

## Assess data collections and make statistical inferences in a public sector context

**Level** 5

**Credits** 4

**Purpose** This unit standard is designed for people employed in the public sector in positions where they are required to interpret statistical data to make and/or report decisions.

People credited with this unit standard are able to assess data collections for use in a public sector context; and make statistical inferences and draw conclusions from data collections to answer a specific management, organisational or policy question in a public sector context.

**Subfield** Public Sector Services

**Domain** Public Sector Core Skills

**Status** Registered

**Status date** 21 May 2010

**Date version published** 21 May 2010

**Planned review date** 31 December 2014

**Entry information** It is recommended that candidates have at least 14 credits at Level 1 in *Mathematics*; or demonstrate equivalent knowledge and skills.

**Accreditation** Evaluation of documentation and visit by NZQA and industry.

**Standard setting body (SSB)** Learning State (trading name of the Public Sector Training Organisation)

**Accreditation and Moderation Action Plan (AMAP) reference** 0121

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

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### Special notes

- 1 Reference  
Reference information to assist with this unit standard can be obtained from the Statistics New Zealand website at <http://www.stats.govt.nz> or the specific government ministry, department or agency in which the candidate works.

- 2 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.  
*Data collection* refers to sample surveys, census surveys and administrative data sources.
- 3 Assessment for this unit standard will be based on two major data collection case studies, and additional reports and datasets as required.

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## Elements and performance criteria

### Element 1

Assess data collections for use in a public sector context.

Range features may include but are not limited to – purpose, classification, population, frame, data collection instrument, sampling plan, data collection method, data recording process, estimation, confidence intervals, analysis methods, reporting methods, stratification, clustering, weights, longitudinal features, editing and imputation, classification systems, non-response objectives, sources of data, classifications.

### Performance criteria

- 1.1 Features of the given data collections are identified and described.
- 1.2 Features of data collections are assessed in terms of their impacts on the statistical results.

### Element 2

Make statistical inferences and draw conclusions from data collections to answer a specific management, organisational or policy question in a public sector context.

### Performance criteria

- 2.1 Inferences are made from sample data using confidence intervals for population estimates.
- Range inferences may include but are not limited to – estimates of population mean, population proportion, difference between means and proportions of two populations.
- 2.2 Levels of statistical significance are interpreted and used to make inferences to answer a specific management, organisational or policy question in a public sector context.
- Range includes but not limited to – p-values, correlation and contingency table analysis, population means and proportions.

### **Please note**

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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### **Comments on this unit standard**

Please contact Learning State (trading name of the Public Sector Training Organisation) [qualifications@learningstate.govt.nz](mailto:qualifications@learningstate.govt.nz) if you wish to suggest changes to the content of this unit standard.