

Title	Evaluate and use statistical information to make recommendations in a public sector or other policy context		
Level	5	Credits	10

Purpose	<p>This unit standard is designed for people employed in positions where they are required to interpret statistical data to make and/or report on recommendations.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – identify key components of a statistical analysis and interpret statistical findings based on summary statistical outputs; – assess and select relevant data sources to answer a specific policy question in a public sector or other policy context; – design and describe a data collection that can be used to answer a specific policy question in a public sector or other policy context; and – evaluate and use results from reports based on statistical information to make recommendations for a specific policy question in a public sector or other policy context.
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Classification	Public Sector Services > Public Sector Core Skills
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Available grade	Achieved
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Guidance Information

This unit standard was republished to reflect a correction made to the credit value from 8 credits to 10 credits.

- 1 References
- Human Rights Act 1993;
 - Income Tax Act 2007;
 - Local Government Official Information and Meetings Act 1987;
 - New Zealand Bill of Rights Act 1990;
 - Official Information Act 1982;
 - Protected Disclosures Act 2000;
 - Privacy Act 1993;
 - Public Finance Act 1989;
 - State Sector Act 1988;
 - Statistics Act 1975;
 - Information sharing agreements between government agencies and any other organisations;
 - Treaty of Waitangi/Te Tiriti o Waitangi;

United Nations Fundamental Principles of Official Statistics; and any relevant legislation applicable to specific government agencies and any other organisations whose employees are supplying evidence for assessment against this unit standard.

Statistical obligations may also exist under a range of treaties and conventions, e.g. World Health Organisation (WHO), or environmental treaties such as the Paris Climate Agreement.

Any references superseding any of the above will apply, pending review of this unit standard.

- 2 Where assessment will occur for an international audience, the applicable or equivalent legislation of the country where assessment is taking place may be used. Statistical related obligations may also exist under a treaty of conventions, e.g. WHO conventions or environmental treaties such as the Paris Climate Agreement.
- 3 **Recommended entry knowledge and skills**
It is recommended that candidates have basic data transformation skills, including the ability to use simple formulae in a spreadsheet application, and be able to compute the value of a simple mathematical expression.
- 4 **Demonstration of knowledge and skills must be consistent with any applicable code or codes of conduct such as the New Zealand State Services Code of Conduct, Standards of Integrity and Conduct (available from <http://www.ssc.govt.nz>) and/or any other organisation or sector specific code or codes of conduct and/or ethics.**
- 5 Although this unit standard is classified in the *Public Sector Core Skills* domain it is written so it can also be applied to non-public sector organisations as well as within the public sector. Examples of such non-public sector organisations are non-governmental organisations (NGOs), charities, and iwi authorities.
- 6 Assessment for this unit standard will be based on data collection case studies, and additional reports and datasets as required.
- 7 **Definitions**
Assess refers to the process of judging that the material is fit for purpose including the relevance, quality, origins, and currency of the sources of the material.
Organisational requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace.
Quality of data has six dimensions: relevance, accuracy, timeliness, interpretability, consistency, and accessibility.
Reports refer to research papers, publications, statistical summaries, books, academic papers, and website information.

Outcomes and performance criteria

Outcome 1

Identify key components of a statistical analysis and interpret statistical findings based on summary statistical outputs.

Performance criteria

1.1 Identify key components of a statistical analysis.

Range analysis goals are identified, statistical study design is identified (experimental/intervention, observational), variables are identified by type (quantitative and qualitative) and role (outcome or explanatory).

1.2 Identify key outputs and interpret findings of a statistical analysis.

Range hypotheses, estimates (including proportions, rates, rate ratios, odds, odds ratios, correlation coefficients, regression coefficients, main and interaction effects), margins of error, confidence intervals, p-values.

Outcome 2

Assess and select relevant data sources to answer a specific policy question in a public sector or other policy context.

Performance criteria

2.1 Identify and assess sources of data to determine their applicability to answer a specific policy question.

Range sources of data may include but are not limited to – existing collections, administrative datasets, new surveys, censuses, experiments, results of data integration projects; properties of data may include but are not limited to – origins, quality, contents, classification systems, non-response, editing and imputation, other strengths and limitations.

2.2 Choose relevant data sources and select data sets to answer a specific policy question.

Outcome 3

Design and describe a data collection that can be used to answer a specific policy question in a public sector or other policy context.

Performance criteria

- 3.1 Identify and describe requirements for the design of a data collection that can be used to answer a specific policy question.
- Range requirements must include but are not limited to – target and survey population, sample design, mode, information collected, limitations.
- 3.2 Design a data collection for use in answering a specific policy question in accordance with organisational requirements.
- 3.3 Identify and describe expected statistical outputs in terms of the data collection design.

Outcome 4

Evaluate and use results from reports based on statistical information to make recommendations for a specific policy question in a public sector or other policy context.

Performance criteria

- 4.1 Evaluate reports based on statistical information in terms of the relevance and fitness for purpose of the analysis, the reliability and validity of the conclusions, and the clarity of the content for the specific policy question.
- 4.2 Analyse reports to identify relevant results and statements to form a response to the question.
- 4.3 Make decisions and/or recommendations, including limitations, based on the analysis in performance criterion 4.2, and record these correctly.

This unit standard is expiring. Assessment against this standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 September 2006	31 December 2020
Review	2	21 May 2010	31 December 2020
Review	3	14 December 2017	31 December 2023
Review	4	15 December 2022	31 December 2023

Consent and Moderation Requirements (CMR) reference

0121

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.