

**Statistics
South Africa**

Preferred supplier of quality statistics



Data Quality Policy 001:

Policy on Informing Users of Data Quality

Feb 2006

1 Introduction

Statistics South Africa (Stats SA), as the state agency in charge of producing official statistics, has the responsibility to inform users of the concepts and methodologies used in collecting, processing and analysing its data, the accuracy of the data it produces, and any other features that may affect their quality or "fitness for use".

Data users must be able to verify the conceptual framework, definitions and methodology employed in collecting and processing the data. Data Users then need to be able to assess the degree to which errors in the data restrict its use.

There are several dimensions to the concept of quality, and the assessment of data quality or "fitness for use" is a complex undertaking. The full scope of potential uses of the data cannot always be anticipated and not every aspect of quality can be assessed in every context. Stats SA has a responsibility to place quality measures on all disseminated data to assist users to interpret the data and to inform users on the nature, magnitude and significance of the major quality features of the data disseminated.

2 Purpose of the policy

The purpose of this policy is to ensure that producers of statistics in Stats SA adhere to the agreed standards, procedures and guidelines on producing quality data. Furthermore, the policy serves to inform users about the quality of data and products disseminated by Stats SA.

3 Legislation

Section 3(2) (f) of the Statistics Act of 1999 confers a legislative obligation on Stats SA:

"Official statistics must protect the confidentiality of the identity of, and the information provided by, respondents and be ... in accordance with appropriate national and international standards and classification."

Section 14(6) confers a discretionary power on the Statistician-General:

"The Statistician-General may advise any organ of state regarding the application of appropriate quality criteria and standards, classifications and procedures for statistics –

(a) to improve the quality of statistics;

(b) to enhance the comparability of statistics;

(c) to minimise unnecessary overlapping or duplication with the collection or publication of statistics in that organ of state or by other organs of state."

The establishment and population of quality measures will assist in meeting the legislative obligation set out in Section 3(2)(f) and assist in enabling the Statistician-General to exercise the discretionary powers granted in terms of Section 14(6) of the Act.

4 Scope

This policy applies to all statistical data and analytical results disseminated by Stats SA whether the data were collected, derived or assembled, and irrespective of the medium of dissemination.

This policy should be read in conjunction with the South African Statistical Quality Assessment Framework (SASQAF) and the Exemption procedures (Data Quality Procedure 001).

5 Policy

- 5.1 It is Stats SA policy that all Stats SA products shall include statements about data quality measured against the SASQAF indicators.
- 5.2 It is Stats SA policy that measures of the quality of the data it disseminates and the descriptions of the underlying concepts and methodologies shall be made available to users.
- 5.3 It is Stats SA policy that statistical products shall be accompanied by, or make explicit reference to, documentation on quality.
- 5.4 It is Stats SA policy that documentation on data quality shall conform to procedures and standards that will often be issued under this Policy.
- 5.5 It is Stats SA policy that exemption from the requirements of this policy may be sought in special circumstances, using the procedure described under Section 6.1.6 of this policy.
- 5.6 It is Stats SA policy that when external datasets are used in the compilation of a Stats SA product, the quality of such data shall be made available to users.

6 Responsibility

- 6.1 **Originating components or subject specialists shall be responsible for:**
 - 6.1.1 informing users on the availability of information on data quality;
 - 6.1.2 disseminating existing measures or descriptions of data quality with all products;
 - 6.1.3 ensuring that procedures to generate the information on data quality needed to satisfy this Policy have been, or are, developed and implemented;
 - 6.1.4 the preparation of documentation on methodology needed to satisfy this Policy;
 - 6.1.5 the inclusion of requirements to satisfy this Policy in the design, schedule and budget of new or re-designed statistical activities, programme or products; and

6.1.6 the submission of applications for exemption from the requirements of this Policy to the Methodologies and Standards division.

6.2 The Methodologies and Standards division shall be responsible for:

6.2.1 the provision of procedures and standards on the application of the Policy to Originating Components;

6.2.2 the initiation of periodic evaluations of the application of this Policy within particular Originating Components and ensuring that such evaluations are coordinated with programme evaluation exercises;

6.2.3 the production of periodic reports on the state of compliance with this Policy;

6.2.4 the review and approval of applications for exemption from the Policy requirements; and

6.2.5 the initiation of a review of the Policy and accompanying procedures and standards when deemed necessary.

7 Definition of data quality

Stats SA defines data quality in terms of “*fitness for use*”. Whether data and statistical information are fit for use depends on the intended use and on the characteristics of the data or information. The essence of this Policy is that users must be provided with the information necessary to judge its fitness for their intended use. The following eight dimensions have been developed to operationalise the definition of data quality.

7.1 The **relevance** of statistical information reflects the degree to which it meets the real needs of users. It is concerned with whether the available information sheds light on the issues of most importance to users. An assessment of relevance needs to consider:

- Why do you need to conduct a survey or collect data?
- Who are the users of the statistics?
- What are their known needs?
- How well does the output meet these needs?
- Are user needs monitored and used as feedback into the design process?

7.2 The **accuracy** of statistical information is the degree to which the information correctly describes the phenomena it was designed to measure. The primary areas of accuracy to be considered are:

- Assessment of sampling error where sampling was used;
- Assessment of coverage of data collection in comparison to the target population;
- Assessment of response rates and estimates of the impact of imputation;
- Assessment of non-sampling error and any other serious accuracy or consistency problems with the survey results;
- Data capture errors.

- 7.3 The **timeliness** of statistical information refers to the delay between the reference point to which the information pertains, and the date on which the information becomes available. An assessment of timeliness and punctuality should consider the following:
- Production time;
 - Frequency of release; and
 - Punctuality of release.
- 7.4 The **accessibility** of statistical information and metadata refers to the ease with which they can be obtained from Stats SA. This includes the ease with which the existence of information can be ascertained, as well as the suitability of the form or medium through which the information can be accessed. The cost of the information may also be an aspect of accessibility for some users.
- 7.5 The **interpretability** of statistical information refers to the ease with which users can understand statistical information through interpreting the available metadata.
- 7.6 The **coherence** of statistical information reflects the degree to which it can be successfully brought together with other statistical information within a broad analytic framework and over time.
- 7.7 **Methodological soundness** Refers to the application of international standards, guidelines, and agreed practices to produce statistical outputs. Application of such standards fosters national and international comparability. This dimension covers soundness of the methodology used and adherence to international norms and standards on methods.
- 7.8 **Integrity** refers to values and related practices that maintain the confidence users have in the agency producing statistics and ultimately, in the statistical product. This dimension encompasses institutional arrangements that ensure professionalism, transparency, and ethical standards. This dimension relates to assurances that statistics are produced on an impartial basis, and are guided by policies and procedures, and through ethical standards.

8 Procedures and standards

The nature and complexity of the information on data quality that should be provided for data users will depend on the statistical programme and the nature of the data in the product. The medium of dissemination will have some bearing on how much documentation on data quality can be presented or readily accessed. The SASQAF standard details the indicators of data quality.

The Executive Managers within Divisions will be responsible for applying to get approval for a set of indicators that apply to their product and to seek approval for exemption from indicators within the eight quality dimensions. The procedure to be followed when seeking this exemption is presented in the document “Exemption procedure when paragraph 6.1.6 in the Data Quality Policy 001 (Informing users on data quality) applies”.

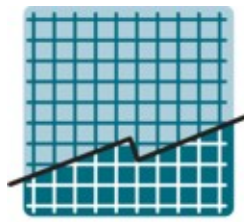
9 Contact details

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**This done and signed in Pretoria on behalf of Statistics South Africa as
the employer on the 16 day of February 2006**

Signature:

A handwritten signature in black ink, appearing to read 'R. M. M. M.', written over a horizontal line.

STATISTICIAN GENERAL