



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **PSPREG416A Conduct data analysis**

**Revision Number: 3**

## PSPREG416A Conduct data analysis

### Modification History

Release	TP Version	Comments
3	PSP12V1	Unit descriptor edited.
2	PSP04V4.2.	Layout adjusted. No changes to content.
1	PSP04V4.1	Primary release.

### Unit Descriptor

This unit covers activities involved in analysing and matching data from a range of sources. It includes analysing information, and documenting outcomes of the analysis.

In practice, analysing data may overlap with other generalist or specialist public sector work activities, such as acting ethically, complying with legislation, exercising regulatory powers, gathering and analysing information.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

### Application of the Unit

Not applicable.

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

### Employability Skills Information

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements are the essential outcomes of the unit of competency. Together, performance criteria specify the requirements for competent performance. Text in *bold italics* is explained in the Range Statement following.

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

#### 1. Analyse data

- 1.1 *Analysis* is undertaken dependent upon the nature of the data and intended purpose of the analysis.
- 1.2 *Methods of analysis* are selected in accordance with any relevant industry standards, precedents and techniques.
- 1.3 Trends are identified and inferences drawn in light of environmental and cultural factors relevant to the particular situation.
- 1.4 The chain of reasoning in formulating inferences is made clear to ensure transparency to users of the data.
- 1.5 A proactive approach is taken to identify and assess the need for new or changed systems and processes for analysing data to more effectively meet objectives.

#### 2. Document outcomes of analysis

- 2.1 Recommended actions are based upon analysis of *data* in the context of the purpose of the analysis and the objectives and priorities of the organisation's strategies and plans.
- 2.2 Links between the outcomes proposed as a result of the data analysis and the organisation's strategies are made clear to the intended audience.
- 2.3 Timely and relevant reports are completed and disseminated to appropriate staff and management.
- 2.4 Results of data analysis are *incorporated* into ongoing review of organisational strategies and plans.
- 2.5 Documentation is prepared that is clear, concise and accessible to all relevant staff.

## Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

### Skill requirements

Look for evidence that confirms skills in:

- undertaking analysis and problem solving
- reading and applying complex information from legislation
- communicating including questioning and negotiating meaning
- responding to diversity, including gender and disability
- undertaking planning and time management in the context of data analysis
- preparing written reports and recommendations requiring accuracy, and formal structures and language
- using information technology for data analysis, recording and reporting
- applying public sector legislation such as occupational health and safety and environmental procedures in the context of data analysis

### Knowledge requirements

Look for evidence that confirms knowledge and understanding of:

- methods of analysis
- relevant legislation including privacy and freedom of information legislation, as well as public interest disclosures, protected disclosures or whistleblowing legislation
- agency structure, services and environment
- data collection and management systems
- the range of analytical techniques appropriate for information analysis
- inductive/deductive reasoning processes
- the influence of human factors on data analysis, for example:
  - prejudice and bias
  - personalities in analysis
  - construction of sound inductive arguments
  - fallacies in reasoning
- how data analysis outcomes can contribute to the review of national strategies/plans
- equity and diversity principles
- public sector legislation such as occupational health and safety and environment relating to investigations

## Evidence Guide

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the Unit descriptor, Performance Criteria, the Range Statement and the Assessment Guidelines for the Public Sector Training Package.

### Units to be assessed together

- *Pre-requisite* units that must be achieved prior to this unit: *Nil*
- *Co-requisite* units that must be assessed with this unit: *Nil*
- *Co-assessed units* that may be assessed with this unit to increase the efficiency and realism of the assessment process include, but are not limited to:
  - PSPETHC401A Uphold and support the values and principles of public service
  - PSPFRAU401B Monitor data for indicators of fraud
  - PSPGOV406B Gather and analyse information
  - PSPGOV408A Value diversity
  - PSPGOV422A Apply government processes
  - PSPLEGN401A Encourage compliance with legislation in the public sector
  - PSPREG401C Exercise regulatory powers
  - PSPREG412A Gather and manage evidence

### Overview of evidence requirements

In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:

- the knowledge requirements of this unit
- the skill requirements of this unit
- application of the Employability Skills as they relate to this unit (see Employability Summaries in Qualifications Framework)
- analysis of data in a range of (3 or more) contexts (or occasions, over time)

### Resources required to carry out assessment

These resources include:

- legislation, regulations, policy, guidelines and standards
- public sector values and codes of conduct
- case studies and workplace scenarios to capture the range of data analysis situations likely to be encountered

### Where and how to assess evidence

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when analysing data, including coping with difficulties, irregularities and breakdowns in

routine

- analysis of data in a range of (3 or more) contexts (or occasions, over time)

Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, such as:

- people with disabilities
- people from culturally and linguistically diverse backgrounds
- Aboriginal and Torres Strait Islander people
- women
- young people
- older people
- people in rural and remote locations

Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of 2 or more of:

- case studies
- demonstration
- observation
- projects
- questioning
- scenarios
- authenticated evidence from the workplace and/or training courses

**For consistency of assessment**

Evidence must be gathered over time in a range of contexts to ensure the person can achieve the unit outcome and apply the competency in different situations or environments

## Range Statement

The provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The also provides a focus for assessment. It relates to the unit as a whole. Text in *italics* in the Performance Criteria is explained here.

*Analysis* can be:

- quantitative and/or qualitative
- explorative
- descriptive
- causative
- predictive

*Methods of analysis* can include:

- hypothesis development
- link analysis
- comparative analysis
- biographical analysis
- demographic or geographic analysis
- historical analysis
- scenario generation
- Delphi technique
- morphological analysis

*Data sources* may include:

- program files
- agency systems
- other agencies
- law enforcement agencies
- standards setting organisations

*Incorporation* may be in terms of:

- identifying and assessing risk
- monitoring and reviewing procedures

## Unit Sector(s)

Not applicable.

## Competency field

Regulatory.