# 2 Statistical context

**CONTENTS**

2.1 Introduction 2.1

2.2 Population 2.2

2.3 Family and household 2.7

2.4 Income, education and employment 2.10

2.5 General economic indicators 2.13

2.6 Statistical concepts used in the Report 2.14

2.7 List of attachment tables 2.32

2.8 References 2.34

|  |
| --- |
| Attachment tables |
| Attachment tables are identified in references throughout this chapter by an ‘2A’ prefix (for example, table 2A.1). A full list of attachment tables is provided at the end of this chapter, and the attachment tables are available from the Review website at www.pc.gov.au/gsp. |
|  |
|  |

## 2.1 Introduction

This chapter contains contextual information to assist the interpretation of the performance indicators presented in this Report. The following key factors in interpreting the performance data are addressed:

1. Australia’s population
2. family and household
3. income, education and employment
4. general economic indicators
5. statistical concepts.

## 2.2 Population

The Australian people are the principal recipients of the government services covered by this Report. The size, trends and characteristics of the population can have significant influences on the demand for government services and the cost of service delivery. This section provides a description of the Australian population, to support the interpretation of performance data provided in the Report. More detail is provided in the Australian Bureau of Statistics (ABS) quarterly publication *Australian Social Trends* (ABS 2014a and previous issues).

In this chapter and associated attachment tables, population totals for the same year can vary, because they are drawn from different ABS’ sources depending on the information required. For example, some data are from the *Census of Population and Housing*   
(ABS 2012) and others are from *Australian Demographic Statistics* (ABS 2014b).

Most of the service areas covered by the Report use estimated resident population (ERP) data from tables 2A.1–2 for descriptive information (such as expenditure per person in the population) and as denominators for performance indicators (such as calculating participation rates for school education).

### Population size and trends

More than three quarters of Australia’s 23.1 million people lived in the eastern mainland states as at 30 June 2013, with NSW, Victoria and Queensland accounting for   
32.0 per cent, 24.8 per cent and 20.1 per cent, respectively, of the nation’s population. WA and SA accounted for a further 10.9 per cent and 7.2 per cent, respectively, while Tasmania, the ACT and the NT accounted for the remaining 2.2 per cent, 1.7 per cent and 1.0 per cent, respectively (table 2A.1). As the majority of Australia’s population lives in the eastern mainland states, data for these jurisdictions generally have a large influence on national averages.

Nationally, the average annual growth rate of the population between 2009 and 2013 was approximately 1.6 per cent. The growth across jurisdictions ranged from 3.0 per cent in WA to 0.4 per cent in Tasmania (table 2A.1). Population data for December 2013 and earlier years are in table 2A.2.

### Population, by age and sex

As in most other developed economies, greater life expectancy and declining fertility have contributed to an ‘ageing’ of Australia’s population. However, the age distribution of Aboriginal and Torres Strait Islander people is markedly different to that of all Australians (figure 2.1). At 30 June 2013, 9.8 per cent of Australia’s population was aged 70 years or over, compared with just 1.9 per cent of Australia’s Aboriginal and Torres Strait Islander population, as at 30 June 2011 (tables 2A.1 and 2A.13). Across jurisdictions, the proportion of all people aged 70 years or over ranged from 11.5 per cent in SA and Tasmania to 3.4 per cent in the NT (table 2A.1).

Half of the population at June 2013 was female (50.2 per cent). This distribution was similar across all jurisdictions except WA, which had a slightly lower representation of women in its population (47.4 per cent) (table 2A.1). The proportion of women in the population varies noticeably by age. Nationally, approximately 55.2 per cent of people aged 70 years or over were female, compared with 48.7 per cent of people aged 14 years or under (table 2A.1).

|  |
| --- |
| Figure 2.1 Population distribution, Australia, by age and sex,  30 June**a, b, c** |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | **All people (2013)** | **Aboriginal and Torres Strait Islander  Australians (2011)** | |  |  | | |
| a Includes other territories. b Estimated Resident Population (ERP) data for 2013 are preliminary, based on the *2011 Census of Population and Housing*. Estimates of the Aboriginal and Torres Strait Islander populations at 30 June 2011 are final based on the *2011 Census of Population and Housing*. c Estimates of the Aboriginal and Torres Strait Islander populations were not available for this Report. |
| *Source*: ABS (Australian Bureau of Statistics) (2013) *Australian Demographic Statistics, June 2013*, Cat. no. 3101.0; ABS (2013) *Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026*, Cat. no. 3238.0; tables 2A.1 and 2A.13. |
|  |
|  |

### Population, by ethnicity and proficiency in English

New Australians face specific problems when accessing government services. Language and cultural differences can be formidable barriers for otherwise capable people. Cultural backgrounds can also have a significant influence on the support networks offered by extended families. People born outside Australia accounted for 24.6 per cent of the population in August 2011 (8.9 per cent from the main English speaking countries and   
15.7 per cent from other countries). Across jurisdictions, the proportion of people born outside Australia ranged from 30.7 per cent in WA to 11.6 per cent in Tasmania. The proportion from countries other than the main English speaking countries ranged from   
19.6 per cent in Victoria to 5.1 per cent in Tasmania (figure 2.2).

|  |
| --- |
| Figure 2.2 People born outside Australia, by country of birth, 2011**a, b** |
| |  | | --- | | Figure 2.2 People born outside Australia, by country of birth, 2011  More details can be found within the text surrounding this image. | |
| a ‘Australia’ includes other territories. b The ABS defines the other main English speaking countries as Canada, Ireland, New Zealand, South Africa, United Kingdom, Channel Islands, the Isle of Man and the United States of America. |
| *Source*: ABS (2012) *2011 Census of Population and Housing, Australia, States and Territories, Basic Community Profile, Table B09 — Country of birth of person by sex*, Cat. no. 2001.0, Canberra; table 2A.8. |
|  |
|  |

Of the population born outside Australia, in August 2011, 89.3 per cent spoke only English, or spoke another language as well as speaking English very well or well.   
Figure 2.3 shows proficiency in English of people born overseas who speak a language other than English at home. Of those people born overseas who spoke another language, 80.6 per cent also spoke English very well or well. The proportion of people born overseas who spoke another language and who did not speak English well or at all ranged from   
19.8 per cent in NSW to 12.1 per cent in the ACT (table 2A.5).

Nationally, the proportion of all people born overseas who did not speak English well or at all was 9.7 per cent, and ranged from 12.3 per cent in NSW to 4.1 per cent in Tasmania (table 2A.5).

|  |
| --- |
| Figure 2.3 People born overseas who spoke a language other than English at home, by proficiency in English, 2011**a** |
| |  | | --- | | Figure 2.3 People born overseas who spoke a language other than English at home, by proficiency in English, 2011  More details can be found within the text surrounding this image. | |
| a Excludes people born in Australia and people who did not state their country of birth. |
| *Source*: ABS (2012) *2011 Census of Population and Housing, Australia, States and Territories, Expanded Community Profile, Table X04c — Proficiency in spoken English/language by year of arrival in Australia by age*, Cat. no. 2005.0, Canberra; table 2A.5. |
|  |
|  |

Approximately 18.2 per cent of Australians spoke a language other than English at home in August 2011. Across jurisdictions, this proportion ranged from 26.7 per cent in the NT to 4.5 per cent in Tasmania (table 2A.11). Apart from English, the most common languages spoken were Chinese languages, Arabic and Indo‑Aryan languages.

In the NT, 16.3 per cent of people spoke an Aboriginal and Torres Strait Islander language at home (table 2A.11).

### Population, by geographic location

The Australian population is highly urbanised, with 70.5 per cent of the population located in major cities as at 30 June 2013 (figure 2.4). Across jurisdictions, this proportion ranged from 99.8 per cent in the ACT to 62.0 per cent in Queensland (table 2A.12). Tasmania and the NT, by the ABS *Australian Statistical Geography Standard 2011* (ABS 2014c) definitions, have no major cities. In Tasmania, 97.9 per cent of the population lived in regional areas. Nationally, 2.3 per cent of people lived in remote or very remote areas. The NT was markedly above this average, with 43.4 per cent of people living in remote or very remote areas.

|  |
| --- |
| Figure 2.4 Population, by remoteness area, June 2013a, b, c |
| |  | | --- | | Figure 2.4 Population, by remoteness area, June 2013  More details can be found within the text surrounding this image. | |
| a ERP data of Remoteness Areas of Australia for 30 June of each year from 2004 to 2013 are based to the 2011 edition of the Australian Statistical Geography Standard (ASGS). b There are no very remote areas in Victoria; no major cities in Tasmania; no outer regional or remote areas in the ACT; and no inner regional or major cities in the NT (Australian Statistical Geography Standard 2011 [ASGS 2011]). c Australia’ includes other territories. |
| *Source*: ABS (2014) *Regional Population Growth, Australia, 2013*, Cat. no. 3218.0, Canberra  (April release); table 2A.12. |
|  |
|  |

### Aboriginal and Torres Strait Islander population profile

There were an estimated 669 881 Aboriginal and Torres Strait Islander people   
(336 198 females and 333 683 males) in Australia at 30 June 2011, accounting for approximately 3.0 per cent of the total Australian population in 2011 (tables 2A.1 and 2A.13). The proportion of people who identified as Aboriginal and Torres Strait Islander Australians was significantly higher in the NT (29.8 per cent) than in any other jurisdiction. Across the other jurisdictions, the proportion ranged from 4.7 per cent in Tasmania to 0.9 per cent in Victoria (figure 2.5). Nationally, the Aboriginal and Torres Strait Islander population is projected to grow to 924 953 people in 2026 (table 2A.14).

The majority of Aboriginal and Torres Strait Islander people (82.8 per cent) at August 2011 spoke only English at home, while a further 9.0 per cent spoke an Aboriginal and Torres Strait Islander language and also spoke English very well or well. However,   
1.8 per cent did not speak English well or at all (up to 12.1 per cent in the NT)   
(table 2A.17).

|  |
| --- |
| Figure 2.5 Aboriginal and Torres Strait Islander people as a proportion of the population, 30 June 2011**a, b** |
| |  | | --- | | Figure 2.5 Aboriginal and Torres Strait Islander people as a proportion of the population, 30 June 2011  More details can be found within the text surrounding this image. | |
| a Includes other territories. b ERP data for 2011 are final, based on the *2011 Census of Population and Housing*. Estimates of the Aboriginal and Torres Strait Islander populations at 30 June 2011 are final based on the *2011 Census of Population and Housing*. |
| *Source*: ABS (2013) *Australian Demographic Statistics, June 2013*, Cat. no. 3101.0; ABS (2013) *Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026*, Cat. no. 3238.0;  tables 2A.1 and 2A.13. |
|  |
|  |

## 2.3 Family and household

### Family structure

There were 6.4 million families in Australia in 2012.[[1]](#footnote-1) Across jurisdictions, the number of families ranged from 2.1 million in NSW to 63 000 in the NT. The average family size across Australia was 3.0 people. Across jurisdictions, the average family size ranged from 3.1 people in the NT to 2.9 people in SA and Tasmania. Nationally, 37.2 per cent of families had at least one child aged under 15 years, and 17.5 per cent of families had at least one child aged under 5 years (table 2A.18). There were no new data available for the 2015 Report.

Lone parent families might have a greater need for government support and particular types of government services (such as child care for respite reasons). Nationally,   
18.6 per cent of all children aged under 15 years lived in one parent families in 2012. Lone mother families made up 17.4 per cent of families with children aged under 15 years. Lone father families made up 3.0 per cent of families with children aged under 15 years. Across jurisdictions, the proportion of all children aged under 15 years living in lone parent families ranged from 25.7 per cent in the NT to 16.5 per cent in Victoria (table 2A.19). There were no new data available for the 2015 Report.

Employment status also has implications for the financial independence of families. Nationally, 13.9 per cent of all children aged under 15 years lived in families where no resident parent was employed in 2011‑12 (table 2A.20). There were no new data available for the 2015 Report.

### Household profile

There were 8.9 million households in Australia in 2013 (some households may contain more than one family) (table 2A.25). Of these, 25.6 per cent were lone person households. Across jurisdictions, the proportion of lone person households ranged from 29.3 per cent in SA to 22.7 per cent in the NT.

In June 2013, the proportion of people aged 65 years or over who lived alone   
(24.7 per cent) was around three times higher than that for people aged 15–64 years   
(9.4 per cent). Across jurisdictions, the proportion of people aged 65 years or over who lived alone ranged from 28.1 per cent in Tasmania to 21.1 per cent in the NT (figure 2.6). Times series data for household structure for earlier years are available in table 2A.25.

Approximately 16.6 million people in families lived in private dwellings in August 2011 (table 2A.23).[[2]](#footnote-2) Home ownership can reflect a family’s wealth and savings, and is often positively related to employment and income.

|  |
| --- |
| Figure 2.6 Proportion of population who live alone, by age group, June 2013**a** |
| |  | | --- | | Figure 2.6 Proportion of population who live alone, by age group, June 2013  More details can be found within the text surrounding this image. | |
| a Household projections (Series II), as at 30 June. |
| *Source*: ABS (2010) *Household and Family Projections, 2006 to 2031*, Cat. no. 3236.0, Canberra;  table 2A.25. |
|  |
|  |

Nationally, the majority of occupied private dwellings in August 2011 (67.0 per cent, or 5.2 million dwellings) were owned or were being purchased. Home ownership was highest in Tasmania (70.4 per cent) and lowest in the NT (46.2 per cent). Australians rented   
2.3 million dwellings, or 29.6 per cent of dwellings (of these, 54.3 per cent were from real estate agents and 13.7 per cent from State or Territory housing authorities) (table 2A.28). Across jurisdictions, the proportion of dwellings that were rented was highest in the NT (49.1 per cent) and lowest in Tasmania (26.4 per cent) (figure 2.7).

|  |
| --- |
| Figure 2.7 Occupied private dwellings, by tenure type, 2011a, b, c |
| |  | | --- | | Figure 2.7 Occupied private dwellings, by tenure type, 2011  More details can be found within the text surrounding this image. | |
| a ‘Australia’ includes other territories. b ‘Owned or being purchased’ includes dwellings being purchased under a rent/buy scheme. c Other tenure type’ includes dwellings being occupied under a life tenure scheme. |
| *Source*: ABS (2012) *2011 Census of Population and Housing, Australia, States and Territories, Aboriginal and Torres Strait Islander (Indigenous) Profile, Table I10c — Tenure and landlord type by dwelling structure by Indigenous status of household*, Canberra; table 2A.28. |
|  |
|  |

## 2.4 Income, education and employment

### Income

Nationally in August 2011, 25.9 per cent of people aged 15 years or over had a relatively low weekly individual income of $299 or less (table 2A.31). The proportion was around three times higher for younger people (74.8 per cent for people aged 15–19 years) and Aboriginal and Torres Strait Islander Australians (37.2 per cent), similar for females   
(30.4 per cent) and lower for older people (20.7 per cent for people aged 85 years or over) (figure 2.8).

|  |
| --- |
| Figure 2.8 Weekly individual income of $299 or less, by sex, Indigenous status and age, 2011a |
| |  | | --- | | Figure 2.8 Weekly individual income of $299 or less, by sex, Indigneous status and age, 2011  More details can be found within the text surrounding this image. | |
| a ‘Australia’ includes other territories. |
| *Source*: ABS (2012) *2011 Census of Population and Housing*, *Australia, States and Territories, Basic Community Profile, Table B17 — Total personal income (weekly) by age by sex*, Cat. no. 2001.0, Canberra; ABS (unpublished) *2011 Census of Population and Housing*, *Australia*, Table generated on 3/10/2012 using ABS TableBulider; tables 2A.31, 2A.34 and 2A.37. |
|  |
|  |

Nationally, 18.2 per cent of the total population was receiving income support in 2013. The age pension was received by 10.2 per cent of the population, while 3.6 per cent received a disability support pension and 1.1 per cent received a single parent payment. A further   
3.3 per cent of the population received some form of labour market allowance in 2013 (figure 2.9).

The proportion of the population in 2013 receiving:

1. the age pension ranged from 12.7 per cent in Tasmania to 3.5 per cent in the NT
2. a disability support pension ranged from 5.4 per cent in Tasmania to 2.2 per cent in the ACT
3. a single parent payment ranged from 1.5 per cent in Tasmania and NT to 0.7 per cent in the ACT
4. a labour market allowance ranged from 5.6 per cent in the NT to 1.6 per cent in the ACT (figure 2.9).

|  |
| --- |
| Figure 2.9 Proportion of total population on income support, June 2013a, b |
| |  | | --- | | Figure 2.9 Proportion of total population on income support, June 2013  More details can be found within the text surrounding this image. | |
| a Data for ‘Australia’ include recipients living overseas and recipients whose residential location was not known. b Labour market program allowance data comprises recipients of Newstart Allowance (excluding Community Development Employment Projects [CDEP] participants and those who did not receive a payment) and recipients of Youth Allowance for jobseekers. |
| *Source*: FaHCSIA (2014) *Payment Type by State and Territory — June 2013 Quarter — DSS Basic Dataset and DEEWR Blue Book Dataset*; table 2A.38. |
|  |
|  |

### Educational attainment

Employment outcomes and income are closely linked to the education and skill levels of individuals. Tables 2A.39–46 and sector overview B Child care, education and training contain reporting on education and skill levels including highest level of school completed and tertiary education attendance and attainment.

### Employment and workforce participation

There were 12.3 million people aged 15 years or over in the labour force in Australia in June 2014. Of these, 94.1 per cent were employed and 5.9 per cent were unemployed at June 2014. The majority of employed people (69.1 per cent) were in full time employment. Of the 723 700 unemployed people looking for work, 74.0 per cent were seeking full time work and 26.0 per cent were seeking part time work (tables 2A.47 and 2A.49).

Across jurisdictions, the proportion of employed people in full time employment in   
June 2014 ranged from 81.7 per cent in the NT to 63.6 per cent in Tasmania. The unemployment rate ranged from 3.3 per cent in the ACT to 7.3 per cent in Tasmania. The proportion of unemployed people looking for full time work ranged from 55.7 per cent in the ACT to 86.5 per cent in the NT (tables 2A.47 and 2A.49).

The unemployment rate needs to be interpreted within the context of labour force participation rates (the proportion of the working age population either in employment or actively looking for work). Nationally in June 2014, the labour force participation rate was 64.7 per cent. Labour force participation rates ranged from 74.6 per cent in the NT to   
60.7 per cent in Tasmania (figure 2.10, tables 2A.47–49).

Data on labour force participation rates and unemployment rates for all people of working age, disaggregated by sex, are available in tables 2A.47–49.

|  |
| --- |
| Figure 2.10 Labour force outcomes for people aged 15 years or over, by sex, 30 June 2014 |
| |  | | --- | |  | |
| *Source*: ABS (2014) *Labour Force, Australia, Detailed — Electronic Delivery, June 2014*,  Cat. no. 6291.0.55.001, Canberra; tables 2A.47–49. |
|  |
|  |

## 2.5 General economic indicators

General Government Final Consumption Expenditure (GGFCE) is current expenditure by general government bodies on services to the community such as defence, education, and public order and safety. Because these services are provided free of charge or at charges which cover only a small proportion of costs, the government is considered to be the consumer of its own output. This output has no directly observable market value and so it is valued in the national accounts at its cost of production (ABS 2013a).

Nationally, the GGFCE was $268.2 billion in 2012‑13. The GGFCE for NSW accounted for 27.6 per cent of national GGFCE, compared with 2.3 per cent for the NT. Growth from the previous year’s GGFCE (in 2012‑13 dollars) was equal highest for WA and SA   
(0.6 per cent) and lowest for the NT (-2.3 per cent). Across Australia, the GGFCE   
per person was $11 707 in 2012‑13 (table 2A.50).

## 2.6 Statistical concepts used in the Report

### General Government Final Consumption Expenditure

The GGFCE deflator is applied to deflate nominal dollar values to real dollar values in most chapters of this Report (box 2.1). (Not all financial data in the Report are deflated using the GGFCE deflator. The exceptions include some health chapters and the Vocational education and training chapter, which use service‑specific deflators to calculate real dollars.)

The GGFCE deflator is used to convert raw financial data into constant (real) dollars   
(box 2.1). Raw or ‘nominal’ financial data are converted to ‘real’ dollars so that comparisons over time are not affected by inflation.

Government final consumption expenditure covers net outlays by general government on goods and services for current purposes (that is, outlays which do not result in the creation of capital assets, or in the acquisition of land and existing buildings or second‑hand capital goods). Transfer payments (for example, interest payments on government debt securities and social assistance benefits) are not included.

|  |
| --- |
| Box 2.1 Technical concepts and formulas — GGFCE deflator formulas |
| **GGFCE deflator re‑base**  The general formula used to re‑base GGFCE deflators is:  Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image. (equation 2.1)  Where:  Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image. is the new index based in year *t Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image.* is the current index for year *t Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image.* is the current index for the year that will be the new base.  **GGFCE deflator application**  The general formula for applying the deflator to convert nominal dollars to real dollars is:  Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image. (equation 2.2)  Where:  Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image. is real dollars in year *t Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image.* is nominal dollars in year *t Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image.* is the new index based in year *t.* |
|  |
|  |

The calculations to achieve constant (real) dollars are in two steps:

Step 1. Re‑referencing of the GGFCE deflator.

The Report re‑references the period where the GGFCE (published by the ABS) is at 100, as this Report requires a current year deflator (2013‑14 = 100). The ABS publishes the GGFCE to the third most current year only (for example, if the current year is 2013‑14, the available deflator is 2011‑12 = 100). Table 2.1 shows how the GGFCE deflator is re‑based.

|  |
| --- |
| Table 2.1 Re‑basing the GGFCE deflatora |
| |  |  |  |  | | --- | --- | --- | --- | | Financial year | ABS index value (2011‑12 = 100)**a** | Calculation | Re‑based GGFCE deflator (2013‑14=100) | | 2009‑10 | 93.7 | 93.7/102.4\*100.0 | 91.5 | | 2010‑11 | 98.4 | 98.4/102.4\*100.0 | 96.1 | | 2011‑12 | 100.0 | 100.0/102.4\*100.0 | 97.7 | | 2012‑13 | 101.6 | 101.6/102.4\*100.0 | 99.2 | | 2013‑14 | 102.4 | 102.4/102.4\*100.0 | 100.0 | |
| a Index values from ABS (2014) *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0, table 32, Expenditure on Gross Domestic Product (GDP), Chain volume measures and current prices, Annual (Series ID. A2304687R). |
| *Source*: ABS (2014) *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0, Canberra; table 2A.51. |
|  |
|  |

Table 2A.51 in the attachment contains GGFCE deflators for 2000‑01 to 2013‑14. Five GGFCE deflator series are published, from 2009‑10 = 100 through to the latest year, where 2013‑14 = 100.

Step 2. Transforming nominal dollars into constant dollars.

Nominal dollars are transformed into constant (or real) dollars by dividing the nominal dollars with the GGFCE deflator for the applicable financial year and multiplying by 100. The deflator used may vary according to the most current year for which the particular financial data are available. For example, if the most current year for the data is 2012‑13 then the data are deflated using the deflator series for 2012‑13 = 100. If the most current year is 2013‑14 then the data are deflated using the deflator series for 2013‑14 = 100. Table 2.2 shows how the GGFCE deflator for 2013‑14 = 100 is applied.

|  |
| --- |
| Table 2.2 Applying the GGFCE deflator to derive constant (real) dollarsa |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Financial year | Nominal data | GGFCE deflator (2013‑14 = 100) | Calculation | Real data | | 2009‑10 | 6 200 | 91.5 | (6 200/91.5)\*100 | 6 776 | | 2010‑11 | 6 300 | 96.1 | (6 300/96.1)\*100 | 6 556 | | 2011‑12 | 6 350 | 97.7 | (6 350/97.7)\*100 | 6 499 | | 2012‑13 | 6 485 | 99.2 | (6 485/99.2)\*100 | 6 537 | | 2013‑14 | 7 020 | 100.0 | (7 020/100.0)\*100 | 7 020 | |
| a Index values from ABS (2014) *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0, table 32, Expenditure on Gross Domestic Product (GDP), Chain volume measures and current prices, Annual (Series ID. A2304687R). |
| *Source*: ABS (2014) *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0, Canberra; table 2A.51. |
|  |
|  |

A comparison of the GGFCE with alternative deflators can be found in the 2014 Report (SCRGSP 2014, p. 2.18).

### Reliability of estimates

Data for some outcome and quality indicators in this Report are based on samples, either from surveys or from a selection of observations from, for example, administrative data sets. The potential for sampling error — that is, the error that occurs by chance because the data are obtained from a sample and not the entire population — means that the reported estimates might not accurately reflect the true value.

This Report indicates the reliability of estimates based on samples, generally by reporting either relative standard errors (RSEs) or confidence intervals (CIs). RSEs and CIs are calculated based on the standard error (SE). The larger the SE, RSE or CI, the less reliable is the estimate as an indicator for the whole population (ABS 2013b).

#### Standard error

The SE measures the sampling error of an estimate (box 2.2). (There can also be non‑sampling error, or systematic biases, in data.) There are several types of SE. A commonly used type of SE in this Report is the SE of the mean (average). Sampling error results from using a sample of the population to derive an estimate of the whole population mean — the SE measures how much the estimated mean value might differ from the true population mean value.

|  |
| --- |
| Box 2.2 Technical concepts and formulas — standard error |
| The SE of a method of measurement or estimation is the estimated standard deviation of the error in that method. Specifically, it estimates the standard deviation of the difference between the measured or estimated values and the true values. Standard deviation is a measure of how spread out the data are, that is, a measure of variability.  The SE of the mean (SEM), an unbiased estimate of expected error in the sample estimate of a population mean, is the sample estimate of the population standard deviation (sample standard deviation) divided by the square root of the sample size (assuming statistical independence of the values in the sample):  Box 2.2 Technical concepts and formulas - standard error  More details can be found within the text surrounding this image. (equation 2.3)  Where:  Box 2.2 Technical concepts and formulas - standard error  More details can be found within the text surrounding this image. is the SE of the sample estimate of a population mean, Box 2.2 Technical concepts and formulas - standard error  More details can be found within the text surrounding this image. is the sample’s standard deviation (the sample based estimate of the standard deviation of the population), and Box 2.1 Technical concepts and formulas - GGFCE deflator formulas  More details can be found within the text surrounding this image. is the size (number of items) of the sample.  Decreasing the uncertainty of a mean value estimate by a factor of two requires the sample size to increase fourfold. Decreasing standard error (SE) by a factor of ten requires the sample size to increase hundredfold. |
|  |
|  |

##### Relative standard error

The RSE is used to indicate the reliability of an estimate (box 2.3). The RSE shows the size of the error relative to the estimate, and is derived by dividing the SE of the estimate by the estimate. The RSE is useful for comparing the size of the SE across different sample estimates. As with the SE, the higher the RSE, the less confidence there is that the estimate from the sample is close to the true value of the population mean. A rule of thumb adopted in this Report is that estimates with an RSE between 25 and 50 per cent are to be used with caution and estimates with an RSE greater than 50 per cent are unreliable for general use.

|  |
| --- |
| Box 2.3 Technical concepts and formulas — reliability of estimates |
| **Relative standard error**  The SE can be expressed as a proportion of the estimate — known as the RSE. The formula for the RSE of an estimate is:  Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. (equation 2.4)  Where:  Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the estimate and Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the SE of the estimate.  The resultant RSEs are generally multiplied by 100 and expressed as a percentage.  Proportions and percentages formed from the ratio of two estimates are also subject to sampling error. The size of the error depends on the accuracy of both the numerator and the denominator. One method for calculating the RSE of a proportion is expressed through the following formula:  Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. (equation 2.5)  Where:  Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the numerator, and Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the denominator, of the estimated proportion.  **Confidence intervals**  The formula for calculating confidence intervals (CIs) is:  Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. (equation 2.6)  Where:  Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the lower confidence limit Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the upper confidence limit Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the estimate Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the SE of the estimate Box 2.3 Technical concepts and formulas - reliability of estimates  More details can be found within the text surrounding this image. is the factor used to determine the CI (the factor varies according the level of confidence required).  The most commonly used CIs are calculated for the 95 per cent (p = 0.05; z = 1.96) level of probability. That is, there is a 95 per cent likelihood that the true value lies within the estimate confidence interval. |
|  |
|  |

##### Confidence intervals

Confidence intervals are used to indicate the reliability of an estimate. A CI is a specified interval, with the sample statistic at the centre, within which the corresponding population value can be said to lie with a given level of confidence (ABS 2013b). Increasing the desired confidence level will widen the CIs (figure 2.11). CIs are useful because a range, rather than a single estimate, is more likely to encompass the real figure for the population value being estimated.

|  |
| --- |
| Figure 2.11 Normal distribution with 95 per cent confidence intervals |
| |  | | --- | |  | |
|  |
|  |

Confidence intervals are calculated from the population estimate and its associated SE. The most commonly used CI is calculated for 95 per cent levels of probability. For example, if the estimate from a survey was that 628 300 people report having their needs fully met by a government service, and the associated SE of the estimate was 10 600 people, then the   
95 per cent CI would be calculated by:

1. lower confidence limit = 628 300 – (2 x 10 600) = 628 300 – 21 200 = 607 100
2. upper confidence limit = 628 300 + (2 x 10 600) = 628 300 + 21 200 = 649 500.

This indicates that, at the 95 per cent confidence level, the true number of people who perceive that their needs are met by a government service is between 607 100 and 649 500.

The smaller the SE of the estimate, the narrower the CIs and the closer the estimate can be expected to be to the true value.

Confidence intervals also test for statistical differences between sample results (box 2.4). For example, assume survey data estimated that 50 per cent of people for jurisdiction A perceived that their needs were met by government services, with a 95 per cent CI of   
± 5 per cent, and 25 per cent of people for jurisdiction B, with a 95 per cent CI of   
± 10 per cent (figure 2.12). These results imply that we can be 95 per cent sure the true result for jurisdiction A lies between 55 and 45 per cent, and the true result for jurisdiction B lies between 15 and 35 per cent. As these two ranges do not overlap, it can be said that the results for jurisdiction A and jurisdiction B are statistically significantly different.

|  |
| --- |
| Box 2.4 Technical concepts and formulas — statistical significance |
| **Using confidence intervals to test for statistical significance**  The CIs — the value ranges within which estimates are likely to fall — can be used to test whether the results reported for two estimated proportions are statistically different. If the CIs for the results do not overlap, then there can be confidence that the estimated proportions differ from each other. To test whether the 95 per cent CIs of two estimates overlap, a range is derived using the following formulas.  Box 2.4 Technical concepts and formulas - statistical significance  More details can be found within the text surrounding this image. (equation 2.7)  and  Box 2.4 Technical concepts and formulas - statistical significance  More details can be found within the text surrounding this image. (equation 2.8)  If none of the values in this range is zero, then the difference between the two estimated proportions is statistically significant. |
|  |
|  |

|  |
| --- |
| Figure 2.12 Using confidence intervals to test for statistical significance |
| |  | | --- | | Figure 2.12 Using confidence intervals to test for statistical significance  More details can be found within the text surrounding this image. | |
| Confidence intervals do not overlap so the difference is statistically significant. |
|  |
|  |

#### Variability bands

Variability bands accompanying mortality data should be used for the purpose of within jurisdiction analysis at a point in time and over time (box 2.5). They should not be used for comparing mortality rates at a single point in time or over time between jurisdictions as the variability bands and mortality rates do not take into account differences in under‑identification of Aboriginal and Torres Strait Islander people’s deaths between jurisdictions.

Rates derived from administrative data counts are not subject to sampling error but might be subject to natural random variation, especially for small counts.

Typically in this standard method, the observed rate is assumed to have natural variability in the numerator count (for example, deaths, hospital visits) but not in the population denominator count. Variations in Aboriginal and Torres Strait Islander people’s death rates may arise from uncertainty in the recording of Indigenous status on the death registration forms (in particular, under‑identification of Aboriginal and Torres Strait Islander people’s deaths) and in the *Census of Population and Housing*, from which population estimates are derived. These variations are not considered in this method. Also, the rate is assumed to have been generated from a normal distribution (figure 2.11). Random variation in the numerator count is assumed to be centred around the true value — that is, there is no systematic bias.

|  |
| --- |
| Box 2.5 Technical concepts and formulas — variability bands |
| **Variability bands**  The variability bands to be calculated using the standard method for estimating  95 per cent confidence intervals are:  *Crude rate (CR)*  Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image. (equation 2.9)  Where:  *Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image.* is the numerator of the estimated proportion  *Age-standardised rate (ASR)*  Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image. (equation 2.10)  Where:  *Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image.* is the proportion of the standard population in age group Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image. Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image.is the number of deaths in age group Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image. Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image.is the number of people in the population in age group Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image..  *Infant mortality rate (IMR)*  Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image. (equation 2.11)  Where:  *Box 2.5 Technical concepts and formulas - variability bands  More details can be found within the text surrounding this image.* is the number of deaths in infants aged less than 1 year. |
|  |
|  |

### Population measures

Data are frequently expressed relative to population in this Report. For example, expenditure per person, or proportion of people who utilise a service or who benefit from a service. This enables comparison of data across populations of different sizes using relative numbers — standardised by population size — as distinct from absolute numbers.

ERP data are available quarterly — that is, at end March, June, September and December of each year. The mid‑point ERP is typically used for the calculation of population rates in this Report — for example, the 30 June ERP for calendar year data and the 31 December ERP for financial year data. As this Report presents annual data where available and appropriate, the mid‑point ERP was adopted following the consideration of four options:

* *Average population data* — the average population over the reference period — is the most statistically robust option. However, the ERP for the fourth quarter of the most recent financial year is not available in time for this Report.
* *End point population data* — the ERP at the end of the reference period. Where the reference period is the most recent financial year, the end point ERP is not available in time for this Report.
* *Projected population data* — population projections, as distinct from estimates, could be used for the fourth quarter of the most recent financial year. However, population projections are less accurate than population estimates.
* *Mid‑point population data* — the mid‑point ERP is available for the reported reference periods, including calendar and financial years, in time for this Report. The mid‑point ERP was therefore adopted as a proxy for the average population over the reference period. Data sourced from other publications do not necessarily use the mid‑point ERP.

This Report uses first preliminary ERP data wherever possible and replaces these with final rebased data when available.

#### Estimated resident population rebasing and recasting

Where ERP data are reported they are based on the 2011 Census, backcast over the reported time series. Details of changes to ERP data are explained in the 2014 Report (SCRGSP 2014, pp. 2.26–27) where 2011 Census rebased and recast ERP data were first included. 2011 Census ERP data by Indigenous status are available for the first time for this Report. (In the 2014 Report data by Indigenous status were available based on the 2006 Census only). Therefore, in this Report data by Indigenous and non-Indigenous status are internally consistent up to and including data for 2011.

Some tables contain population data estimates and projections (tables 2A.13–14). Aboriginal and Torres Strait Islander population data up to 2011 are estimates and from 2012 are projections. Population data for all Australians for all years are estimates.

The Labour Force Survey (LFS) is the only ABS’ population and social survey (at this stage) which is being re‑benchmarked to be consistent with the revised ERP. Therefore, the revised ERP do not affect ABS’ survey data used in this Report.

### Growth rates

This Report presents growth rates to facilitate meaningful comparisons of data movements over time (box 2.6). Two methods are generally used:

1. *Average annual growth rate* (AAGR). The AAGR is the uniform growth rate that would need to have applied each year for the value in the first year to grow to the value in the final year of the period of analysis. This method is also called a compound annual growth rate, as it allows for the ‘cumulative’ effect of growth in later periods ‘compounding’ growth in earlier periods.
2. *Total growth rate* (TGR). The TGR is the growth rate between two periods/years. Two methods can be used to calculate TGR.

The first and most commonly used method calculates TGR by subtracting the value in the first period from the value in the last period then dividing the result by the value in the first period. This is generally multiplied by 100 to express the growth rate as a percentage (equation 2.13).

The second method uses a composite of the growth rates between each of the sub‑periods within the overall period of analysis. For example, for the period 2009‑10 to 2012‑13, a composite of the growth rates between 2009‑10 to 2010‑11, 2010‑11 to 2011‑12 and 2011‑12 to 2012‑13 would be used. Box 2.6 includes an example of how sub‑period growth rates can be used to derive the TGR.

|  |
| --- |
| Box 2.6 Technical concepts and formulas — growth rates |
| **Growth rate formulas**  *Average annual growth rate*  The formula for calculating a compound AAGR is:  Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. (equation 2.12)  Where:  Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. is the value in the initial period Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. is the value in the last period Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. is the number of periods.  *Total growth rate*  The formula for calculating the TGR is:  Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. (equation 2.13)  Where:  Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. is the value in the initial period Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. is the value in the last period.  The formula for calculating the TGR using a composite of growth rates between sub‑periods within the overall period of analysis is:  Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. (equation 2.14)  That is, the TGR over the period is found by taking the product (Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image.) of each Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. and deducting 1. This is multiplied by 100 so the growth rate is expressed as a percentage. If, for example, the sample ranges of growth rates are:  6 per cent in 2009‑10 to 2010‑11 6 per cent in 2010‑11 to 2011‑12 8 per cent in 2011‑12 to 2012‑13  then the total growth over the period 2009‑10 to 2012‑13 can be calculated as:  Box 2.6 Technical concepts and formulas - growth rates  More details can be found within the text surrounding this image. |
|  |
|  |

### Age standardisation of data

#### Rationale for age standardisation of data

The age profile of Australians varies across jurisdictions, periods of time, geographic areas and/or population sub‑groups (for example, between Aboriginal and Torres Strait Islander and non‑Indigenous populations). Variations in age profiles are important because they can affect the likelihood of using a particular service (such as a public hospital) or particular ‘events’ occurring (such as death, incidence of disease or incarceration). Age standardisation adjusts for the effect of variations in age profiles when comparing service usage, or rates, of particular events across different populations.

#### Calculating age standardised rates

Age standardisation adjusts each of the comparison/study populations (for example, Aboriginal and Torres Strait Islander and non‑Indigenous populations) against a standard population (box 2.7).

Prior to the 2011 ERP rebasing cycle, it was generally accepted that the ABS produces a new ‘standard population’ every ten years, with the last standard population being 30 June 2001 and the next population was expected to be 30 June 2011. While following this advice has been accepted practice in Australia in recent years, it is important to note that neither demographic nor epidemiological methodology require the standard population to be updated this frequently. In fact, analysis recently undertaken by a joint ABS‑Australian Institute of Health and Welfare (AIHW) working group demonstrated that the frequency of the change in the standard population resulted in negligible difference in the comparison of key indicators over time. The use of age‑standardisation in statistical analysis in Australia, particularly involving health and demographic data, has increased substantially. As more age‑standardised data are used, and as age‑standardised time series become longer, a regular revision to the standard process becomes increasingly more resource‑intensive and onerous.

Therefore, ABS and AIHW are recommending that the standard population be revised every 25 years (that is, 2001, 2026, 2051 etc.) instead of every 10 years, which would reduce the frequency of revisions without reducing the effectiveness of age‑standardised comparisons. This would also align the revision cycle with what demographers generally consider to be the timespan of a generation. The latest standard population used is the final 30 June ERP for the 2001 (AIHW 2013). The result is a standardised estimate for each of the comparison/study populations.

The Review generally reports age‑standardised rates that have been calculated using either one of two methods, as appropriate. The direct method is generally used for comparisons between study groups. The indirect method is recommended when the age‑specific rates for the population being studied are not known (or are unreliable), but the total number of events is known (AIHW 2013).

The *direct* *method* has three steps:

Step 1: Calculate the age‑specific rate for each age group for the study/comparison group.

Step 2: Calculate the expected number of ‘events’ in each age group by multiplying the age‑specific rates by the corresponding standard population.

Step 3: Sum the expected number of cases in each age group and divide by the total of the standard population (box 2.7, equation 2.15).

The *indirect method* has four steps:

Step 1: Calculate the age‑specific rates for each age group in the standard population.

Step 2: Apply the age‑specific rates resulting from step 1 to the number in each age group of the study population and sum to derive the total ‘expected’ number of cases for the study population.

Step 3: Divide the observed number of events in the study population by the ‘expected’ number of cases for the study population derived in step 2.

Step 4: Multiply the result of step 3 by the crude rate in the standard population   
(box 2.7, equation 2.16).

|  |
| --- |
| Box 2.7 Technical concepts and formulas — direct and indirect age standardisation |
| The formula for deriving the age standardised rate using the direct method is:  Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. (equation 2.15)  The formula for deriving the age standardised rate using the indirect method is:  Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. (equation 2.16)  The formula for deriving the age standardised ratio using the indirect method is:  Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. (equation 2.17)  Where:  Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the age‑standardised rate for the population being studied Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the standardised ratio for the population being studied Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the age‑group specific rate for age group ***i*** in the population being studied Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the population of age group ***i*** in the standard population Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the observed number of events in the population being studied Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the expected number of events in the population being studied Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the age‑group specific rate for age group ***i*** in the standard population Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the population for age group ***i*** in the population being studied Box 2.7 Technical concepts and formulas - direct and indirect age standardisation  More details can be found within the text surrounding this image. is the crude rate in the standard population. |
| *Source*: AIHW (2013). |
|  |
|  |

Tables 2A.52–53 in the attachment contain examples of the application of direct and indirect age standardisation, respectively. Standardised rates are generally multiplied by 1000 or 100 000 to avoid small decimal fractions. They are then reported as age standardised rates per 1000 or 100 000 population (AIHW 2013).

Figure 2.13 compares crude imprisonment rates and imprisonment rates standardised against the age profile of the total Australian prisoner population for Aboriginal and Torres Strait Islander and non‑Indigenous Australians.

|  |
| --- |
| Figure 2.13 Aboriginal and Torres Strait Islander and non‑Indigenous Australians crude and age standardised imprisonment rates, 2007‑08a, b |
| |  | | --- | | Figure 2.13 Aboriginal and Torres Strait Islande and non-Indigenous Australians crude and age standardised imprisonment rates, 2007-08  Legend to Figure  More details can be found within the text surrounding this image. | | **Aboriginal and Torres Strait Islander**  **Non‑Indigenous** | |
| a For detailed notes relating to these figures, please see the *Report on Government Services 2009*,  table 8A.4. b Rates are based on the indirect standardisation method, applying age‑group imprisonment rates derived from Prison Census data. |
| *Source*: ABS (unpublished) *Australian Demographic Statistics, December 2007*, Cat. no. 3101.0;  ABS (unpublished) *Experimental Projections Aboriginal and Torres Strait Islander Population*, Cat. no. 3231.0; ABS (unpublished) *Prisoners in Australia*, Cat. no. 4517.0; State and Territory governments (unpublished); SCRGSP (2009) *Report on Government Services 2009*, table 8A.4; table 2A.53. |
|  |
|  |

#### Calculating age standardised ratios

A variation of the *indirect method* is used to calculate age standardised ratios (box 2.6). These ratios express the overall experience of a study population in terms of a standard population, where the standard population is the population to which the study population is being compared.

##### Application of age standardised ratios

Standardised Mortality Ratios (SMRs) have been used to compare death rates between the Aboriginal and Torres Strait Islander and non‑Indigenous populations (table 2.3). The SMR is the ratio between the observed number of deaths in the Aboriginal and Torres Strait Islander population and the expected number of deaths that would have occurred if the Aboriginal and Torres Strait Islander population experienced the same age‑specific death rates as the non‑Indigenous population. Where the number of observed deaths is higher than the number of expected deaths, the SMR is greater than 1 and the difference in deaths is the excess number of deaths of Aboriginal and Torres Strait Islander Australians (AIHW 2011a).

#### New developments in age standardisation techniques

The ABS and the AIHW have recently worked on improving age‑standardisation techniques.

*Principles on the use of direct age‑standardisation in administrative data collections: for measuring the gap between Aboriginal and Torres Strait Islander Australians and non‑Indigenous Australians* (AIHW 2011b) recommends that the direct method of age‑standardisation be used for purposes of comparing health and welfare outcome measures (for example, mortality rates, life expectancy, hospital separation rates and disease incidence rates) of the Aboriginal and Torres Strait Islander population and non‑Indigenous population. The principles provide consistency and guidance on when and how to use the direct age‑standardisation method and under what circumstances it should not be used.

|  |
| --- |
| Table 2.3 Aboriginal and Torres Strait Islander Australians’ deaths, main causes and standardised mortality ratios, 2004–2008a, b, c |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | Male | | |  | Female | | | |  | Observed deaths | Expected deaths | SMR |  | Observed deaths | Expected deaths | SMR | | Diseases of the circulatory system | 321 | 107 | 3.0 |  | 260 | 148 | 1.8 | | Neoplasms | 200 | 120 | 1.7 |  | 191 | 150 | 1.3 | | External causes | 225 | 61 | 3.7 |  | 98 | 64 | 1.5 | | Endocrine, metabolic and nutritional disorders | 86 | 12 | 7.2 |  | 96 | 15 | 6.4 | | Diseases of the respiratory system | 94 | 24 | 3.9 |  | 96 | 33 | 2.3 | | Diseases of the digestive system | 70 | 11 | 6.4 |  | 76 | 14 | 4.2 | | Diseases of the nervous system | 33 | 13 | 2.5 |  | 59 | 16 | 1.3 | | Conditions originating in the perinatal period | 31 | 14 | 2.2 |  | 21 | 14 | 1.6 | | Certain infectious and parasitic diseases | 27 | 6 | 4.5 |  | 22 | 7 | 3.1 | | **All causes** | **1 211** | **397** | **3.1** |  | **957** | **497** | **1.9** | |
| SMR = Standardised Mortality Ratio. a Data for Queensland, WA, SA and the NT combined. b Observed and expected deaths are reported as average number of annual deaths from 2004–2008. Excepted deaths are based on non‑Indigenous death rates. c Standardised mortality ratio is the observed Aboriginal and Torres Strait Islander Australians deaths divided by expected Aboriginal and Torres Strait Islander Australians deaths, based on the age, sex and cause‑specific rates for non‑Indigenous Australians. |
| *Source*: AIHW (2011) *Life expectancy and mortality of Aboriginal and Torres Strait Islander people*, Cat. no. IHW 51, Canberra. |
|  |
|  |

## 2.7 List of attachment tables

Attachment tables are identified in references throughout this chapter by an ‘2A’ prefix (for example, table 2A.1). Attachment tables are provided on the Review website (www.pc.gov.au/gsp).

|  |  |
| --- | --- |
| **Population** |  |
| **Table 2A.1** | Estimated resident population (ERP) by age and sex, 30 June |
| **Table 2A.2** | Estimated resident population (ERP) by age and sex, 31 December |
| **Table 2A.3** | Proficiency in spoken English of people born overseas, 2001 |
| **Table 2A.4** | Proficiency in spoken English of people born overseas, 2006 |
| **Table 2A.5** | Proficiency in spoken English of people born overseas, 2011 |
| **Table 2A.6** | People by country of birth, 2001 |
| **Table 2A.7** | People by country of birth, 2006 |
| **Table 2A.8** | People by country of birth, 2011 |
| **Table 2A.9** | People by language spoken at home, 2001 ('000) |
| **Table 2A.10** | People by language spoken at home, 2006 ('000) |
| **Table 2A.11** | People by language spoken at home, 2011 ('000) |
| **Table 2A.12** | Estimated resident population (ERP) by remoteness area |
| **Table 2A.13** | Aboriginal and Torres Strait Islander population projections, by age and sex,  30 June |
| **Table 2A.14** | Aboriginal and Torres Strait Islander population projections, by age and sex,  30 June |
| **Table 2A.15** | Language spoken at home by Aboriginal and Torres Strait Islander Australians and proficiency in spoken English, by sex, 2001 (number) |
| **Table 2A.16** | Language spoken at home by Aboriginal and Torres Strait Islander Australians and proficiency in spoken English, by sex, 2006 (number) |
| **Table 2A.17** | Language spoken at home by Aboriginal and Torres Strait Islander Australians and proficiency in spoken English, by sex, 2011 (number) |
| **Family and household** | |
| **Table 2A.18** | Family structure, 2003–2012 |
| **Table 2A.19** | Family structure, lone parents, 2003–2012 (per cent) |
| **Table 2A.20** | Families and work (per cent) |
| **Table 2A.21** | Families and people in families in occupied private dwellings by Indigenous status and family/household composition, 2001 |
| **Table 2A.22** | Families and people in families in occupied private dwellings by Indigenous status and family/household composition, 2006 |
| **Table 2A.23** | Families and people in families in occupied private dwellings by Indigenous status and family/household composition, 2011 |
| **Table 2A.24** | Household structure, 2004–2005 |
| **Table 2A.25** | Household structure, 2006–2014 |
| **Table 2A.26** | Occupied private dwellings by tenure type and landlord type, 2001 ('000) |
| **Table 2A.27** | Occupied private dwellings by tenure type and landlord type, 2006 ('000) |
| **Table 2A.28** | Occupied private dwellings by tenure type and landlord type, 2011 ('000) |
| **Income and employment** | |
| **Table 2A.29** | People aged 15 years or over, by weekly individual income and sex, 2001 |
| **Table 2A.30** | People aged 15 years or over, by weekly individual income and sex, 2006 |
| **Table 2A.31** | People aged 15 years or over, by weekly individual income and sex, 2011 |
| **Table 2A.32** | People aged 15 years or over by weekly individual income and Indigenous status, 2001 |
| **Table 2A.33** | People aged 15 years or over by weekly individual income and Indigenous status, 2006 |
| **Table 2A.34** | People aged 15 years or over by weekly individual income and Indigenous status, 2011 |
| **Table 2A.35** | People aged 15 years or over, by weekly individual income and age, 2001 |
| **Table 2A.36** | People aged 15 years or over, by weekly individual income and age, 2006 |
| **Table 2A.37** | People aged 15 years or over, by weekly individual income and age, 2011 |
| **Table 2A.38** | Income support, June, 2004–2013 |
| **Table 2A.39** | Highest level of schooling completed by people aged 15 years or over, by Indigenous status, 2001 ('000) |
| **Table 2A.40** | Highest level of schooling completed by people aged 15 years or over, by Indigenous status (excluding people still attending secondary school), 2006 ('000) |
| **Table 2A.41** | Highest level of schooling completed by people aged 15 years or over, by Indigenous status (excluding people still attending secondary school), 2011 ('000) |
| **Table 2A.42** | Type of educational institution attending by Indigenous status, 2001 ('000) |
| **Table 2A.43** | Type of educational institution attending by Indigenous status, 2006 ('000) |
| **Table 2A.44** | Type of educational institution attending by Indigenous status, 2011 ('000) |
| **Table 2A.45** | Tertiary education attainment for people aged 18 or over by Indigenous status and sex, 2011 ('000) |
| **Table 2A.46** | Type of tertiary education institution attending for people aged 18-24 by Indigenous status and sex, 2011 ('000) |
| **Table 2A.47** | Labour force profile of the civilian population aged 15 years or over by sex, 30 June |
| **Table 2A.48** | Labour force participation rate of the civilian population aged 15 years or over by sex, 30 June (per cent) |
| **Table 2A.49** | Unemployment rate of labour force participants aged 15 years or over by sex, 30 June (per cent) |
| **Statistical concepts** | |
| **Table 2A.50** | General Government Final Consumption Expenditure, by jurisdiction (2012‑13 dollars) |
| **Table 2A.51** | General Government Final Consumption Expenditure, Chain price Index (GGFCE) |
| **Table 2A.52** | Age standardisation of data using the direct method |
| **Table 2A.53** | Age standardisation of data using the indirect method |

## 2.8 References

ABS (Australian Bureau of Statistics) 2011, *Census Dictionary*, Cat. no. 2901.0, Canberra.

—— 2012, *2011 Census of Population and Housing*, Canberra.

—— 2013a, *Australian System of National Accounts, 2012‑13*, Cat. no. 5204.0, Canberra.

—— 2013b, Statistical Language — Statistical Language Glossary, www.abs.gov.au/websitedbs/a3121120.nsf/home/statistical+language+glossary (accessed 27 August 2013).

—— 2014a (and previous issues), *Australian Social Trends, July 2013,* Cat. no. 4102.0, Canberra.

—— 2014b, *Australian Demographic Statistics, December 2012*, Cat. no. 3101.0, Canberra.

—— 2014c, *Regional Population Growth, Australia, 2013*, Cat. no. 3218.0, Canberra (April release).

AIHW (Australian Institute of Health and Welfare) 2011a, *Life expectancy and mortality of Aboriginal and Torres Strait Islander people*, Cat. no. IHW 51, Canberra.

—— 2011b, *Principles on the use of direct age‑standardisation in administrative* data collections: for measuring the gap between Indigenous and non‑Indigenous Australians, Cat. no. CSI 12, Canberra.

—— 2013, Age‑standardised rate, METeOR, meteor.aihw.gov.au/ content/ index.phtml/  
itemId/327276 (accessed 27 August 2013).

SCRGSP (Steering Committee for the Review of Government Service Provision) 2014, *Report on Government Services 2014,* Productivity Commission, Canberra.

1. The ABS *Census Dictionary* (ABS 2011) defines a family as two or more persons, one of whom is   
   aged 15 years or over, who are related by blood, marriage (registered or de facto), adoption, step or fostering; and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households contain more than one family. [↑](#footnote-ref-1)
2. The ABS *Census Dictionary* (ABS 2011) defines a dwelling as structure which is intended to have people live in it, and which is habitable on Census Night. Some examples of dwellings are houses, motels, flats, caravans, prisons, tents, humpies and houseboats. Private dwellings are enumerated using household forms, which obtain family and relationship data as well as information on the dwelling itself, such as rent or mortgage payments and ownership. [↑](#footnote-ref-2)