Data Management Plan for Italian Nuts2 Sex Ratio (IN2SR)

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1 Data Summary

The Italian Nuts2 Sex Ratio (IN2SR) Project aims to collect and analyze demographic data from Istat to gain insights into population dynamics, wuth a focus on sex ratio between male-female, female-male in Nuts2 in Italy . For a list of Nuts2 see the maps of Eurostat.

1.1 Data Sources

The source of data is the Istat, National Institute of Statistics of Italy, from which we took two types of input data:

- Data on resident population as of January 1, 2023 in the regions (Nuts2) in Italy (Demo.Istat)

- Geospatial data of administrative boundaries of regions (Confini amministrativi 2023, "Versione non generalizzata(più dettagliata)")

1.2 Data Analysis

This subsection will discuss the analytical methods used in the project. We decided to study the sex ratio between male-female and female-male in Italian Nuts2 using the following formulas:

- **Ratio of males to females:**

$$\text{N2 Ratio MF}_i = \frac{\text{Number of males}_i}{\text{Number of females}_i}$$

- **Ratio of females to males:**

$$\text{N2 Ratio FM}_i = \frac{\text{Number of females}_i}{\text{Number of males}_i}$$

where i is the Nuts2 index.

R-Studio statistical sotware, used for calculations and map production, was used to carry out the analysis. The script, supplemented with detailed comments, is included within the dataset to enhance reproducibility

2 How We Make Data FAIR

2.1 Findability

- We used standardized metadata and clear naming conventions for datasets to enhance their discoverability, specifically, the identified repository, Zenodo, supports the DataCite metadata schema, which is also recognized internationally

- Data are preserved in Zenodo with detailed descriptions and keywords for easy searchability.

2.2 Accessibility

- Open access datasets are doposited in Zenodo and will be integrated with this presentation, in Italian and English, and with this DMP, so that all necessary resources will be accessible.

2.3 Interoperability

- Data are formatted using standardized file formats, such as .csv, .txt, .png, .pdf, .r, so that they do not become obsolete over time, but remain interoperable.

2.4 Reusability

- Datasets are accompanied by comprehensive documentation in order to enhance reproducibility

- We provided clear licensing information, in particular we decided to use a CC BY licence, to increase reproducibility and independent verification by other interested students and researchers.

3 Data Security

- DataData were kept secure by using OneDrive as a storage tool.

4   Ethics and Privacy

- Our data has no elements that would preclude its openness, such as might be privacy, ethics, and IPR, so procedures such as anonymization, patent protection, etc., have not been adopted

5   Other Research Output

To facilitate understanding and reuse of the data we will also deposit the presentation and Data Management Plan.

5   Annex 1: Tables Describing Datasets

Dataset Name	Italian Nuts2 Sex Ratio - Workshop Biodemography - Example
Author	Mario Marino
Orcid	0000-0003-1499-8425
Project acronym	IN2SR
Year	2023
Description	Quantitative data about sex ratio in Italian Nuts2
Size	10.58 MB
Format	pdf, png, txt, shx, prj, shp, csv, dbf, R
Licensing	CC BY 4.0
DOI	10.5281/zenodo.10118869