

**Committee for the Coordination of Statistical Activities
Tenth Session
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Item 6 of the Agenda**

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31 August 2007**

**Checklist for Quality Assessment of Statistics compiled by International
and Supranational Organizations**

(Version 3, September 2007)



Committee for the Coordination of Statistical Activities
and
Statistical Office of the European Communities



Checklist for Quality Assessment of Statistics Compiled by International and Supranational Organisations

This Self Assessment Checklist is designed to facilitate the implementation of the Principles Governing International Statistical Activities related to:

- (1) High quality international statistics, accessible for all, are a fundamental element of global information systems*
- (4) Concepts, definitions, classifications, sources, methods and procedures employed in the production of international statistics are chosen to meet professional scientific standards and are made transparent for the users*
- (5) Sources and methods for data collection are appropriately chosen to ensure timeliness and other aspects of quality, to be cost-efficient and to minimise the reporting burden for data providers*
- (6) Individual data collected about natural persons and legal entities, or about small aggregates that are subject to national confidentiality rules, are to be kept strictly confidential and are to be used exclusively for statistical purposes or for purposes mandated by legislation*
- (7) Erroneous interpretation and misuse of statistics are to be immediately appropriately addressed*

| | |
|--|--|
| Statistical programme / theme / domain / data collection for which the checklist is completed: | |
| Person(s) responsible for filling the Checklist: | |
| Person(s) in the review team: | |
| Date for the final approval of the Checklist: | |

This checklist is under constant development. Please submit your comments on the checklist and its use to the Eurostat Unit for "Statistical Governance, Quality and Evaluation" (contact persons: Mr Håkan Linden, email: hakan.linden@ec.europa.eu; or Mr Pierre Ecochard, email: pierre.ecochard@ec.europa.eu).

Checklist for Quality Assessment of Statistics compiled by International and Supranational Organisations

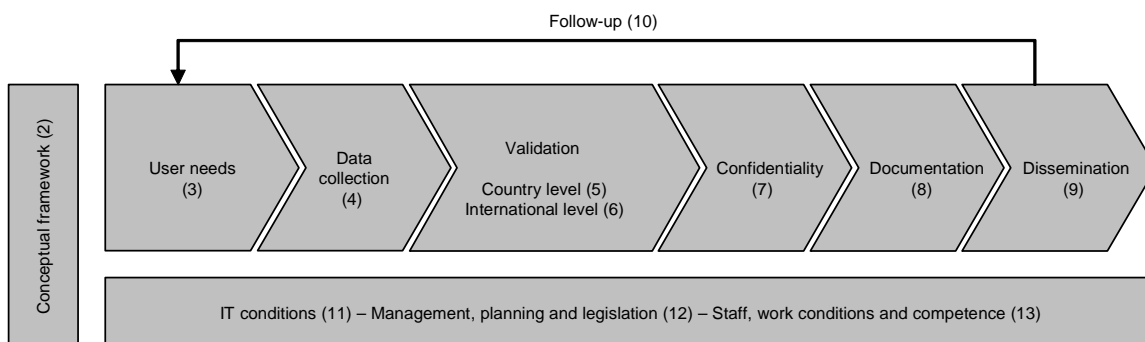
(Version 3, September 2007)

What is the Assessment Checklist?

This is a generic checklist for the systematic quality assessment of statistics. It has been compiled by international and supranational organisations building on the "European Self Assessment Checklist for Survey Managers (DESAP)"¹ which has been developed for assessing the quality of data provided by national statistical systems. However, its focus is on the processes of transformation applied by the international or supranational organisations in order to meet current and future information needs.

It has been developed within the Committee for Coordination of Statistical Activities (CCSA) project on the use and convergence of international quality assurance frameworks² which is coordinated by Eurostat. A version tailored to Eurostat's specific needs is maintained.

The checklist's goal is to foster improvements of the quality of the produced statistics. It can be used to promote and assess the compliance with the Principles Governing International Statistical Activities³. It covers principles 1, 4, 5, 6 and 7.



Structure of the checklist. Corresponding chapters are in parenthesis.

The objectives of the Assessment Checklist

The checklist has been designed to meet several different functions.

¹ A Eurostat granted project in 2002 for the development of a self-assessment checklist for National Statistical Institutes in the European Union. The project was led by the Federal Statistical Office of Germany with the following project members: Statistics Austria, Statistics Finland, ISTAT Italy, Statistics Sweden and ONS UK. The checklist is available on the Eurostat quality website (<http://europa.eu.int/comm/eurostat/quality>).

² A CCSA project led by Eurostat and with the following project members: ECB, FAO, ILO, IMF, OECD and UNSD. References: "Outline of a project to promote the use and the convergence of international quality assurance frameworks", SA/2005/13 item 6, Rome 12-14 September 2005, and "Report of the task team on the use and convergence of international quality assurance frameworks", SA/2006/9 item 3, Montreal 4-5 September 2006.

³ Available at http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.htm

- First, it is an assessment tool, which provides an overall picture of the quality of both the statistical output and the underlying statistical production process. It should be used to identify areas where improvement is most needed.
- Second it provides guidance in the consideration of potential improvement measures that could be implemented in the statistical production process.
- Third, it provides a means for comparisons of the level of quality over time and across domains. However, as results rely on opinions as much as facts, it should be kept in mind that careless comparisons based on the checklist can be misleading. More reliable comparison can be achieved through comprehensive quality reports.
- It can also provide support for resource allocation or be helpful for the training of new staff.

The checklist should be considered as a “light” quality assessment tool complementing more comprehensive reviews or quality reports that could be undertaken less frequently.

The modular approach of the checklist makes it possible to tailor it to specific needs. Parts of the checklist may be skipped, depending on the size and needs of a specific statistical activity. This is further explained under “How to use the Assessment Checklist”.

The benefits of using the Assessment Checklist

- It can be used as a starting point for systematic quality assurance activities since it provides an encompassing framework to quality evaluation.
- It is a powerful tool to identify improvement opportunities and to continuously improve quality of processes and products.
- The assessment diagram (provided in Annex 2) is useful for summarising strengths and weaknesses of the assessed statistics. If the checklist is reviewed on a regular basis (i.e. every year) the quality level of the same set of statistics can be easily monitored.
- Identified strengths can be used for benchmarking purposes (such as setting targets or sharing of best-practices) within and between international organisations.
- Identified weaknesses can form the basis for a quality action plan that can be used for launching and monitoring of quality improvement actions.
- Broad use of the checklist accompanied by in-house training on its completion will foster quality awareness in the organisation (among methodologists, IT specialists, analysts, etc.).

How to use the Assessment Checklist

Filling the assessment checklist is a 3-step process.

- (1) First, it is recommended to skim through the entire checklist. This is useful to determine if some parts have to be skipped. In fact, the checklist is generic and modular at the same time. It is generic in the sense that it is designed to apply to all statistics gathered by international or supranational organisations, irrespective of the subject matter area and the specific methodology used for compiling the statistics. However, since the statistical systems and functions of international organisations vary (from direct data collection at national level to

compilation of statistics already compiled by other international organisations) a modular approach has been chosen for the design of the checklist which makes it possible to tailor it to specific needs. For instance, if aggregated data are collected from other international organisations or if the focus of the assessment is more on the internal processes of the international organisation, chapter 5 on validation of country data can be skipped.

- (2) Once the areas that are not relevant have been identified, the checklist can be filled, in whole or in part:
 - (a) The first time the checklist is to be completed, and every 3-5 years, it is recommended to go through the whole checklist.
 - (b) If the checklist is to be completed more frequently, e.g. to achieve comparisons of the quality level of the specific statistics over time, it might not be meaningful to go through the whole checklist every time. Rather, it is possible to concentrate on chapters containing assessment questions (the assessment questions are recognised by the darker green shadow). These assessment chapters –4, 5, 6, 8 and 9– could be filled in on an annual basis.
- (3) Once the checklist has been filled, two different tools can be used to present the results.
 - (a) The Summary Assessment Report (Annex 1) should be used for identifying the principal strengths and weaknesses and their importance regarding improvement. This report could be seen as a tool for managers for systematic follow-up of the implementation of the recommendations.
 - (b) The assessment questions can be summarised in the assessment diagram (Annex 2) for graphical feedback on the strengths and weaknesses.

In case of doubt about the meaning of a word or an expression while filling the checklist, a glossary is provided (Annex 3) explaining many of the technical terms used in the checklist.

How to fill in the checklist

1. For many of the questions, several answers can be relevant: please feel free to tick all of them off.
2. If a question is not relevant for the specific statistic(s), please just skip it.
3. If none of the proposed answers is satisfactory, please propose a more appropriate one.
4. When answering open questions, try to be as explicit as possible since these questions seek to identify issues which might be useful for the development of improvement ideas / processes.

Good luck with the quality assessment!

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ANNEXES:

1. Summary Assessment Report
2. Assessment diagram
3. Glossary

1. BACKGROUND INFORMATION

About statistical programme / theme / domain / data collection

This section provides brief general information on the statistics to be assessed and to place the answers afterwards into the right context.

| |
|--|
| <p>1.1. Statistical production process under assessment:</p> <p><i>Examples:</i></p> <p>1. <i>The EU Labour Force Survey</i></p> <p>2. <i>Harmonised Index of Consumer Prices</i></p> <p>...</p> |
| <p>1.2. Periodicity for data compilation:</p> <p><input type="checkbox"/> Monthly</p> <p><input type="checkbox"/> Quaterly</p> <p><input type="checkbox"/> Annual</p> <p><input type="checkbox"/> Other (please specify)</p> |
| <p>1.3. Geographical coverage of the data:</p> |
| <p>1.4. Type of data processed:</p> <p><input type="checkbox"/> Aggregated data</p> <p><input type="checkbox"/> Micro data</p> <p><input type="checkbox"/> Mixed type of data</p> |

1.5. Key statistic(s) released:

Examples:

1. Employment rate 15-64

...

*3. Average number of hours usually worked
per week*

1.6. Reference period for the statistics
assessed in the checklist:

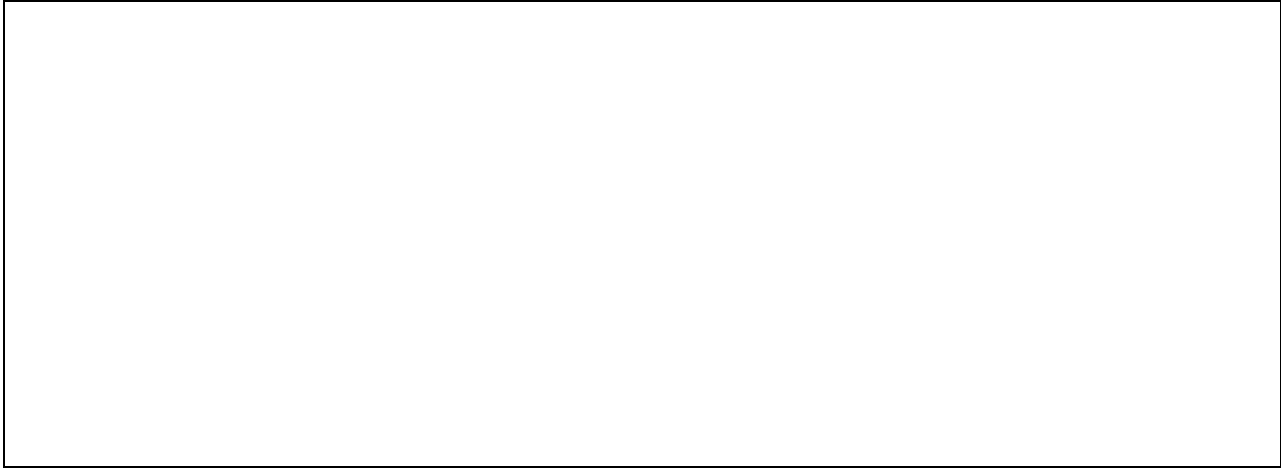
Place for additional background information:

2. CONCEPTUAL FRAMEWORK

The use of appropriate framework, concepts and classifications is a precondition for producing statistics that are comparable across countries.

| | | |
|------|---|--|
| 2.1. | European/International legal basis or agreements for the production of the statistics (please provide details or insert links): | (1) (2) (3) |
| 2.2. | Internationally agreed principles and code(s) in place: | <input type="checkbox"/> The UN Fundamental Principles of Official Statistics <input type="checkbox"/> The CCSA Principles Governing International Statistical Activities <input type="checkbox"/> The IMF's Data Quality Assessment Framework (DQAF) <input type="checkbox"/> The European Statistics Code of Practice <input type="checkbox"/> Others (please specify) |
| 2.3. | European/Internationally agreed statistical concepts and definitions used in the domain: | (1) (2) (3) |
| 2.4. | European/International classification system(s) used for the statistical data: | (1) (2) (3) |
| 2.5. | European/International standard(s) in place for the exchange of statistical data: | <input type="checkbox"/> SDMX Technical Standards (see Annex 3) <input type="checkbox"/> Other standard(s): <input type="checkbox"/> None used |

Place for comments concerning the conceptual framework:



3. USERS AND CUSTOMERS

Statistics are relevant if they meet user needs. Thus, user needs have to be established at the outset. The following questions refer to the different aspects of communication with users.

| | |
|---|---|
| 3.1. Are all key (e.g. targeted/ intended) users identified? | <input type="checkbox"/> Yes, we have a very good idea of our key users <input type="checkbox"/> Yes, the key users are partly identified <input type="checkbox"/> No, our knowledge of the key users is insufficient |
| Specification of the applied "definition" of the concept "key users" (i.e. users considered to be the most important or who make the most use of data): | |
| 3.2. Who are the key users? Please rank the importance from 1- 5 (1= most important) | <input type="checkbox"/> Other departments or units within your organisation: <input type="checkbox"/> Other international organisations: <input type="checkbox"/> Country governments: <input type="checkbox"/> Central Banks: <input type="checkbox"/> Scientific institutes and universities: <input type="checkbox"/> Trade associations(s): <input type="checkbox"/> Businesses: <input type="checkbox"/> Citizens: <input type="checkbox"/> Other (please specify) <input type="checkbox"/> Don't know |

3.3. How do you ensure user consultation and user contacts, related to the statistics?
Through:

- Regular/frequent meetings with users inside the statistical system/ organisation
- Regular/frequent meetings with users outside the statistical system/ organisation
- Regular/frequent meetings with associations/researchers
- User surveys exploring the needs of a wide group of users
- Web-based consultations with users
- Informal contacts with relevant users
- Training courses
- Other:
- No regular user consultation process

3.4. Is there a process for the collection and treatment of inquiries from users/customers by your unit?

- Yes
- Partly
- No

3.5. What are the most common inquiries from users/customers to your unit?

3.6. How would you assess the completeness of information on key users' satisfaction?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- [0] Don't know
- Not relevant

Arguments for scoring:

.....

.....

3.7. Please assess key users' satisfaction with the quality of the statistics produced according to the following quality aspects (indicate under comments how the users' satisfaction was assessed):

| | Very good | Good | Satisfactory | Poor | Very poor | Not assessed |
|--|-----------|------|--------------|------|-----------|--------------|
| Accuracy and reliability | | | | | | |
| Timeliness | | | | | | |
| Accessibility | | | | | | |
| Clarity | | | | | | |
| Comparability over time | | | | | | |
| Comparability between countries | | | | | | |
| Coherence with other sources | | | | | | |
| Completeness (variables/ breakdown etc.) | | | | | | |
| Relevance | | | | | | |

Comments:

.....

3.8. Please assess the key users' overall satisfaction with the statistics produced (indicate below how the users' satisfaction was assessed):

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- [0] Not assessed
- Not relevant

Arguments for scoring:

.....

3.9. Do you have information about the satisfaction of other than key users?

- Yes
- Partly
- No

Comments:

3.10. What are the main problems experienced in relation to users/customers?

.....
.....

3.11. What are the known unmet key user needs in priority order?

3.12. Which measures are undertaken in order to anticipate future users' needs?

3.13. Which plans are in place to react to the unmet key user needs?

.....
.....

Place for comments concerning users and customers:

4. DATA PROVIDERS

This section provides an overview on how work with data providers is organised and the main problems in dealing with them in order to assess potential areas of improvement.

4.1. Who are the main data providers (please specify or give *the approximate number* of providers for each category)?

Example:

- 15 NSIs,
- 3 central banks,
- ...

4.2. Do you measure and monitor compliance of your data providers with legislation / international agreements / gentlemen's agreement in force?

- Yes
- Partly
- No
- Not relevant

4.3. If answer "Yes" to the above question, how do you measure compliance?

4.4. How are the data obtained from the providers?

- By paper means
- By personalised e-mail
- By institutional e-mail
- By electronic data transfer format
- By download from the provider's website
- Other means (please specify)

4.5. For how many countries is there a "focal point" (liaison point) data provider in each country?

- For all or almost all of countries
- For half or more than half of countries
- For less than half of countries
- For none or almost none of countries
- Not relevant

4.6. If there are standards in place for the transmission of statistical data and metadata, are these standards used by ...

- All or almost all of actors
- Half or more than half of actors
- Less than half of actors
- None or almost none of actors
- Not relevant

| | |
|--|--|
| <p>4.7. What are the main problems for data delivery from the providers?</p> | <p><input type="checkbox"/> Timeliness of data</p> <p><input type="checkbox"/> Missing values</p> <p><input type="checkbox"/> Non-response</p> <p><input type="checkbox"/> Revisions</p> <p><input type="checkbox"/> Transmission via inappropriate means</p> <p><input type="checkbox"/> Transmission of data that do not correspond to the requirements</p> <p><input type="checkbox"/> Other (please specify)</p> |
| <p>4.8. Please indicate what kind of meetings and how often you organise such meetings with your main data providers in order to discuss the problems encountered:</p> | |
| <p>4.9. Is there any ongoing co-operation for your key statistics with other international organisations for joint data and metadata collection?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>If yes, please explain and indicate when you last reached out to other IO to further data exchange arrangements?</p> |
| <p>4.10. When data are provided by other international or supranational organisation(s) is the data provided in the context of a formal arrangement such as a memorandum of understanding (MOU)?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not relevant</p> |
| <p>4.11. Do you have in place a formal procedure for the measurement of the burden on respondents stemming from statistical data collection?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not relevant (e.g. no burden on data providers). Skip next question.</p> |

Please, explain:

.....

.....

.....

.....

4.12. What are the future plans for reducing the burden on respondents?

Place for comments concerning the data providers:

5. VALIDATION (AT COUNTRY LEVEL)

This section provides an overview on aspects such as collection, editing, non-response, estimations and revisions of the data received that are already carried out by the countries. It will help to assess how well the quality of the underlying data from countries is known to you.

Please note that this chapter may not be relevant for some domains. In this case, it should simply be skipped.

DATA COLLECTION (micro data and aggregated data)

5.1. Please indicate (by ticking the appropriate cells) the type of sources used by the countries for collecting the data

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|---------------------|---------------|-----------------------|---------------------------------|---------------------|
| Surveys | | | | |
| Administrative data | | | | |
| Mixed sources | | | | |
| Don't know | | | | |

Comments:

.....

5.2. How many countries updated the relevant business registers or frame for population surveys in the last 3 years?

- All the countries
- Most of the countries
- Less than half of the countries
- None or almost none
- Don't know
- Not relevant

5.3. How would you assess the impact of imperfections of the relevant business registers or frame for population surveys on the quality of the key statistics?

- Almost none
- Low
- Medium
- High
- Very high
- Don't know
- Not relevant

| | |
|--|---|
| <p>5.4. If your key statistics are based on administrative data, how would you assess the proximity of definition and concepts used for administrative purpose with those required for statistical purposes?</p> | <p><input type="checkbox"/> Very good</p> <p><input type="checkbox"/> Good</p> <p><input type="checkbox"/> Satisfactory</p> <p><input type="checkbox"/> Poor</p> <p><input type="checkbox"/> Very poor</p> <p><input type="checkbox"/> Not relevant</p> |
|--|---|

| | |
|---|--|
| <p>5.5. If the data are collected by the countries by means of a questionnaire, what is the proportion of countries that tested it (or part of it) in the last 5 years?</p> | |
|---|--|

5.6. Please indicate the degree of completeness of the data received from the countries

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|---------------------|---------------|-----------------------|---------------------------------|---------------------|
| Very high (80-100%) | | | | |
| High (60-79%) | | | | |
| Medium (40-59%) | | | | |
| Low (20-39%) | | | | |
| Very low (0-19%) | | | | |

| | |
|--|---|
| <p>5.7. How do you assess the completeness of the data supplied by the countries compared to what is required from them?</p> | <p><input type="checkbox"/> [5] Very good</p> <p><input type="checkbox"/> [4] Good</p> <p><input type="checkbox"/> [3] Satisfactory</p> <p><input type="checkbox"/> [2] Poor</p> <p><input type="checkbox"/> [1] Very poor</p> <p><input type="checkbox"/> Not relevant</p> |
|--|---|

Arguments for scoring:

| | | | | |
|---|---------------|-----------------------|---------------------------------|---------------------|
| 5.8. Please indicate the degree of completeness of the metadata on overall quality received from the countries? | | | | |
| | All countries | Most of the countries | Less than half of the countries | None or almost none |
| Very high (80-100%) | | | | |
| High (60-79%) | | | | |
| Medium (40-59%) | | | | |
| Low (20-39%) | | | | |
| Very low (0-19%) | | | | |

| | |
|---|---|
| <p>5.9. How do you assess the completeness of the metadata received from the countries?</p> | <p><input type="checkbox"/> [5] Very good</p> <p><input type="checkbox"/> [4] Good</p> <p><input type="checkbox"/> [3] Satisfactory</p> <p><input type="checkbox"/> [2] Poor</p> <p><input type="checkbox"/> [1] Very poor</p> <p><input type="checkbox"/> Not relevant</p> |
|---|---|

Arguments for scoring:

| | |
|---|--|
| <p>5.10. Is the data collection from countries based on a harmonised questionnaire?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Don't know</p> |
|---|--|

| | |
|--|--|
| <p>5.11. If "Yes", is it a questionnaire for joint data collection that is also used by one or more international organisations?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
|--|--|

5.12. If you use a harmonized questionnaire, when was it last tested?

5.13. If you use a harmonized questionnaire, when was it last reviewed, revised or updated?

If "Yes", please specify the international organisations involved:

5.14. Is there a common guideline for the methodology to be used by countries for the data collection?

- Yes
- Partly
- No
- Don't know

If "Yes", when was the methodology last updated?

.....

NON RESPONSE (is a form of non-observation present in most surveys. Non response means failure to obtain a measurement on one or more study variables for one or more units selected for the survey)

5.15. Please indicate the level of unit non-response in the surveys done by the countries.

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|-------------------------|---------------|-----------------------|---------------------------------|---------------------|
| Very low or none (0-4%) | | | | |
| Low (5-9%) | | | | |
| Medium (10-19%) | | | | |
| High (20-29%) | | | | |
| Very high (30% -) | | | | |
| Don't know | | | | |
| Not relevant | | | | |

5.16. How would you assess the impact of the unit-non response on the accuracy of data produced by the countries?

- [5] Almost none
- [4] Low
- [3] Medium
- [2] High
- [1] Very high
- [0] Don't know
- Not relevant

Arguments for scoring:

.....

5.17. How many countries correct for non-response?

- All the countries
- Most of the countries
- Less than half of the countries
- None or almost none
- Don't know
- Not relevant

Comments:

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.....

.....

IMPUTATION is the process used to resolve problems of missing, invalid or inconsistent responses identified during editing. This is done by changing some of the records being edited to ensure that a plausible, internally coherent record is created.

5.18. Are missing data imputed by countries?

- Yes
- No
- Don't know

5.19. If yes, what is the level of the overall imputation rates for the data received from countries?

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|------------------|---------------|-----------------------|---------------------------------|---------------------|
| Very low (0-1%) | | | | |
| Low (2-5%) | | | | |
| Medium (6-20%) | | | | |
| High (21-50%) | | | | |
| Very high (51%-) | | | | |
| Don't know | | | | |

| | |
|---|---|
| <p>5.20. How would you assess the impact of overall imputation rates on the accuracy of data produced by the countries?</p> | <p><input type="checkbox"/> [5] Almost none</p> <p><input type="checkbox"/> [4] Low</p> <p><input type="checkbox"/> [3] Medium</p> <p><input type="checkbox"/> [2] High</p> <p><input type="checkbox"/> [1] Very high</p> <p><input type="checkbox"/> [0] Don't know</p> <p><input type="checkbox"/> Not relevant</p> |
|---|---|

Arguments for scoring:

SAMPLING ERRORS refer to the part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a sample of values is observed.

| | |
|---|---|
| <p>5.21. Do you obtain information from countries on the coefficients of variations (CV's)?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not relevant</p> |
|---|---|

5.22. If yes, please indicate the level of coefficients of variation (CVs) for the key statistic(s).

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|-------------------|---------------|-----------------------|---------------------------------|---------------------|
| Very low (0-5%) | | | | |
| Low (6-10%) | | | | |
| Medium (11-20%) | | | | |
| High (21-50%) | | | | |
| Very high (50%-) | | | | |
| Don't know | | | | |

Comments:

5.23. How would you assess the impact of sampling errors on the accuracy of data produced by the countries?

[5] Almost none
 [4] Low
 [3] Medium
 [2] High
 [1] Very high
 [0] Don't know
 Not relevant

Arguments for scoring:

SEASONAL ADJUSTMENT is a process of estimating seasonal effects and removing them from the data.

5.24. Is seasonal adjustment made by the countries?

Yes
 No
 Not relevant

5.25. If yes, please indicate the type of (pre-) adjustments done by the countries:

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|---------------------------------|---------------|-----------------------|---------------------------------|---------------------|
| Trading day | | | | |
| Trading day & specific holidays | | | | |
| Leap-Year | | | | |
| Easter | | | | |
| Other: | | | | |
| Don't know | | | | |

Comments

5.26. Do you have information about the outlier treatment by the countries?

- Yes, for all or almost all of countries
- Yes, for half or more than half of countries
- Yes, for less than half of countries
- No, we don't have information for all or almost all of the countries

5.27. Please indicate the aggregation approach chosen by the countries with regards to seasonal adjustment:

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|--|---------------|-----------------------|---------------------------------|---------------------|
| Direct method (first aggregation then SA) | | | | |
| Indirect method (SA at low level and then aggregation) | | | | |
| Not applicable | | | | |

Comments:

.....

5.28. How do you assess the overall process of the seasonal adjustments done by the countries?

- Very good
- Good
- Satisfactory
- Poor
- Very poor
- Not relevant

Comments:

ESTIMATION refers to the rules or methods of estimating a constant of a population. It is usually expressed as a function of sample values and hence is a variate whose distribution is of great importance in assessing the reliability of the estimate to which it leads.

5.29. Do you have information about the weighting schemes used by the countries?

- Yes
- No
- Not relevant

Comments:

.....
.....

REVISIONS are new estimates replacing the initial value

5.30. Please indicate the number of countries according to the number of revisions of the statistical data sent by them for the selected reference period (after data dissemination).

| | All countries | Most of the countries | Less than half of the countries | None or almost none |
|---------------|---------------|-----------------------|---------------------------------|---------------------|
| 0 revision | | | | |
| 1 revisions | | | | |
| 2 revisions | | | | |
| 3-4 revisions | | | | |
| 5+ revisions | | | | |
| Don't know | | | | |
| Not relevant | | | | |

Comments:

.....

5.31. How would you assess the impact of revisions on the key statistics produced by the countries?

- [5] Almost none
- [4] Low
- [3] Medium
- [2] High
- [1] Very high
- [0] Don't know
- Not relevant

Arguments for scoring:

.....

5.32. Do you employ an explicitly stated revision policy, agreed with the countries?

Yes

Planned

No

Not relevant

5.33. Please provide the reference to the policy.

Place for comments concerning the data validation at country level:

6. VALIDATION (AT YOUR LEVEL)

This section provides an overview on the data compilation process undertaken by you. It will help to evaluate what is done to improve the data as much as possible and feasible and to give an overall assessment of the accuracy of the statistical output.

DATA EDITING is the application of checks that identify missing, invalid or inconsistent entries or that point to data records that are potentially in error.

- 6.1. How do you appraise the reliability of your data validation system?
- [5] Very good
 - [4] Good
 - [3] Satisfactory
 - [2] Poor
 - [1] Very poor
 - Not relevant

Arguments for scoring:

.....

IMPUTATION is the process used to resolve problems of missing, invalid or inconsistent responses identified during editing. This is done by changing some of the records being edited to ensure that a plausible, internally coherent record is created.

| | |
|---|--|
| 6.2. Are missing data imputed for computing the key statistics? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6.3. Is the chosen imputation method ... | <input type="checkbox"/> automated or <input type="checkbox"/> manual or <input type="checkbox"/> a combination of both |
| 6.4. If yes, what is your assessment of the impact of imputation on the quality of the statistics produced? | <input type="checkbox"/> Almost none <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/> Don't know <input type="checkbox"/> Not relevant |
| 6.5. Do you use a ... | <input type="checkbox"/> single imputation method (the missing value is replaced with one imputed value) or <input type="checkbox"/> a multiple imputation method (several values are used)? |
| 6.6. If several methods could have been applied, have they (their results) been evaluated against each other to identify the best method? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6.7. Has it been assessed if the imputation process limits the bias caused by not having all original values? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6.8. When do you review, revise or update the imputation process? | <input type="checkbox"/> After each production round <input type="checkbox"/> Regularly but not after each production round <input type="checkbox"/> Not regularly |

SAMPLING ERRORS refer to the part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a sample of values is observed.

- 6.9. Is the level of the coefficients of variation acceptable for the purpose of the key statistics?
- Yes
 - Partly (please explain)
 - No

Comments:
.....
.....

SEASONAL ADJUSTMENT is a statistical technique to remove the effects of seasonal calendar influences operating on a series.

- 6.10. Do you perform seasonal adjustments to any of the statistical data received from NSIs?
- Yes
 - No
 - Not relevant

- 6.11. Please indicate what you validate during the seasonal adjustment process?
- The outliers
 - The type of transformation
 - The regressors
 - The results
 - Other (please specify)
.....;
 - Nothing

Comments:
.....
.....

6.12. How do you assess the process of the seasonal adjustment?

- Very Good
- Good
- Satisfactory
- Poor
- Very poor
- Not relevant

Comments:

.....
.....

ESTIMATION refers to the rules or methods of estimating a constant of a population. It is usually expressed as a function of sample values and hence is a variate whose distribution is of great importance in assessing the reliability of the estimate to which it leads.

6.13. Do you re-weight the data before computing key statistics?

- Yes
- No

Comments:

.....
.....

6.14. If early estimates are released, please indicate the criteria / rules in place for deciding when the European aggregate is considered to be of sufficient quality to be published:

6.15. Have you assessed the influence of that rule on the quality of the estimate (e.g. bias)?

- Yes
- No
- Not relevant

Comments:

.....
.....

6.16. Was the current methodology for estimates of the key statistics evaluated during the last three years? Yes

No

Not relevant

Comments (if the answer is "Yes", what were the results?)

.....

.....

6.17. Please provide the reference to the paper(s) where the methodology for computing estimates (including adjustment and weights computation) is described.

.....

.....

REVISIONS are new estimates replacing the initial values.

| | |
|---|--------------|
| <p>6.18. Please indicate the percentage of figures revised due to country data revisions for your key statistics for the selected reference period.</p> <p>(Please only consider revisions occurring after data dissemination.)</p> | <p>.....</p> |
|---|--------------|

Comments:

.....

.....

| | |
|--|---|
| <p>6.19. How would you assess the impact of the revisions on the aggregates produced by you?</p> | <p><input type="checkbox"/> [5] Almost none</p> <p><input type="checkbox"/> [4] Low</p> <p><input type="checkbox"/> [3] Medium</p> <p><input type="checkbox"/> [2] High</p> <p><input type="checkbox"/> [1] Very high</p> <p><input type="checkbox"/> [0] Don't know</p> <p><input type="checkbox"/> Not relevant</p> |
|--|---|

Arguments for scoring:

.....

| | |
|--|---|
| 6.20. What kind of final quality checks do you apply before releasing key statistics? | |
| 6.21. Do you provide specific information to the external users about major revisions concerning key statistics? | <input type="checkbox"/> Yes, always <input type="checkbox"/> Yes, sometimes <input type="checkbox"/> No |
| 6.22. Do you regularly undertake analyses of the revisions and use the results to improve statistical processes? | <input type="checkbox"/> Yes <input type="checkbox"/> Partly <input type="checkbox"/> No |
| Please explain | |
| <p>OVERALL ACCURACY - the qualitative assessment of the accuracy of the published statistics.</p> <p>Guiding principles for the rating:</p> <p>Very good: Data are collected from reliable sources and based on a common methodology meeting high standards for your organisation's purposes. All aspects of the quality of the data is documented and assessed. The potential bias in estimates is assessed as nil or negligible.</p> <p>Good: Data are collected from reliable sources and based on a common methodology meeting high standards for your organisation's purposes. All aspects of the quality of the data are documented and assessed. There are some minor shortcomings with regard to data availability and/or potential risk for minor bias in some of the estimates.</p> <p>Sufficient: Data are collected from reliable sources. The main aspects of the quality of the data are documented. There are some shortcomings with regard to data quality or data availability.</p> <p>Poor: There are some serious shortcomings with regard to data availability and/ or the methodology applied.</p> | |
| 6.23. How do you assess the overall accuracy of the published statistics? | <input type="checkbox"/> [5] Very good <input type="checkbox"/> [4] Good <input type="checkbox"/> [3] Satisfactory <input type="checkbox"/> [2] Poor <input type="checkbox"/> [1] Not known |
| Arguments for scoring: | |

| | |
|--|---|
| <p>6.24. What kind of collaboration do you have with the scientific community to improve quality and effectiveness of the methods implemented?</p> | <p><input type="checkbox"/> Participation to conferences</p> <p><input type="checkbox"/> Joint research projects</p> <p><input type="checkbox"/> Regular meetings</p> <p><input type="checkbox"/> Others (please specify)</p> |
|--|---|

Place for comments concerning the data validation (at your level):

7. STATISTICAL CONFIDENTIALITY

CONFIDENTIALITY of the respondents' information needs to be protected preserving the usefulness of the data outputs to the greatest extent possible

7.1. Do you process statistical data that could be confidential?

Yes

No

(If no, go to next chapter)

7.2. Which types of data do you have for publication or (semi-) public access?

Frequency tables

Tables of magnitude

Microdata – Scientific Use File

Microdata – Public Use File

7.3. Which disclosure control methods are applied to the released tabular data?

Cell suppression

Changing the classification

Rounding

Random perturbation

Adding noise

Other: (please specify)

None

If no disclosure control methods applied, please explain why:

.....
.....

7.4. Is the tabular protection method ...

Manual

Automated

or a combination of both?

7.5. Please indicate the percentage of sensitive (suppressed) cells in the released tables of the statistics.

0 %

1 – 2 %

3 – 5 %

6 – 10 %

11 – 25 %

26 – 50 %

51+ %

Comments:

7.6. If micro-data are accessible to researchers, please explain the methods applied to protect the micro-data before giving it out.

7.7. If micro-data are available for researchers, how often is the access to micro-data requested?

Daily

Weekly

Monthly

Yearly

Less frequently then yearly

7.8. If micro-data are available for researchers, are they consulted in the process of setting the anonymisation criteria?

Yes

No

Please explain the consultation procedure
.....

7.9. If micro-data are available for researchers, do you have any information about their satisfaction with the data provided? Yes No

Please provide the source of information
.....

7.10. Please name the software for carrying out disclosure control at your organisation. CIF software ARGUS software Other commercially available software Tailor-made system No special software is used

Comments:
.....

Place for comments concerning the statistical confidentiality:

[Empty box for comments concerning statistical confidentiality]

8. DOCUMENTATION

This section provides an overview of the available documentation on the production process, the product itself (to be understood as the key statistics) and the quality of the data. It will help to assess the amount and content of available documentation.

| | |
|--|--|
| <p>8.1. Is the production process for the statistical data adequately documented, e.g. to allow new personnel to be quickly acquainted?</p> <p>Comments:</p> <p>.....</p> <p>.....</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> |
| <p>8.2. For which of the following aspects of the production process would you need to have a better documentation?</p> | <p><input type="checkbox"/> Data collection</p> <p><input type="checkbox"/> Data validation</p> <p><input type="checkbox"/> Data dissemination</p> <p><input type="checkbox"/> Methodology</p> <p><input type="checkbox"/> Quality control</p> <p><input type="checkbox"/> Software used</p> <p><input type="checkbox"/> Other (please specify)</p> <p><input type="checkbox"/> None</p> |
| <p>8.3. Does your organisation have a process management methodology to document the production process?</p> <p>Comments:</p> <p>.....</p> <p>.....</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

| | | |
|-----------------------------|--|--|
| 8.4. | Do you have documentation about the methodology of the statistical production process available to the public? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 8.5. | How often do you review/update the documentation on the production process? | <input type="checkbox"/> Regularly after each production round <input type="checkbox"/> Regularly but not after each production round <input type="checkbox"/> Not regularly |
| 8.6. | When was the documentation on the production process last updated? | |
| Comments: | | |
| 8.7. | Format(s) in place for releasing information on the data disseminated: | <input type="checkbox"/> SDDS files <input type="checkbox"/> Other format(s) (please specify) <input type="checkbox"/> No information provided |
| 8.8. | How often do you review/update the information on the data disseminated? | <input type="checkbox"/> Regularly after each production round <input type="checkbox"/> Regularly but not after each production round <input type="checkbox"/> Not regularly |

8.9. When was your metadata on the quality of the released statistical data last updated?

8.10. In how many languages are the metadata on quality available?

8.11. What is your assessment of the overall quality of metadata provided to users (its completeness, clarity, availability, etc)?

[5] Very good

[4] Good

[3] Satisfactory

[2] Poor

[1] Very poor

[0] No metadata provided to users

Arguments for scoring:.....

.....

8.12. Is the information on quality of disseminated key statistics documented and available to the users?

Yes

Partly

No

8.13. If applicable, is the information reported according to a standardised structure?

Yes

Partly

No

Please, specify the standard quality structure used

.....

.....

| | |
|---|--|
| <p>8.14. What aspects of quality are covered by published documentation?</p> | <p><input type="checkbox"/> Comparability</p> <p><input type="checkbox"/> Coherence</p> <p><input type="checkbox"/> Timeliness and punctuality</p> <p><input type="checkbox"/> Accuracy</p> <p><input type="checkbox"/> Relevance</p> <p><input type="checkbox"/> Accessibility and clarity</p> <p><input type="checkbox"/> Others: please specify</p> |
| <p>8.15. Please provide references to documents on the quality of statistics released</p> | |
| <p>8.16. When were the above documents last updated?</p> | |
| <p>8.17. What is your assessment of the completeness and clarity of the information about quality provided to users?</p> | <p><input type="checkbox"/> [5] Very good</p> <p><input type="checkbox"/> [4] Good</p> <p><input type="checkbox"/> [3] Satisfactory</p> <p><input type="checkbox"/> [2] Poor</p> <p><input type="checkbox"/> [1] Very poor</p> <p><input type="checkbox"/> [0] No information on quality provided to users</p> |
| <p>Arguments for scoring:</p> | |
| <p>8.18. How would you assess your ability to provide assistance to users in the interpretation and use of the data produced?</p> | <p><input type="checkbox"/> [5] Very good</p> <p><input type="checkbox"/> [4] Good</p> <p><input type="checkbox"/> [3] Satisfactory</p> <p><input type="checkbox"/> [2] Poor</p> <p><input type="checkbox"/> [1] Very poor</p> <p><input type="checkbox"/> Not relevant (please explain)</p> |

Arguments for scoring:

Place for comments concerning the documentation:

9. DATA DISSEMINATION

This section provides an overview on various aspects of data dissemination such as their errors, timeliness, coherence and comparability. It will help in assessing where and possibly how data dissemination can be improved in general but also for specific aspects.

The publication of data should always be understood as their appearance in a publicly accessible environment, be it electronically in reference databases or by other means.

| | |
|---|--|
| <p>9.1. Please indicate the media formats used for data dissemination:</p> | <p><input type="checkbox"/> On-line databases</p> <p><input type="checkbox"/> Electronic press releases/ newsletters</p> <p><input type="checkbox"/> Paper publications:</p> <p><input type="checkbox"/> CD-ROM/DVD</p> <p><input type="checkbox"/> Other:</p> |
| <p>9.2. Do you follow the figures on the web hits, download rates, publications sold of the data disseminated?</p> <p>Comments:</p> <p>.....</p> <p>.....</p> | <p><input type="checkbox"/> Yes, regularly</p> <p><input type="checkbox"/> Yes but not regularly</p> <p><input type="checkbox"/> No</p> |
| <p>9.3. Are key statistical aggregates publicly available free of charge?</p> <p>If "No" please explain:</p> <p>.....</p> <p>.....</p> | <p><input type="checkbox"/> Yes, all the key aggregates</p> <p><input type="checkbox"/> Yes, some of the key aggregates</p> <p><input type="checkbox"/> No</p> |

9.4. Please indicate how often (on average) non-planned extractions of a sub-set/full set of the statistics are made from the statistics specific database for satisfying specific users' needs?

- Daily
- Weekly
- Monthly
- Yearly
- Never
- Not relevant

9.5. How do you assess your ability to react quickly and flexibly to specific user demands for tailor made data extractions?

- Very good
- Good
- Satisfactory
- Poor
- Very poor
- Not relevant

Comments:

.....
.....

| | |
|---|---|
| 9.6. Are the results of tailor-made analysis made available? | <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never |
| 9.7. Do you regularly review the final data in publications before releasing them? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not relevant |
| 9.8. Do you have a rule to cancel the dissemination of statistics due to accuracy considerations (e.g. very low data quality)? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Please explain | |
| 9.9. What kind of checks do you undertake to assess the consistency of the data? | |
| 9.10. Have users/customers reported any errors in the published / disseminated statistics during the last year? | <input type="checkbox"/> Yes <input type="checkbox"/> Not to our knowledge |
| 9.11. If yes, what kind of follow-up of these errors was done? | <input type="checkbox"/> Information about the error to the users <input type="checkbox"/> Re-dissemination of the data <input type="checkbox"/> Changes in the production and verification procedures <input type="checkbox"/> Other: |
| 9.12. For which of the following aspects do you flag the data? | <input type="checkbox"/> Preliminary results <input type="checkbox"/> Breaks <input type="checkbox"/> Limited reliability <input type="checkbox"/> Others Please list : <input type="checkbox"/> No flag used |
| TIMELINESS AND PUNCTUALITY. Punctuality refers to the time lag between the release date of data and the target date when it should have been delivered. Timeliness of information reflects the length of time between its availability and the event or phenomenon it describes. | |

| | | |
|--------------------|--|---|
| 9.13. | Please specify the time lag between the reference period and the agreed data delivery deadline for the countries to send the statistical data (in days or months). | <p style="text-align: right;">..... days/months</p> <input type="checkbox"/> Not relevant <input type="checkbox"/> Not known |
| Comments: | | |
| 9.14. | Please indicate the delay of countries' statistical data compared with the legal or agreed timetable (in days). | <p style="text-align: right;">Average delay of days</p> <p style="text-align: right;">Maximum delay of days</p> <p style="text-align: right;">Minimum delay of days</p> <input type="checkbox"/> Not relevant <input type="checkbox"/> Not known |
| Comments: | | |
| 9.15. | Please indicate the time period between the reference period and the first publication of the key statistics by your unit. | <p style="text-align: right;">..... days/months</p> |
| Comments: | | |
| 9.16. | Please indicate the time period between the reference period and the final publication of the key statistics by your unit. | <p style="text-align: right;">..... days/months</p> |
| Comments: | | |
| 9.17. | Please indicate the average time lag between the planned publication date and the actual publication date by your unit. | <p style="text-align: right;">..... days</p> |
| Comments: | | |

9.18. How would you assess the timeliness of preliminary publication of key statistics?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Arguments for scoring:

.....

9.19. How would you assess the timeliness of final publication of key statistics?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Arguments for scoring:

.....

9.20. How would you assess the timeliness of publication of complete set of results?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Arguments for scoring:

.....

| | |
|--|--|
| <p>9.21. Do you have a release calendar publicly available (e.g. the dissemination time schedule is publicised in advance)?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>9.22. Do you release the results at the standard daily time?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>9.23. If there is a release calendar, do you publish in advance divergences from the calendar?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> There has been no such divergence</p> |
| <p>9.24. If yes, do you include an explanation?</p> | <p><input type="checkbox"/></p> <p><input type="checkbox"/> Sometimes</p> <p><input type="checkbox"/> Never</p> |
| <p>9.25. Do you publicly announce a new release time?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>9.26. Are the planned publication dates for the main publications (e.g. comprehensive tables with results including web publications) usually kept?</p> | <p><input type="checkbox"/> [5] They are (nearly) always kept</p> <p><input type="checkbox"/> [4] They are usually kept (> 80% of the publications)</p> <p><input type="checkbox"/> [3] They are mostly kept (> 50% of the publications)</p> <p><input type="checkbox"/> [2] They are seldom kept (< 50% of the publications)</p> <p><input type="checkbox"/> [1] They are almost never kept</p> <p>Arguments for scoring:</p> <p>.....</p> |

9.27. If there are delays, what are the main reasons for delays in the publication of the key statistics?

- Late sending of data from the providers
- Lack of staff to treat the data
- Too many revisions of data sets
- Problems in the publication process
- Problems with IT
- Other:

9.28. What kind of changes would be necessary in general to substantially improve timeliness for both production and publication of the key statistics?

- Minor internal
- Major internal changes inside the domain
- Major internal changes inside your organisation
- Changes involving external partners
- Assistance to countries to produce and submit data in a timely fashion
- Other:

Comments

.....

.....

COHERENCE of statistics is their adequacy to be reliably combined in different ways and for various uses. It is, however, generally easier to show cases of incoherence than to prove coherence. When originating from a single source, statistics are normally coherent in the sense that elementary results derived from the concerned survey can be reliably combined in various ways to produce more complex results.

When originating from different sources, and in particular from statistical surveys of different nature and/or frequencies, statistics may not be completely coherent in the sense that they may be based on different approaches, classifications and methodological standards. Conveying neighbouring results, they may also convey not completely coherent messages, the possible effects of which, users should be clearly informed of.

9.29. Are the disseminated statistical data not compliant with any standard classification applied? Yes, please name:

No

Don't know

9.30. How would you assess the coherence of the key statistics produced with annual/short-term statistics?

[5] Very good

[4] Good

[3] Satisfactory

[2] Poor

[1] Very poor

Not relevant

Main reasons for the differences between annual and short-term statistics:

.....

.....

9.31. How would you assess the coherence of the key statistics produced with National Accounts statistics?

[5] Very good

[4] Good

[3] Satisfactory

[2] Poor

[1] Very poor

Not relevant

Main reasons for the differences between basic and national account statistics:

.....

.....

In areas where applicable, please provide information about the coherence with other relevant statistics.....

.....

.....

9.32. Are you aware of statistics produced outside your organisation, that would measure the same phenomenon that your key statistics, but from a different approach?

No (skip the next two questions)

Yes (please specify)

9.33. If yes, have you undertaken studies of the consistency of your statistics with these statistics?

Yes

No

9.34. If yes, what is your assessment of the consistency of your statistics with these statistics?

[5] Very high

[4] High

[3] Satisfactory

[2] Low

[1] Very low

Arguments for scoring:

COMPARABILITY OVER TIME refers to the comparison of results, derived normally from the same statistical operation, at different times

9.35. Are there any breaks in time series for the statistical data?

Yes

No

If "Yes", do users receive information so they can interpret the breaks in time series?

Yes

No

9.36. How do you assess the comparability over time (relating to preceding reference periods)?

[5] Very good

[4] Good

[3] Satisfactory

[2] Poor

[1] Very poor

Not relevant

Arguments for scoring:

.....

COMPARABILITY ACROSS COUNTRIES aims at measuring the impact of differences in applied statistical concepts and measurement tools/procedures when statistics are compared between geographical areas, non-geographical domains, or over time. It is the extent to which differences between statistics are attributed to differences between the true values of the statistical characteristics.

9.37. For how many countries are the concepts and methodologies comparable with standard concepts?

- [5] All countries
- [4] Most of the countries (>80%)
- [3] Some countries (>=50%)
- [2] A few countries (<50%)
- [1] None or almost none
- [0] Don't know
- Not relevant (e.g. no country data released)

Arguments for scoring:

.....

9.38. Please indicate the asymmetries for statistical mirror flows (i.e. discrepancies between the statistics related to inbound and outbound flows for pairs of countries).

- [5] Very small / negligible
- [4] Small
- [3] Medium
- [2] High
- [1] Very high
- [0] Don't know
- Not relevant (e.g. no statistics mirror flows released)

Arguments for scoring:

.....

9.39. What is your overall assessment of comparability of the key statistics across countries?

[5] Very good

[4] Good

[3] Sufficient

[2] Poor

[1] Very poor

Unknown

Not relevant

Arguments for scoring:

.....

9.40. Please provide references of studies of comparability

Place for comments concerning the data dissemination:

10. FOLLOW-UP OF THE STATISTICAL PRODUCTION PROCESS

This section provides an overview on some sort of follow-up actions and where there is potential for improvement. It is essential to get a clear view on improvement actions for the key statistics concerned.

| | | |
|---|---|---|
| 10.1. | Do you discuss lessons learnt after each production round with staff working within the domain? | <input type="checkbox"/> Yes after each production round <input type="checkbox"/> Yes but not after each production round <input type="checkbox"/> No |
| Comments: | | |
| 10.2. | Have the work practices/processes (all or parts of) been compared with other similar practices/processes or benchmarks during the last year? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Comments e.g. on how this was done and on the results | | |
| 10.3. | Is there any quality indicators (such as quality of seasonal adjustment process, data editing, etc.) produced on a regular basis for monitoring the efficiency of the statistical production process? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If "Yes", please name: | | |
| 10.4. | Is there any ongoing co-operation for your key statistics with other international organisations for joint data and metadata dissemination? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Please, explain: | | |
| 10.5. | Are you aware of any best practices in place in other organisations that could be applied for your unit? | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Please explain:

.....
.....

10.6. Choose three areas where you see the most urgent need for improvements

- Relevance
- Dialog with the users
- Accuracy
- Timeliness
- Accessibility
- Availability of metadata
- Availability of data at the country level
- Completeness
- Comparability
- Methodology
- Confidentiality
- Dissemination practices
- Documentation
- Other (please specify)

Comments:

.....
.....

Place for comments concerning the follow-up of the statistical production process:

11. IT CONDITIONS

This section provides a brief overview of the IT applications used for the production of the statistics and protection of data in your organisation.

| | | |
|-------|--|--|
| 11.1. | What IT applications are used for the production of the key statistics? | |
| 11.2. | Have the IT applications been specifically developed according to the needs of your key statistics? | <input type="checkbox"/> Yes <input type="checkbox"/> Partly <input type="checkbox"/> No |
| | If "Yes-partly" or "No", what could be improved? | |
| 11.3. | Is there room for further automation of routine clerical operations (e.g. data coding, validation)? | <input type="checkbox"/> No, most operations are automated <input type="checkbox"/> Yes |
| | If yes, please specify: | |
| 11.4. | In your view, what are the obstacles that hinder greater use of technology to improve the statistical processing involved in the production of key statistics? | |
| 11.5. | Are the IT applications sufficiently reliable for the needs of the key statistics? | <input type="checkbox"/> Yes <input type="checkbox"/> Partly <input type="checkbox"/> No |
| | If "yes-partly" or "No", what are the main reasons for operating problems? | |

| | |
|---|--|
| <p>11.6. Do you apply a standard procedure for giving access to the data?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>11.7. Do you follow the standard procedures provided by the IT department to back-up the data?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>11.8. Is there a contingency plan in case the IT applications do not work?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> |
| <p>11.9. Are the running and further development of the IT applications dependent on external contractors/ external services?</p> | <p><input type="checkbox"/> Completely dependent on external contractors</p> <p><input type="checkbox"/> Partly dependent on external contractors</p> <p><input type="checkbox"/> Partly dependent on external services</p> <p><input type="checkbox"/> Dependent on IT staff in the domain</p> <p><input type="checkbox"/> Other options (please specify)</p> |
| <p>11.10. What are the main problems for the key statistics related to the IT applications?</p> <p>.....</p> <p>.....</p> | |

Place for comments concerning the IT conditions:

12. MANAGEMENT, PLANNING AND LEGISLATION

This section includes a few management related issues to assess how work is organised internally in the unit and in relation to other units in your organisation and a few questions on legislation to assess some important aspects in this area.

| | |
|---|---|
| <p>12.1. Is there backup staff for all important stages of statistical production process?</p> <p>Comments</p> <p>.....</p> <p>.....</p> | <p><input type="checkbox"/> Yes, for all important stages</p> <p><input type="checkbox"/> Yes, for certain important stages</p> <p><input type="checkbox"/> No</p> |
| <p>12.2. Is there a clear time schedule for the most important stages in the production process?</p> <p>If yes, has the time schedule always been kept and followed-up after the production during the last year?</p> <p>.....</p> <p>.....</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> |
| <p>12.3. What are the resources used for the statistics and its related output (key statistics) in terms of human and financial resources for the current year?</p> | |
| <p>12.4. What are usually the tasks that are outsourced into contracts (not related to a specific budget year)?</p> | <p><input type="checkbox"/> Production of publications</p> <p><input type="checkbox"/> Production of data</p> <p><input type="checkbox"/> Methodology work</p> <p><input type="checkbox"/> Evaluations/assessments of legislation</p> <p><input type="checkbox"/> Assistance to your own work</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Other (please specify)</p> |

Place for comments concerning management, planning and legislation:

13. STAFF, WORK SITUATION AND COMPETENCE

This section includes issues related to the available knowledge and competence of staff as well as on the working conditions for the unit.

13.1. Is the need for competency for the key statistics analysed at least once a year? Yes

No

If yes, do you compare the results of the analysis with the available competence?

Yes

No

If yes, are the results used as a basis for planning professional development?

Yes

No

Comments

.....
.....

| | |
|--|---|
| <p>13.2. How would you assess the relevance of the qualification of your staff? (Among others, relevance of academic degrees.)</p> | <p><input type="checkbox"/> Very high</p> <p><input type="checkbox"/> High</p> <p><input type="checkbox"/> Sufficient</p> <p><input type="checkbox"/> Poor</p> <p><input type="checkbox"/> Very poor</p> |
| <p>13.3. How do you enhance the professional level of staff? By encouraging them to ...</p> | <p><input type="checkbox"/> attend training courses</p> <p><input type="checkbox"/> do analytical work</p> <p><input type="checkbox"/> publish scientific papers</p> <p><input type="checkbox"/> participate in seminars and conferences</p> <p><input type="checkbox"/> other:</p> |
| <p>13.4. Are the training needs for the key statistics in general sufficiently covered?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> |
| <p>Comments</p> <p>.....</p> <p>.....</p> | |
| <p>13.5. Are the training needs for newcomers to the key statistics sufficiently covered?</p> | <p><input type="checkbox"/> Yes, both as far as the content and timing are concerned</p> <p><input type="checkbox"/> Yes but only as far as the content is concerned</p> <p><input type="checkbox"/> No</p> <p>Comments</p> <p>.....</p> <p>.....</p> |
| <p>13.6. Are the available resources sufficient to carry out the work (human and financial)?</p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> No</p> |

Comments

.....
.....

13.7. Are you satisfied with the working conditions such as office space, office location, available equipment, etc.?

Yes

Partly

No

Comments

.....
.....

13.8. What are the most difficult problems in relation to the working conditions and the staff linked to the key statistics?

.....
.....

Place for comments concerning staff, work situation and competence:

Please use the "Summary Assessment Report" in Annex 1 to describe the principal strengths and weaknesses!

14. COMMENTS ON THE CHECKLIST AND FINAL QUESTIONS

14.1. How long did you take to fill in this questionnaire?

< 2 hours

2 - 4 hours

4 hours – 1 day

1 –2 days

> 2 days: Days

14.2. Please give your suggestions for improving this assessment checklist.

Summary Assessment Report

ANNEX 1.

Organization:

Theme/domain:

| | Principal strengths | Principal weaknesses | Recommendations regarding improvement | | | |
|--|---------------------|----------------------|---------------------------------------|-----------|-----------------------|---------------------|
| | | | Action | Ownership | Timeline ⁴ | Status ⁵ |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

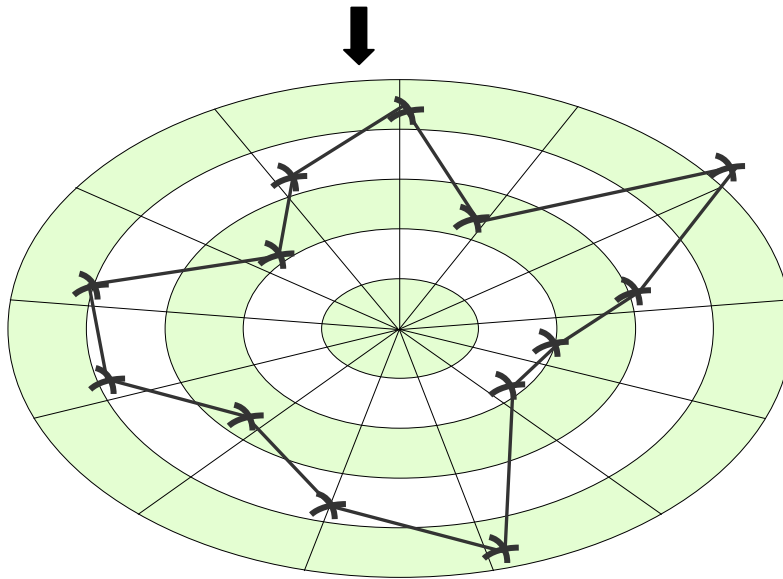
⁴ Implementation is foreseen in: short-term – within 6 months; medium-term – within over 6 months and 2 years; long-term – within over 2 years

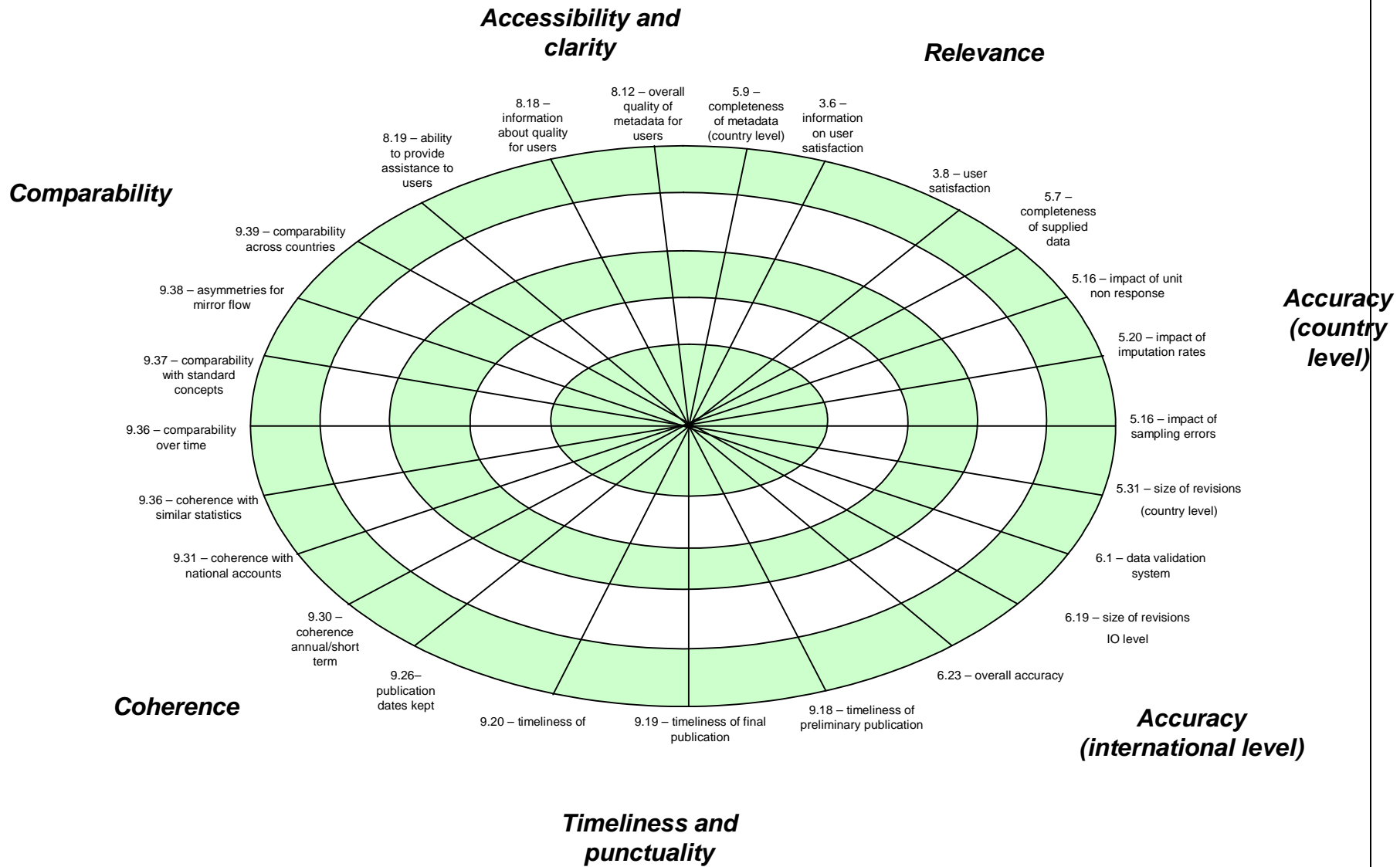
⁵ Already implemented; planned for implementation; not planned for implementation

ANNEX 2.

The assessment diagram

The answers for the assessment questions are numbered and the equivalent numbers can be found in the diagram on the next page. Make a cross in the diagram at the number according to the score (1-5) for the respective question. When the questions are completed the crosses can be combined by a line. The area which comes out by doing so reflects the quality profile of the statistics (see example below).





GLOSSARY

| | |
|--|--|
| Accessibility | Accessibility refers to the physical conditions in which users can obtain data: where to go, how to order, delivery time, clear pricing policy, convenient marketing conditions (copyright, etc.), availability of micro or macro data, various formats (paper, files, CD-ROM, Internet...), etc. |
| Accuracy | Accuracy in the general statistical sense denotes the closeness of computations or estimates to the exact or true values. |
| ARGUS | Two software packages for Statistical Disclosure Control are called Argus. μ -Argus is a specialized software tool for the protection of microdata. T Argus is a specialized software tool for the protection of tabular data. t-Argus is intended for producing safe tables. |
| CIF software | Software developed for Eurostat for Disclosure Control of Tabular Data. This tool is based on the engines GHQUAR and GHMITER developed by the Landesamt für Datenverarbeitung und Statistik Nordrhein-Westfalen. |
| Clarity | Clarity refers to the data's information environment whether data are accompanied with appropriate metadata, illustrations such as graphs and maps, whether information on their quality also available (including limitation in use...) and the extent to which additional assistance is provided by the NSI. |
| Coherence | Coherence of statistics is their adequacy to be reliably combined in different ways and for various uses. It is, however, generally easier to show cases of incoherence than to prove coherence. When originating from a single source, statistics are normally coherent in the sense that elementary results derived from the concerned survey can be reliably combined in numerous ways to produce more complex results. When originating from different sources, and in particular from statistical surveys of different nature and/or frequencies, statistics may not be completely coherent in the sense that they may be based on different approaches, classifications and methodological standards. Conveying neighbouring results, they may also convey not completely coherent messages, the possible effects of which, users should be clearly informed of. |
| Coefficient of variation | A measure of spread for a set of data defined as the ratio of the standard deviation to the mean. |
| Comparability | Comparability is the extent to which differences between statistics from different geographical areas, non-geographical domains, or over time, can be attributed to differences between the true values of the statistics. |
| Completeness | Completeness is the extent to which all statistics that are needed are available. It is usually described as a measure of the amount of available data from a statistical system compared to the amount that was expected to be obtained. |
| Data Quality Assessment Framework (DQAF) | The International Monetary Fund's Data Quality Assessment Framework (DQAF). The DQAF provides a structure for assessing data quality by comparing country statistical practices with best practices, including internationally accepted methodologies. It focuses on the quality-related features of governance of statistical systems, core statistical processes, and statistical products. The DQAF has a cascading structure, moving from the dimensions common to all datasets, to the more detailed aspects appropriate to individual datasets in the dataset-specific DQAF's. <u>Ref.:</u> http://www.imf.org/external/np/sta/dsbb/2003/eng/dqaf.htm#II |
| Editing | The application of checks that identify missing, invalid or inconsistent entries or that point to data records that are potentially in error. |

| | |
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| Error | In general, a mistake or error in the colloquial sense. There may, for example, be a gross error or avoidable mistake; an error of reference, when data concerning one phenomenon are attributed to another; copying errors; an error of interpretation. In a more limited sense the word error is used in statistics to denote the difference between an occurring value and its true or expected value. There is here no imputation of mistakes on the part of a human agent; the deviation is a chance effect. In this sense we have, for example, errors of observations, errors in equations, errors of the first and second kinds in the testing hypothesis, and the error band surrounding an estimate; and also the Normal curve of errors itself. |
| Estimate | In the strict sense an estimate is the particular value yielded by an estimator in a given set of circumstances. |
| Estimator | An estimator is a rule or method of estimating a constant of a population. It is usually expressed as a function of sample values and hence is a variable whose distribution is of great importance in assessing the reliability of the estimate to which it leads. |
| European Statistics Code of Practice | The European Statistics Code of Practice sets out 15 key principles for the production and dissemination of European official statistics and the institutional environment under which national and Community statistical authorities operate. A set of indicators of good practice for each of the 15 principles provides a reference for reviewing the implementation of the Code. http://europa.eu.int/comm/eurostat/quality |
| Imputation | Imputation is the process used to resolve problems of missing, invalid or inconsistent responses identified during editing. This is done by changing some of the responses or missing values on the record being edited to ensure that a plausible, internally coherent record is created. |
| Item non-response | Item non-response occurs when a respondent provides some, but not all, of the requested information, or if the reported information is not usable. |
| Item response rate | The item response rate is the ratio of the number of eligible units responding to an item to the number of responding units eligible to have responded to the item. |
| Metadata | Data that defines and describes other data. |
| Micro aggregation | Records are grouped based on a proximity measure of all variables of interest, and the same small groups of records are used in calculating aggregates for those variables. |
| Non response | Non response is a form of non observation present in most surveys. Non response means failure to obtain a measurement on one or more study variables for one or more elements k selected for the survey. The term encompasses a wide variety of reasons for non observation: "impossible to contact", "not at home", "unable to answer", "incapacity", "hard core refusal", "inaccessible", "unreturned questionnaire", and others. In the first two cases contact with the selected element is never established. |
| Non response error | Non response errors, which occur when the survey fails to get a response to one, or possibly all, of the questions. Non response causes both an increase in variance, due to the decrease in the effective sample size and/or due to the use of imputation, and may cause a bias if the non-respondents and respondents differ with respect to the characteristic of interest. |
| Non sampling error | An error in sample estimates which cannot be attributed to sampling fluctuations. Such errors may arise from many different sources such as defects in the frame, faulty demarcation of sample units, defects in the selection of sample units, mistakes in the collection of data due to personal variations or misunderstandings or bias or negligence or dishonesty on the part of the investigator or of the interviewee, mistakes at the stage of the processing of the data, etc. |

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| Out of scope units | Units that should not be included in the sampling frame because they do not belong to the target population in the reference period. If enumerated, they cause over-coverage. |
| Over-coverage | Over-coverage arises from the presence of units in the frame not belonging to the target population or appearing in the frame more than once. |
| Population | Population is the total membership or population or “universe” of a defined class of people, objects or events. There are two types of population, viz., target population and survey population. A target population is the population outlined in the survey objects about which information is to be sought and a survey population is the population from which information can be obtained in the survey. The target population is also known as the scope of the survey and the survey population is also known as the coverage of the survey. For administrative records the corresponding populations are: the “target” population as defined by the relevant legislation and regulations, and the actual “client population”. |
| Processing error | Once data have been collected, they pass through a range of processes before the final estimates are produced: coding, keying, editing, weighting, tabulating, etc. Errors introduced at these stages are called processing errors. |
| Punctuality | Punctuality refers to the time lag existing between the actual delivery date of data and the target date when it should have been delivered, for instance, with reference to dates announced in some official release calendar, laid down by regulations or previously agreed among partners. |
| Quality control survey | A replicated survey carried out on a small scale by very experienced staff in order to obtain some “zero-default” results with which the actual results of the survey can be compared. |
| Quality index | A one-dimension synthetic information on quality, possibly calculated as a weighted mean of all available quality indicators. |
| Reference period (reference time) | The period of time for which data are collected. |
| Refusal rate | In the sampling of human populations, the proportion of individuals who, through successfully contacted, refuse to give the information sought. The proportion is usually and preferably calculated by dividing the number of refusals by the total number of the sample which it was originally desired to achieve. |
| Register | (Administrative) Registers are a sub-group of → administrative records. If an administrative record consists of unit-level data, it can be called a register. Administrative registers come from administrative sources and become statistical registers after passing through statistical processing in order to make it fit for statistical purposes (production of register based statistics, frame creation, etc.) |
| Relative standard error | The relative standard error (RSE) is a measure of an estimate’s reliability. The RSE of an estimate is obtained by dividing the standard error of the estimate (SE(r)) by the estimate itself (r). This quantity is expressed as a percent of the estimate and is calculated as follows: $RSE=100 \times (SE(r)/r)$. |
| Relevance | Relevance is the degree to which statistics meet current and potential users’ needs. It refers to whether all statistics that are needed are produced and the extent to which concepts used (definitions, classifications etc.) reflect user needs. |
| Revisions | Revisions are the closeness of the initial estimated value(s) to the subsequent estimated values. The size and direction of revisions can be measured in different ways. |

| | |
|---|---|
| Re-weighting | Re-weighting consists of raising the original weights for the respondent values when estimates are computed. Re-weighting concerns mainly unit non-response. It may also be used to increase precision through the use of auxiliary information. Standard methods include post-stratification, calibration and response propensity modelling. |
| Sampling error | The part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a sample of values is observed; as distinct from errors due to imperfect selection, bias in response or estimation, errors of observation and recording, etc. |
| Special Data Dissemination Standard (SDDS) | "Special Data Dissemination Standard". The SDDS was established by the International Monetary Fund (IMF) to guide members that have, or that might seek, access to international capital markets in the provision of their economic and financial data to the public. |
| Statistical Data and Metadata Exchange (SDMX) | SDMX is an initiative sponsored by BIS, ECB, Eurostat, IMF, OECD, UN and the World Bank to foster standards for the exchange of statistical information. Ref.: http://www.sdmx.org |
| SDMX Technical Standards | SDMX Technical Standards Version 2.0 provides the technical specifications for the exchange of data and metadata based on a common information model. Ref.: http://www.sdmx.org |
| Standard error | The positive square root of the variance of the sampling distribution of a statistic. |
| Statistical characteristics | A numerical value (like turnover, average income) defined by a statistical measure that is used to summarise the values for a specific quantitative variable (like turnover, disposable income) for all statistical units in a specific group. |
| Statistical measure | A summary of the individual quantitative variable values for the statistical units in a specific group (study domains). |
| Statistical unit | An object of a statistical survey and the bearer of statistical characteristics. The statistical unit is the basic unit of statistical observation within a statistical survey. |
| Statistics | Statistics, i.g. estimates of statistical characteristics. Such characteristics refer to specific "theoretical" (even called "true") values. A statistical survey is conducted in order to collect information about the values for one or more of the statistical characteristics for a specific population and normally also for different domains of the population. In practice, the "true" values can't be achieved since surveys are subject to various kinds of disturbance. |
| Study domains | Statistics are presented for different sub-groups of the population, so called study domains. These study domains are usually defined according to some classification (e.g. territorial units, economic activity etc.) |
| Survey design (Sampling plan Sample design) | Survey design defines the fixed properties of the data collection over all possible implementations within a fixed measurement environment. The usage is not uniform as regards the precise meaning of this and similar terms like "sample plan," "survey design," "sample plan" or "sampling design." These cover one or more parts constituting the entire planning of a (sample) survey inclusive of processing, etc. The term "sampling plan" may be restricted to mean all steps taken in selecting the sample; the term "sample design" may cover in addition the method of estimation; and "survey design" may cover also other aspects of the survey, e.g. choice and training of interviewers, tabulation plans, etc. "Sample design" is sometimes used in a clearly defined sense, with reference to a given frame, as the set of rules or specifications for the drawing of a sample in an unequivocal manner. |
| Tabular protection | Protection of aggregate information of individual entities. |

| | |
|--|--|
| Target population | The target population is the population we wish to study, that is, the set of elements about which estimates are required. |
| Timeliness | Timeliness of information reflects the length of time between its availability and the event or phenomenon it describes. |
| True value | The actual population value that would be obtained with perfect measuring instruments and without committing any error of any type, both in collecting the primary data and in carrying out mathematical operations. |
| UN Fundamental Principles of Official Statistics | The UN Fundamental Principles of Official Statistics - a set of principles for statistical agencies stating that official statistics should be produced according to strictly professional considerations, including scientific principles and professional ethics. Further, the principles also state that statistical information should be presented according to scientific standards, individual data must be strictly confidential and laws under which statistical systems operate are to be made public. In addition, they state that coordination between statistical agencies within countries was essential, the use of international concepts promoted consistency and efficiency of statistical systems at all official levels, and bilateral and multilateral cooperation contributed to improvement of systems of official statistics in all countries. Ref.: http://unstats.un.org/unsd/default.htm |
| Under-coverage | Under-coverage results from the omission of units from the frame belonging to the target population. |
| Unit non response | Unit non response is a complete failure to obtain data from a sample unit. |
| Unit response rate | The ratio, expressed in percentage of the number of interviews to the number of eligible units in the sample. The weighted response rate calculates the ratio using the inverse probability of inclusion in the sample as a weight for each unit. In some occasions a value that reflects the importance of the unit is also used as a weighting factor (like size of workforce for establishments). |
| User Satisfaction survey | A statistical survey aiming to assess the satisfaction of users of statistics. |
| Validation | The method of detecting errors resulting from data collection. |
| Variance | Variance estimation provides a measure of the quality of estimates, is used in the computation of confidence intervals and helps draw accurate conclusions. The sampling variance is one of the key indicators of the quality in sample surveys and estimation. Sampling variance helps the user to draw better conclusions about the statistics produced, and it is also important information for the design and estimation phases of surveys. |