



Essential Statistical Assets for Australia

INVESTING IN THE INFORMATION THAT COUNTS MOST

Quality Standards for ESA Datasets Reference Guide

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**National
Statistical
Service**

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INTRODUCTION

The quality assessment process of the Essential Statistical Assets (ESA) initiative produced quality assessments for 71 of the 74 essential statistics on the [2013 ESA list](#) (three were data gaps and could not be assessed), based on quality information supplied about contributing datasets. The ESA quality assessments were high level, overarching indicators of quality, using a traffic light system to display the results. Where an essential statistic was informed by multiple datasets, a scoring process was applied to each individual dataset, which was then combined to produce an overall assessment for each essential statistic.

This reference guide provides details about the quality standards applied to each question in the ESA quality assessment tool and how each question had been assessed for the purpose of ESA. It was designed to assist data custodians in interpreting the scoring approach in the ESA quality assessment tool. Quality was a fitness for purpose concept and these standards have been set for the purpose of ESA.

Data custodians received a quality assessment tool for individual datasets which contained an indication of how well each question met quality standards for the purpose of ESA. Responses to each question were colour coded to reflect how each response had been scored:

- **Green:** *The response had been assessed as meeting an acceptable standard for the purpose of ESA for Australia.*
- **Orange:** *The response had been assessed as not meeting an acceptable standard for the purpose of ESA for Australia as a whole, but there were some aspects that don't or there were mitigating circumstances.*
- **Red:** *The response had been assessed as not meeting an acceptable standard for the purposes of ESA for Australia.*

The response options for some questions have been deemed to either meet quality standards or not meet them. In this case, there was no orange scoring option. Questions with responses marked as 'not applicable' have not been scored. In addition, questions were appended with a double-asterisk where the response had been assessed as red and with a single asterisk following the question where responses were assessed as orange to support readers with colour vision-impairment.

SECTION 1: SUMMARY INFORMATION

Information provided in the summary information section does not contribute to the quality assessments and was provided for contextual information only.

SECTION 2: RELEVANCE

The relevance section focused on the degree to which the dataset produced information relevant to the essential statistics to which they contributed. The quality assessment tool was designed to measure how and if datasets captured the critical elements of each essential statistic to which they contribute. This included whether they met specific disaggregations identified in the revised 2013 ESA list. Also of importance in this section was whether standard classifications were used. Data did not have to be published or be publicly available, but should have been able to be output for the dataset if requested.

Question 5

Does this dataset include information on the following? (multi-part question)

Question scored only for the essential statistic, not for individual datasets

Individual dataset scores for Question 5 were not supplied as this question was scored for the essential statistic as a whole.

This series of questions collected information specific to the description of the essential statistic(s) to which the dataset contributed. Where multiple datasets exist for an essential statistic, only one dataset needed to provide information on each aspect of that statistic, in recognition of the fact that not all aspects of a statistic can necessarily be derived from a single dataset source. An example of where this information was drawn from is provided below:

ID #	Pillar	Dimension	Essential statistics	Description	Datasets and Data custodians
ESA-645	Society	Education and training	Literacy and numeracy	Includes statistics on the attainment of literacy and numeracy skills by various sub-groups of the population (including children and adults).	<ul style="list-style-type: none"> National Assessment Program - Literacy and Numeracy (ACARA) Programme for the International Assessment of Adult Competencies (ABS) Programme for International Student Assessment (ACER)

Question 6

What is the smallest Australian Statistical Geographical Standard (ASGS) geographical level able to be output for the data?

- a) *Is this dataset able to be output at various spatial disaggregations? (multi-part question for each spatial disaggregation)*
- x) *What other geographical disaggregations are able to be output for the data? (second last component of Question 6)*
- y) *Is the data geocoded? (last component of Question 6)*

Scoring for responses to Question 6

- **Green** – Response to the question **met or was lower than** the lowest ASGS level specified as a critical disaggregation for the statistic to which the dataset contributed. For example, if national, state/territory, SA4 and SA3 were identified as critical spatial disaggregations for the statistic and the dataset could be output SA3 or lower, the dataset was scored green.
- **Orange** – Response to the question **met one or more, but not all** of the ASGS levels specified as a critical disaggregation for the statistic to which the dataset contributed. For example, if national, state/territory, SA4 and SA3 were identified as critical spatial disaggregations for the statistic and the dataset could output SA4, state/territory and national levels, the dataset was

scored orange.

- **Red** – Response to the question **did not meet any** of the ASGS levels specified as a critical disaggregation for the statistic to which the dataset contributed. The dataset was not penalised if it did not use ASGS if SA4, SA3, SA2 or SA1 were not identified as critical spatial disaggregations.

Scoring for responses to Question 6a onwards

- **Green** – Response to the question was ‘**Yes**’, the specified geographical classification was available for the dataset and national or international standards were used.
- **Orange** – Response to the question was ‘**Partially**’ or if the geographical classification was available but national or international standards were not used. ‘Partially’ may also indicate a geographical standard was used, but total coverage of Australia was not available.
- **Red** – Response to the question was ‘**No**’, which indicates the geographical classification was not collected or was of insufficient quality to be output for the dataset.

Questions not scored: 6x and 6y

These questions collected information for contextual purposes only. The responses to these questions may be able to inform any underutilisation of spatial disaggregations.

This series of questions collected information specific to the critical spatial disaggregation(s) identified in the revised 2013 ESA list for the essential statistic(s) the dataset contributed to, including the smallest level of the ASGS for which the dataset can be output. All datasets which contributed to the statistic were expected to be able to output data at the identified levels, as the ESA list does not separately specify the need for different disaggregations for different elements of the statistic.

Please note that all datasets were asked about the smallest ASGS level available as this was being promoted as a suggested standard for spatial disaggregations of statistical data. However, datasets were only expected to output to an ASGS geographical level if it was identified as a critical spatial disaggregation for the statistic(s) to which the dataset contributed. An example of critical spatial information is provided below:

Critical frequency	Critical spatial	Critical disaggregation
Quarterly	<u>National,</u> <u>state/</u> <u>territory,</u> <u>remoteness,</u> <u>GCCSA, LGA,</u> <u>SA4, SA3,</u> <u>SA2</u>	Age, sex, Indigenous status

Question 7

Are the following common disaggregations listed below able to be output for the dataset? (multi-part question)

- How is age collected for output?*
- How is sex collected for output?*
- How is Indigenous status collected for output?*

- d) *How is labour force status collected for output?*
- e) *How is industry able to be output?*
- f) *How is institutional sector able to be output?*

Scoring for responses to question 7a (Age)

- **Green** – Response to question was ‘**Date of birth**’ or ‘**Year of birth/age last birthday/current age**’, indicating that age was collected in single years from the respondent (regardless of how it was output).
- **Orange** – Response to question was ‘**Aggregated groups**’ or ‘**Other**’, indicating age was collected, but not in single years. This may include five year groups or other aggregate forms.
- **Red** – Response to question was ‘**Not obtained**’, indicating age was not collected or the response was ‘**Other**,’ but did not meet ESA quality standards.

Scoring for responses to question 7b (Sex)

- **Green** – Response to question was ‘**Male/Female**’ or ‘**Other**’ which may indicate an additional category (for example, intersex or other).
- **Red** – Response to question was ‘**Not obtained**’ or ‘**Other**’ which indicates sex was either not collected or not obtained in a standard format.

Scoring for responses to question 7c (Indigenous Status)

- **Green** – Response to question was ‘**Self-identified, standard question wording**’, indicating the respondent personally selected the response and the question and responses were worded in a standard form.
- **Orange** – Response to question was ‘**Self-identified, non-standard question wording**’ or ‘**Observed (with comments)**’, indicating the respondent personally selected the response, but the question and responses were *not* worded in a standard form or where it was not appropriate for the person to respond themselves (for example, births data), the question was not asked of the respondent’s next of kin.
- **Red** – Response to question was ‘**Observed**’ or ‘**Not obtained**’, indicating either Indigenous status was not collected or collected through a third-party or by observational means.

Scoring for responses to question 7d-7f (Labour Force Status, Industry, Institutional Sector)

- **Green** – Response to question was ‘**Using standard classification**’, indicating that a standard classification was used to categorise responses or records, either during collection or processing.
- **Orange** – Response to question was ‘**Using non-standard classification**’, indicating that the specified information was collected, but was not categorised using a standard classification.
- **Red** – Response to question was ‘**Not obtained**’, indicating that the specified information was not collected.

This series of questions collected information specific to the most common critical disaggregations identified in the revised 2013 ESA list for the essential statistic(s) to which the dataset contributed. Not all of the common disaggregations listed above were relevant to all essential statistics. All datasets which contribute to the statistic were expected to be able to output data for the identified disaggregations, as the ESA list does not separately specify the need for different disaggregations for different elements of the statistic. An example of the disaggregation information is provided below:

Critical frequency	Critical spatial	Critical disaggregation
Quarterly	National, state/territory, remoteness, GCCSA, LGA, SA4, SA3, SA2	<u>Age, sex, Indigenous status</u>

Note – not all common critical disaggregations were relevant to each dataset.

Question 8

Are the following disaggregations listed below able to be output for the dataset? (multi-part question)

- x) Please specify any other important/distinct disaggregations for this dataset (last component of Question 8).

Scoring for responses to components of Question 8

- **Green** – Response to question was ‘Yes’, indicating that the specified information was collected and able to be output for the dataset (for example, with adequate levels of sampling error or without confidentiality restrictions). International or national standards were also used.
- **Orange** – Response to question was ‘Partially’, which may indicate only some of the specified information was available for output or national or international standards were not used.
- **Red** – Response to question was ‘No’, indicating that the specified information was not able to be output for the dataset, either because it was not collected, or it was collected but output was restricted.

Question not scored: 8x

This question collected information for contextual purposes only. The responses to this question may be able to provide information of any underutilisation of the dataset disaggregations.

This series of questions collected information specific to all other critical disaggregations identified in the revised2013 ESA list for the essential statistic(s) to which the dataset contributed (other than those identified in Question 7). All datasets which contribute to the statistic were expected to be able to output data for the identified disaggregations, as the ESA list does not separately specify the need for different disaggregations for different elements of the statistic. An example of the disaggregation information is provided below:

Critical frequency	Critical spatial	Critical disaggregation
Annually	National, state/territory, LGA, SA4	<u>Age, sex, Indigenous status, school characteristics, school year level, socioeconomic status</u>

Question 9

What are the common questions or topics highlighted by users that the dataset currently doesn't cover?

Question not scored

This question collected information for contextual purposes only. The responses to this question may be able to provide information of any underutilisation of the dataset disaggregations.

SECTION 3: TIMELINESS

This section collected information about the currency and availability of the data, such as the delay between the reference period, when the data became available and the delay between the advertised date and the release date. The revised 2013 ESA list identified a critical frequency for the availability of data for each essential statistic set by user demand and part of this section assessed the ability of the dataset to meet this requirement. An example of critical frequency information is provided below:

Critical frequency	Critical spatial	Critical disaggregation
<u>Quarterly</u>	National, state/territory, remoteness, GCCSA, LGA, SA4, SA3, SA2	Age, sex, Indigenous status

Question 10 – Survey datasets

In the last three releases, what was the greatest period from the end of the reference period to the release of the data?

Scoring for responses to Question 10 – Survey

- **Green** – The greatest period between collection and release of data in the last three releases was equal to, or less than, the maximum acceptable delay, as outlined in Table 1.
- **Red** – The greatest period between collection and release of data in the last three releases exceeded the maximum acceptable delay, as outlined in Table 1.

This question referred to the time lag between the reference period and when the data actually became available. Lengthy delays between the reference period and data availability can have implications for the currency or reliability of the data. Table 1 shows the accepted delay between the reference period and data availability based on the actual frequency of data releases (as answered in Question 11), for the purpose of ESA. It was derived based on how quickly data was likely to become less current to real-time conditions and datasets may have been penalised if the period of delay exceeded the accepted delay.

Table 1 – Maximum Acceptable Delay for Datasets (Survey and/or Administrative)

Frequency of the dataset (per Q 11)	Maximum acceptable delay
More frequent than monthly	Less than one week
	One week to one month
Monthly	One month to three months
Quarterly	Three months to six months
Six-monthly	
Annually (Calendar)	Six months to nine months
Annually (Financial)	
Annually (Other)	
Biennially	Nine months to twelve months
Less frequent than biennial	
Other	Depends on response
Any frequency	Twelve months or greater – unacceptable delay, scored negatively

Question 10 – Administrative datasets

Is there a delay between when the administrative data was collected and when it is available for use for statistical purposes?

a) If yes, what is the standard period of the delay?

Scoring for responses to Question 10a - Administrative

- **Green** – The greatest period between collection and release of data in the last three releases was equal to, or less than, the maximum acceptable delay, as outlined in Table 1.
- **Red** – The greatest period between collection and release of data in the last three releases exceeds the maximum acceptable delay, as outlined in Table 1.

Question not scored: 10

This question collected information for contextual purposes only.

Question 10 and 10a sought information about the timeliness of administrative data being available for statistical purposes. Lengthy delays between the collection of data and when it was available for statistical analysis can have implications for the currency or reliability of the data. Table 1 shows the accepted delay between the reference period and data availability based on the actual frequency of data releases (as answered in Question 11), for the purposes of ESA. It was derived based on how quickly data was likely to become less current to real-time conditions and datasets may have been penalised if the period of delay exceeded the accepted delay.

Question 11

What is the frequency of the release of publicly available data?

Scoring for responses to Question 11

- **Green** – Any frequency of public release that was the same or more frequent than the critical frequency for the essential statistic to which the dataset contributed.
- **Red** – Any frequency of public release less than the critical frequency for the essential statistic to which the dataset contributed.

This question collected information on the availability of data in terms of the frequency of release of publicly available data. Datasets were expected to release publicly available data at the critical frequency specified in the ESA list for the essential statistic(s) that the dataset contributed to, as decision makers and other users of the data rely on information with this periodicity. All datasets which contributed to the statistic were expected to be able to output data within these time boundaries, as the list did not separately specify the need for different frequencies for different elements of the statistic.

Question 12

Generally, are users able to access the release of new data when they expect it to be released?

Scoring for responses to Question 12

- **Green** – Response to the question was ‘**Yes**’, indicating that there was an advertised release date (either publicly announced or communicated directly to users) and there were no delays in the release of data.
- **Orange** – Response to the question was ‘**Partially**’, which may indicate that there have only been minor delays.
- **Red** – Response to the question was ‘**No**’ or ‘**Not applicable**’, indicating that there were delays in the release of data or there was no advertised release date or deadline.

This question focused on the reliability with which users of the data can expect to gain access to the required information. Delays between the advertised date of release and actual date of release can also have implications for the currency of data and impact on timely use and analysis of statistics in the community. For the purpose of ESA, it was expected that data should be available when it was expected by users, which includes communicating in some way to users an expected release date. Staged releases or preliminary data were considered according to the information required for the essential statistic.

SECTION 4: COHERENCE

This section collected information about the degree to which the contributing datasets used consistent concepts and could therefore be compared over time or with other datasets. It is important to note that coherence does not necessarily imply full numerical consistency, rather consistency in methods and collection standards.

Question 13 – Survey datasets

Are there multiple collection periods of this dataset?

- a) *If there are multiple collection periods, how many are there and for what reference periods?*

Scoring for responses to Question 13 and 13a – Survey

- **Green** – The response was ‘Yes’ to Question 13 and there were three or more collection periods identified in Question 13a, indicating that there was data for multiple points in time.
- **Orange** – The response was ‘Yes’ or ‘Partially’ to Question 13 and two collection periods identified in Question 13a, indicating that data was available for only two points in time, irrespective of plans for future iterations.
- **Red** – The response was ‘No’ to Question 13, indicating that there was data for only one point in time, irrespective of plans for future iterations.

This question focused on the ability for users to compare data over time, which was an important consideration for ESA when assessing the impact of policy decision making and/or societal progress. The question established whether the dataset was ongoing or had been collected on a one-off basis. Subsequent questions collected information to assess comparability over the time series. As this was a point-in-time quality assessment, first iteration datasets with planned subsequent collection periods were not considered to have time series available and were marked red for this question.

Question 13 – Administrative datasets

What year did the collection of the records begin for their administrative purpose?

- a) *In what year did the administrative records commence being used for statistical purposes?*
 b) *How often is the data supplied to the receiving agency for statistical purposes?*

Scoring for responses to Question 13b - Administrative

- **Green** – There were two or more collection periods, irrespective of plans for future iterations.
- **Red** – There was only one collection period, irrespective of plans for future iterations.

Questions not scored: 13 and 13a

These questions collected information for contextual purposes and may be used to help determine scoring for Question 13b.

These questions were included to understand the time-series potential of the dataset. They also served to assess the timeliness with which the dataset was extracted for statistical purposes which establishes its reliability as an ongoing source of data for statistical purposes.

Question 14

Has the population remained consistent over time?

- a) *Have population characteristics and definitions remained consistent over time?*

Scoring for responses to Question 14

- **Green** – Response was ‘Yes’ or any changes identified were considered to have inconsequential/minimal impact, which indicated consistency of the population definition and scope over time.
- **Orange** – Response was ‘Partially’, which may have indicated that there were some changes over time likely to have impacted on the coherence of the dataset or mitigation strategies were implemented.
- **Red** – Response to question was ‘No’, or information provided suggests that there were significant changes over time that were not mitigated for, which indicated a changing population definition and scope over time.

Scoring for responses to Question 14a

- **Green** – Response was ‘Yes’ or any changes identified were considered to have had inconsequential/minimal impact, which indicated consistency of the population characteristics and definitions over time.
- **Orange** – Response was ‘Partially’, which may have indicated that there were some changes over time likely to have impacted on the coherence of the dataset or mitigation strategies were implemented.
- **Red** – Response to question was ‘No’, or information provided suggests that there were significant changes over time that were not been mitigated for, which indicates changing population characteristics and definitions over time.

Note – If the response to Question 13 was ‘No’, then these questions were not scored.

This question assessed how the comparison of data over time may have been limited by the impact of changes to the scope of the population for the dataset or how the population was defined. Even minor changes to the definition of the population or population characteristics may have impacted on coherence. Inconsistencies were scored based on the relationship to the essential statistic(s) to which the dataset contributed. For example, if Indigenous status was a critical disaggregation for the essential statistic and the population age in scope of the dataset changed over time, there may be implications for comparability given the high proportion of young Indigenous people in Australia. Standards or classifications may also be updated or revised over time which can cause a break in the time series. However, if strategies were in place to maintain consistency (for example, revisions or backcasting), this was taken into account for scoring.

Question 15

Have there been changes to the way in which the data was collected, which have impacted on data comparability over time?

Scoring for response to Question 15

- **Green** – Response to the question was ‘No’, indicating there had been no changes to data collection methods or changes had not impacted on comparability over time, for example, through methods such as backcasting.
- **Orange** – Response to the question was ‘Partially’, indicating that changes to collection methods over time had been minor and/or have had a minimal impact on comparability over time.
- **Red** – Response to the question was ‘Yes’, indicating that changes to the collection methods over time have impacted on data comparability over time.

Note – If the response to Question 13 was ‘No’, then this question was not scored.

This question aimed to understand changes to collection methodology or processes for the dataset that may have led to changes in accuracy and therefore impacted on comparability over time. Changes that improved accuracy or other dimensions of quality did not mitigate the impact on coherence and the assessment was based purely on the degree to which comparability was affected.

Question 16 – Administrative datasets

Where data is compiled from multiple sources (for example, state and territory bodies), are there any comparability issues with the data?

- a) *Are definitions for different population characteristics comparable across data sources?*
- b) *Are collection procedures comparable across data sources?*
- c) *Are the reference periods the same across data sources?*

Scoring for response to Question 16 – Administrative

- **Green** – Response to the question was ‘**No**’, indicating that data compiled from multiple sources was comparable, for example, using the same definitions, standards and classifications.
- **Orange** – Response to the question was ‘**Partially**’, indicating that data compiled from multiple sources had some minor comparability issues. For instance, a small number of, or a few elements within, the multiple sources did not align.
- **Red** – Response to the question was ‘**Yes**’, indicating that data compiled from multiple sources had comparability issues and sources may not have been able to be meaningfully combined.

Scoring for response to Question 16a – Administrative

- **Green** – Response to the question was ‘**Yes**’, indicating that different sources collected the same population characteristics, using the same definitions and classifications.
- **Orange** – Response to the question was ‘**Partially**’, which may have indicated that all sources collected the same population characteristics, but using different definitions or classifications, or there were only minor differences between sources.
- **Red** – Response to the question was ‘**No**’, indicating that different sources did not collect the same population characteristics or they did so with significantly different definitions or classifications.

Scoring for response to Question 16b – Administrative

- **Green** – Response to the question was ‘**Yes**’, indicating that collection procedures were exactly the same across sources or were similar enough to be compared.
- **Orange** – Response to the question was ‘**Partially**’, which may have indicated that collection procedures were similar, but there were some comparability issues with a small number of the sources.
- **Red** – Response to the question was ‘**No**’, indicating that collection procedures varied widely across sources and could not be compared.

Scoring for response to Question 16c – Administrative

- **Green** – Response to the question was ‘**Yes**’, indicating that the same reference periods were used across sources.
- **Orange** – Response to the question was ‘**Partially**’, which may have indicated minor differences in reference periods for a small number of sources.
- **Red** – Response to the question was ‘**No**’, indicating that reference periods were significantly different for all sources.

If the administrative dataset was compiled from multiple sources this series of questions collected information on any differences between data sources that contributed to the dataset. If data sources were not comparable there have may been implications for the quality of the dataset, for example, where data was combined from sources using different definitions, standards, systems, procedures or reference periods to describe the same phenomena. Inconsistency between data sources may have impacted negatively on scores for these questions; however, if there were strategies in place to address comparability issues or the impact was considered small, this had been taken into account.

Question 17

Are there datasets which are similar to your dataset which are held by either your or another organisation?

- a) If yes, please briefly describe the datasets and which organisation holds them.*
- b) If you do not consider your dataset to be comparable to the other datasets you listed above, please briefly describe why.*

Scoring for responses to Question 17

- **Green** - Response to the question was 'Yes', indicating that there were other datasets covering similar subject matter held by the same or a different organisation. The dataset may or may not have been directly comparable.
- **Red** – Response to the question was 'No', indicating there were no other similar datasets in existence.

Questions not scored: 17a and 17b

These questions collected information for contextual purposes only.

These questions were seeking information about whether other similar sources of information existed, enabling some ability to validate the story being told by the data, or at least confront it against other sources. Datasets were not penalised in scoring if other datasets described were not considered numerically consistent, they only need to be similar in the nature of the field of statistics and measures being output to allow for some data confrontation.

SECTION 5: ACCURACY

This section gathered information about the degree to which the data accurately reflected the intended population. It also took into account what techniques organisations used to minimise error, as well as information on population coverage.

Question 18

Are there areas of the intended population (as identified in Section 1, Question 4) that are unaccounted for in the data collection?

a) If yes, please specify what areas of the intended population are unaccounted for.

Scoring for responses to Question 18

- **Green** - Response to the question was '**No**' which indicates that all areas of the *intended* population, as identified in Section 1, Question 4, were accounted for in the data collection.
- **Orange** - Response to the question was '**Partially**', which indicates that some areas of the intended population may have been unaccounted for and there was strong supporting evidence that this did not impact on the datasets ability to inform the statistic for any of the critical disaggregations identified.
- **Red** – Response to the question was '**Yes**' or '**Partially**' which indicates areas of the intended population were unaccounted for in the data collection and any supporting information did not provide strong evidence of mitigating circumstances.

Question not scored: 18a

This question collected information for contextual purposes and may have been used to help determine the scoring for Question 18.

This question aimed to determine if there were parts of the intended population which were unaccounted for in the data collection. The score was dependent on the extent that the unaccounted population impacted on the completeness of the information required for the essential statistic(s) to which the dataset contributed.

Question 19

Is there known undercounts or overcounts (admin)/underrepresentation or overrepresentation (survey) in the dataset post-processing?

a) If there are known undercounts or overcounts, what is being done to manage them?

Scoring for responses to Question 19

- **Green** – Response to the question was '**No**' which indicated that there were no known undercounts or overcounts (admin)/underrepresentation or over representation (survey) in the dataset post-processing and the dataset accurately reflected the population measured.
- **Orange** – Response to the question was '**Yes**' or '**Partially**', indicating that there were known undercounts or overcounts (admin)/underrepresentation or over representation (survey) post-processing but techniques were used to manage these as specified in Q19a.
- **Red** – Response to the question was '**Yes**', indicating that there were known undercounts or overcounts (admin)/underrepresentation or over representation (survey) post-processing and no techniques were used to manage the representation of the population as specified in Q19a.

Question not scored: 19a

This question collected information for contextual purposes and may have been used to help determine the scoring for Question 19.

This question sought to determine the accuracy with which the collection of data captured the intended population. For the purpose of ESA the optimum quality standard was where no duplication or missing values existed within the dataset for administrative datasets or the sample of a survey dataset accurately reflected the population it was measuring without under or over representing certain populations. However, where there were appropriate processes in place to manage overcounts and undercounts/underrepresentation or overrepresentation, the score may have been mitigated.

Question 20

What is the approximate rate of non-response or missing values for the dataset as a whole?

Question not scored

This question collected information for contextual purposes only.

The information collected from this question will be used to improve the understanding of the extent of non-response across governments and to determine benchmarks for future performance measures.

Question 21

Has the data been adjusted to account for non-response or missing values?

a) If so, what techniques were used?

Scoring for responses to Question 21

- **Green** - Response to the question was 'Yes', which indicates that data was adjusted to account for non-response or missing values using an appropriate technique (such as imputation) as specified in the response to Q21a.
- **Orange** - Response to the question was 'Partially' as some adjustments were made for non-response or missing values but not for all the data or not consistently as detailed in response to Q21a.
- **Red** - Response to the question was 'No', indicating that data was not adjusted to account for non-response or missing values.

Question not scored: 21a

This question collected information for contextual purposes and may have been used to help determine the scoring for Question 21.

This question investigated what mechanisms were in place to adjust data to compensate for gaps in the raw data received. Given that there will almost always be certain degrees of non-response or missing values, it was considered appropriate for data custodians to have a mitigation process in place to deal with missing data.

Question 22 – Survey datasets

What is the size of the sample of the final dataset?

Question not scored

This question collected information for contextual purposes only.

In many cases, in order for the dataset to give an accurate reflection of reality, the sample needed to be of significant size. Responses were used to develop a better understanding of the size of datasets

in existence across governments, and to determine benchmarks for future performance measures, relative to the size of the populations in question. It is acknowledged, however, that size was not the only reflection of accuracy for a sample.

Question 23 – Survey datasets

How is sampling error represented?

Scoring for responses to Question 23 – Survey

- **Green** – Response to the question was ‘**Standard Error**’, ‘**Relative Standard Error**’, ‘**Margin of Error**’, or ‘**Other**’ (depending on the extra information provided), indicating that sampling error was represented in some form for the dataset.
- **Red** – Response to the question was ‘**Not provided**’ which indicates that sampling error was not represented in any way for the dataset.

This question explored how sampling errors in survey datasets were reported for users. Communication of sampling error was critical as it provides transparency regarding accuracy of statistics and promotes informed use, analysis, and application of data.

Question 24 – Survey datasets

- Is sampling error published for individual figures?*
- Is sampling error information supplied in some other way?*
- If yes, please provide detail on how sampling error information is provided*

Scoring for responses to Question 24a – Survey

- **Green** – Response to the question was ‘**Yes**’, indicating that sampling error was published for individual figures, for example, all published tables of data had accompanying RSE tables.
- **Orange** – Response to the question was ‘**Partially**’ or ‘**No**’, indicating that sampling error was not published for individual figures but may have been provided in another way as specified in Question 24b and 24c. For example standard errors published for key indicators, or by using asterisks representing RSE’s between 25%-50% and 50% plus or sampling error available to be requested.
- **Red** – Response to the question was ‘**No**’ and ‘**No**’ to Question 24b, indicating that sampling error was not published for individual figures or published/provided in any other appropriate way.

Questions not scored: 24b and 24c

These questions collected information for contextual purposes. If sampling error was published for individual figures, responses were for information only. If sampling error was reported only partially for the dataset, then the responses may have been used to help determine the scoring for Question 24a.

It was expected that sampling error should be represented in some standard error or margin of error form, ideally for all individually published figures. If the response to Question 23 about how sampling error was represented was ‘Not provided’ then these questions were not applicable, but datasets would still have been penalised.

Question 22 – Administrative datasets

Approximately, how many records are currently within the collection?

Question not scored

This question collected information for contextual purposes only.

In order for the dataset to give an accurate reflection of reality, the collection needed to be of significant size. Responses were used to develop a better understanding of the size of datasets in existence across governments, and to determine benchmarks for future performance measures, relative to the size of the populations in question.

Question 23 – Administrative datasets

In the case where multiple records or duplications exist, is the information consistent for all fields?

Scoring for responses to Question 23 – Administrative

- **Green** – Response to the question was ‘**Yes**’, indicating that multiple or duplicate records contained the same information across fields.
- **Orange** – Response to the question was ‘**Partially**’, which may have indicated some information was not consistent for all fields where multiple or duplicate records existed.
- **Red** – Response to the question was ‘**No**’, indicating that information was inconsistent across all fields where multiple records or duplication existed.

Where there were multiple records or duplicate records within a collection, the quality concern was about whether the information for all fields was consistent. This was important to data quality as it ensured there were not overcounts in the collection and multiple or duplicate records for the same unique entity could be identified and matched up. If the information was not consistent between the records, it was expected that organisations should be able to seek further clarification from the data source to rectify the issue.

Question 24 – Administrative datasets

Does the accuracy of the records vary for different information collected?

- a) *Are there fields or information in the administrative dataset which are more relevant than others to the core business of the organisation producing the administrative records?*
- b) *Is there administrative information produced that is not used for statistical purposes?*
- c) *Are there fields or information in the dataset which are more relevant to the statistical purpose of the dataset, but not related to the core business of the organisation producing the administrative records?*

Scoring for responses to Question 24 – Administrative

- **Green** - Response to the question was ‘**No**’, indicating that the accuracy did not vary for different information collected in the administrative dataset.
- **Orange** - Response to the question was ‘**Partially**’ and may indicate that accuracy varied for some of the information collected in the administrative dataset which was not considered key information or there were processes in place to address inaccuracies.
- **Red** – Response to the question was ‘**Yes**’ indicating that accuracy did vary for key information and was not addressed.

Questions not scored: 24a, 24b and 24c

These questions collected information for contextual purposes only.

Question 24 captured where there were inconsistencies within administrative data collections for different fields of information. This can impact negatively on the overall quality of the data collection if certain key information fields were more or less accurate than others. If there were processes in place to help mitigate any inconsistencies, the score may have been altered.

The series of questions from 24a-24c aimed to identify where there may be any tensions between the purpose of the administrative collection, and the way the data was used for statistical output. Some fields of information may be less important for one purpose and more important for the other, which may cause a tension between the priorities of the dataset and impact on the quality of certain key fields of information. If the agency deploys significant training for staff about the statistical purpose of the data which they process, then this may help prevent quality issues arising at statistical output. For this reason, answers to these questions were also considered in tandem with responses to Q40a (refer to Section 8 – Institutional Environment).

SECTION 6: ACCESSIBILITY

The purpose of this section was to assess the freedom and convenience with which users can access data. This was measured by assessing the different types of formats statistical output was available in, and other indicators such as cost and restrictions on access.

Question 25

Is the data publicly available?

Scoring for responses to Question 25

- **Green** – Response to the question was ‘**Yes**’, indicating that aggregate data for key information was publicly available and easily accessible, for example, through a website or online database.
- **Orange** – Response to the question was ‘**Partially**’, indicating data may not be published but was publicly available by request.
- **Red** – Response to the question was ‘**No**’, data was not publicly available through any published means or by request.

This question considered the public accessibility of the statistical information available from the dataset. It was expected that aggregated data for key information relating to the essential statistic(s) the dataset contributed to should be publicly available (for example, through a website). It was expected that data should be able to be accessed freely and easily by the public.

Question 26

If so, in which of the following formats is aggregated data made publicly available?

- a) *Electronic format of unit record data manipulable in statistical programs/software (eg csv, SDMX, SPSS-syntax)*
- b) *Electronic format of aggregated data that allows some manipulation (eg Excel)*
- c) *Electronic publication format (for example, pdf, docx, html)*
- d) *Hardcopy publication*
- e) *Please state in which specific formats the data was available.*

Scoring for responses to Question 26a, 26b, 26c, 26d

- **Green** – Response to Questions 26a or 26b was ‘**Yes**’, regardless of responses to 26c or 26d, which indicates that there was some form of electronically manipulable data publicly available.
- **Orange** – Response to Questions 26c or 26d was ‘**Yes**’ and response to 26a and 26b was ‘**No**’, which indicates that there was no electronically manipulable format publicly available but there was an electronic publication or hardcopy publication available to the public.
- **Red** – Response to all questions was ‘**No**’, indicating that data was not made publicly available in any appropriate format.

Question not scored: 26e

This question collected information for contextual purposes and may be used to help determine the scoring for Question 26.

This series of questions collected information about the accessibility of the publicly available data. The responses for Questions 26a-26d were considered collectively in scoring the dataset. There was a greater emphasis on availability through electronic formats that enable data to be manipulated by users, as these formats provide users with greater flexibility and options for using the data for a variety of purposes.

Question 27

Are there illustrations of the data, such as graphs and maps?

Scoring for responses to Question 27

- **Green** – Response to the question was ‘**Yes**’, which indicates that illustrations of the data were used to enhance interpretation. This may have been through maps, graphs or other visualisation.
- **Orange** – Response to the question was ‘**Partially**’ which may indicate that some illustrations of the data were used but it was limited or not easily accessible to users.
- **Red** – Response to the question was ‘**No**’, indicating that illustrations of the data were not provided in any form.

This question sought information on what other dissemination options accompanied the release of the data. Data visualisation can clarify understanding of the data, enabling easier interpretation and improving accessibility of the data.

Question 28

Is the data available to other organisations for official purposes, other than through publicly available mechanisms?

- a) *If the data is available to other organisations for official purposes, what format/s is the data available?*

Scoring for responses to Question 28

- **Green** – Response to the question was ‘**Yes**’ or the response to Question 25 was ‘**Yes**’, indicating that data was available to other organisations either through a formal arrangement for official purposes or through publicly available mechanisms.
- **Orange** – Response to the question was ‘**Partially**’ and the response to Question 25 was ‘**No**’, indicating that data was not publicly available and was limited in provision to other organisations for official purposes.
- **Red** – Response to the question was ‘**No**’ and the response to Question 25 was ‘**No**’, indicating data was not publicly available or available to other organisations for official purposes.

Question not scored: 28a

This question collected information for contextual purposes and may have been used to help determine the scoring for Question 28.

This question aimed to understand how and if data was accessible for official purposes through mechanisms such as formal agreements or regular provision. Accessibility optimally involves public access to all data, however, where this was not the case, it was expected that access for official purposes was granted. The only situation where it was essential that there were arrangements in place with another organisation to make the data available to them, was when that data was not available through public mechanisms (for example, online or through a request system).

Question 29

Is the data accessible for free?

- a) *Are there situations where the data is provided for a cost?*

Scoring for responses to Question 29

- **Green** – Response to the Question was ‘**Yes**’, indicating that key aggregate data that was publicly available was accessible for free. Customised or other products may have also been available at a cost.
- **Orange** – Response to the Question was ‘**Partially**’, indicating that not all key aggregate data publicly available was free.
- **Red** – Response to the Question was ‘**No**’, aggregate data was not accessible for free.

Scoring for responses to Question 29a

- **Green** – Any response to this question and the response to Question 29 was ‘**Yes**’, indicating that key data was available for free and additional data may have been provided at a cost.
- **Orange** – Response to the question was ‘**Yes**’ or ‘**Partially**’ and the response to Question 29 was ‘**No**’, which indicates that data was not accessible for free but could have been provided for a cost.
- **Red** – Response to the question was ‘**No**’ and the response to Question 29 was ‘**No**’, indicating that data was not accessible for free or at a cost.

This question sought information on the ability of users to access information at no cost, as the imposition of charges to access information may restrict equitable access to information. Datasets were only penalised if no aggregated data was available free of charge. If key data was available online for free, and further customised data could have been requested for a fee, this was deemed to be adequate accessibility.

Question 30

Are there any restrictions limiting the availability of information from this dataset?

Question not scored

This question collected information for contextual purposes only.

Responses for this question were used to improve understanding of the types of restrictions that existed either for entire datasets and/or certain data items within them. There was a particular focus on understanding those restrictions *other* than for ensuring confidentiality. Confidentiality of data ensures the privacy of personal information and was generally a compulsory restriction (commonly by legislation) for nearly every dataset. As such, it was not considered a negative restriction.

SECTION 7: INTERPRETABILITY

This section assessed the transparency of the dataset, through the availability of information that might help provide an insight into the data and enable the information to be understood and utilised appropriately. This includes whether there was adequate metadata and information on the quality of figures available, as well as any restrictions for the use of figures described.

Question 31

Are any conceptual limitations for the use of the data described?

Scoring for responses to Question 31

- **Green** – Response to the question was ‘**Yes**’, indicating that most conceptual limitations for the use of the data were described to help users understand and use the data appropriately.
- **Orange** – Response to the question was ‘**Partially**’, indicating information was provided about some conceptual limitations for the use of the data.
- **Red** – Response to the question was ‘**No**’, indicating no description of the conceptual limitations for the use of the data was provided.

This question was included to determine if there was supporting information available to help users understand any conceptual limitations to the data. Explanations for terminology, concepts and changes in definitions are important to help users understand and utilise the data appropriately. It was expected that datasets have explanatory information for their dataset around conceptual limitations available for users.

Question 32

Is supporting information on the quality of the figures available?

Scoring for responses to Question 32

- **Green** – Response to the question was ‘**Yes**’, indicating that information was provided to help users understand the quality of the data and the statistical methods and processes used.
- **Orange** – Response to the question was ‘**Partially**’, indicating that some information was provided to help users understand the quality of the data and the statistical methods and processes used.
- **Red** – Response to the question was ‘**No**’, indicating that no information was provided to help users understand the quality of the data or the statistical methods and processes used.

This question sought to understand what supporting information was available to help users understand the quality of the data. It was expected that datasets provide quality information for users and were transparent about statistical methods and processes. The quality information did not have to be in the same format as the ABS Data Quality Framework, however, must have adequately described significant quality aspects in order to have met quality standards for ESA purposes.

Question 33

Is there other information available to help users better understand this data source?

Scoring for responses to Question 33

- **Green** – Response to the question was ‘**Yes**’, indicating other information, such as metadata, was provided to help users understand the context within which the data was collected.
- **Orange** – Response to the question was ‘**Partially**’, indicating some information, such as metadata, was provided to help users understand the context within which the data was collected.
- **Red** – Response to the question was ‘**No**’, indicating no information, such as metadata, was provided to help users understand the context within which the data was collected.

If there was a particular context that the data needs to be considered within, it was important users could find this information through appendices, explanatory notes, technical notes or other available information. This question also included the provision of metadata alongside the data, such as labels on graphs and tables, footnotes around caveats and definitions of concepts.

Question 34

Is there additional support available, to help users understand the data?

Scoring for responses to Question 34

- **Green** – Response to the question was ‘**Yes**’, indicating that specific contact information was provided for users to follow up with the data custodian about the specific dataset.
- **Orange** – Response to the question was ‘**Partially**’, indicating that generic contact information was provided for users to follow up with the data custodian that was unrelated to the specific dataset.
- **Red** – Response to the question was ‘**No**’, no contact information was provided for users to follow up with the data custodian.

This question aimed to determine what other resources beyond documentation was available to support users in understanding the data. It was expected that users could contact the agency to query any aspect of the dataset, or to request further information, as it is not possible to anticipate every possible use or query in relation to a dataset in documentation.

SECTION 8: INSTITUTIONAL ENVIRONMENT

The purpose of this section was to consider the institutional and organisational factors which may significantly influence the validity or reliability of the data produced by an organisation.

Question 35

What authority, legislation or agreement, if any, was the data collected under?

Question not scored

This question collected information for contextual purposes only.

The information provided will enable a broader assessment of the authoritative mechanisms currently utilised to support the collection of data and support consideration of options to streamline and enhance the consistency of these in the future.

Question 36

Is statistical confidentiality of data collected protected?

a) If so, under what authority or legislation?

Scoring for responses to Question 36

- **Green** – Response to the question was **'Yes'**, indicating that statistical confidentiality was always protected by legislation specific to that dataset or to protecting privacy.
- **Orange** – Response to the question was **'Partially'**, indicating that statistical confidentiality was mostly protected by legislation specific to that dataset or to protecting privacy. However, there were specific circumstances under which unconfidentialised data may be provided or shared.
- **Red** – Response to the question was **'No'**, indicating that statistical confidentiality was not protected by any legislation.

Question not scored: 36a

This question collected information for contextual purposes only. The response to this question may be able to clarify how statistical confidentiality was protected.

These questions sought information on how agencies complied if there was a need to protect confidentiality within datasets. Most data custodians were bound by the Privacy Act, or some such similar legislation, which would ensure data on individual statistical units were no longer identifiable. It was expected in most cases that there would be existing legal frameworks or privacy procedures which the agency follows.

Question 37

Does the organisation have quality management processes in place?

Scoring for responses to Question 37

- **Green** – Response to the question was **'Yes'**, indicating that organisations have processes in place to ensure the quality of the data they collected and the statistics they produce.
- **Orange** – Response to the question was **'Partially'**, indicating that organisations seek to ensure the quality of the data they collected and the statistics they produce, but this process was not formalised.
- **Red** – Response to the question was **'No'**, indicating the organisation had no mechanism in place and does not seek to ensure the quality of the data they collected or the statistics they produce.

This question sought information on what processes organisations had in place to ensure the quality of their data. It was expected that organisations had a specified validation procedure or set of protocols to ensure the overall quality of data.

Question 38

Does the organisation have risk management processes in place?

Scoring for responses to Question 38

- **Green** – Response to the question was ‘**Yes**’, indicating the agency had formal contingency plans in place to ensure the quality, security and safety of data in the event of an emergency.
- **Orange** – Response to the question was ‘**Partially**’, indicating the agency had informal contingency plans in place to ensure the quality, security and safety of data in the event of an emergency.
- **Red** – Response to the question was ‘**No**’, indicating the agency had no contingency plans in place to ensure the quality, security and safety of data in the event of an emergency.

This question was ascertaining if the agency had formal contingency plans in place to ensure the security and safety of data. Emergencies and unforeseen circumstances - both within and outside an agency’s control - can sometimes impact on the accuracy and availability of statistics, therefore it was important that appropriate response mechanisms exist if a situation arose which may place the quality of the data at risk.

Question 39

Does the organisation have a process for quickly dealing with identified errors in released data?

a) Are errors in publicly released data corrected and acknowledged?

Scoring for responses to Question 39

- **Green** – Response to the question was ‘**Yes**’, indicating the agency had documented response procedures in place for handling the discovery of errors in publicly released data.
- **Orange** – Response to the question was ‘**Partially**’, indicating the agency had informal response procedures in place for handling the discovery of errors in publicly released data.
- **Red** – Response to the question was ‘**No**’, indicating the agency had no response procedures in place for handling the discovery of errors in publicly released data.

Scoring for responses to Question 39a

- **Green** – Response to the question was ‘**Yes**’, indicating the agency had a documented process for acknowledging and correcting errors in publicly released data.
- **Orange** – Response to the question was ‘**Partially**’, indicating the agency had an informal process for acknowledging and correcting errors in publicly released data or that the agency corrects errors in publicly released data but does not publicise these corrections.
- **Red** – Response to this question was ‘**No**’, indicating the agency had no process for acknowledging and correcting errors in publicly released data.

This question collected information on whether the organisation responsible for publishing data had documented response procedures in place in case of errors being found in released data. The process of publicly correcting and acknowledging errors was the second element of this question and was important to ensure that procedures were transparent and data was accurate. Not all datasets will have had instances of errors being found in publicly released data, but it was expected the organisation would still have a procedure in place should this occur.

Question 40

Are the staff responsible for collection and processing of data provided with relevant training?

Scoring for responses to Question 40

- **Green** – Response to the question was ‘**Yes**’, indicating the agency provides staff with all relevant training for collection and processing of data.
- **Orange** – Response to the question was ‘**Partially**’, indicating the agency provides staff with some formal or ad hoc training for collection and processing of data.
- **Red** – Response to the question was ‘**No**’, indicating the agency provides staff with no training for collection and processing of data.

This question was about understanding the level of statistical training support given to staff responsible for the production of data. It was expected that where particular technical skills were not a prerequisite for employment at the agency responsible for processing data, that adequate on-the-job training was provided.

Question 40a – Administrative datasets

a) Are staff who compile the administrative records provided with relevant training about the statistical purpose, application and/or use of the administrative records?

Scoring for responses to Question 40a – Administrative

- **Green** – Response to the question was ‘**Yes**’, indicating the agency provided staff who compiled administrative records with all relevant training about the statistical purpose, application and/or use of those administrative records.
- **Orange** – Response to the question was ‘**Partially**’, indicating the agency provided staff who compiled administrative records with some formal or ad hoc training about the statistical purpose, application and/or use of those administrative records.
- **Red** – Response to the question was ‘**No**’, indicating the agency did not provide staff who compiled administrative records with any training about the statistical purpose, application and/or use of those administrative records.

This question aimed to ascertain if staff processing or compiling the administrative records understood both their day-to-day tasks, as well as having a broader knowledge of how the administrative records were used for statistical purposes. This may have included formal or on-the-job training provided to staff to educate them of the statistical purpose of the administrative data.

Question 41

Does the organisation have procedures for archiving and storage of the data?

Scoring for responses to Question 41

- **Green** – Response to the question was ‘**Yes**’, indicating that the agency had procedures for archiving and storage of data and that these were in line with their confidentiality responsibilities.
- **Orange** – Response to the question was ‘**Partially**’, indicating that the agency had some procedures for archiving and storage of data but these may or may not be in line with their confidentiality responsibilities.
- **Red** – Response to the question was ‘**No**’, indicating that the agency had no procedures for archiving and storage of data.

This question collected information on the processes for ensuring that data collected was retained for future use if required. It was expected that agencies responsible for output of statistics had procedures for archiving and storage of the data, and that these procedures were also in line with their confidentiality responsibilities.

Question 42

Are there any other quality measures, guidelines or processes that your organisation undertakes, which have not already been identified that you would like to specify?

Question not scored

This question collected information for contextual purposes only.

Responses were used to improve understanding of the types of quality measures and processes undertaken by agencies which could be shared in the future to improve data quality across government agencies.