# 9 Emergency services for fire and other events

#### CONTENTS

9.1 Profile of emergency services for fire and other events 9.1

9.2 Framework of performance indicators 9.4

9.3 Key performance indicator results 9.6

9.4 Definitions of key terms 9.21

9.5 References 9.21

|  |
| --- |
| Attachment tables |
| Attachment tables are identified in references throughout this chapter by a ‘9A’ prefix (for example, table 9A.1) and are available from the website www.pc.gov.au/rogs/2018. |
|  |
|  |

The focus of performance reporting in this chapter is on emergency services for fire events. Descriptive information is included on emergency services for other events, with performance reporting to be developed for future Reports.

Further information on the Report on Government Services, including other reported service areas, the glossary and list of abbreviations is available at www.pc.gov.au/rogs/2018.

## 9.1 Profile of emergency services for fire and other events

### Service overview

An emergency event is an event that endangers or threatens to endanger life, property and/or the environment, and requires a significant and coordinated response. A fire event is an incident that is reported to a fire service organisation and requires a response. Fire events include (but are not limited to):

* structure fires (that is, fires inside a building or structure), regardless of whether there is damage to the structure
* landscape fires, including bushfires and grass fires, regardless of the size of the area burn
* other fires, including vehicle and other mobile property fires, and outside rubbish fires.

Other events that require an emergency response from fire and/or state and territory emergency services include road crash rescue, floods, storms and other natural disasters.

### Roles and responsibilities

Fire service organisations and state and territory emergency services (STES) are some of the primary agencies involved in providing emergency management services for fire and other events. The role of these organisations varies across jurisdictions but commonly includes prevention/mitigation, preparedness, response and recovery activities for each jurisdiction. Detailed activities by jurisdiction for fire service organisations and STES are available in tables 9A.1 and 9A.18 respectively.

Each State and Territory government operates multiple emergency service agencies, which service different populations and geographic areas according to specified governance arrangements (table 9A.2). Fire and STES service organisations work closely with other government departments and agencies that also have responsibilities in the case of fire and other events.

This chapter covers the finances and activities of urban and rural fire service agencies and, for selected tables and jurisdictions, the fire event finances and activities of land management agencies (tables 9A.4–17), and STES (tables 9A.18–23).

### Funding

In 2016-17, the total revenue of fire service organisations was $3.8 billion and for STES was $247.1 million (table 9.1).

|  |
| --- |
| Table 9.1 Revenue of fire service organisations and STES organisations (2016‑17 dollars) ($ million)**a** |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Aust | | *Fire service organisations* | | | | | | | | | | | 2016-17 | 1 092.2 | 1 306.9 | 625.2 | 395.4 | 224.6 | 86.8 | 66.3 | 39.7 | 3 837.3 | | 2015-16 | 1 068.2 | 1 239.9 | 611.2 | 401.3 | 225.6 | 138.6 | 70.2 | 35.3 | 3 790.3 | | 2014-15 | 1 060.3 | 1 184.8 | 647.3 | 380.0 | 220.7 | 76.9 | 70.9 | 40.3 | 3 681.2 | | 2013-14 | 1 163.5 | 1 263.5 | 656.9 | 360.2 | 219.5 | 78.3 | 66.3 | 34.4 | 3 842.5 | | *STES organisations*b | | | | | | | | | | | 2016-17 | 131.3 | 64.9 | 20.3 | na | 20.3 | 4.8 | 1.6 | 3.9 | 247.1 | | 2015-16 | 115.5 | 55.7 | 20.5 | na | 17.0 | 5.4 | 2.1 | 3.4 | 219.5 | | 2014-15 | 110.3 | 57.0 | 9.6 | na | 16.5 | 5.7 | 2.3 | na | 201.3 | | 2013-14 | 93.4 | 58.7 | 10.8 | na | na | 5.2 | 2.1 | 3.3 | 173.5 | |
| a See tables 9A.4 and 9A.19 for detailed footnotes and caveats. b Total of jurisdictions where data are available. **na** Not available. |
| *Source*: State and Territory governments (unpublished); tables 9A.4 and 9A.19. |
|  |
|  |

Jurisdictions have a range of funding models to resource fire service organisations and STES organisations. For fire services, levies are the largest source of revenue (64.4 per cent of total funding in 2016-17) – the exceptions are the ACT and the NT which do not raise fire levies, relying on government grants as their largest revenue source (table 9A.4). For STES revenue, government grants are the largest source of STES revenue (52.7 per cent of total funding in 2016-17) (table 9A.19).

The Australian Government provides emergency management funding to State and Territory governments through programs including:

* The *Natural Disaster Relief and Recovery Arrangements* provides assistance with relief and recovery efforts following an eligible natural disaster event. Total cash payments to states and territories in 2016‑17 totalled $1.1 billion (Australian Government 2017)[[1]](#footnote-1). Allocations vary across jurisdictions and over time depending on the timing and nature of natural disaster events
* The *Natural Disaster Resilience Program* provides funding to strengthen community resilience to natural disasters. In 2016-17, funding was $15.0 million (table 9A.5)

The Australian Government also provides financial support to eligible individuals affected by a disaster, with payments in 2016-17 of $25.6 million (table 9A.5).

### Size and scope

#### Human resources

Nationally in 2016‑17, 20 008 full time equivalent (FTE) paid personnel were employed by fire service organisations, with the majority (76.9 per cent) firefighters. A large number of volunteer staff (208 417 people) also participated in the delivery of services in 2016-17. The proportion of volunteer personnel and the nature of their role varied across jurisdictions (table 9A.6).

For STES, the majority of staff were volunteers, with 22 566 state and territory emergency services volunteers and 709 paid staff in 2016‑17. The proportion of volunteer and paid personnel and the nature of their roles varied across jurisdictions (table 9A.21).

#### Demand for emergency services

Fire service organisations and STES provide emergency response and rescue services for a range of fire and other emergency events. Nationally in 2016-17, fire service organisations attended a total of 394 054 emergency incidents, of which 95 508 were fire events (table 9A.11) and STES organisations attended a total of 77 832 incidents (excludes Queensland), of which 62 157 were storm and cyclone events (table 9A.22).

## 9.2 Framework of performance indicators

The performance indicator framework is based on governments’ common objectives for emergency services (box 9.1).

|  |
| --- |
| Box 9.1 Objectives for emergency services for fire and other events |
| Emergency services for fire and other events aim to reduce the adverse effects of events on the community (including people, property, infrastructure, economy and environment).  Governments’ involvement is aimed at providing emergency services that:   * contribute to the communities management of risks and its preparedness, through the promotion of risk reduction and mitigation activities * are accessible, responsive and sustainable.   Governments aim for emergency services to meet these objectives in an equitable and efficient manner. |
|  |
|  |

The performance indicator framework provides information on equity, efficiency and effectiveness, and distinguishes the outputs and outcomes of emergency services for fire events (figure 9.1). In future reports, the scope of performance indicators will be extended to include other emergency services that prepare for, respond to, and recover from, any emergency event.

The performance indicator framework shows which data are complete and comparable in the 2018 Report. For data that are not considered directly comparable, text includes relevant caveats and supporting commentary. Chapter 1 discusses data comparability, data completeness and information on data quality from a Report‑wide perspective. In addition to section 9.1, the Report’s Statistical context chapter contains data that may assist in interpreting the performance indicators presented in this chapter (chapter 2). Chapters 1 and 2 are available from the website at www.pc.gov.au/rogs/2018.

Improvements to performance reporting for emergency services are ongoing and include identifying data sources to fill gaps in reporting for performance indicators and measures, and improving the comparability and completeness of data.

|  |
| --- |
| Figure 9.1 Emergency services for fire and other events performance indicator framework |
| |  | | --- | | More details can be found within the text surrounding this image. | |
|  |
|  |

## 9.3 Key performance indicator results

Different delivery contexts, locations and types of clients can affect the equity, effectiveness and efficiency of fire services.

### Outputs

Outputs are the services delivered (while outcomes are the impact of these services on the status of an individual or group) (see chapter 1). Output information is also critical for equitable, efficient and effective management of government services.

### Equity

Equity indicators measure how well a service is meeting the needs of particular groups that have special needs or difficulties in accessing government services. Data on services provided to special needs groups are not available. However, indicators presented do provide information on whether fire services are equally accessible to everyone in the community with a similar level of need.

#### Access — Response times to structure fires by geographic location

‘Response times by geographic location’ is a proxy indicator of governments’ objective to provide fire services in an equitable manner (box 9.2).

| Box 9.2 Response times to structure fires by geographic location |
| --- |
| ‘Response times by geographic location’ (as illustrated below) is defined as the time taken between the arrival of the first fire crew appliance at the scene of a structure fire and:   * *initial receipt of the call at the communications centre*. Response time (*including* call taking time) reflects jurisdictions’ overall responsiveness to the notification of a structure fire * *dispatch of the responding fire crew*. Response time (*excluding* call taking time) reflects service organisations’ responsiveness to the notification of a structure fire.   Response times are calculated at the 50th and 90th percentile. (The time taken for 50 per cent of all responses to arrive at a structure fire is equal to or below the 50th percentile. The time taken for 90 per cent of all responses to arrive at a structure fire is equal to or below the 90th percentile). Calculations include responses by both permanent and volunteer brigades. |
| (continued next page) |
|  |
|  |

|  |
| --- |
| Box 9.2 continued |
| Diagram in box 9.6 of process for response times to structure fires from receipt of call to departing scene  More details can be found within the text surrounding this image.  Response time measures by geographic area are provided based on the ABS Australian Statistical Geography Standard (ASGS) structure for major cities, inner regional, outer regional, remote and very remote areas. The major cities classification applies to all jurisdictions, other than Tasmania and the NT, where the inner regional (incorporating Hobart and Launceston) and outer regional (incorporating Darwin) classifications are applied.  Many factors influence major city and remoteness area response times including:   * land area (which has particular impact across urban, rural and remote areas) * population size and density (which has a particular impact in urban areas) * the dispersion of the population (particularly rural/urban population proportions), topography, road/transport infrastructure and traffic densities * crewing configurations, response systems and processes, and travel distances — for example, some jurisdictions include responses from volunteer stations (often in rural areas) where turnout times are generally longer because volunteers are on call as distinct from being on duty.   Similar response times across different geography suggest equitable access by location.  Response times need to be interpreted with caution because the data are not directly comparable across jurisdictions. Differences between jurisdictions in definitions of response times, geography, personnel mix, and system type (manual or computer assisted dispatch) affect the comparability of response time data.  Data reported for this measure are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * complete (subject to caveats) for the current reporting period. All required 2016‑17 data are available for all jurisdictions. |
|  |
|  |

In 2016-17, the time within which 50 per cent of the first responding fire crew appliances arrived at the scene of a structure fire (including call taking time) within major cities ranged across jurisdictions from 6.3 to 8.0 minutes; increasing to between 9.2 and 11.7 minutes for 90 per cent to respond (table 9A.14).

Response times are generally longer for all jurisdictions in regional and remote areas, compared to major cities (table 9.2).

|  |
| --- |
| Table 9.2 Response times to structure fires, by geographic area,  2016-17, 90th percentile**a, b** |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | | *Excluding call taking time* | | | | | | | | | | Major cities | 8.5 | 8.0 | 11.1 | 10.4 | 10.6 | .. | 9.1 | .. | | Inner regional | 12.0 | 13.5 | 13.4 | 19.5 | 25.1 | 11.5 | .. | .. | | Outer regional | 12.4 | 19.8 | 13.9 | 30.2 | 21.2 | 23.5 | .. | 11.1 | | Remote | 13.4 | 22.1 | 23.3 | 21.0 | 26.5 | 43.5 | .. | 10.0 | | Very remote | 12.0 | .. | 16.1 | 24.9 | 48.5 | 23.7 | .. | 17.7 | | *Including call taking time* | | | | | | | | | | Major cities | 9.5 | 9.2 | 11.7 | 11.4 | 11.1 | .. | 10.5 | .. | | Inner regional | 19.0 | 14.8 | 14.2 | 21.3 | 15.7 | 13.1 | .. | .. | | Outer regional | 22.0 | 21.0 | 14.3 | 32.8 | 15.9 | 25.6 | .. | 14.2 | | Remote | 22.0 | 23.4 | 27.4 | 22.8 | 15.7 | 47.9 | .. | 17.4 | | Very remote | 25.4 | .. | 16.6 | 26.4 | na | 24.1 | .. | 29.0 | |
| a See box 9.2 and tables 9A.14–15 for detailed definitions, footnotes and caveats. b Some geographical areas are not applicable for some jurisdictions. **na** Not available. **..** Not applicable |
| *Source*: State and Territory governments (unpublished); tables 9A.14–15. |
|  |
|  |

State-wide response times are reported under the Effectiveness-Response domain of the performance indicator framework.

#### Access — Equity of access by special needs groups

‘Equity of access by special needs group’ is an indicator of governments’ objective to provide emergency services in an equitable manner (box 9.3).

|  |
| --- |
| Box 9.3 Equity of access by special needs groups |
| ‘Equity of access by special needs groups’ measures the performance of agencies providing emergency services for identified special needs groups including Aboriginal and Torres Strait Islander Australians and people from culturally and linguistically diverse backgrounds.  Data are not yet available for reporting against this indicator. |
|  |

### Effectiveness

#### Response — Response times

‘Response times’ is an indicator of governments’ objective to provide emergency services that are accessible and responsive (box 9.4).

|  |
| --- |
| Box 9.4 Response times |
| ‘Response times’ is defined as the time taken between the arrival of the first fire crew appliance at the scene of a structure fire and:   * *initial receipt of the call at the communications centre*. Response time (*including* call taking time) reflects jurisdictions’ overall responsiveness to the notification of a structure fire * *dispatch of the responding fire crew*. Response time (*excluding* call taking time) reflects service organisations’ responsiveness to the notification of a structure fire.   Shorter response times suggest that services are more accessible and responsive.  See box 9.2 for further information on the calculation of response times.  Data reported for these measures are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * complete (subject to caveats) for the current reporting period. All required 2016-17 data are available for all jurisdictions. |
|  |

Nationally in 2016‑17, the time within which 50 per cent of the first responding fire crew appliances arrived at the scene of a structure fire (including call taking time) varied across jurisdictions from 6.8 to 9.0 minutes (table 9A.14); increasing to between 10.5 and  
18.8 minutes for 90 per cent to respond (figure 9.2).

Response times by geographic area are reported under the Equity-Access domain of the performance indicator framework.

| Figure 9.2 Response times to structure fires, state–wide, 2016-17, 90th percentile**a** |
| --- |
| | More details can be found within the text surrounding this image. | | --- | |
| a See box 9.4 and tables 9A.14–15 for detailed definitions, footnotes and caveats. |

#### Prevention/mitigation — Fire risk prevention/mitigation activities

‘Fire risk prevention/mitigation activities’ is an indicator of governments’ objective to contribute to the community’s management of risks and its preparedness, through the promotion of risk reduction and mitigation activities (box 9.5).

| Box 9.5 Fire risk prevention/mitigation activities |
| --- |
| ‘Fire risk prevention/mitigation activities’ is defined by two measures.  ‘Accidental residential structure fires per 100 000 households’ — the number of accidental residential structure fire incidents divided by the total number of households (multiplied by 100 000), where accidental residential structure fires are defined as fires that are not deliberately lit and could have been reduced or prevented with effective educational programs.  A low or decreasing incidence of accidental residential structural fire indicates greater community preparedness.  The rate of accidental residential structure fires per 100 000 households should be interpreted with caution. In particular, rates are affected by differences across jurisdiction in distinguishing accidental structure fires from structure fires resulting from other causes.  Data reported for this measure are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * complete (subject to caveats) for the current reporting period. All required 2016‑17 data are available for all jurisdictions.   ‘Proportion of residential structures with smoke alarms’ —the number of households with a smoke alarm installed, divided by the total number of households.  High or increasing numbers of households with a smoke alarm installed indicates greater community preparedness.  Data reported for this measure are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * incomplete for the current reporting period. All required 2016‑17 data are not available for SA, Tasmania, the ACT and the NT. |
|  |
|  |

##### Accidental residential structure fires per 100 000 households

The national rate of accidental residential structure fires was 82.9 per 100 000 households in 2016‑17 (figure 9.3 and table 9A.12).

| Figure 9.3 Accidental residential structure fires per 100 000 households**a** |
| --- |
| |  | | --- | |
| a See box 9.5 and table 9A.12 for detailed definitions, footnotes and caveats. |
| *Source*: State and Territory governments (unpublished); ABS (2015) *Household and Family Projections, 2011 to 2036*, Cat. no. 3236.0; table 9A.12. |
|  |
|  |

##### Residential structures with smoke alarms

One key fire risk mitigation strategy across all jurisdictions is the mandated installation of smoke detectors in residential structures. Nationally consistent data for all jurisdictions are not available. However, recent jurisdictional surveys estimate that 94.1 per cent, 97.2 per cent, 97.9 per cent and 94.0 per cent of households in NSW, Victoria, Queensland and WA respectively, had an installed smoke alarm/detector in 2016‑17 (table 9A.13).

Fire service organisations also have programs to encourage households to test their smoke detector/alarms regularly to ensure they are operational. In 2016‑17, 84.6 per cent and 62.0 per cent of households in Queensland and WA respectively, had a smoke alarm that had been tested in the previous 12 months — data were not available for other jurisdictions (table 9A.13).

#### Prevention/mitigation — Confinement to room/object of origin

‘Confinement to room/object of origin’ is an indicator of governments’ objective to contribute to the communities’ management of risks and its preparedness, through the promotion of risk reduction and mitigation activities (box 9.6).

|  |
| --- |
| Box 9.6 Confinement to room/object of origin |
| ‘Confinement to room/object of origin’ is defined as the number of building fires confined to the object, part room and room of origin, divided by the number of building fires attributed to confinement. A building fire is a fire that has caused some damage to a building structure (such as a house).  A high or increasing proportion of structure fires confined to the object or room of origin is desirable.  Data reported for this indicator are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * complete for the current reporting period. All required 2016‑17 data are available for all jurisdictions. |
|  |
|  |

The proportion of building fires confined to room of origin varies across jurisdictions, and within jurisdictions over time (figure 9.4).

| Figure 9.4 Proportion of building fires confined to room of origin, all ignition types**a** |
| --- |
| |  | | --- | |
| a See box 9.6 and table 9A.9 for detailed definitions, footnotes and caveats. |
| *Source*: State and Territory governments (unpublished); table 9A.9. |

#### Preparedness — Level of safe fire practices in the community

‘Level of safe fire practices in the community’ is an indicator of governments’ objective to contribute to the communities’ management of risks and its preparedness, through the promotion of risk reduction and mitigation activities (box 9.7).

|  |
| --- |
| Box 9.7 Level of safe fire practices in the community |
| ‘‘Level of safe fire practices in the community’ is defined as the number of households with safe fire practices/behaviours, divided by the total number of households.  A high proportion of households with safe fire practices/behaviours is desirable.  Data are not yet available for reporting against this measure. |
|  |
|  |

#### Sustainability — Firefighter workforce

‘Firefighter workforce’ is an indicator of governments’ objective to provide emergency services that are sustainable (box 9.8).

| Box 9.8 Firefighter workforce |
| --- |
| ‘Firefighter workforce’ is defined by two measures.  ‘Workforce by age group’ – the age profile of the workforce, measured by the proportion of the operational workforce (excludes support workforce) in 10 year age groups (under 30, 30–39,  40–49, 50–59 and 60 and over).  A low or decreasing proportion of the workforce who are in the younger age groups and/or a high or increasing proportion who are closer to retirement, suggests sustainability problems may arise in the coming decade as the older age group starts to retire.  Data reported for this measure are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * complete (subject to caveats) for the current reporting period. All required 2016‑17 data are available for all jurisdictions.   ‘Workforce attrition’ — defined as level of attrition in the operational workforce, calculated as the number of FTE employees who exit the organisation as a proportion of the number of FTE employees.  Low or decreasing levels of staff attrition are desirable.  Data reported for these measures are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * incomplete for the current reporting period. Data for 2016‑17 on workforce attrition are not available for Tasmania. |
|  |
|  |

The workforce by age group and staff attrition measures should be considered together. Each provides a different aspect of the changing profile and sustainability of fire service organisations’ workforce and should also be considered in conjunction with data on the:

* full time equivalent firefighter personnel (increased from 60.6 per 100 000 people in  
  2015-16, to 63.1 per 100 000 people in 2016-17)
* fire service organisation volunteers (decreased from 946.1 per 100 000 people in 2015-16 to 854.7 per 100 000 people in 2016-17) (table 9A.6).

##### Workforce by age group

Nationally in 2016-17, 63.2 per cent of the firefighter workforce were aged under 50 years (figure 9.5) – similar to the proportion for the previous two years for which there are available data (table 9A.6).

| Figure 9.5 Firefighter workforce, by age group, 2016-17**a** |
| --- |
| |  | | --- | |
| a See box 9.8 and table 9A.6 for detailed definitions, footnotes and caveats. |
| *Source*: State and Territory governments (unpublished), table 9A.6. |
|  |
|  |

##### Workforce attrition

Nationally in 2016‑17, the attrition rate was 3.4 per cent, a slight decrease from 3.7 per cent in 2014-15 (table 9A.6).

### Efficiency

#### Fire service expenditure per person

‘Fire service expenditure per person’ is a proxy indicator of governments’ objective of providing emergency services in an efficient manner (box 9.9).

| Box 9.9 Fire service expenditure per person |
| --- |
| ‘Fire service expenditure per person’ is defined as total fire service organisation expenditure per person in the population.  All else being equal, lower expenditure per person suggests greater efficiency. However, efficiency data should be interpreted with caution. High or increasing expenditure per person may reflect deteriorating efficiency. Alternatively, it may reflect changes in aspects of the service (such as improved response), increased resourcing for fire prevention or community preparedness, or the characteristics of fire events (such as more challenging fires). Low or declining expenditure per person may reflect improving efficiency. Alternatively, it may reflect lower quality responses or less challenging fires.  Expenditure per fire is not used as a measure of efficiency because an organisation that works to reduce the number of fire incidents could erroneously appear to be less efficient.  The role of volunteers needs to be considered when interpreting this indicator. Volunteer personnel provide a substantial proportion of fire services (and emergency services more generally). While costs such as the training and equipment associated with volunteers are included in the cost of fire service provision, the labour costs of providing fire services would be greater without volunteers (assuming these functions were still performed).  Data reported for this measure are:   * comparable (subject to caveats) within jurisdictions over time but are not comparable across jurisdictions * complete (subject to caveats) for the current reporting period. All required 2016‑17 data are available for all jurisdictions. |
|  |
|  |

Nationally in 2016‑17, the total expenditure of fire service organisations was $166.63 per person in the population (figure 9.6). Expenditure data disaggregated by labour, capital and other costs are available in table 9A.16.

| Figure 9.6 Fire service organisations’ expenditure (2016‑17 dollars)**a, b** |
| --- |
| | More details can be found within the text surrounding this image. | | --- | |
| a See box 9.9 and table 9A.16 for detailed definitions, footnotes and caveats. b 2015-16 data for Tasmania are impacted by extraordinary costs associated with the number of remote wildfires that occurred in that financial year. |
| *Source*: State and Territory governments (unpublished); ABS (unpublished); table 9A.16. |
|  |
|  |

### Outcomes

Outcomes are the impact of services on the status of an individual or group (while outputs are the services delivered) (chapter 1).

#### Fire death rate

‘Fire death rate’ is an indicator of governments’ objective to reduce the adverse effects of events on the community (including people, property, infrastructure, economy and environment) (box 9.10).

| Box 9.10 Fire death rate |
| --- |
| ‘Fire death rate’ is defined by two measures.   * ‘Annual fire death rate’ — all deaths, per million people, whose underlying cause of death is fire related to smoke, fire and flames, including all (structure and landscape) fires * ‘Landscape fire death rate’ — deaths resulting from landscape fires only, per million people. Landscape fire deaths include those that result from the fire, but whose primary cause may be related to other factors (except for self-harm deaths).   No deaths or a decreasing number and rate of fire deaths is desirable.  Data for these measures are:   * comparable (subject to caveats) across jurisdictions and over time * complete (subject to caveats) for the current reporting period. All required 2016 data are available for all jurisdictions. |
|  |
|  |

##### Annual fire death rate

The annual fire death rate was 4.0 deaths per million people in 2016 (97 fire deaths)  
(figure 9.7 and table 9A.7).

| Figure 9.7 Annual fire death rate, 2007–2016**a** |
| --- |
| |  | | --- | |
| a See box 9.10 and table 9A.7 for detailed definitions, footnotes and caveats. |
| *Source*: ABS (2017) *Causes of Death, Australia*, Cat. no. 3303.0; table 9A.7. |
|  |
|  |

Annual fire death rates can be particularly volatile because of the small number of fire deaths and the influence of large irregular fire events. Alternatively, annual death rates can be viewed over a longer time series to help identify any underlying trends. Nationally, in the ten years from 2007–2016, the average deaths per million people was 5.5 (table 9A.7).

##### Landscape fire death rate

Nationally, comparatively few deaths are related to landscape fires annually (2 deaths in 2016‑17), although the landscape fire death rate is punctuated by large, irregular events. To assist in identifying underlying trends in the annual landscape fire death series, a 30 year time series is provided in table 9A.7.

#### Fire injury rate

‘Fire injury rate’ is an indicator of governments’ objective to reduce the adverse effects of events on the community (including people, property, infrastructure, economy and environment) (box 9.11).

| Box 9.11 Fire injury rate |
| --- |
| ‘Fire injury rate’ is defined as the number of hospitalised fire injury cases per 100 000 people.  No fire injuries or a decreasing number and rate of fire injuries is desirable.  Estimates of fire injury cases are based on hospital separations data in the National Hospital Morbidity Database. Data exclude admitted patients transferred from another hospital, patients who died in hospital and patients admitted for rehabilitation. Data are reported by state of usual residence of the admitted patient. Deaths from fire injuries after hospitalisation are counted in the fire death rate data.  Data for this measure are:   * comparable (subject to caveats) across jurisdictions for the most recent year (2015-16), but most recent year data are not comparable to earlier years due to a change in methodology to improve the meaningfulness of results * complete (subject to caveats) for the current reporting period. All required 2015-16 data are available for all jurisdictions. |
|  |
|  |

Nationally in 2015-16, there were an estimated 3416 hospitalisations due to fire injury, equating to a rate of 14.3 per 100 000 people (table 9A.8).

#### Value of asset losses from fire events

‘Value of asset losses from fire events’ is an indicator of governments’ objective to reduce the adverse effects of events on the community (including people, property, infrastructure, economy and environment) (box 9.12).

| Box 9.12 Value of asset losses from fire events |
| --- |
| ‘Value of asset losses from fire events’ is defined as the estimated monetary value of the damage to property and contents caused by the fire and fire‑fighting operations based on insurance claims. It does not include land value.  The value of these insurance claims is the sum of the incurred claims on insurance companies related to fires and explosions, reported to Insurance Statistics Australia (ISA). Data are presented as: average domestic insurance claim from fire events; total domestic insurance claims from fire events per person in the population; and total commercial insurance claims from fire events per person in the population.  Lower or decreasing asset losses from fire events is desirable.  Data need to be interpreted with caution as actual asset losses may differ from incurred claims due to:   * under insurance — insurance payouts are limited by the estimated value of assets a policy holder provides when taking out insurance * new for old — new for old policies replace an old asset for a new equivalent * excess policy — most small fire incidents will not be recorded in the insurance data due to the need for policy holders to pay an excess prior to claim.   Data reported for this measure are:   * comparable (subject to caveats) across jurisdictions and over time * complete (subject to caveats) for the current reporting period. Required 2016-17 data are available for all jurisdictions; however, ISA estimate that their data cover approximately 69 and 60 per cent of the potential domestic and commercial insurance markets respectively. |
|  |
|  |

Nationally in 2016‑17, household and commercial property insurance claims in relation to fire events (excluding major events, which are total claims greater than $100 million) totalled $883.9 million (table 9A.10).

Domestic (household) insurance fire event claims increased for:

* average claims — a 28.3 per cent increase in real terms from $47 955 in 2012‑13 to $61 524 in 2016‑17
* claim per person — a 8.3 per cent increase in real terms from $21.41 per person in 2012‑13 to $23.19 per person in 2016‑17 (table 9A.10).

Nationally, there were 1855 commercial insurance claims from fire events in 2016‑17, equating to $13.06 per person in the population (figure 9.8 and table 9A.10).

Data are available back to 2007-08 in table 9A.10.

| Figure 9.8 Total value of fire event insurance claims (2016‑17 dollars)a |
| --- |
| |  | | --- | |
| a See box 9.12 and table 9A.10 for detailed definitions, footnotes and caveats. |
| *Source*: ISA Database (2017), unpublished; table 9A.10. |
|  |
|  |

## 9.4 Definitions of key terms

|  |  |
| --- | --- |
| **Expenditure** | Includes:   * salaries and payments in the nature of salaries to fire personnel * capital expenditure (such as the user cost of capital) * other operating expenditure (such as running expenditure, contract expenditure, training expenditure, maintenance expenditure, communications expenditure, provision for losses and other recurrent expenditure).   Excludes interest on borrowings. |
| User cost  of capital | The opportunity cost of funds tied up in the capital used to deliver services. Calculated as 8 per cent of the current value of non‑current physical assets (including land, plant and equipment). |
| **Human resources** | Human resources refers to any person delivering a service, or managing the delivery of this service, including:   * firefighters (qualified paid and volunteer firefighters)   support personnel (any paid person or volunteer directly supporting operational providers, including administrative, technical and communications personnel). |
| **Revenue** | Revenue received directly or indirectly by fire service organisations on an accrual accounting basis, including: |
| Government grant funding | Grant funding, as established in legislation, from the Australian, State/Territory and Local governments. |
| Levies | Revenue from levies, as established in enabling legislation, raised on insurance companies and property owners. |
| User/transport charges | Revenue from fees and charges on individuals, private/public organisations and insurers. |
| Subscriptions and other income | Other revenue, including:   * subscriptions and benefit funds received from the community * donations, industry contributions and fundraising received   other income. |
| Indirect revenue | All revenue or funding received indirectly by the agency (for example, directly to Treasury or other such entity) that arises from the agency’s actions. |
| **Preparedness** | Actions/programmes designed to strengthen the overall capacity and capability of a community to manage disasters; and procedures planned for during a non‑disaster response period to be actioned during a disaster response period to minimise the loss of life, injury and damage to property when a disaster occurs. |
| **Response** | Actions taken in anticipation of, during and/or immediately after a disaster to ensure that its effects are minimised and that affected people are provided with immediate care, relief and support. |
| **Volunteer firefighters** | All personnel engaged on an unpaid casual basis by the emergency service organisation who deliver or manage a firefighting service directly to the community and who are formally trained and qualified to undertake firefighting duties, but do not receive remuneration other than reimbursement of ‘out of pocket expenses’. |
| **Volunteer support staff** | All personnel engaged on an unpaid casual basis that are not remunerated and are principally involved in the provision of support services. For fire service organisations, this includes any staff whose immediate client is the firefighter. These can be people in operational support roles provided they do not receive payment for their services other than reimbursement of ‘out of pocket expenses’. |

## 9.5 References

The Commonwealth of Australia 2017, *Final Budget Outcome 2016-17*, September 2017 www.budget.gov.au.

1. This figure differs from the estimates in table 9A.5, which reflect payments to states on an accruals basis. [↑](#footnote-ref-1)