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## 9 Emergency services for fire and other events interpretative material

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The Emergency services for fire and other events interpretative material is supporting material and includes explanations of why indicators have been chosen, and wherever possible, a link to the stated objectives of the service. It includes indicator definitions,

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technical details defining how the indicator is measured and guidance on how the indicator is to be interpreted, including caveats and the indicator's completeness and comparability status.

Further information on the Report on Government Services including other reported service areas, the glossary and list of abbreviations is available at <https://www.pc.gov.au/research/ongoing/report-on-government-services>.

## **9.1 Context**

Detailed activities by jurisdiction for fire service organisations and state and territory emergency services organisations are available in tables 9.1 and 9.2 respectively. The scope of data reported for fire service organisations is presented in table 9.3

Each State and Territory government operates multiple emergency service agencies, which service different populations and geographic areas according to specified governance arrangements (table 9.4).

**Table 9.1 Activities of fire service organisations**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<b>Fire prevention</b>								
Advice on rural land management	✓	✓	✓	✓	✓	✓	✓	✓
Preparation of risk assessment and emergency plans	✓	✓	✓	✓	✓	✓	✓	✓
Inspection of property and building for fire hazards and fire standards compliance	✓	✓	✓	✓	✓	✓	✓	✓
Inspection of storage and handling	✓	✓	✓	✓	✓	✓	x	✓
<b>Fire preparedness</b>								
Preparation of response plans	✓	✓	✓	✓	✓	✓	✓	✓
Public training and intervention	✓	✓	✓	✓	✓	✓	✓	✓
Promotion of fire alerting systems	✓	✓	✓	✓	✓	✓	✓	✓
Training of fire personnel	✓	✓	✓	✓	✓	✓	✓	✓
Sale and maintenance of fire protection equipment	✓	✓	x	x	x	✓	x	x
Hazardous chemicals and material certification	✓	✓	✓	✓	✓	x	x	x
<b>Non-fire preparedness</b>								
Counter-terrorism	✓	✓	✓	✓	✓	✓	✓	✓
Critical infrastructure protection	✓	✓	✓	✓	✓	✓	✓	✓
National security support	✓	✓	✓	✓	✓	✓	✓	✓

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**Table 9.1 Activities of fire service organisations** (continued)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<b>Fire response</b>								
Structural fire suppression	✓	✓	✓	✓	✓	✓	✓	✓
Wild fire suppression	✓	✓	✓	✓	✓	✓	✓	✓
Response to incident involving hazardous substances	✓	✓	✓	✓	✓	✓	✓	✓
Interagency response/incident management arrangements	✓	✓	✓	✓	✓	✓	✓	✓
<b>Non-fire response</b>								
Hazardous materials incidents	✓	✓	✓	✓	✓	✓	✓	✓
Chemical biological and radiological incidents	✓	✓	✓	✓	✓	✓	✓	✓
Aircraft/airport incident response	✓	✓	✓	✓	✓	✓	✓	✓
Medical emergencies	✓	✓	✓	x	✓	✓	✓	✓
Road crash rescue	✓	✓	✓	✓	✓	✓	✓	✓
Industrial rescue	✓	✓	✓	✓	✓	✓	✓	✓
Other rescue	✓	✓	✓	✓	✓	✓	✓	✓
Storm damage	✓	✓	✓	✓	✓	✓	✓	✓
Natural events	✓	✓	✓	✓	✓	✓	✓	✓
Marine response	✓	✓	✓	✓	✓	x	✓	✓
Technological and hazardous materials incidents	✓	✓	✓	✓	✓	✓	✓	✓
Emergency relief and recovery	✓	✓	✓	✓	✓	✓	x	x
Vertical rescue	✓	✓	✓	✓	✓	✓	✓	✓
Urban search and rescue	✓	✓	✓	✓	✓	✓	✓	✓

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Table 9.1 **Activities of fire service organisations** (continued)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
<b>Fire recovery</b>								
Critical incident stress debriefing	✓	✓	✓	✓	✓	✓	✓	✓
Salvage and restoration of the emergency event to a safe state	✓	✓	✓	✓	✓	✓	✓	✓
Support for the community	✓	✓	✓	✓	✓	✓	✓	<b>x<sup>a</sup></b>
Post incident analysis of events	✓	✓	✓	✓	✓	✓	✓	✓

<sup>a</sup> Bushfires NT (land management agency) provides post-incident community support.

Source: State and Territory governments (unpublished).

**Table 9.2 Activities of state and territory emergency services**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
<b>Floods, storm and tempest and other natural disasters</b>								
Tropical cyclone response	x	x	✓	✓	x	x	x	✓
Storm damage	✓	✓	✓	✓	✓	✓	✓	✓
Flood response	✓	✓	✓	✓	✓	✓	✓	✓
Earthquakes	✓ <b>a</b>	✓	✓	✓	✓	✓	✓ <b>a</b>	✓
Tsunami response	✓	✓	✓	✓	✓	✓ <b>a</b>	x	✓
<b>Search and rescue and emergency medical service</b>								
Road crash rescue	✓	✓	✓	✓	✓	✓	x	✓
Vertical rescue	✓	✓	✓	✓	✓	✓ <b>a</b>	x	✓
Land search and rescue	✓ <b>a</b>	✓ <b>a</b>	✓ <b>a</b>	✓ <b>a</b>	✓	✓ <b>a</b>	✓ <b>a</b>	✓
Urban search and rescue	✓ <b>a</b>	✓	✓ <b>a</b>	✓ <b>a</b>	✓	✓ <b>a</b>	✓ <b>a</b>	✓ <b>a</b>
Inland marine search and rescue	✓ <b>a</b>	✓ <b>a</b>	✓ <b>a</b>	✓ <b>a</b>	✓	✓ <b>a</b>	x	✓
Offshore marine search and rescue	x	✓ <b>a</b>	x	✓ <b>b</b>	✓	x	✓ <b>b</b>	✓
<b>Other emergency incidents</b>								
Hazardous conditions	✓	✓	✓	✓	✓	✓	✓	✓
Civil defence	✓ <b>a</b>	✓	x	✓	✓	✓	✓	✓
National security support	✓ <b>a</b>	✓	✓ <b>a</b>	✓	✓	✓ <b>a</b>	✓	✓ <b>a</b>
Support to emergency service organisations	✓	✓	✓	✓	✓	✓	✓	✓
<b>Support services</b>								
Conduct of emergency management courses	x	✓	✓	✓	✓	✓	x	✓
Public safety awareness and education	✓	✓	✓	✓	✓	✓	✓	✓
Assistance for municipal planning	✓	✓	✓	✓	✓	✓	x	✓

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Table 9.2 **Activities of state and territory emergency services** (continued)

	NSW	Vic	Qld	WAA <sup>a</sup>	SA	Tas	ACT	NT
<b>Support services</b>								
Air observer <sup>b</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓	✓ <sup>a</sup>	✓	✓
Landslip	x	✓ <sup>c</sup>	x	x	x	x	x	x
Incident air monitoring	x	✓ <sup>c</sup>	x	x	x	x	x	x

<sup>a</sup> STES provides support to another agency in this activity. <sup>b</sup> WA and ACT SES undertake air observer duties offshore only. They do not participate in sea rescue. <sup>c</sup> New responsibilities for Victorian SES from 2016-17.

Source: State and Territory governments (unpublished).

**Table 9.3 Scope of fire service organisation data provided by jurisdictions**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
<b>Fire service organisation financial data tables</b>								
Table 9A.1 Major sources of fire service organisations revenue and revenue per person	UD × FSP ✓ LMA ✓	UD × FSP ✓ LMA ✓	UD ✓ FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ✓	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ✓	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ✓
Table 9A.3 Fire service organisations human resources	UD × FSP ✓ LMA ✓	UD × FSP ✓ LMA ✓	UD ✓ FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ✓	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ✓
Table 9A.13 Fire service organisations' expenditure and expenditure per person	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ✓	UD ✓ FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ✓	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ✓	UD × FSP ✓ LMA ×	UD × FSP ✓ LMA ✓
<b>Fire service organisation activity data tables</b>								
Table 9A.6 Confinement of building fires to room of origin	UD × FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓
Table 9A.8 Fire incidents attended by fire service organisations	UD × FSP ✓ LMA ✓	UD .. FSP ✓ LMA ✓	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓
Table 9A.8 Landscape fires (bush and grass) incidents	UD × FSP ✓ LMA ✓	UD .. FSP ✓ LMA ✓	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓

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Table 9.3 **Scope of 'fire service organisation' data provided by jurisdictions** (continued)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA<sup>a</sup></i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT<sup>b</sup></i>
<b>Fire service organisation activity data tables</b>								
Table 9A.8 Hazardous materials incidents	UD × FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓
Table 9A.8 Reported road crash rescue incidents and road crash rescue extrications	UD × FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓
Table 9A.9 Accidental structure fires per 100 000 households	UD × FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓
Tables 9A.11-12 Response times to structure fires, including and excluding call taking time, by remoteness area	UD × FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD ✓ FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ×	UD .. FSP ✓ LMA ✓

**UD** = Umbrella department **FSP** = Fire service provider **LMA** = Land management agency

<sup>a</sup> DFES provides a wide range of emergency services under an integrated management structure. Data cannot be segregated by service and includes State Emergency Service and volunteer marine services as well as fire. <sup>b</sup> Data provided for Bushfires NT, but not other land management agencies. .. Not applicable.

Source: State and Territory governments (unpublished).

**Table 9.4 Delivery and scope of activity of primary fire service organisations<sup>a</sup>**

	<i>Umbrella department</i>	<i>Fire service provider</i>	<i>Land management agency</i>
<i>NSW</i>	<ul style="list-style-type: none"> <li>NSW Department of Communities and Justice</li> </ul>	<ul style="list-style-type: none"> <li>Fire &amp; Rescue NSW: government department reports to the Minister for Police and Emergency Services directly.</li> <li>NSW Rural Fire Service: government department reports to the Minister for Police and Emergency Services directly.</li> </ul>	<ul style="list-style-type: none"> <li>NSW Department of Environment, Climate Change and Water</li> <li>NSW National Park and Wildlife Service</li> <li>Forests NSW</li> <li>NSW Lands Department</li> <li>NSW Water Authorities</li> </ul>
<i>Vic</i>	<ul style="list-style-type: none"> <li>Department of Justice and Community Safety</li> </ul>	<ul style="list-style-type: none"> <li>Metropolitan Fire and Emergency Services Board: statutory authority reports to the Minister for Police and Emergency Services.</li> <li>Country Fire Authority: statutory authority reports to the Minister for Police and Emergency Services.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Environment, Land, Water &amp; Planning</li> </ul>
<i>Qld</i>	<ul style="list-style-type: none"> <li>Queensland Fire and Emergency Services (QFES) was established as a department on 1 November 2013 bringing together a range of service delivery entities previously managed within the former Department of Community Safety which included the operational divisions of the Queensland Fire and Rescue Service and Emergency Management Queensland.</li> <li>The Public Safety Business Agency (PSBA) was established on 1 November 2013 to provide strategic and corporate services to Queensland's public safety agencies including QFES. Following an independent review of PSBA in 2015, a number of functions transitioned to QFES commencing 1 July 2016. From 1 July 2016, PSBA provides ICT, financial, procurement, asset management and human resource services to the public safety agencies.</li> <li>QFES is the primary provider of fire and rescue and emergency management programs and services throughout Queensland. The department encompasses the Fire and Rescue Service, disaster management services, Rural Fire Service and State Emergency Service. The Commissioner QFES, reports to the Minister for Fire and Emergency Services and Minister for Aboriginal and Torres Strait Islander Partnerships.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Natural Resources, Mines and Energy</li> <li>Department of Environment and Science</li> </ul>	
<i>WA</i>	<ul style="list-style-type: none"> <li>Department of Fire and Emergency Services (DFES). DFES is the fire service provider and umbrella organisation for fire and emergency services. As the primary fire and emergency service, DFES includes the Fire and Rescue Career and Volunteer Service, State Emergency Service, Volunteer Fire and Emergency Service Units and the Volunteer Marine Rescue Services in its operational commands. Bush Fire Brigades are administered by local governments with fires in national parks and reserves the responsibility of the Department of Biodiversity, Conservation and Tourism.</li> </ul>	<ul style="list-style-type: none"> <li>Department of Biodiversity, Conservation and Tourism</li> </ul>	

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**Table 9.4 Delivery and scope of activity of primary fire service organisations<sup>a</sup>** (continued)

	<i>Umbrella department</i>	<i>Fire service provider</i>	<i>Land management agency</i>
<i>SA</i>	<ul style="list-style-type: none"> <li>• Fire and Emergency Services Commission</li> </ul>	<ul style="list-style-type: none"> <li>• South Australian Metropolitan Fire Service: body corporate reports to the SA Fire and Emergency Services Commission.</li> <li>• South Australian Country Fire Service: body corporate reports to the SA Fire and Emergency Services Commission.</li> </ul>	<ul style="list-style-type: none"> <li>• Forestry SA</li> <li>• Department of Environment and Water</li> </ul>
<i>Tas</i>	<ul style="list-style-type: none"> <li>• ..</li> </ul>	<ul style="list-style-type: none"> <li>• Tasmania Fire Service: operational arm of the State Fire Commission, reports to the Minister for Police Fire and Emergency Management.</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable Timber Tasmania</li> </ul>
<i>ACT</i>	<ul style="list-style-type: none"> <li>• ACT Emergency Services Agency within the Justice and Community Safety Directorate</li> </ul>	<ul style="list-style-type: none"> <li>• ACT Fire and Rescue and ACT Rural Fire Service: services of the ACT Emergency Services Agency within the Justice and Community Safety Directorate, together report to the ACT Minister for Police and Emergency Services.</li> </ul>	<ul style="list-style-type: none"> <li>• Parks and Conservation Service</li> </ul>
<i>NT</i>	<ul style="list-style-type: none"> <li>• NT Fire, Rescue and Emergency Services</li> <li>• Department of Environment and Natural Resources</li> </ul>	<ul style="list-style-type: none"> <li>• The NT Fire and Rescue Service has amalgamated with the NT Emergency Service. One Executive Director exists across both services reporting to the Chief Executive Officer for Police, Fire and Emergency Services, who reports to the Minister for Police, Fire and Emergency Services.</li> </ul>	<ul style="list-style-type: none"> <li>• Bushfires NT is a division of the Department of Environment and Natural Resources and manages bushfires in all non-urban areas across the NT. The Executive Director, Bushfires NT, reports to the Chief Executive Officer of the Department of Environment and Natural Resources who reports directly to the Minister. Bushfires NT collaborates with independent volunteer bushfire brigades to provide this service.</li> <li>• Parks and Wildlife Commission of the NT</li> </ul>

<sup>a</sup> Excludes brigades employed by large scale public and private land managers; port, mining and other infrastructure brigades; and land management departments and brigades operating under Australian jurisdiction (for example, airport and defence installations). .. Not applicable.

Source: State and Territory governments (unpublished).

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## 9.2 Indicators

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

The comparability of performance indicator results is shaded in indicator interpretation boxes, figures and data tables as follows:

- Data are comparable (subject to caveats) across jurisdictions and over time.
- Data are either not comparable (subject to caveats) within jurisdictions over time or are not comparable across jurisdictions or both.

The completeness of performance indicator results is shaded in indicator interpretation boxes, figures and data tables as follows:

- Data are complete (subject to caveats) for the current reporting period. All required data are available for all jurisdictions.
- Data are incomplete for the current reporting period. At least some data were not available.

### Outputs

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

### Equity

#### Access — Response times by geographic area

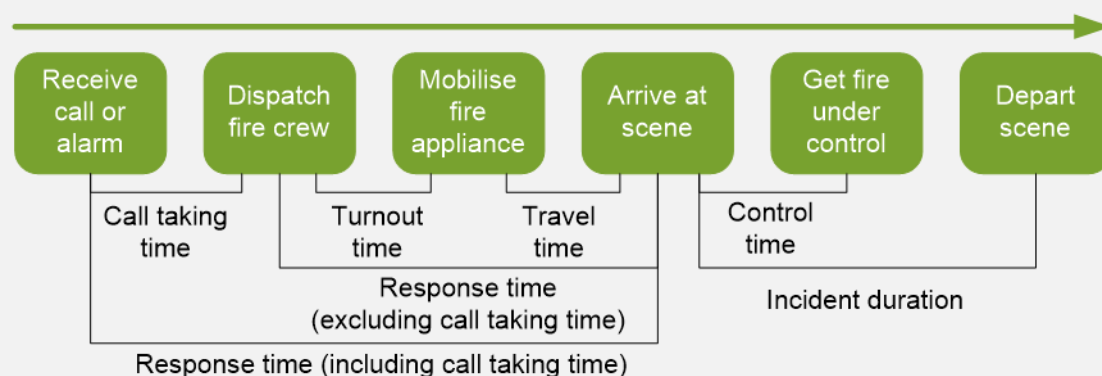
‘Response times by geographic area’ is a proxy indicator of governments’ objective to provide fire services in an equitable manner (box 9.1).

## Box 9.1 Response times by geographic area

'Response times by geographic area' (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 (including call taking time), by remoteness area. Response time (*including* call taking time) reflects jurisdictions' overall responsiveness to the notification of a structure fire
- dispatch of the responding fire crew (excluding call taking time), by remoteness area. 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.



Response time measures by geographic area are defined using the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) Remoteness structure for major cities, inner regional, outer regional, remote and very remote areas. There are no very remote areas in Victoria. There are no major cities in Tasmania (Hobart and Launceston are classified as inner regional areas). There are no outer regional, remote or very remote areas in the ACT (all areas are categorised as major city areas for this report). There are no major cities or inner regional areas in the NT (Darwin is classified as an outer regional area).

Many factors influence major city and remoteness area response times including:

- land area (which particularly impacts 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
- crew 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 geographies suggest equitable access by area.

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### Box 9.1 (continued)

Response times need to be interpreted with caution as differences in the application of the counting rules, due to different legislated arrangements and procedures that underpin collection and reporting processes, affect comparability across jurisdictions. The differences relate to response time definition, data collection systems and storage, data completeness (volunteer brigades) and percentile calculations.

Data reported for these measures are:

- not comparable across jurisdictions, but are comparable (subject to caveats) within jurisdictions over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions.

### Access — Access by special needs groups

‘Access by special needs group’ is an indicator of governments’ objective to provide emergency services in an equitable manner (box 9.2).

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### Box 9.2 Access by special needs groups

‘Access by special needs groups’ measures the performance of agencies providing emergency services for identified special needs groups. In the context of emergency services for fire events, special needs groups are identified by fire service organisations as ‘at risk’ communities. The term ‘at risk’ is used to refer to individuals who are less able to prepare for, respond to or recover from an emergency event due to characteristics such as age-associated sensory and cognitive impairments, disability and mobility limitations, social isolation or socio-economic status. These characteristics place these communities at greater risk of fire injury and death. ‘At risk’ communities include:

- People with disability
- Elderly people
- People in aged care facilities
- Aboriginal and Torres Strait Islander people
- People with low literacy
- Social housing tenants
- Culturally and Linguistically Diverse (CALD) communities
- School-aged children

Data are not yet available for reporting against this indicator.

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## Effectiveness

### Response — Response times

‘Response times’ is an indicator of governments’ objective to provide emergency services that are accessible and responsive (box 9.3).

#### Box 9.3      **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 9.1 for further information on the calculation of response times.

Data reported for these measures are:

- not comparable across jurisdictions, but are comparable (subject to caveats) within jurisdictions over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions.

### Prevention/mitigation — Accidental residential structure fires

‘Accidental residential structure fires’ is an indicator of governments’ objective to contribute to the community’s management of risks through the promotion of risk reduction and mitigation activities (box 9.4).

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#### Box 9.4 **Accidental residential structure fires**

‘Accidental residential structure fires’ is defined as 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 indicator are:

- comparable (subject to caveats) across jurisdictions and over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions.

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

‘Confinement to room/object of origin’ is an indicator of governments’ objective to contribute to the community’s management of risks through the promotion of risk reduction and mitigation activities (box 9.5).

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#### Box 9.5 **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. It is reported separately by ignition factor (accidental; incendiary and suspicious and other ignition types). 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) across jurisdictions and over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions.

#### Preparedness — Households with a smoke alarm

‘Households with a smoke alarm’ is an indicator of governments’ objective to contribute to the community’s management of risks and its preparedness (box 9.6).



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### Box 9.6 Households with a smoke alarm

'Households with a smoke alarm' is defined by two measures:

- the number of households with a smoke alarm installed, divided by the total number of households
- the number of households with a smoke alarm/detector that is operational/has been tested (manually in the last 12 months), divided by the total number of households.

A high or increasing proportion of households with a smoke alarm that is installed and operational indicates greater community preparedness.

Data reported for this measure are:

- not comparable across jurisdictions, but are comparable (subject to caveats) within jurisdictions over time
- incomplete for the current reporting period. All required 2019-20 data are not available for all jurisdictions except Queensland.

### Sustainability — Firefighter workforce

'Firefighter workforce' is an indicator of governments' objective to provide emergency services that are sustainable (box 9.7).

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### Box 9.7 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.

- 'workforce attrition' – the level of attrition in the operational workforce, calculated as the number of firefighting employees (headcount) who exit the organisation as a proportion of the total number of firefighting employees.

Low or decreasing levels of staff attrition are desirable.

Data reported for these measures are:

- comparable (subject to caveats) across jurisdictions and over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions.

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## Efficiency

### Expenditure per person

‘Expenditure per person’ is a proxy indicator of governments’ objective of providing emergency services in an efficient manner (box 9.8).

#### Box 9.8 Expenditure per person

‘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:

- not comparable across jurisdictions, but are comparable (subject to caveats) within jurisdictions over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions.

Time series data for real recurrent expenditure and capital costs (including associated costs for the user cost of capital) for each jurisdiction are reported in table 9A.13. Information on treatment of assets by emergency management agencies is presented in table 9.5 in section 9.3.

## Outcomes

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

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## Fire death rate

‘Fire death rate’ is an indicator of governments’ objective to reduce the adverse effects of emergency events on the community (including people, property, infrastructure, economy and environment) (box 9.9).

### **Box 9.9 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, and 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).

Annual fire death rates can be particularly volatile because of the small number of fire deaths and the influence of large irregular fire events.

No deaths or a decreasing 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 2019 data are available for all jurisdictions.

## 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 9.10).

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### Box 9.10 **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 and over time
- complete (subject to caveats) for the current reporting period. All required 2018-19 data are available for all jurisdictions.

### 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 9.11).

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### Box 9.11 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 domestic property and contents caused by the fire and firefighting operations based on insurance claims. It does not include land value. The value of insurance claims from fire events 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 claims 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.

The value of domestic insurance claims from fire events reflects efforts to reduce the likelihood, effect and consequences of emergencies on communities. Lower or decreasing asset losses from fire events is desirable.

Data need to be interpreted with caution as insurance claims may not reflect actual asset losses 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 — small fire incidents are not recorded where no insurance claim is made by the policy holders (due to requirement for policy holders to pay excess).

Data reported for this measure are:

- comparable (subject to caveats) across jurisdictions and over time
- complete (subject to caveats) for the current reporting period. All required 2019-20 data are available for all jurisdictions, noting ISA estimate that their data cover approximately 69 and 60 per cent of the potential domestic and commercial insurance markets respectively.

## 9.3 Treatment of assets by fire service organisations

Table 9.5 Treatment of assets by emergency management agencies, 2019-20<sup>a</sup>

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
<b>Depreciation method</b>								
• Depreciable assets	Straight-line	Straight-line	Straight-line	Straight-line	Straight-line	Straight-line	Straight-line	Straight-line
<b>Revaluation method</b>								
• Land	Fair or market value	Deprival or market value	Fair or market value	Combination of Market value and current use (Depreciated replacement cost)	Market value	Fair value or historical cost	Market value	na
• Buildings	RFS: Fair or market value; FRNSW: Depreciated Replacement Cost for fire stations	Deprival or market value	Fair or market value	Combination of Market value and current use (Depreciated replacement cost)	Market value	Fair value or historical cost	Market value	na
• Other assets	RFS: Fair or market value; FRNSW: fire appliances: Depreciated Replacement Cost; Other P & E: Depreciated historical cost.	Deprival or market value	Fair or market value	na	Market value	na	na	na

(continued next page)

**Table 9.5 Treatment of assets by emergency management agencies<sup>a</sup> (continued)**

	<i>NSW<sup>b</sup></i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT<sup>c</sup></i>	<i>NT</i>
<b>Frequency of revaluations (years)</b>								
• Land, buildings	3	1-5	1-5	Annually	6	5	3	na
• Other assets	5	1-5	Annually	Historical cost	6	na	na	na
<b>Useful asset lives (years)<sup>d</sup></b>								
• Buildings	40	12-66	15-80	40	40-50	33-100	30-40	40
• Specialist equipment	RFS: 10; FRNSW: 15-30	2-50	3-20	10-15	10-20	5-25	10	5-10
• IT equipment	3-5	3-5	3-5	3	5	5-10	4	na
• Other vehicles	RFS: 3-5; FRNSW: 2-15	2-20	2-10	5-20	15-20	5-10	7-15	5-15
• Office equipment <sup>e</sup>	RFS: 5-10; FRNSW: 5-20	2-20	3-10	10-15	10	3-10	7	na
• Other equipment <sup>f</sup>	–	3-20	3-10	5-15	10	3-10 years	10	na
<b>Threshold capitalisation levels (\$)</b>								
• Buildings	RFS: 10,000; FRNSW 3,000	All	10 000	5 000	10 000	10 000	5 000	na
• IT equipment	RFS: 10,000; FRNSW 3,000	1 000	5 000	5 000	10 000	10 000	5 000	na
• Other assets	RFS: 10,000; FRNSW 3,000	1 000	5 000	5 000	10 000	10 000	5 000	na

<sup>a</sup> Market value is the current (net) value market selling price or exchange value; deprival value may be either the depreciated replacement cost of an asset of a similar service potential or the stream of its future economic benefits. <sup>b</sup> The assets used by the NSW Rural Fire Service are largely vested in Local Government. Accordingly, although issues such as asset depreciation and useful lives may be guided by Service policies, Local Government policies will prevail in other areas. <sup>c</sup> Treatment includes all four response agencies: the ACT Fire and Rescue, the ACT Rural Fire Service, the ACT State Emergency Service and the ACT Ambulance Service. Assets have been manually apportioned. Apportionment process varies from previous years. <sup>d</sup> Estimated as 1/depreciation rate. Asset lives for some assets have been grouped with other classifications. <sup>e</sup> For some jurisdictions, office equipment includes furniture and fittings. <sup>f</sup> For some jurisdictions, other equipment includes information technology. **na** Not available.

Source: State and Territory governments (unpublished).

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## 9.4 Definitions of key terms

<b>Expenditure</b>	<p>Includes:</p> <ul style="list-style-type: none"><li>• salaries and payments in the nature of salaries to fire personnel</li><li>• capital expenditure (such as the user cost of capital)</li><li>• other operating expenditure (such as running expenditure, contract expenditure, training expenditure, maintenance expenditure, communications expenditure, provision for losses and other recurrent expenditure).</li></ul> <p>Excludes interest on borrowings.</p>
<b>User cost of capital</b>	<p>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).</p>
<b>Human resources</b>	<p>Human resources refers to any person delivering a service, or managing the delivery of this service, including:</p> <ul style="list-style-type: none"><li>• firefighters (qualified paid and volunteer firefighters)</li><li>• support personnel (any paid person or volunteer directly supporting operational providers, including administrative, technical and communications personnel).</li></ul>
<b>Revenue</b>	<p>Revenue received directly or indirectly by fire service organisations on an accrual accounting basis, including:</p>
Government grant funding	<p>Grant funding, as established in legislation, from the Australian, State/Territory and Local governments.</p>
Levies	<p>Revenue from levies, as established in enabling legislation, raised on insurance companies and property owners.</p>
User/transport charges	<p>Revenue from fees and charges on individuals, private/public organisations and insurers.</p>
Subscriptions and other income	<p>Other revenue, including:</p> <ul style="list-style-type: none"><li>• subscriptions and benefit funds received from the community</li><li>• donations, industry contributions and fundraising received</li><li>• other income.</li></ul>
Indirect revenue	<p>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.</p>
<b>Preparedness</b>	<p>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.</p>
<b>Response</b>	<p>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.</p>
<b>Volunteer firefighters</b>	<p>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'.</p>
<b>Volunteer support staff</b>	<p>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'.</p>