

Code of Practice for Statistics (Edition 2.0)

**Consultation document
July 2017**

Office for Statistics Regulation

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Introduction

The Code of Practice for Statistics

1. Official statistics are an essential public asset. They provide a window on society, the economy, and on the work and performance of government. They are fundamental to the judgements and decisions made by the public, by government and by an enormous range of other organisations. These decisions range from central government and local authorities planning the delivery and development of public services right through to businesses and individuals planning their financial investment decisions, such as whether to invest in new assets or a property.
2. The UK Statistics Authority (the Authority) has a vital role in protecting these statistics. This role is set out in the *Statistics and Registration Service Act 2007* which states the Authority has the objective of ‘promoting and safeguarding the production and publication of official statistics that serve the public good’. The Act also requires the Authority to prepare and publish a Code of Practice and to assess compliance against it. The Office for Statistics Regulation, as the regulatory arm of the Authority, provides independent regulation of all official statistics produced in the UK to meet these obligations.
3. The Code of Practice for Statistics is an important tool in protecting official statistics by setting the standards which must be met to ensure the public can have confidence in them. These standards are used:
 - By statisticians, and other analysts when producing and publishing official statistics
 - By the Office for Statistics Regulation when determining whether official statistics can be called National Statistics
 - By the Authority when publicly challenging the misuse of statistics.

We also hope that the Code will support judgements about the publication of wider numerical information.

A refreshed Code

4. Edition 1.0 of the *Code of Practice for Official Statistics* was published in January 2009, following a public consultation in the preceding autumn. Since then it has been the basis of government's provision of statistics and the bedrock for the UK Statistics Authority's regulatory judgements – most notably the Authority's statutory Assessment function carried out by the Office for Statistics Regulation, and its public statements on the use of statistics in the public domain. It has proved sufficiently flexible to allow the Authority and statistical producers to apply it in a wide range of statistical contexts. The Code emphasises in particular the importance of user engagement and of clear explanation of the messages contained in sets of statistics: there has been evidence of improvement in these areas.
5. The Stocktake of the Code of Practice was launched in late 2015 in response to two main drivers. The landscape of information production and dissemination had changed significantly since 2009, so it aimed to take stock of how far the Code has been flexible in the face of these developments. While the Stocktake began as a free-standing exercise, from May 2016 it was taken forwards in the wider context of the development of proposals stimulated by Recommendation 24 of the Bean Review¹.
6. Following widespread engagement, a set of recommendations was proposed in the *Code Stocktake exposure draft*² published in December 2016. This included proposing a vision for a more transformational Code, built around the pillars of trustworthiness, quality and value. The Code Stocktake exposure draft also committed to consult widely on a new Code of Practice for Statistics. *The Statistics and Registration Service Act 2007* requires that the UK Statistics Authority must consult Ministers in each of the devolved administrations and 'such other persons as it thinks fit' when preparing or revising the Code.
7. The draft of this refreshed Code of Practice for Statistics is the subject of this consultation document. It is available for download from our Code of Practice consultation webpage³. This consultation document includes a data diagnostic tool to help users decide if data are suitable for their use, if data are reliable, and to form a view on official statistics (Annex A). Along with our *Quality Assurance of Administrative Data*⁴ material, it is an example of additional guidance. We would welcome your views about this tool, and any ideas about guidance more broadly, in your consultation response.

¹ <https://www.gov.uk/government/publications/independent-review-of-uk-economic-statistics-final-report>

² <https://www.statisticsauthority.gov.uk/publication/stocktake-of-the-code-of-practice-for-official-statistics-exposure-draft/>

³ <https://www.statisticsauthority.gov.uk/wp-content/uploads/2017/07/DRAFT-Code-2.pdf>

⁴ <https://www.statisticsauthority.gov.uk/osr/monitoring/administrative-data-and-official-statistics/>

Consultation overview

Consultation scope

8. Building on the recommendations for changes to the content and scope of the Code of Practice set out in the *Stocktake of the Code of Practice: Exposure Draft*, this consultation seeks users' views on a refreshed Code of Practice for Statistics.
9. There are some issues raised in the Stocktake that we are not able to address at this time: 'families' of statistics; clarifying the inter-relationships between the Code and other related guidance across government; the shelf-life for National Statistics designation; releasing statistics at the standard time of 9.30am; and reviewing the resource implications for statistical producers in complying with the Code. We are aiming to provide additional guidance on statistical families and on the inter-relationships with other Codes. We will consult further before undertaking a change to the time limit of designation. On the 9.30am release time, we have not seen a sufficiently strong case to justify changing the arrangements. We would welcome feedback from statistical producers in the responses within this Code consultation about resource considerations.

Summary of consultation questions

10. The consultation questions are set out in the following section. The consultation questions are available for completion online⁵, or alternatively through a Word template⁶. The questions are structured around the following themes:
 - A greater emphasis on *Trustworthiness, Quality and Value*
 - Scope of the Code
 - Detailed changes to the principles and practices
 - Communication and audience
11. There is also the opportunity for users to comment on any of the more detailed changes at the practice level. To help with this we have provided a mapping tool⁷ alongside this consultation document that illustrates how Edition 2.0 of the Code differs from Edition 1.0.

Consultation process

12. This consultation will run for 13 weeks, closing on 5 October 2017.

⁵ https://www.surveymonkey.co.uk/r/OSR_Code_Consultation

⁶ <https://www.statisticsauthority.gov.uk/wp-content/uploads/2017/07/Questionnaire-Code.docx>

⁷ <https://www.statisticsauthority.gov.uk/wp-content/uploads/2017/07/Code-mapping.xlsx>

13. During this time, the Office for Statistics Regulation, the regulatory arm of the UK Statistics Authority, will hold a series of events around the UK, to promote the consultation. The events will be an opportunity for us to explain more about the refreshed Code of Practice for Statistics for those wanting to understand our thinking more fully.
14. The Authority will publish all responses to the consultation on our website (this will include your name if you give your permission). We will summarise the main findings in a report in the autumn of 2017, alongside plans for launching a refreshed Code.
15. The Board of the Authority will consider that report and make any further decisions on launching the refreshed Code around the end of 2017.

Responding to the consultation

16. Responses should be submitted to the Authority by **5:00pm on 5 October 2017**. Please complete the consultation questions online⁸, or alternatively, complete them using the Word template⁹. If using the Word template, please either send your response by email to regulation@statistics.gov.uk, or by post to the following address, marked **Code 2.0 Consultation**:

Office for Statistics Regulation
Government Buildings
Cardiff Road
Newport
Gwent
NP10 8XG

17. Thank you for taking the time to review the consultation material.

⁸ https://www.surveymonkey.co.uk/r/OSR_Code_Consultation

⁹ <https://www.statisticsauthority.gov.uk/wp-content/uploads/2017/07/Questionnaire-Code.docx>

Code of Practice for Statistics

Trustworthiness, Quality and Value (TQV)

18. The Code of Practice for Statistics is an important tool in protecting statistics by setting the standards which must be met to ensure the public can have confidence in them. This confidence can only be secured when statistics are produced by departments and public bodies that can be trusted, when they are of high quality, and when they demonstrate public value:
- *Trustworthiness: trusted people, systems and processes* - Trustworthy means that the statistics and other information are produced free from vested interest, based on the best professional judgement of statisticians and other analysts.
 - *Quality: robust data, methods, and statistics* - Quality means that the statistics represent the best available estimate of what they aim to measure at a particular point in time and are not materially misleading.
 - *Value: statistics that serve the public good* - Value means that the statistics and other information are not just a collection of numbers but provide insight, generating understanding and helping users answer key questions.
19. Those we spoke with as part of the Stocktake supported the philosophy of *Trustworthiness, Quality and Value* and felt that a clearer articulation of these attributes through the Code would enhance them as the key pillars which support confidence in statistics. This was also echoed in the focus groups held in early 2017.
20. We have sought to more clearly articulate the pillars of *Trustworthiness, Quality and Value* by structuring Code 2.0 explicitly around them. We have provided a detailed explanation of each of the pillars in parts 1 and 2 of the draft refreshed Code.

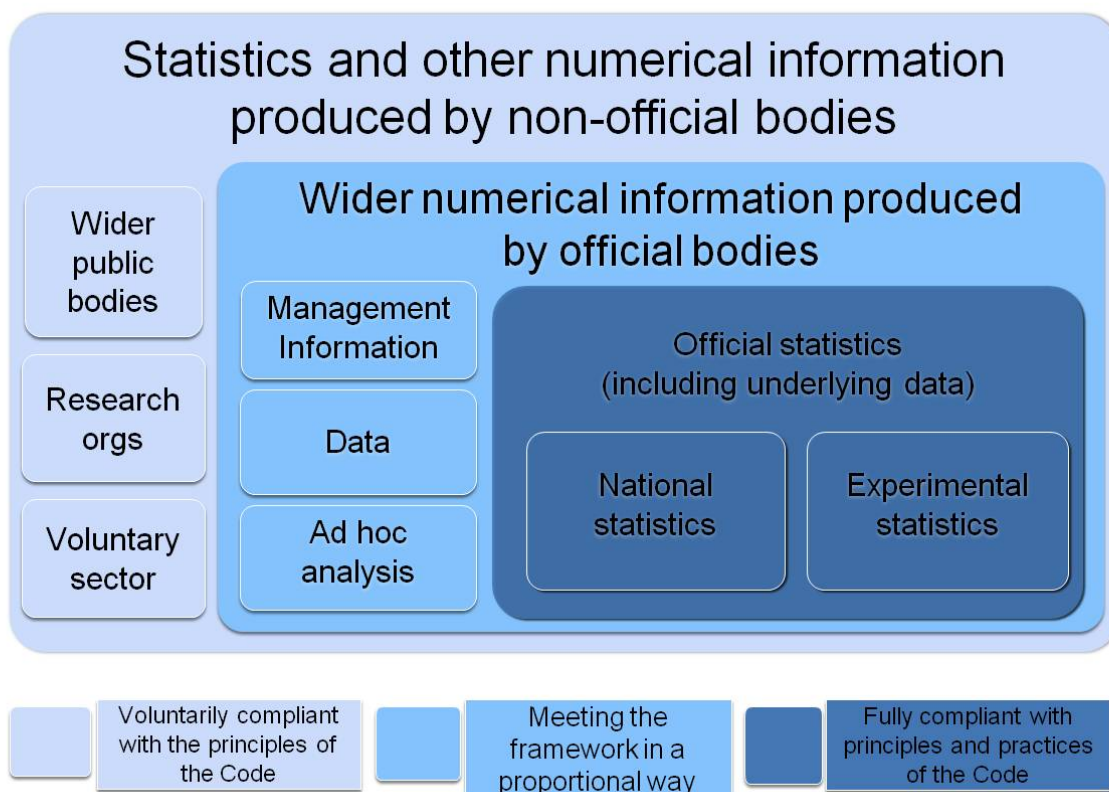
Consultation questions:

1. Our draft refreshed Code is structured around what we have called three pillars of *Trustworthiness, Quality and Value*. Part 1 of the Code explains what *Trustworthiness, Quality and Value* mean and why they are important. To what extent do you think that *Trustworthiness, Quality and Value* capture what is needed to enhance public confidence in statistics? What else might be needed?
2. Have we explained *Trustworthiness, Quality and Value* clearly in the draft refreshed Code? If not, what is unclear?

Scope of the Code

21. During the Code Stocktake, and the focus groups carried out in early 2017, we heard that the presentation of the Code should be more transformational, and avoid the sense of being a checklist for producer and regulator to follow. We discussed whether there was an appetite for a wholesale change in approach – for example, dropping the Code’s practices entirely in favour of a shorter Code that sets out very high-level principles and which would therefore allow statistical professionals more flexibility in deciding how to comply with the Code. However, there was resistance to this proposal as the Code’s practices are regarded as extremely important in shaping decision-making by statistics producers.
22. In the draft refreshed Code we have focused on the outcome we are seeking to achieve – ensuring confidence in statistics and numerical information – while retaining principles and detailed practices to aid decision-making. The draft refreshed Code:
 - Focuses on the key pillars of *Trustworthiness*, *Quality* and *Value* and provides a framework for ensuring confidence in statistics and numerical information in the introduction and part 1.
 - Continues to incorporate principles and practices to aid decision-making but presents these within the wider framework in part 2 for official statistics.
23. The formal scope of the draft refreshed Code will continue to be official statistics in line with the *Statistics and Registrations Act 2007*. Official statistics are defined in the legislation as statistics produced by the UK Statistics Authority (ONS), by government, or by another organisation specified by a minister.
24. We also propose to advocate the application of the framework of *Trustworthiness*, *Quality* and *Value* to wider numerical information produced by official bodies. Since 2009 the Authority has seen the publication of a range of numerical information – including aggregated information (typically drawn from government departments’ administrative systems) published as management information; transparency data; in ad hoc statistical releases; or described as research (covering both the outputs of surveys and of analytical work on modelling and forecasting). The public might not always distinguish between official statistics, as defined by departments, and other types of numerical information published on behalf of the Government. And concerns about this sort of information can spill over to affect perceptions of official statistics.
25. Figure 1 summarises how we propose that the draft refreshed Code will apply in a proportionate and flexible way to different types of numerical information within the overarching framework of *Trustworthiness*, *Quality* and *Value*.

Figure 1: Application of this Code to different types of numerical information



26. Public confidence in wider numerical information could be enhanced if it was produced with the Code framework in mind. Providers of wider numerical information could regard the three pillars, and the principles that underpin them, as prompts or guides to how they publish their outputs. They would not need to demonstrate full compliance with all the detailed practices of the Code, though of course they could comply with some salient practices if they so chose. Instead, they would use the three pillars as a series of high-level questions, and briefly describe how they have achieved trustworthy processes, quality data and publicly valuable insights.
27. This approach is flexible and entirely optional. A benefit of this approach is that these types of output can borrow strength from the Code's emphasis on public confidence through the three pillars framework - but without needing to comply in a rigid way with the Code's practices. The approach recognises that trustworthiness, quality and value are universal properties of good provision of information to which a wide range of producers should aspire.

28. In addition we are exploring the potential voluntary application of this framework and principles to statistics and other numerical information produced by non-official bodies. Organisations outside government produce information which is used to compile official statistics, or otherwise has the potential to enhance debate – and a number are keen to comply with the Code. We consider that such an ambition has the potential to raise standards and to enhance the profile of the Code.

3. The draft refreshed Code contains a description of the pillars and how they fit together in Part 1. Our intention is that this will encourage those producing a wider range of numerical information to think about what the Code aims to achieve in principle. How well does this meet our intention? What else could we do?
4. To what extent do you think that organisations outside the official statistics system would be able to apply the three pillars of *Trustworthiness*, *Quality* and *Value* voluntarily? What do you think might prevent this?
5. Part 2 of the draft refreshed Code gives the detail of what we mean by *Trustworthiness*, *Quality* and *Value*. How well do you think the principles and practices in Part 2 reflect *Trustworthiness*, *Quality* and *Value*? What additional practices might reflect these three pillars?

Changes to the principles and practices

29. Many of the Code 1.0 practices are retained or slightly amended in the refreshed edition. Through the Code Stocktake, a number of areas of the Code were identified that needed to be expanded or developed further. The development of the refreshed content took account of these areas and also aimed to be more relevant for statisticians and analysts working in the statistical system today. We have also sought to allow for future developments as far as possible. A mapping of practices from the Code 1.0 to the refreshed content can be found in the mapping tool¹⁰ provided alongside this consultation document.

6. We have updated the practices of the refreshed draft Code to reflect how statistics and data are changing, while allowing for further developments. Do you have any comments on the detailed content of the practices of the refreshed Code? Are there any other practices we might cover? Is there anything you think we might change?

¹⁰ <https://www.statisticsauthority.gov.uk/wp-content/uploads/2017/07/Code-mapping.xlsx>

30. The Authority considers pre-release access a significant risk to public trust in statistics. However, we recognise that legislation allows Government departments to grant pre-release access. In *Principle T1: Integrity*, we set out our expectations of those Government bodies that choose to provide this access to statistics under the legislation: that individuals provided with such access should be kept to an absolute minimum with clear justifications for the reason for access provided for each individual listed (practice T1.3iv). The Authority remains opposed in principle to the practice of pre-release access.
31. The use of meaningful statistics and numerical information requires the commitment of not just the statisticians, analysts, and Heads of Profession for statistics, but also of ministers, policy and communications colleagues and senior leaders within a producer organisation. *Principle T2: Good governance* emphasises the responsibility of each person in the organisation in meeting the principles of the Code (practice T2.1).

7. The draft refreshed Code includes practices that set out the responsibilities of each person in the organisation: T1.3iv in relation to pre-release access and T2.1 in ensuring the appropriate handling and use of statistics. How well do these practices cover what you think are the responsibilities of the people in producer organisations involved in the use and handling of statistics? What is unclear?

32. The Stocktake made particular mention of the following content areas which we would appreciate your views on.

Role of the Head of Profession for Statistics

33. As discussed in the Code Stocktake, the role of the Head of Profession for statistics is a crucial one in ensuring statistics are produced in compliance with the Code. This role is becoming increasingly important as the demand grows for access to a wider range of numerical information (such as management information or research). To further support Heads of Profession for statistics, the refreshed Code contains greater detail about their role and responsibilities (in *Principle T2: Good governance*, practice 2):
- i) The Chief Statistician/Head of Profession for statistics should have sole authority for deciding on the methods, content, and timing of the release of regular and ad hoc statistics.
 - ii) As the principal advisor and accountable officer within the organisation on statistical matters, the views of the Chief Statistician/Head of Profession for statistics should be considered in matters relating to statistics and numerical information, including advising on the release of new statistics.
 - iii) The Chief Statistician/Head of Profession should actively advocate the application of the Code framework when working with numerical information

8. The draft refreshed Code includes more specific practices in relation to the roles and responsibilities of the Head of Profession for statistics. Are the practices relating to Heads of Profession (under *Principle T2: Good governance*) sufficient to support them in undertaking their role overseeing and advising on the production of statistics and wider numerical information? Are there other aspects of their roles and responsibilities that the Code might include?

Quality and coherence

34. The refreshed Code contains more information about all aspects of quality and sound methods, compared with Principle 4 of Code 1.0, to underscore the critical role these principles play in delivering statistics that can be used with confidence. The *Quality* pillar of the refreshed Code contains four principles: *Q1: Suitable data sources*; *Q2: Sound methods*; *Q3: Assured data quality*; and *Q4: Coherence*. These principles build on the Authority's regulatory standard and guidance, *Quality Assurance of Administrative Data*, by applying the practices across all data types. It is vital that judgements about the nature of the data sources, the quality and characteristics of the data, and the strengths and limitations of the statistics are transparent.

9. The draft refreshed Code has an expanded range of principles and practices related to *Quality*, based on the Authority's *Quality Assurance of Administrative Data*. To what extent does the refreshed Code cover aspects of *Quality: robust data, methods and statistics*? What other aspects of *Quality* might they include?

35. The new principle on coherence (Q4) specifies that '*Statistics should be consistent and comparable, while remaining relevant to society*'. It sets out three aspects of coherence that should be met: that statistics should be internally coherent, logically consistent and compiled using recognised standards and classifications; that they should be consistent over time and geography; and that consistent time series should be produced when making changes to methods or data.
36. The Code also covers two other aspects of coherence. Practice Q3.3 reflects the benefits of comparing related data sets to check their similarity for quality assurance purposes. Practice V2.4 reflects coherence between related statistical outputs and ensuring richer insight is gained through their comparison. This practice also emphasises the importance of explaining the limits of comparability with related statistics in preventing misunderstanding.

10. The draft refreshed Code includes a specific principle on coherence (Q4), that ‘*Statistics should be consistent and comparable, while remaining relevant to society*’. It also has a practice (Q3.3) about the use of similar data sources for quality assurance, and drawing insight from related statistical outputs (V2.4). To what extent do you think that the refreshed Code sufficiently covers the statistical practices related to coherence? Are there other aspects of coherence we might include?

Innovation

37. The refreshed Code puts greater emphasis on our expectations for innovation in statistics. It contains a new principle, *V4: Innovative*, which emphasises the importance of statistics remaining relevant and for producers to fully exploit both technological and methodological opportunities. The practices in this principle seek to encourage development in all aspects of production of statistics, from data sources to dissemination.
38. An important aspect of innovation in statistical methods is the publication of statistics while under development – ‘experimental statistics’. This label gives users a clearer understanding of the status of the statistics during the testing of their suitability. The development of new methods and outputs helps ensure statistics are relevant and can meet wider societal needs. In restructuring the content of the Code the practice related to ‘experimental statistics’ was moved from *Principle 4: Sound methods and assured quality* in Code 1.0 to *Principle V4: Innovative* in Code 2.0, reflecting the important role this type of statistic plays within the system.

11. We have added a new principle: ‘*Statistics need to continue to evolve to remain relevant in a changing world*’ (*V4: Innovative*), emphasising innovation. To what extent does this new principle have the right focus to encourage and stimulate creativity and continuous improvement across all aspects of statistics production? What do you think we should add or change?
12. The detailed practice relating to experimental statistics sits within *Principle V4: Innovative* in the draft refreshed Code. To what extent do you think the practice on experimental statistics (V4.5) is sufficiently clear to encourage the open and transparent development of new statistics that involves users?

Statistics which provide insight

39. The refreshed Code contains a new principle, *V2: Insightful*. This addition is broader than the previous Code content on meeting users' needs and providing supporting commentary. It calls on those producing statistics to consider the public value of what they are producing. The new principle covers how producers can best help users to benefit from the statistics, such as presenting statistics clearly, demonstrating their relevance and supporting use. It also involves working collaboratively to best achieve these goals.

13. The draft refreshed Code includes a principle that '*Statistics should help answer society's important questions*' (*V2: Insightful*). The principle focuses on ensuring the public value of statistics through clear presentation, demonstrating relevance and supporting use, as well as through working collaboratively. How well do the practices under *V2: Insightful* set out what is expected of producers?

Communication and audiences

40. The draft refreshed Code has been structured in a way which splits the overarching framework from the detailed practices. The two parts of the Code will be used in different ways and may attract different audiences.
41. The Code should be in plain English and the language be easily understood by a range of different audiences.
42. Responses to our Code Stocktake and subsequent focus groups showed strong interest in the idea of the production of additional guidance to support application of the Code, with examples of best practice. The data diagnostic tool, given in Annex A below, provides guidance to users in considering whether to use particular data sources in the light of the Code of Practice.

14. In previous discussions in the Code Stocktake and subsequent focus groups we found strong interest in the idea of additional guidance to help understand how to apply the Code, with examples of best practice. Which, if any, of the three pillars of *Trustworthiness*, *Quality* and *Value* or their related principles do you think need additional guidance and why?

<i>Trustworthiness</i>	<i>Quality</i>	<i>Value</i>
<i>Integrity</i>	<i>Suitable data sources</i>	<i>Accessible</i>
<i>Good governance</i>	<i>Sound methods</i>	<i>Insightful</i>
<i>Statistical capability</i>	<i>Assured data quality</i>	<i>Reflect the range of users and uses</i>
<i>Protected confidentiality</i>	<i>Coherence</i>	<i>Innovative</i>
		<i>Efficient data collection and use</i>

15. To what extent should the guidance be tailored for different audiences? What groups of people in particular might require guidance?
16. Annex A of the consultation document includes a data diagnostic tool that is intended for people who want to use statistics, to consider whether to use particular data sources. To what extent will the data diagnostic tool aid users in assessing the suitability of data for their uses? What more might they need?
17. How clear and understandable is the language used in the Code? How could it be made clearer? Are there any areas of the draft refreshed Code you believe are at risk of becoming out-dated?

43. We welcome your comments and value your input as we refresh the Code. If you feel there are particular areas which haven't been covered by the consultation questions please take the opportunity to share these with us.

18. Overall, how satisfied are you that the draft refreshed Code meets your needs? Please explain your reasons.
19. Do you have any further comments on the draft refreshed Code of Practice for Statistics?

Thank you for taking the time to participate in this consultation.

Annex A

Data diagnostic tool for users



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
7. What is the content and extent of variables?
 - personal information, richness/detail of variables, number of years, geographic coverage

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)



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

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

15. Do the data overlap with other similar sources and can they be compared?

- between other public or private data, internationally
-

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/>
