



## UNIT 1. INFORMATION SOURCES

Statistics as a field of study, is a science whose aim is to analyse the information contained in data to provide knowledge about the phenomenon studied and, therefore, improve decision making.

Data are observations, measurements, about the quality or quantity of something or someone in nature or in the world, such as, for example, the unemployment rate, monthly income, exam grades or election results. Through them we get to know a phenomenon or fact which helps not only to describe it, but also to draw conclusions and make decisions.

To be useful, data must be collected and made available to us. Data comes to us in different forms or formats. Most of the data are numbers or can be translated into numbers for analyses. The simple decision of how to measure and collect the relevant data for a study is the indispensable start for problem solving.

### SOURCES OF STATISTICAL DATA

Sources of information are an indispensable resource for acquiring awareness of the reality that is to be studied. The statistical data necessary for the understanding of facts can be obtained through different types of sources.

**Primary data sources** are the people or institutions that have directly collected the data. **Secondary data sources** are publications and works done by people or entities that have not directly collected the information. The most reliable are Government Offices or institutions of recognized prestige that offer full guarantees on the information they provide. On a practical level, it is advisable to use primary data sources whenever possible.



Despite the fact that countless entities collect increasingly comprehensive and disaggregated information, there will always be specific areas where information is not recorded. Hence, it is often necessary for the researcher to obtain the information needed for a particular study by observation, experimentation or surveys.

In either case it is important to ensure the quality of the information, as statistical conclusions are highly dependent on the accuracy of the data used.

Some important primary sources of information:

- Statistical Office of the European Union (Eurostat)
- National Statistics Institute (INE)
- Aragonese Institute of Statistics (IAEST)
- Statistical Services for the municipality of Zaragoza
- Statistical Services for the Ministries
- Bank of Spain
- European Central Bank (ECB)
- Census Bureau, World Bank, OECD,...