



20 questions for users

- to decide if data are suitable for their purpose
- to determine reliability of the data
- to form a view on official statistics



Properties of the data: Characteristics

1. Where do the data come from?

- why and how are they collected, such as administrative system, survey - computer assisted interview, self-report

2. What is the type of data?

- quantitative or qualitative

3. What form do they take?

- price, quantity, population

4. What is the periodicity and frequency of collection?

- for example, cross-sectional, time series, continuously collected, real time, quarterly, annual; timeliness – are they timely

5. What is the level of aggregation?

- person, firm, event etc, record level or grouped counts – macro or micro

6. Are the data in their raw form or adjusted?

- a statistical process has been applied, for example, seasonal or outlier adjustment

Qualitative: Data that relate to the subjective quality of an entity or phenomenon or describe an attitude

Quantitative: Data that relate to quantities eg financial transactions, and counts of events and entities in measured units

Statistical adjustment

The data available for use may be the product of a statistical process, such as, seasonal adjustment, and calculation of indices (for example, price indices)

7. What is the content and extent of variables?

- personal information, richness/detail of variables, number of years, geographic coverage
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Properties of the data: Quality

8. What is the level of reliability?
 - Repeatable and replicable results
9. How representative are the data of the selected sample or population?
 - person, firms etc
10. What are the levels of completeness, duplication, known sources of error?
 - item completeness, proportion of duplicate records, data entry
11. How well do the data match the concept you wish to measure?
 - are definitions and coding consistent

Reliability reflects the consistency and repeatability of the measurements

Replicability measures how well the data match the original results when using the same method such as the correlation with related or replicated data



Data processing and the provider

12. What explanation about the data and commentary are given?
 - about the methods of collection and data preparation, data coherence, possible sources of bias, narrative about the main findings
13. Who has collected and provided the data?
 - is it clear which bodies collected, processed and provided the data, one or more organisations
14. Is the data provider independent and authoritative?
 - were the data publicly or privately gathered
15. Do the data overlap with other similar sources and can they be compared?
 - between other public or private data, internationally

Coherence reflects the need to ensure that statistics are internally coherent, logically consistent, as well as comparable over time and geography.

Coherence between related data sources should be understood

16. What are the security arrangements governing access?

- do restricted rules of access apply for approved researchers/users, is access through producer data lab, what kind of disclosure control is applied, how securely store and process the data



The public value of the data

17. What is the relevance of the data to public debate and private decisions?

- evidence and nature of use

18. What are the publication and accessibility arrangements?

- how are the data obtained, are they available under pre-release, is there equal access for all users, what form will the data be made available

Value means that statistics are accessible, remain relevant and benefit society.

Valuable statistics help the public to understand important issues and answer key questions.

19. What engagement occurs with users and bodies outside the data provider?

- are expert and non-expert users consulted

20. What burden is there on respondents?

- time burden, estimate of cost per data point or per dataset, privacy burden

For further information about quality assuring data check out our guidance material at:

<https://www.statisticsauthority.gov.uk/osr/monitoring/administrative-data-and-official-statistics/>
