for  
strengthening  
the statistical  
production

different  
statistical  
domains

First Steps in  
Data Ownership,  
Big Data,  
Structured or  
Unstructured

The NDI will increase the economic and social impact of the public good that is the statistical information.

# The National Data Infrastructure

The National Data Infrastructure allow data access maximization, namely for scientific and research purposes, and to produce official statistics for better decision making.

NDI has the aim of adopting the most intensive and integrated use of data in the production of statistical information, taking advantage of the entire production chain of Portuguese official statistics, without endangering their safety and privacy.

NDI ensures:

- protection and integrity of data
- development of platforms
- applications and algorithms
- data collection and validation
- analysis of statistical information.



# Access to anonymized microdata

Access to confidential data for scientific and research purposes is a priority for SP and for the use of Official statistics. Many questions can be answered based on relevant and detailed data allowing in-depth analyses.

The academic community has specific needs for statistical information, namely for the development of research work and for the preparation of Master and PhD theses.

In this context, SP established a set of procedures with the purpose of facilitating the access of researchers to official statistical information needed to carry out their activities.

SP facilitate the free access of researchers to the official statistical information needed to carry out their activities.

Three access modes are possible:

Fully anonymized data files

Ready-made tables

**Safe center**

all outputs are checked before release;  
final information does not contain any direct or  
indirect identification of the units referred to

Through a secure cloud, based at SP, access is granted in a controlled and totally safe environment to each researcher.

# Access to anonymized microdata - How to apply?

The researcher submits a request for a research project, naming all the researchers involved and specifying the duration, goals, and methods of the project. The request is examined by DGEEC (General Directorate of Statistics for Education and Science) and FCT (entity responsible for funding R&D in Portugal) for accreditation purposes and then forwarded to SP if approved.



# Access to anonymized microdata - How to apply?

Researchers with proven affiliation in international organisations such as specialised agencies of the United Nations:

- International Labour Organisation (ILO)
- Food and Agriculture Organisation (FAO)
- United Nation Educational, Scientific and Cultural Organisation (UNESCO)
- The World Bank Group
- The International Monetary Fund (IMF)

Researchers from other research organisations included in the list of entities recognised by Eurostat on the date of access to the data.

OECD are also eligible for accreditation concerning their expertise and reputation in quality scientific research.

# Access to anonymized microdata - How to apply?

The applying process is based on three pillars:



## Accreditation

External to Statistics Portugal

(based on Protocol with DGEEC and FCT)



## Request

Assessment by Statistics Portugal

making data available (anonymised or in Secure environment)



## Contract

Signed between Statistics Portugal and the researcher

Establishing conditions of use and sanctions

# Access to anonymized microdata - How to apply?

## Accreditation validity



Valid during the length declared for the research project

Valid only for data identified as being directly related to the accreditation request that gave rise to the credential.

The request for accreditation is associated with the obligatory signing of the **Code of Conduct** for the use of statistical data by the applicant and the research institution under the law.

*Duty of confidentiality, of not replicate data, the conditions of security of the data, the obligation of destruction the data after usage and liability questions*

In addition, and to meet the needs of other users, but also of researchers, to access more detailed information, Statistics Portugal has prepared and makes available some files with information at the observation unit level - the so-called Public Use Files (PUFs).

These files (data and metadata) contain anonymised records, processed and prepared in a way that the observation unit cannot be identified directly or indirectly, except for statistical data on Public Administration.

Access to this files is free and respect the principle of statistical confidentiality and personal data protection

This access implies prior acceptance of the conditions of use and is directly available for download from the Statistics Portugal's website ([www.ine.pt](http://www.ine.pt)).

A wider access to confidential data for scientific work and research without compromising the high level of protection is beneficial to statistics and the experience and needs of researchers are relevant for improving accessibility of confidential data.

- Statistics Portugal commitment is to provide good information.
- Researchers' responsibility is to use data in full respect for the fundamental Principle of Statistical Confidentiality.

# Conclusions

- Access to confidential data for scientific purposes is a priority for Statistics Portugal and for the use of Official statistics because many questions – economic, social, environmental and political sciences – can be answered adequately based on relevant and detailed data allowing in-depth analyses.
- Wider access to confidential data for scientific work without compromising the high level of protection is beneficial to statistics
- The experience and needs from researchers are relevant for improving accessibility of confidential data.
- Our commitment is providing good information. Researchers' responsibility is the use of data in full respect for the fundamental Principle of Statistical Confidentiality.



OTTAWA 2023

64TH WORLD STATISTICS CONGRESS



THANK YOU.