D Emergency management sector overview

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Attachment tables

Attachment tables are identified in references throughout this sector overview by a 'DA' prefix (for example, table DA.1). A full list of attachment tables is provided at the end of this sector overview, and the attachment tables are available from the Review website at www.pc.gov.au/gsp.

D.1 Introduction

This sector overview provides an introduction and the policy context for the government services reported in 'Fire and ambulance services' (chapter 9) by providing an overview of the emergency management sector.

Improvements to reporting in this edition's Emergency management sector overview include:

- a new sector wide performance indicator and data quality information (DQI) — community preparedness for emergency events — which provides information on the number of people who know what to do to prepare for an emergency
- the inclusion of data on a more comprehensive range of activities of State and Territory Emergency Services (SES), including the number of emergency incidents attended and hours in attendance.

Major improvements in reporting on emergency services for fire and ambulance events are identified in Fire and ambulance services chapter (chapter 9).

Policy context

The *Natural Disaster Resilience Statement* highlights that a national, coordinated and cooperative effort is needed to enhance Australia's capacity to withstand and recover from emergencies and disasters (COAG 2009). Accordingly, the Council of Australian Governments (COAG) adopted the *National Strategy for Disaster Resilience* on 13 February 2011 (COAG 2011). It promotes a 'resilience' based approach to natural disaster policy and programs. The strategy recognises that disaster resilience is a shared responsibility for individuals, businesses and communities, and involves activities as diverse as risk assessment, legislation, community development, emergency response, urban development and land use management, and community recovery.

The Australia-New Zealand Emergency Management Committee (ANZEMC) is Australia's national consultative emergency management forum and reports to the COAG Law, Crime and Community Safety Council (LCCSC 2014). ANZEMC works to strengthen disaster resilience by providing strategic leadership on emergency management policy and supporting related capability and capacity development activities.

ANZEMC is supported by four sub-committees:

- Capability Development Sub-Committee — strategic nation-wide and whole-of-governments' emergency management capability development
- Recovery Sub-Committee — holistic disaster recovery policy and planning
- Community Engagement Sub-Committee — strategic nation-wide whole-of-governments' emergency management community engagement
- Risk Assessment Measurement and Mitigation Sub-Committee — national approaches to risk assessment, measurement and mitigation.

Sector scope

Emergency management is the practice of managing the impact from emergency events (box D.1) to individuals, communities and the environment (EMA 1998). Emergency management organisations in Australia have adopted an approach that aims to be:

- *comprehensive* — encompassing all hazards and recognising that dealing with the risks to community safety requires a range of activities to prevent, prepare for, respond to and recover from any emergency
- *integrated* — ensuring the involvement of governments, all relevant agencies and organisations, private sector and the community.

Emergency events vary in size and intensity affecting individuals (such as in medical emergencies), household/business assets (such as in building fires), or community, economy and the environment (such as in natural disasters).

Events of considerable magnitude or duration, such as earthquakes, cyclones and bushfires, can involve international, interstate and other cooperation and support. Jurisdictions are increasingly contributing to operational responses across Australia and to a number of significant emergency events around the Pacific and Indian Ocean rim.

Box D.1 Emergency events

An emergency event is an event that endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response (EMA 1998). It encompasses:

- structure fires
- rescues — including road crash rescues and marine rescues
- medical emergencies and transport
- natural disaster events — that is, bushfire (landscape fire), earthquake, flood, storm, cyclone, storm surge, landslide, tsunami, meteorite strike, and tornado
- consequences of acts of terrorism
- other natural events — such as drought, frost, heatwave, or epidemic
- disaster events resulting from poor environmental planning, commercial development, or personal intervention
- technological and hazardous material incidents — such as chemical spills, harmful gas leaks, radiological contamination, explosions, and spills of petroleum products
- quarantine and control of diseases and biological contaminants.

Source: AEM (2014a).

State and Territory governments

State and Territory governments are responsible for regulatory arrangements that protect life, property and the environment. They have primary responsibility for delivering emergency services directly to the community through emergency service organisations.

Emergency service organisations include government departments, statutory authorities, and smaller branches, agencies or services within larger departments or authorities (table DA.1). They also include non-government organisations, supported by State and Territory government funding and legislation, which provide emergency management services on behalf of the state, such as St John Ambulance in WA and the NT.

The range of emergency service organisations encompasses:

- *Fire service organisations* — work to minimise the impact of fire and other emergencies on the community, in cooperation with other government departments and agencies (SES, police, ambulance services and community service organisations) (chapter 9).
- *State and Territory Emergency Service organisations (SES)* — help communities prepare for, respond to, and recover from unexpected events and play a major role in each State and Territory for hazards as diverse as:
  - road crash rescue incidents and extrications (other than in the ACT, where ACT Fire and Rescue is responsible for all road crash rescue services)
  - flood, earthquake, tsunami, tropical cyclone and marine search and rescue
  - search and rescue services (table DA.14).
- *Ambulance service organisations* — work within the health system providing emergency and non-emergency patient care and transport, as well as fostering public education in first aid (chapter 9).

  Ambulance services provide a critical link between health care and disaster management systems (CAA 2013). They are responsible for providing responsive, high quality specialised medical care in emergencies. This includes working with other emergency services organisations to provide pre-hospital care, rescue, retrieval, and medical transport to tertiary health care facilities by road, air and water.
- *Marine rescue and coast guard organisations* — marine rescue and boating safety and communication services.
- *Lifesaving organisations* — water safety, drowning prevention and rescue services.

Australian Government

The primary role of the Australian Government is to support the development, through State and Territory governments, of a national emergency management capability. Australian Government assistance takes the form of:

- financial, physical and technical assistance in large scale emergency events
- financial assistance for natural disaster resilience, mitigation and preparedness
- support for emergency relief and community recovery
- funding for risk management and comprehensive risk assessment programs
- contracting Telstra to provide the national Triple zero (000) emergency call operator service, and regulating the provision of this service
- community awareness activities.

Australian Government agencies also have specific emergency management responsibilities, including: the control of exotic animal and plant diseases; aviation and maritime search and rescue; the management of major marine pollution (beyond coastal waters); the prediction of meteorological and geological hazards; the provision of firefighting services at some airports and some defence installations; human quarantine; and research and development. The Australian Government also manages the Crisis Coordination Centre, which maintains a 24-hour a day situational awareness, analysis and reporting capability and an emergency management planning capability.

In addition, the State and Territory governments may seek non-financial assistance for response and recovery activities. This assistance is usually provided under the Defence Assistance to the Civil Community (DACC) program. Under the DACC, the Department of Defence may be called upon to provide personnel, equipment and expertise to assist in the civil response to an emergency event. DACC recorded 275 emergency tasks from 2005–06 to 2012-13 (ANAO 2014).

Local governments

Local governments in some states and territories are involved to varying degrees in emergency management. Their roles and responsibilities may include:

- considering community safety in regional and urban planning by assessing risks, and developing emergency event mitigation measures and prevention plans
- improving community preparedness through local emergency planning
- issuing hazard reduction notices to private land holders and clearing vegetation in high risk public areas
- collecting statutory levies to fund fire and other emergency services
- allocating resources for response and recovery activities
- providing financial and operational assistance to voluntary emergency services.

Profile of the emergency management sector

Detailed profiles for fire events and ambulance events within the emergency management sector are reported in chapter 9, and cover:

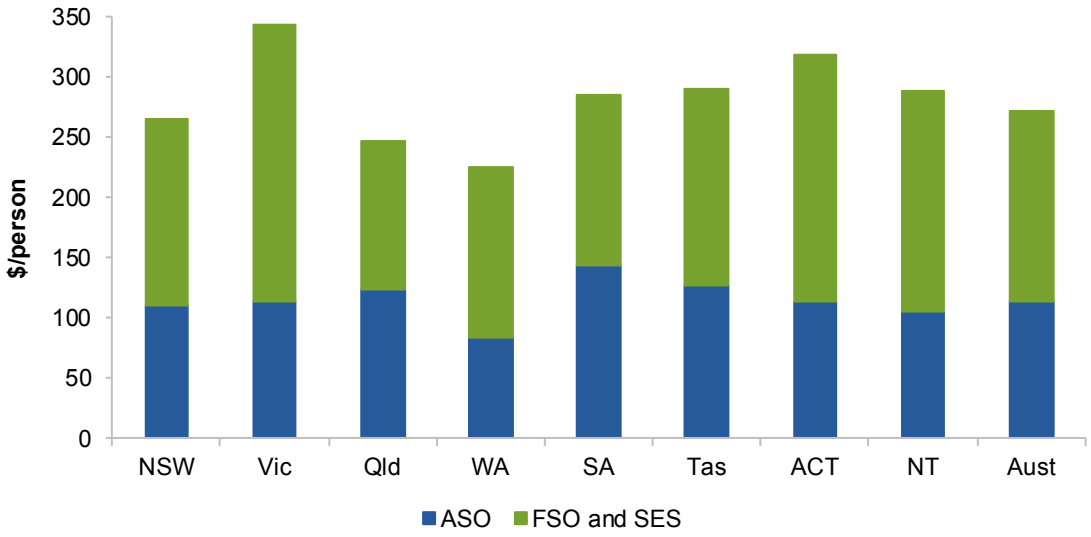
- size and scope of the individual service types
- funding and expenditure.

Descriptive statistics for SES organisations are presented, by jurisdiction, in tables DA.14–DA.19.

Emergency service organisation costs

Nationally in 2013-14, total expenditure across ambulance, fire and emergency service organisations was $6.5 billion, or $279.85 per person in the population, although some caution should be taken when comparing these data across service areas and jurisdictions (figure D.1 and table DA.3).

Figure D.1 **Expenditure of emergency service organisations, per person in the population 2013-14**[a, b, c]



SES = State/Territory emergency service organisation; **FSO** = Fire service organisation; **ASO** = Ambulance service organisation

a Data may not be comparable across service areas and comparisons could be misleading. Expenditure for SES organisations were collected for the first time for the 2013 Report. It is anticipated that the comparability of these data will improve over time as scope and data definition issues are resolved across jurisdictions. **b** The figures provided for WA as FSO and SES expenditure include total costs of services for the SES, Fire and Rescue Services, Bush Fire Services and Volunteer Marine Rescue Services. **c** Tasmania's SES expenditure includes activities that support broader whole-of-government emergency management functions.

Source: State and Territory governments; table DA.3.

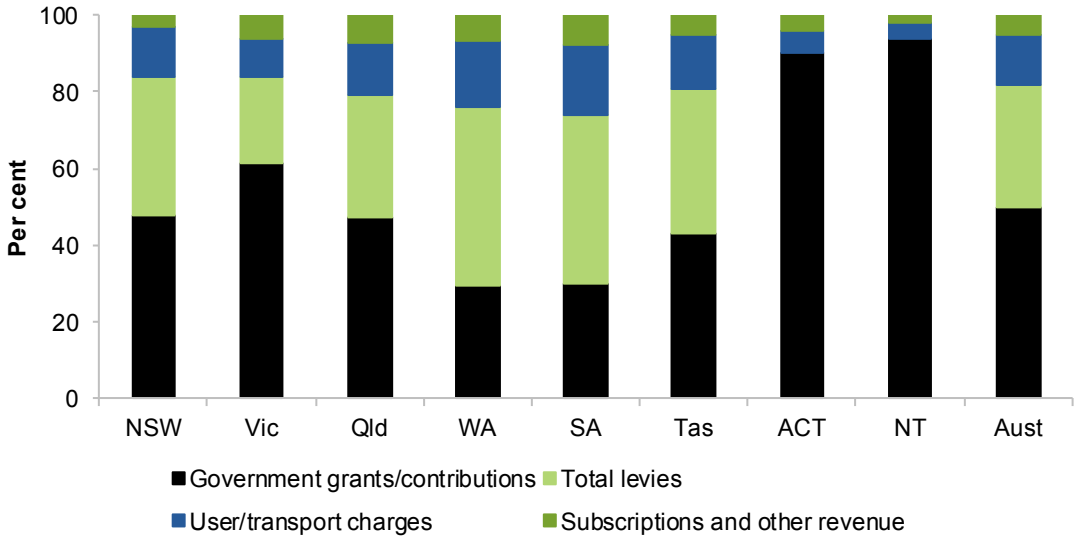
The cross-cutting and interface issues section of this overview (section D.3) highlights that a range of other government agencies, such as police and health services, also fund emergency management. In addition, governments also incur costs for government disaster coordination agencies and volunteer marine rescue and lifesaving organisations (these costs are not available for this Report).

Funding emergency service organisations

The funding of emergency services organisations varies by service and jurisdiction (figure D.2). Funding occurs through a mix of:

- government grants — provided to emergency services organisations from State and Territory governments
- fire and emergency service levies — governments usually provide the legislative framework for the imposition of levies on property owners or, in some jurisdictions, from levies on both insurance companies and property owners
- ambulance transport fees — from government, hospitals, private citizens and insurance companies
- subscriptions and other revenue — subscriptions, other fees, donations and miscellaneous revenue.

Figure D.2 **Emergency service organisations funding sources, 2013-14** [a, b, c]



[a] Data may not be comparable across service areas and comparisons could be misleading. Revenue data for SES organisations were collected for the first time for the 2013 Report. It is anticipated that the comparability of these data will improve over time as scope and data definition issues are resolved across jurisdictions. [b] Subscriptions and other revenue is equal to the sum of subscriptions, other fees, donations and miscellaneous revenue. [c] Total levies in ACT and the NT are nil.

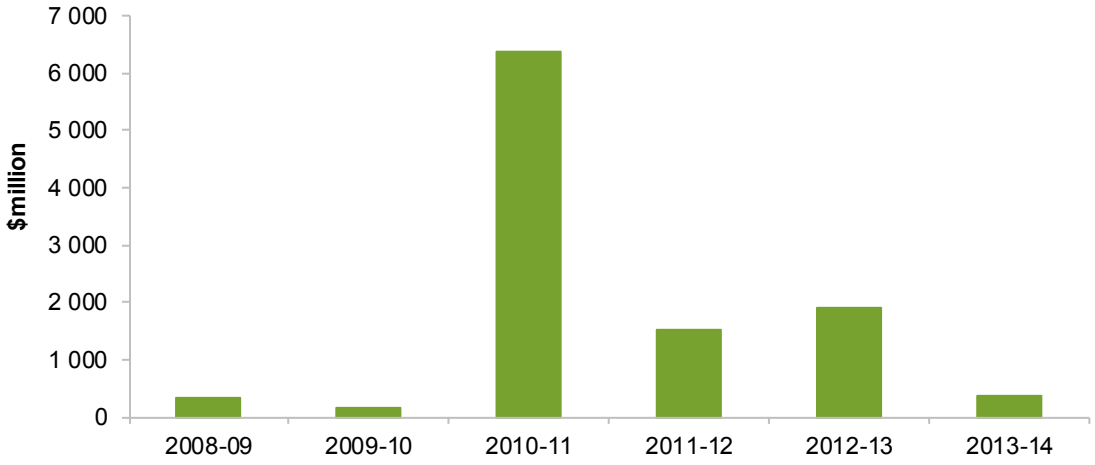
Source: State and Territory governments; table DA.2.

Australian Government funding

The Australian Government provides emergency management funding to State and Territory governments through a range of programs.

- The Natural Disaster Relief and Recovery Arrangements provide financial assistance to support State and Territory governments with relief and recovery efforts following an eligible natural disaster event. The Australian Government calculated that it contributed $377.3 million to the States and Territories for natural disaster events in 2013-14. In 2010-11, the Australian Government incurred costs of $6.4 billion (in 2013-14 dollars), which were predominantly related to the Queensland flood crisis in January 2011 (figure D.8). Allocations to State and Territory governments varies across jurisdictions and over time depending on the timing and nature of natural disaster events (table DA.6).

Figure D.3 **Australian Government Natural Disaster Relief and Recovery Arrangements expenses (2013-14 dollars)[a, b, c]**



[a] Time series financial data are adjusted to 2013-14 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2013-14 = 100) (table 2A.51). See chapter 2 (sections 2.5-6) for details. [b] Data presented are the accrual expenses. The Australian Government calculates expenses as the present value of future payments expected to be made to the State and Territory governments under the Natural Disaster Relief and Recovery Arrangements. This is regardless of whether or not a State has completed eligible disaster reconstruction work or submitted an eligible claim.

Source: Australian Government (unpublished); table DA.6.

- The Natural Disaster Resilience Program provides funding to the State and Territory governments to strengthen community resilience to natural disasters, consistent with the National Strategy for Disaster Resilience. In 2013-14, funding was $17.6 million (table DA.5). Allocations to State and Territory government are included in table DA.5.

- Other initiatives include the National Emergency Management Projects program ($3.6 million in 2013-14) and the National Aerial Firefighting Centre ($14 million in 2013-14) (AEM 2014b).

The Australian Government also provides financial support to eligible individuals affected by a disaster. In 2013-14, the Australian Government made payments of $1.5 million in financial assistance via programs such as the Australian Government Disaster Recovery Payment (table DA.7). Data by the State or Territory of the declared major disaster are included in table DA.7.

Emergency service organisations human resources

Nationally in 2013-14, 35 270 full time equivalent (FTE) people were employed by emergency service organisations. Over half, 56.0 per cent, were employed in fire and emergency service organisations, while the remainder were employed by ambulance service organisations (table D.9).

Table D.1 **Full time equivalent salaried personnel in ambulance, fire and SES organisations, 2013-14**[a]

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Total ambulance, fire and emergency service organisations									
Ambulance service organisations									
ASOs	4 382	3 872	3 882	1 324	1 259	381	246	159	15 503
Fire and emergency service organisations (FSO and SES)									
FSOs	5 216	7 369	na	na	1 068	467	449	257	na
SES	292	181	na	na	43	26	8	19	na
Total	**5 508**	**7 550**	**2 943**	**1 429**	**1 111**	**493**	**457**	**276**	**19 767**
Total	**9 890**	**11 422**	**6 825**	**2 753**	**2 370**	**874**	**703**	**435**	**35 270**

ASO = ambulance service organisation. **FSO** = fire service organisation. **SES** = State and Territory emergency services.

a Caveats for the FSO and ASO human resource data are available in chapter 9, table 9A.5 (FSO) and table 9A.35 (ASO). Caveats for the SES organisation data are available in table DA.17.

na Not available.

Source: State and Territory governments (unpublished); table DA.4.

In 2013-14, 251 587 fire, ambulance and emergency service volunteers (and another 2456 community first response ambulance volunteers) were on the records of emergency service organisations (table DA.4). Emergency services volunteers play a significant role in the provision of emergency services in Australia, particularly in rural and remote areas, by providing:

- response services in the event of an emergency
- community education, cadet schemes and national accredited emergency training

- emergency event support and administrative roles
- community prevention, preparedness and recovery programs.

Although volunteers are not paid wages and salaries, emergency service volunteers provide a valuable service to their communities (box D.2). However, the government and community do bear some costs of this service, including:

- governments — who provide funds and support through infrastructure, training, uniforms, personal protective equipment, operational equipment and support for other operating costs
- employers of volunteers — particularly self-employed volunteers, who incur costs in supporting volunteer services such as in-kind contributions, lost wages and productivity, and provision of equipment.

Volunteer activity has implications for the interpretation of financial and non-financial performance indicators. Notional wage costs for volunteers are not reflected in monetary estimates of inputs or outputs, which means that data for some performance indicators may be misleading where the input of volunteers is not counted, although it affects outputs and outcomes.

Box D.2 Value of volunteers to State and Territory Emergency Services

The Australian Council of State Emergency Services funded a study to estimate the value of State and Territory Emergency Services volunteer time, based on data provided by the agencies in NSW, Victoria, SA and Tasmania. Two approaches were used to estimate the economic value of State and Territory Emergency Services volunteer time:

- *global substitution method* — an average wage rate is used to value all activities
- *task specific substitution method* — each task is valued at its market wage rate.

In both approaches, operational tasks and time, including emergency response and community activities were valued, as well as time spent on training, travel, administration and other tasks.

The value of volunteer time for community preparedness services, operational response, training and unit management (without stand-by time) from 1994-95 to 2004-05 averaged around $52 million (NSW), $19 million (Victoria) and $12 million (SA) per year.

Between 1994-95 and 2004-05, stand-by time averaged about 94 per cent of the total time in NSW and Victoria and about half the total value for NSW and 39 per cent for Victoria. The total time volunteers made available including stand-by time is estimated to be more than $86 million and $41 million a year to NSW and Victoria respectively. For NSW the annual value of a volunteer's contribution was estimated as $15 903. While the indirect or secondary social capital benefits that may arise through volunteerism were not valued, the study shows that volunteers provide a valuable, tangible benefit to their communities.

Source: Ganewatta and Handmer (2007).

Emergency service organisations' activity

Nationally in 2013-14, emergency service organisations attended a wide range of emergency events, including:

- 1.4 million emergency incidents attended by ambulance service organisations. Ambulance service organisations also attended approximately 951 685 urgent incidents and 768 534 non-emergency incidents (chapter 9)
- 384 017 emergency incidents attended by fire service organisations to a range of emergency events, including structure fires, landscape fires and road crash rescue events (chapter 9)
- 61 720 emergency incidents attended by SES organisations (excluding Queensland) to a range of emergency events, predominantly storm and cyclone events (51 623 incidents), followed by road crash rescue events (2871 incidents) and flood events (2362 incidents) (table DA.8 and table DA.18). SES staff and volunteers (including Queensland) contributed 620 846 hours of service (table DA.19) (table D.2).

Table D.2 **Emergency incidents that emergency service organisations attended, 2013-14**[a]

	NSW	*Vic*	*Qld*	*WAa*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Ambulance service organisations									
'000	479.5	321.8	318.2	92.8	115.8	39.1	15.1	na	1 382.4
Fire service organisations									
'000	148.0	75.5	70.4	30.1	31.2	11.0	10.5	7.4	384.0
SES organisations									
'000	19.3	28.7	na	0.5	10.3	1.2	1.5	0.1	61.7

ASO = ambulance service organisation. **FSO** = fire service organisation. **SES** = State/Territory emergency services.

a Caveats for the FSO and ASO incident data are available in chapter 9, table 9A.13 (FSO) and table 9A.33 (ASO). Caveats for the SES organisation data are available in table DA.18.

na Not available.

Source: State and Territory governments; table 9A.13; table 9A.33; table DA.18.

Social and economic factors affecting demand for services

The size, severity, timing, location and impacts of emergencies are difficult to predict. However, many known factors increase vulnerability to emergency events (COAG 2011). Work-life patterns, lifestyle expectations, demographic changes, domestic migration, and community fragmentation are increasing community susceptibility and demand for emergency management services (COAG 2009).

Within individual communities, certain members are more vulnerable and may need tailored advice and support. Factors that can influence vulnerability include:

- *socioeconomic status* — research shows socially-disadvantaged communities are more heavily impacted by emergency events. For example, the fire death and injury rates of Australia's most disadvantaged areas (as defined by the 2001 Socio-Economic Indexes for Areas) are 3.6 (Australia) and 2.6 (SA) times that of the least disadvantaged areas respectively (Dawson and Morris 2008).
- *English as a second language* — research in WA has been found that culturally and linguistically diverse communities are more vulnerable to fire events (FESA 2010)
- *remoteness and population density* — population growth has been experienced across Australian regional centres, coastal areas, rural areas around major cities, alpine areas and along inland river systems. Such areas are more susceptible to emergency events and require greater resources when an emergency event occurs (Victorian Bushfires Royal Commission 2010).
- *ageing populations* — population change is expected to lead to an increased proportion of older Australians living in the community (Australian Government 2010). As more people fall into the older age groups their need to call for assistance in an emergency generally increases — such as individual medical emergencies requiring an ambulance, or assistance in preparing for and/or responding to a community wide emergency (for example, a natural disaster)
- *population mobility and access to services*.

Service-sector objectives

The framework of performance indicators in this sector overview is based on objectives for emergency management established in the *National Strategy for Disaster Resilience* and are common to all Australian emergency services organisations (box D.3).

Box D.3 Objectives for emergency management

Emergency management services aim to build disaster resilient communities that work together to understand and manage the risks that they confront. Emergency management services provide highly effective, efficient and accessible services that:

- reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment)
- contribute to the management of risks to the community
- enhance public safety.

Disaster resilient communities

The Council of Australian Governments (COAG) adopted the *National Strategy for Disaster Resilience* on 13 February 2011, an emergency management strategy that promotes a 'resilience' based approach to natural disaster policy and programs (COAG 2011).

The goal of a disaster resilient community is to enhance the community's capacity to withstand an emergency event and to recover from its residual impacts (COAG 2009). This is whether individuals or communities are hit by medical emergencies, extreme weather events, bushfires, transport accidents, industrial emergencies, or other threats to health and safety.

Prevention/mitigation, preparedness, response and recovery

To meet the objectives of emergency management, emergency service organisations classify their key functions in managing emergency events to the prevention/mitigation, preparedness, response and recovery framework. The framework uses the following widely accepted 'comprehensive approach'.

- *Prevention/mitigation* — The results of measures taken in advance of an emergency aimed at decreasing or eliminating its impact on the community and the environment. Activities that contribute to prevention and mitigation include: advice on land management practice and planning; the inspection of property and buildings for hazards, compliance with standards and building codes, and levels of safe practices; the preparation of risk assessment and emergency management plans; risk categorisation for public information campaigns; and public information campaigns and educational programs to promote safe practices in the community.
- *Preparedness* — The results of activities to ensure that, if an emergency occurs, that communities, resources and services are capable of responding to, and coping with, the effects. Activities that contribute to preparedness include: public education and training; emergency detection and response planning (including the installation of smoke alarms and/or sprinklers); hazardous chemicals and material certification, and the inspection of storage and handling arrangements; exercising, training and testing emergency service personnel; and standby and resource deployment and maintenance. Preparedness also involves establishing equipment standards and monitoring adherence to those standards.
- *Response* — The results of strategies and services to control, limit or modify the emergency to reduce its consequences. Activities that contribute to response include: implementing emergency plans and procedures; issuing emergency warnings; mobilisation of resources in response to emergency incidents; suppression of hazards (for example, fire containment); provision of immediate medical assistance and relief; and search and rescue.

- *Recovery (community)* — The results of strategies and services to support affected individuals and communities in their reconstruction of physical infrastructure and their restoration of emotional, social, economic and physical wellbeing within their changed environment. Activities that contribute to community recovery include: restoring essential services; counselling programs; temporary housing; long term medical care; restoration of community confidence and economic viability; and public health and safety information.
- *Recovery (emergency services organisations)* — The results of strategies and services to return agencies to a state of preparedness after emergency situations. Activities that contribute to emergency services recovery include: critical incident stress debriefing; and the return of emergency services organisations resources to the state of readiness specified in response plans.

D.2 Sector performance indicator framework

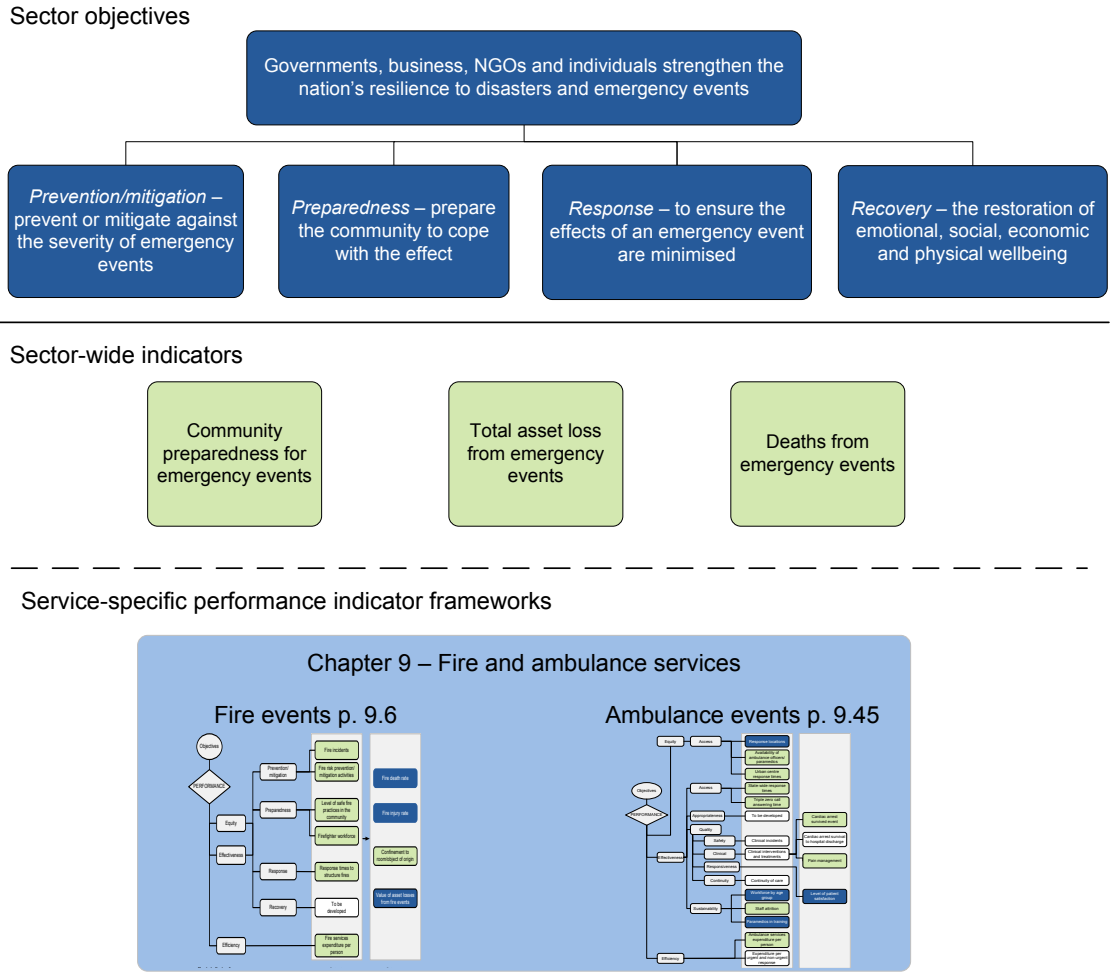
This sector overview is based on a sector performance indicator framework (figure D.4). This framework is made up of the following elements:

- Sector objectives — five sector objectives reflect the key objectives of emergency management (box D.3).
- Sector-wide indicators — three sector-wide indicators relate to the overarching service sector objectives identified in the *National Disaster Resilience Statement* (COAG 2009) and the *National Strategy for Disaster Resilience* (COAG 2011).
- Information from the service-specific performance indicator frameworks that relate to emergency services. Discussed in more detail in chapter 9, the service-specific frameworks provide comprehensive information on the equity, effectiveness and efficiency of these services.

This sector overview provides an overview of relevant performance information. Chapter 9 and its associated attachment tables provide more detailed information.

Data quality information (DQI) is being progressively introduced for all indicators in the Report. The purpose of DQI is to provide structured and consistent information about quality aspects of data used to report on performance indicators. DQI in this Report cover the seven dimensions in the ABS' data quality framework (institutional environment, relevance, timeliness, accuracy, coherence, accessibility and interpretability) in addition to dimensions that define and describe performance indicators in a consistent manner, and note key data gaps and issues identified by the Steering Committee. All DQI for the 2015 Report can be found at www.pc.gov.au/rogs/2015.

Figure D.4 **Emergency management sector performance indicator framework**



Sector-wide indicators

This section includes high level indicators of emergency management outcomes. Many factors are likely to influence these outcomes — not just the performance of government services. However, these outcomes inform the development of appropriate policies and the delivery of government services.

Community preparedness for emergency events

'Community preparedness for emergency events' is an indicator of the objectives of governments to reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment) and to contribute to the management of risks to the community (box D.4).

Box D.4 Community preparedness for emergency events

'Community preparedness for emergency events' is defined as the number of people who know what to do to prepare for an emergency and/or have developed an emergency plan (evacuations/meeting places, etc), divided by the total population.

The higher the proportion of households with emergency management practices followed, the more likely the impact of emergency events will be minimised.

Data reported for this measure are:

- comparable (subject to caveats) across jurisdictions but are only available for one reporting period
- complete (subject to caveats) for the 2011-12 reporting period. All required 2011-12 data are available for all jurisdictions. No data are available for 2013-14.

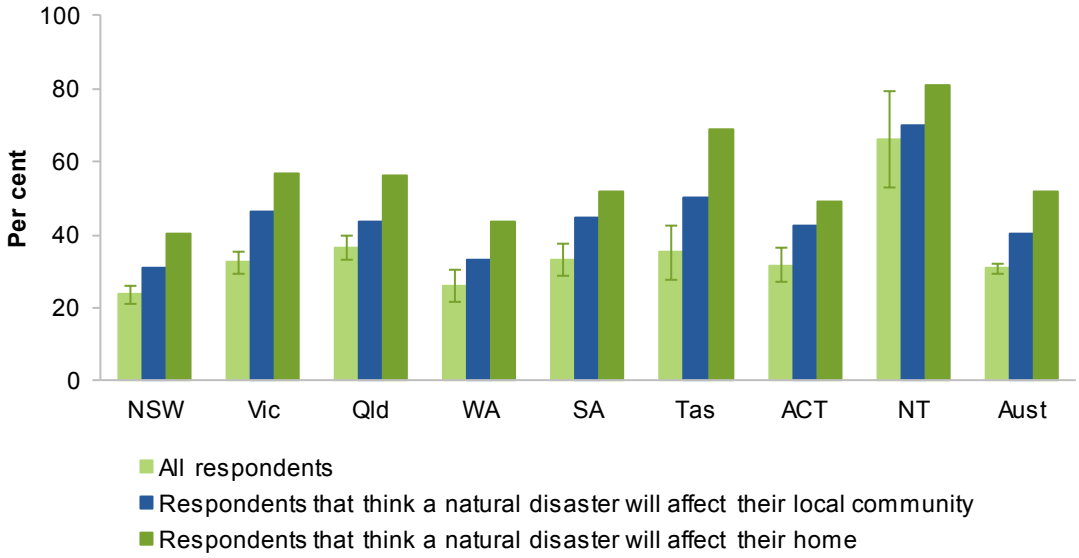
Data quality information for this indicator is at www.pc.gov.au/rogs/2015.

In 2011-12, the Australian Research Council Centre of Excellence in Policing and Security (CEPS) and the Institute for Social Science Research (ISSR) conducted the National Security and Preparedness Survey (NSPS). Nationally, the survey found that in 2011-12 30.7 per cent of respondents reported that they had developed emergency plans in the event of a natural disaster, while 29.9 per cent of respondents stated that they had 'a fair bit' or 'a lot' of knowledge of what to do to prepare for natural disasters (Western, M., Mazerolle, L., and Boreham, P. 2012; table DA.8.

The NSPS results indicate that people were more likely to feel personally prepared for future disasters, where:

- people reported that they perceived it was more likely a natural disaster would affect their home or community. Across jurisdictions in 2011-12, people were more likely to have developed an emergency plan where they perceived that a natural disaster was likely to occur in their community (40.5 per cent nationally) or if they perceived that a natural disaster was likely to affect their home (51.6 per cent nationally) (figure D.5)
- people reported they had a more cohesive community
- people had been present in a previous natural disaster (Ramirez et al. 2013).

Figure D.5 **Proportion of people that have developed emergency plans in the event of a natural disaster, 2011-12[a, b, c, d]**



[a] The National Security and Preparedness Survey (NSPS) aims to benchmark attitudes and perceptions of Australians towards national security policy and seeks to better understand citizen preparedness for potential terrorist and natural disasters. [b] The NSPS was conducted between November 2011 and May 2012. A series of floods in northern New South Wales and southern Queensland in January and February 2012 may have influenced respondent perceptions about, and/or actions around, disaster preparedness. [c] The survey was designed to produce descriptive statistics and these may not be representative of the population. [d] The percentages reported for the Proportion of people that have developed emergency plans (evacuations/meeting places) include 95 per cent confidence intervals (for example, 40.0 per cent ± 2.7 per cent). Confidence intervals have been calculated for this Report on the assumption that a random sample of the population was selected.

Source: Western, M., Mazerolle, L., and Boreham, P. (2012), National Security and Preparedness Survey 2011-2012; table DA.8.

Total asset loss from emergency events

'Total asset loss from emergency events' is an indicator of the objectives of governments to reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment) and to contribute to the management of risks to the community (box D.5).

Box D.5 Total asset loss from emergency events

'Total asset loss from emergency events' is defined as the insured asset losses incurred by the community following disaster events divided by the total population. Insured asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.

It does not represent the entire cost of the event. Events are only recorded where there is a potential for the insured loss to exceed $10 million. Additionally, many large single losses occur on a day to day basis in Australia that are not part of a larger emergency event. Costs not currently taken into account include the expenses of:

- emergency response by emergency services
- local, State, Territory and the Australian governments — uninsurable assets such as roads, bridges, and recreational facilities are not considered. This is of greatest significance in rural and remote areas
- non-government organisations
- local government clean-up
- remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion)
- community dislocation; loss of jobs; rehabilitation/recovery services
- basic medical and funeral costs associated with injuries and deaths.

The prevention/mitigation, preparedness, and response activities of government contribute to reduce the value of total asset loss from emergency events. A low or decreasing value of total asset loss from emergency events 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 2013-14 data are available for all jurisdictions.

Data quality information for this indicator is at www.pc.gov.au/rogs/2015.

Source: ICA (2014); AEM (2014a).

Nationally, the insured asset loss from emergency events was $198.4 million in 2013-14 (or $8.50 per person in the population) (table DA.9). Annual insured asset losses need to be interpreted with caution. They can be particularly volatile over time because of the influence of large irregular emergency events such as bushfires (chapter 9) and extreme weather events (box D.6).

Box D.6 Extreme weather events

In Australia, extreme weather events can bring high winds and coastal storm surges (such as cyclones in Australia's tropical zones), torrential rain, frosts and hail storms. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) notes that extreme weather events are a part of Australia's climate and predicts that weather events are likely to be more intense resulting in more severe flooding as a result of climate change (CSIRO 2012).

Natural disasters can have a substantial social and economic cost. Recent examples of extreme weather events leading to insured damages greater than $1 billion include:

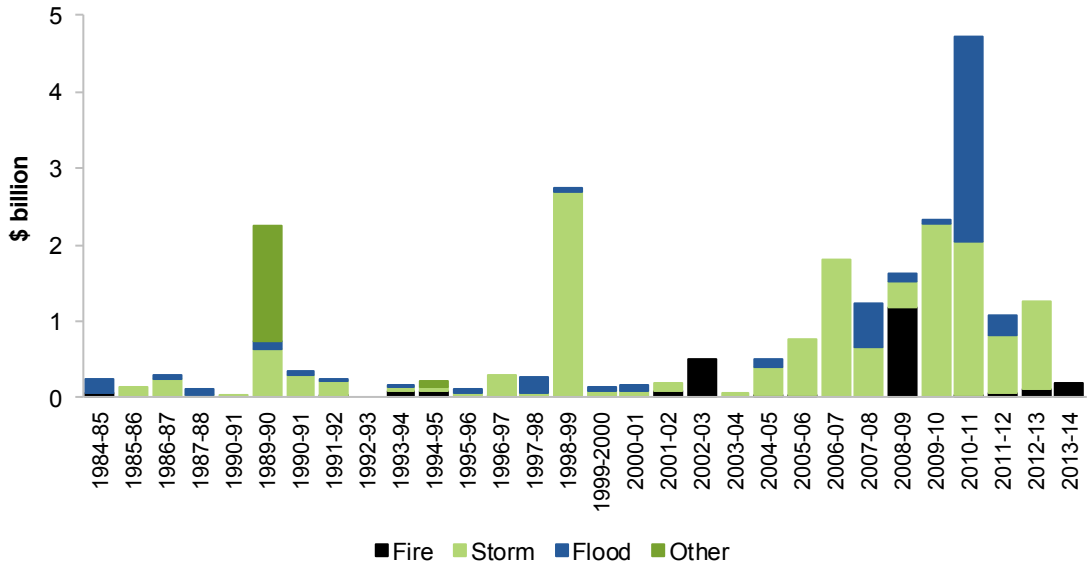
- *Cyclone Oswald* — Tropical Cyclone Oswald formed in the Gulf of Carpentaria on 21 January 2013. The cyclone brought with it a heavy monsoonal rainfall system that lasted for approximately one week. Over the course of the week, six people were killed, thousands were forced to evacuate, and 2000 people were isolated by floodwaters for some days requiring emergency supply drops. Approximately 40 water rescues took place by State Emergency Service volunteers. The Insurance Council of Australia estimated the January 2013 cost at $119 million for New South Wales and $971 million for Queensland.
- *Queensland floods* — Prolonged and extensive rainfall over large areas of Queensland, led to flooding of historic proportions in Queensland in December 2010, stretching into January 2011. Thirty-three people died in the 2010-11 floods; three remain missing. Some 29 000 homes and businesses suffered some form of inundation. The Queensland Reconstruction Authority has estimated that the cost of flooding events will be in excess of $5 billion. (The Insurance Council of Australia reports insured asset losses of $2.4 billion.)
- *WA severe thunderstorms* — Severe thunderstorms occurred on 22 March 2010 in the south-west regions of WA. Heavy rain, severe winds, and hail, large enough to badly damage cars, break car windscreens and windows of houses, caused considerable damage. The Insurance Council of Australia estimated the damage at $1.1 billion.

Source: CSIRO (2012); AEM (2014a); Queensland Government (unpublished).

In 2013-14 dollars, insured asset losses in 2013-14 were the lowest since 2003-04 and are substantially lower than the 2010-11 insured asset losses of $4.7 billion ($212.6 per person) (table DA.9-10 and figure D.6). Other than in 2008-09 — the year of the Victorian bushfires (chapter 9) — insured asset losses are mostly related to flood and storm damage (table DA.9).

Asset losses in particular states and territories varies over time depending on the timing and nature of natural disaster events. For most jurisdictions, the value of asset losses can be very low (or zero) in most years, punctuated by large natural disaster events (table DA.10 and figure D.6).

Figure D.6 **Asset loss from emergency events, 1984-85 to 2013-14 (2013-14 dollars)[a, b]**



[a] Time series financial data are adjusted to 2013-14 dollars using the Domestic Final Demand (DFD) chain price deflator (2013-14 = 100). (The index has been modelled for 1984-85 and 1985-86 using the DFD implicit price deflator.) The DFD deflator replaces the General Government Final Consumption Expenditure deflator used in the 2014 Report for this figure, as asset losses are more closely aligned to the range of consumption and capital goods represented by the DFD deflator. See Chapter 2 (section 2.5) for details.[b] Total Asset Loss: all insurance losses (claims by policy holders, based on figures from the Insurance Council of Australia). The data are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers. Events are only recorded where there is a potential for the insured loss to exceed $10 million.

Source: ICA (2014), AEM (2014a); table DA.9.

Deaths from emergency events

'Deaths from emergency events' is an indicator of governments' objective to reduce the adverse effects of emergencies and disasters on the community (including people, property, infrastructure, economy and environment) and to enhance public safety (box D.7).

Box D.7 Deaths from emergency events

'Deaths from emergency events' is defined as the number of deaths per million people in a calendar year. Three categories are presented:

- road traffic deaths — deaths primarily caused by accidents involving road transport vehicles (mainly cars)
- fire deaths — deaths primarily caused by exposure to smoke, fire or flames
- deaths from exposure to forces of nature — including exposure to excessive natural heat, exposure to excessive natural cold, exposure to sunlight, victim of lightning, victim of earthquake, victim of volcanic eruption, victim of avalanche, landslide and other earth movements, victim of cataclysmic storm, and victim of flood.

A low or decreasing number of deaths from emergency events 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 2012 data are available for all jurisdictions. Data are not available for 2013.

Data quality information for this indicator is under development.

Nationally, there were 1487 deaths, 65.6 deaths per million people, from emergency events in 2012 (table DA.13). Across jurisdictions, emergency event deaths ranged from 53.6 deaths per million people in NSW to 251.2 deaths per million people in the NT.

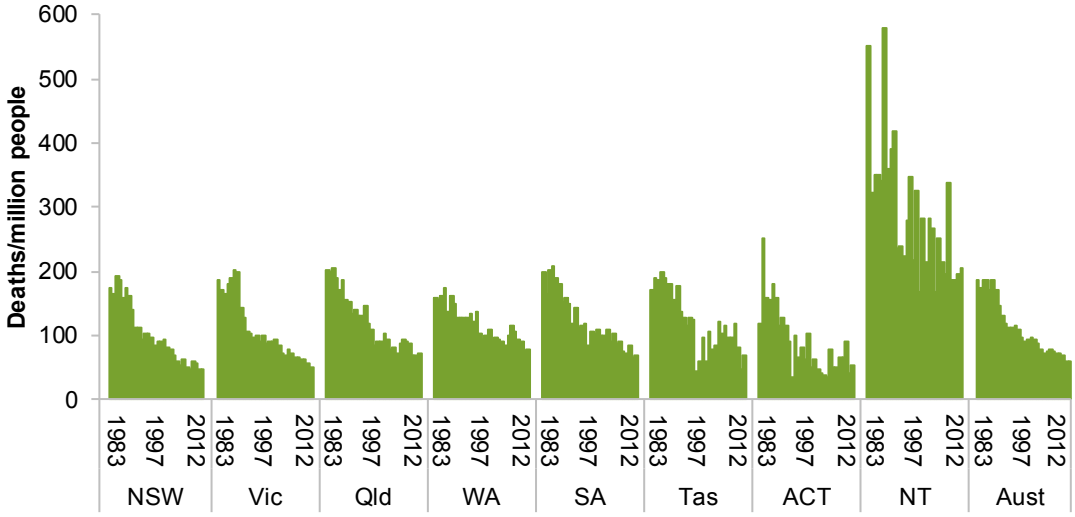
Road traffic deaths

Road crash incidents are the single largest contributor to deaths from emergency events reported (by a substantial factor). Nationally, there were 1355 road traffic deaths in 2012 (table DA.11).

A primary aim of governments is to reduce death and injury and the personal suffering and economic costs of road crashes (box D.8). Nationally, over 20 emergency service organisations contribute to this through the provision of effective and efficient medical and road crash rescue services (table DA.1).

From 1983 to 2012, road traffic deaths declined from 185.4 to 59.7 deaths per million people (figure D.7). Road safety gains have been achieved through a range of community and government efforts including: road infrastructure improvements; safer vehicles; lower speed limits; graduated licensing; and behavioural programs targeting drink driving, seatbelt usage and speeding (ATC 2011).

Figure D.7 **Road traffic deaths, by State and Territory, 1983 to 2012[a, b, c]**



[a] Deaths are coded according to the International Classification of Diseases (ICD) and Related Health Problems Revision 10 (ICD-10). Deaths data are reported by the year the death was registered. Road traffic deaths includes ICD codes V01-V99, X82, Y03 and Y32. [b] The number of road traffic deaths provided in *Causes of Death* is different to the number of 'Road fatalities' presented in chapter 6. [c] 'Road fatalities' in chapter 9 provides more recent data sourced by the Australian Road Deaths Database as reported by the police each month to road safety authorities.

Source: ABS (2014) *Causes of Death, Australia*, Cat. no. 3303.0; table DA.11.

This sector overview provides data on the number of road traffic deaths only. However, the impact of over 40 000 traffic injuries and traumas in 2012-13 is both ongoing and costly (box D.8 and chapter 6). Information on the role of police services in maximising road safety is provided in the Police services chapter (chapter 6). The number of road crash rescue incidents attended to by emergency service organisations is presented in the Fire and ambulance services chapter (chapter 9).

Box D.8 **Road safety in Australia**

The cost of road crashes

An evaluation report from the Bureau of Infrastructure, Transport and Regional Economics estimated the cost of road crashes in 2006 at $17.9 billion (1.7 per cent of Gross Domestic Product). This was a real decrease of 7.5 per cent compared to 1996 (2006 dollars). Estimated human losses were approximately $2.4 million per fatality, losses for a hospitalised injury were approximately $214 000 per injury (including disability-related costs), and losses for non-hospitalised injury were approximately $2200 per injury.

Continued next page

Box D.8 **continued**

The research found that the estimated real cost of road crashes has declined in the ten years from 1996 to 2006. Road crash fatalities peaked in 1970 and many factors have contributed to reductions in the number of fatalities since then. These include investments in road infrastructure and road safety programs, regulated changes in vehicle safety standards (for example, mandatory seat belts), and better vehicle design and safety equipment such as airbags.

National Road Safety Strategy 2011–2020

On 20 May 2011, the Standing Council on Transport and Infrastructure released an updated *National Road Safety Strategy 2011–2020*. This strategy aims to elevate Australia's road safety ambitions through the coming decade and beyond. It is based on Safe System principles and is framed by the guiding vision that no person should be killed or seriously injured on Australia's roads.

The framework includes 10-year targets for governments to reduce the annual number of road crash fatalities and reduce the annual number of serious road crash injuries by at least 30 per cent in each jurisdiction.

Achieving this aim requires a range of activities, including design and maintenance of vehicles and roads, driver training, road user education, enforcement of road rules, emergency response and health care in the event of an incident.

Source: BITRE (2009); ATC (2011).

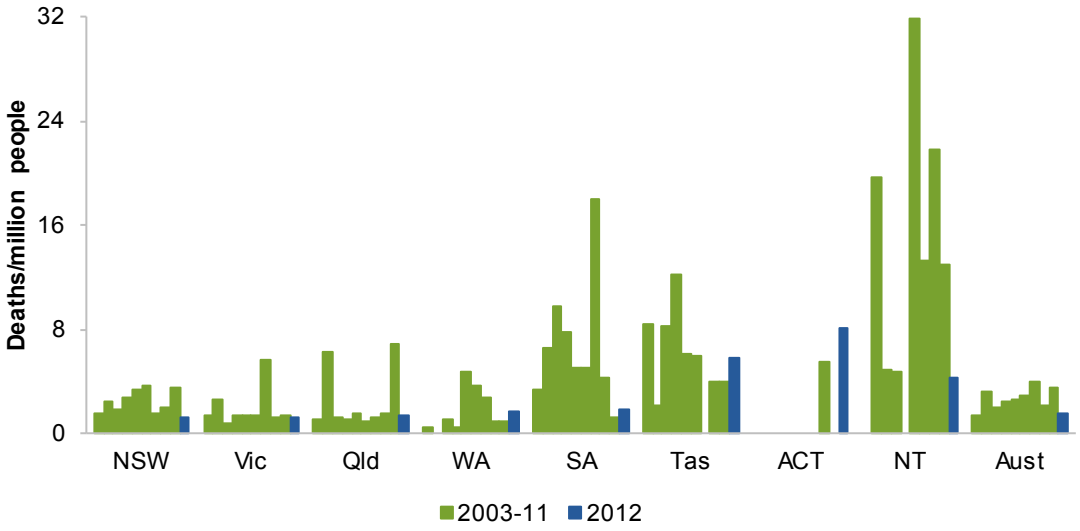
Deaths from exposure to forces of nature

Relatively few deaths (34 deaths in 2012 nationally, or 1.5 deaths per million people in the population) are recorded as being caused by exposure to forces of nature (table DA.12 and figure D.8). Of these deaths:

- 21 people died from exposure to excessive natural cold
- 6 people died from exposure to excessive natural heat (ABS 2014).

(Caution should be taken when interpreting these results as the ABS have randomly assigned values in categories where the number of deaths are low, to protect confidentiality.)

Figure D.8 **Deaths from exposure to forces of nature, by State and Territory, 2003 to 2012[a, b]**



[a] Deaths are coded according to the ICD and Related Health Problems Revision 10 (ICD-10). Deaths data are reported by the year the death was registered. Exposure to forces of nature includes ICD codes X30-X39. [b] The small number of exposure to forces of nature deaths means it is difficult to establish patterns and provide detailed analysis.

Source: ABS (2014) *Causes of Death, Australia*, Cat. no. 3303.0; table DA.12.

Research indicates that extremely cold weather conditions and intense and long heatwaves can exceed the capacity of some sections of the community to cope. The impact of these events are likely to be understated in the ABS cause of death statistics, as heat related deaths tend to exacerbate existing medical conditions, particularly in the frail and elderly (Nairn and Fawcett 2013) (box D.9).

Box D.9 Heatwaves in Australia

Periods of prolonged and high temperatures (heatwaves) are one of the most common natural hazards experienced in Australia. The Centre for Australian Weather and Climate Research has defined a heatwave as:

> A period of at least three days where the combined effect of excess heat and heat stress is unusual with respect to the local climate. Both maximum and minimum temperatures are used in this assessment (Nairn and Fawcett 2013).

Researchers have shown that severe heatwaves are associated with a substantial increase in morbidity and mortality, particularly amongst the frail and elderly (DHS 2009). It has been estimated that heatwaves are responsible for more deaths in Australia than any other natural hazard (PWC 2011). Recent heatwave events include:

- January 2014 — In the second week of January 2014, the extreme heat in Western Australia that saw record breaking temperatures of up to 48°C, moved eastwards into SA and Victoria.
  - The Victorian Government estimated that there were 167 deaths in excess of the average expected between 12 and 18 January (AEM 2014a). In Melbourne, 8359 ambulances were dispatched and 621 people presented to emergency departments with heat-related symptoms.
  - In SA, the heatwave resulted in 275 people being admitted to hospital for heat-related conditions.
- January 2009 — From 27 January until 8 February a heatwave affected parts of south-eastern Australia. In much of central, southern and western Victoria, maximum temperatures widely reached their highest levels since at least 1939.
  - The Victorian Government estimated that there were 374 excess deaths during the week of the heatwave (DHS 2009). Ambulance Victoria metropolitan emergency case load recorded a 25 per cent increase in emergency cases and a 2.8 fold increase in cardiac arrest cases.
  - SA similarly recorded increased demand during the heatwave where SA Ambulance Service daily call-outs increased by 16 per cent when compared to previous heatwaves (Nitschke et al. 2011).

Source: AEM (2014a); DHS (2009); Nairn and Fawcett (2013); Nitschke et al. (2011); PWC (2011).

Fire deaths

The number of fire deaths varies from year to year, often impacted by large bushfires. In 2012 there were 98 fire deaths nationally (details in chapter 9).

Service-specific performance indicator frameworks

This section summarises information from the 'fire events' and 'ambulance events' service-specific indicator frameworks in chapter 9. At present it is not possible to report on government services for 'all-hazards' (box D.10).

Box D.10 **Reporting on all-hazards**

While the sector covers a broader array of events, data on all hazards are limited. Many hazards are sporadic in nature (for example floods, cyclones and acts of terrorism) and do not lend themselves to annual, comparative reporting. Resource constraints and data availability also restrict reporting.

Jurisdictions have held inquiries to review and compare government performance following significant emergency events. A review by the Monash Injury Research Institute (2012) of recent disaster inquiries recognised knowledge management (databases, research and evaluation) as a key theme identified in these reports. Recent inquiries include the Tasmanian Bushfires Inquiry (2013), Victorian Bushfires Royal Commission (2009), Perth Hills Bushfire February 2011 Review (Keelty 2011), and the Queensland Floods Commission of Inquiry (2012).

Source: Monash Injury Research Institute (2012).

Additional information is available to assist the interpretation of indicator results:

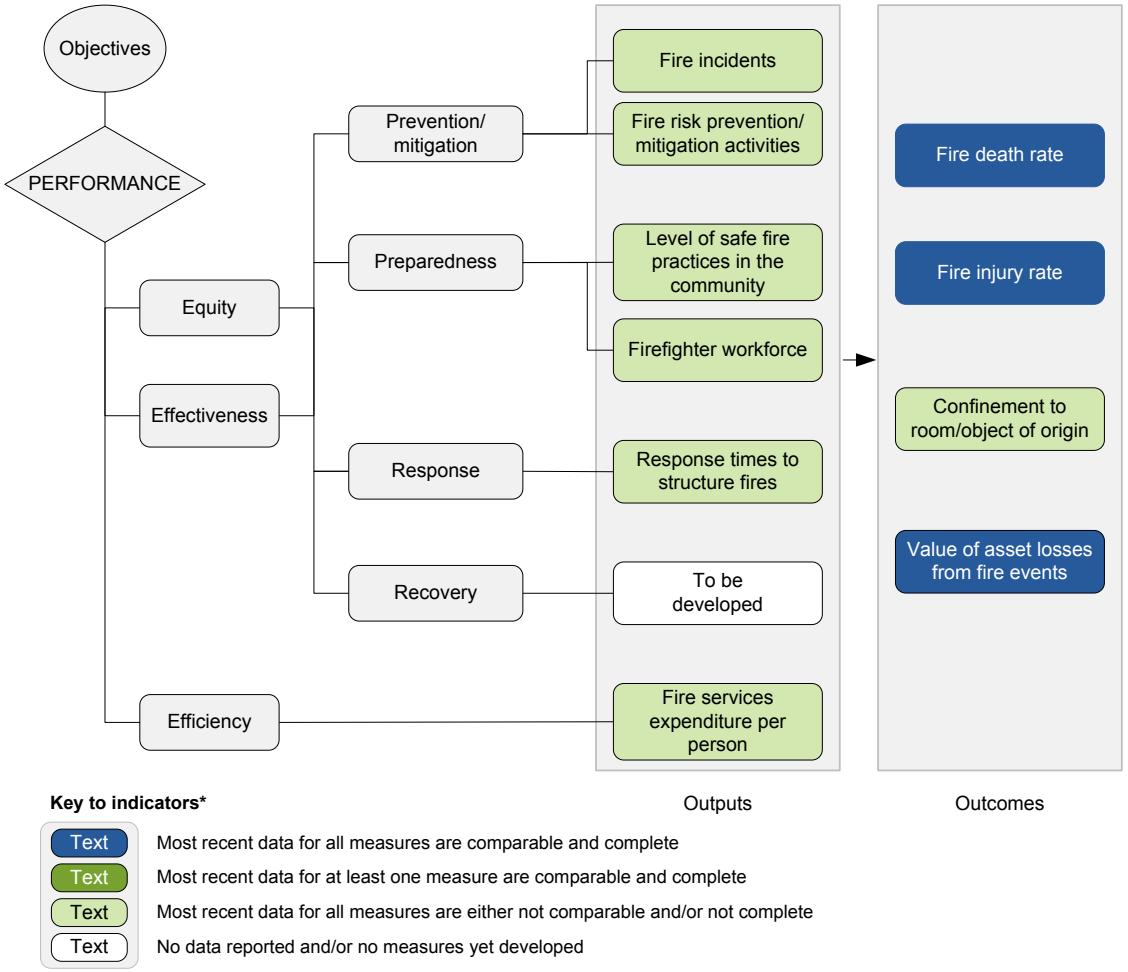
- indicator interpretation boxes, which define the measures used and indicate any significant conceptual or methodological issues with the reported information (chapter 9)
- caveats and footnotes to the reported data (chapter 9 and attachment 9A)
- additional measures and further disaggregation of reported measures (for example, by remoteness) (chapter 9 and attachment 9A)
- data quality information for many indicators, based on the ABS Data Quality Framework (chapter 9 data quality information).

A full list of attachment tables and available data quality information is provided at the end of chapter 9.

Fire events

The performance indicator framework for fire events is presented in figure D.9. This framework provides comprehensive information on the equity, effectiveness, efficiency and the outcomes of fire events.

Figure D.9 **Fire events performance indicator framework**



* A description of the comparability and completeness of each measure is provided in indicator interpretation boxes within the chapter

An overview of the fire events indicator results for 2013-14 (or latest period available) is presented in table D.3. Information to assist the interpretation of these data can be found in the indicator interpretation boxes in chapter 9 and the footnotes in attachment 9A.

Table D.3 **Performance indicators for fire events**[a, b]

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Equity and effectiveness — prevention/mitigation indicators										
Number of fire incidents, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
Fire incidents attended by fire service organisations per 100 000 people										
no.	457	374	442	431	444	728	228	946	437	9A.14
Accidental residential structure fires per 100 000 households, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
no.	96.2	121.1	45.0	62.7	73.8	125.7	85.9	58.0	86.9	9A.15
Estimated percentage of households with a smoke alarm/detector, 2013-14										
Most recent data for this measure are incomplete and are not comparable (chapter 9)										
%	94.1	97.2	96.6	94.0	na	na	na	na	na	9A.23
Equity and effectiveness — preparedness										
Firefighter workforce, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
Full time equivalent paid firefighter personnel per 100 000 people										
no.	52.8	95.5	52.1	43.9	53.1	57.4	93.5	95.2	63.5	9A.24
Equity and effectiveness — response										
State-wide response times to structure fires, 2013-14										
Most recent data for this measure are incomplete and are not comparable (chapter 9)										
Including call processing time, 90th percentile										
min.	15.4	10.9	12.4	14.1	na	19.6	10.4	18.0	na	9A.26
Excluding call processing time, 90th percentile										
min.	14.4	9.5	11.5	12.8	14.0	17.9	8.9	10.8	na	9A.27
Efficiency indicators										
Fire service organisations' expenditure per person, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
$	144.33	219.30	120.34	141.74	131.11	154.27	197.94	169.98	158.23	9A.29
Outcome indicators										
Fire death rate, per million people, 2012										
Most recent data for this measure are comparable and complete (chapter 9)										
no.	4.4	3.7	3.3	7.8	6.0	7.8	–	42.6	4.3	9A.6
Fire injury rate: Rate of hospital admissions due to fire injury, per 100 000 people, 2012-13										
Most recent data for this measure are comparable and complete (chapter 9)										
no.	15.8	11.3	21.9	22.2	24.8	16.2	9.5	92.5	18.0	9A.9

(Continued next page)

Table D.3 **Continued**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Confinement to room/object of origin, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
Confinement of building fires to room of origin, all ignition types										
%	63.2	73.5	69.0	66.1	66.1	59.9	80.3	81.8	na	9A.10
Confinement of building and other structure fires to room/object of origin, all ignition types										
%	76.9	94.9	84.0	74.6	72.6	71.6	89.2	81.8	na	9A.11
Value of property losses from fire events — Household insurance claims per person, 2013-14										
Most recent data for this measure are comparable and complete (chapter 9)										
$	20.29	23.45	13.61	10.88	14.15	52.54	11.36	12.17	18.74	9A.12

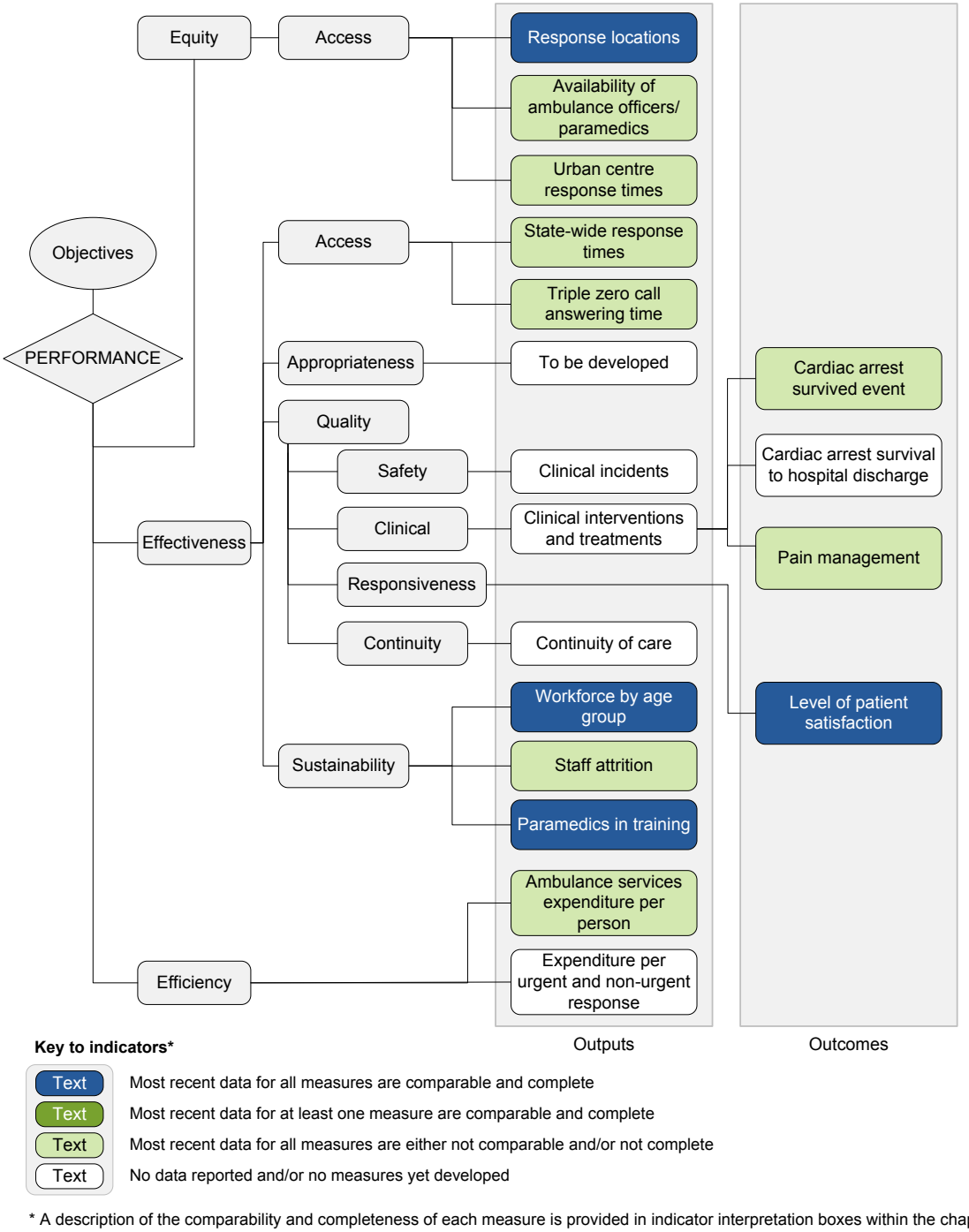
a Caveats for these data are available in chapter 9 and attachment 9A. Refer to the indicator interpretation boxes in chapter 9 for information to assist with the interpretation of data presented in this table. **b** Some data are derived from detailed data in chapter 9 and attachment 9A. **na** Not available. – Nil or rounded to zero.

Source: Chapter 9 and attachment 9A.

Ambulance events

The performance indicator framework for ambulance events is presented in figure D.10. This framework provides comprehensive information on the equity, effectiveness, efficiency and the outcomes of ambulance events.

Figure D.10 **Ambulance events performance indicator framework**



* A description of the comparability and completeness of each measure is provided in indicator interpretation boxes within the chapter

An overview of the ambulance events indicator results for 2013-14 (or latest period available) is presented in table D.4. Information to assist the interpretation of these data can be found in the indicator interpretation boxes in chapter 9 and the footnotes in attachment 9A.

Table D.4 **Performance indicators for ambulance events**[a, b]

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Equity — Access indicators										
Response locations, 2013-14 — Paid, mixed and volunteer locations per 100 000 people										
Most recent data for this measure are comparable and complete (chapter 9)										
no.	3.3	4.5	5.6	7.4	6.6	9.5	2.1	3.7	4.9	9A.38
Availability of ambulance officers/paramedics, 2013-14 — Number of full time equivalent ambulance officers/paramedics per 100 000 people										
Most recent data for this measure are complete but are not comparable (chapter 9)										
no.	42.7	50.5	59.6	28.7	45.8	49.6	40.7	36.7	46.8	9A.35
Capital city centre response times, 90th percentile, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
min.	19.8	19.2	14.7	13.9	14.5	16.8	12.9	17.4	na	9A.44
Effectiveness — Access indicators										
State-wide response times, 90th percentile, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
min.	22.2	22.4	16.3	16.1	16.6	23.7	12.9	17.1	na	9A.44
Triple zero call answering time, 2013-14 — Proportion of calls from the emergency call service answered by ambulance service communication centre staff in a time equal to or less than 10 seconds										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	88.5	92.1	90.7	94.1	91.3	96.2	96.0	9.0	89.4	9A.45
Effectiveness — Sustainability indicators										
Workforce by age group — Operational workforce under 50 years of age, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	77.4	78.1	79.2	85.7	77.2	70.8	79.9	84.3	78.6	9A.36
Staff attrition, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	3.9	4.2	3.9	2.2	1.7	2.5	1.6	–	3.6	9A.36
Enrolments in accredited paramedic training courses, per million people, 2013										
Most recent data for this measure are comparable and complete (chapter 9)										
%	99.4	356.1	385.5	266.6	249.6	194.9	281.7	..	253.8	9A.37
Efficiency indicators										
Ambulance service expenditure per person, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
$	109.78	114.63	124.21	83.81	143.95	127.60	113.80	106.12	113.90	9A.47

(Continued next page)

Table D.4 **Continued**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	Source
Outcome indicators										
Cardiac arrest survived event, 2013-14 — Adult cardiac arrest survived event rate — where resuscitation attempted (excluding paramedic witnessed)										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	29.7	29.4	26.1	23.2	18.8	33.8	29.6	28.6	28.1	9A.41
Pain management, 2013-14										
Most recent data for this measure are complete but are not comparable (chapter 9)										
%	86.8	90.8	89.0	83.3	75.5	87.2	88.5	na	87.7	9A.42
Level of patient satisfaction — overall satisfaction rate, 2013 [c]										
Most recent data for this measure are comparable and complete (chapter 9)										
%	96 ± 1.8	97 ± 1.6	99 ± 0.9	99 ± 1.0	98 ± 1.2	98 ± 1.0	98 ± 1.4	97 ± 3.0	98 ± 0.5	9A.43

[a] Caveats for these data are available in chapter 9 and attachment 9A. Refer to the indicator interpretation boxes in chapter 9 for information to assist with the interpretation of data presented in this table. [b] Some data are derived from detailed data in chapter 9 and attachment 9A. [c] The percentages reported for this indicator include 95 per cent confidence intervals (for example, 80.0 per cent ± 2.7 per cent). **na** Not available. – Nil or rounded to zero. .. Not applicable.

Source: Chapter 9 and attachment 9A.

D.3 Cross-cutting and interface issues

The effective development of a 'resilient community' — one that works together to understand and manage the risks that it confronts (COAG 2011) — requires the support and input of a range of community stakeholders, including from other government services:

- *Police services* have a critical role in effective emergency management within each jurisdiction. They generally assume critical roles in a jurisdiction's disaster management plans and coordination authorities (Victorian Bushfires Commission 2010; Queensland Floods Commission of Inquiry 2012). For example, the Queensland Police Service is responsible for coordinating the response phase of disaster management.

  Police services (and the justice system) have a critical role in implementing the prevention strategies of a jurisdiction — such as enforcing road laws.

- *Health services*, in particular emergency departments of public hospitals, have an important role in the preparation and response to emergency events.

  Similarly, ambulance services are an integral part of a jurisdiction's health service providing emergency as well as non-emergency patient care and transport.

- In large scale emergencies, a range of agencies may be called upon to provide assistance. For example, through Australian Government arrangements for the

provision of assistance to States and Territories, the Australian Defence Force has been called upon to assist emergency services organisations in responding to emergencies such as the 2011 Queensland floods (Queensland Floods Commission of Inquiry 2012).

Emergency services, police and public hospitals are also key services involved in preventing and dealing with acts of terrorism as set out in Australia's National Counter Terrorism Plan (NCTC 2012). While performance data in RoGS do not explicitly include the details of these government activities, such activities need to be kept in mind when interpreting performance results.

Emergency management policies need to consider how government services address populations and communities with special needs. The National Strategy for Disaster Resilience recognises that the needs of vulnerable communities should be considered in developing emergency management plans and programmes. ANZEMC has also identified the resilience of vulnerable sections of society (including Aboriginal and Torres Strait Islander Australians, culturally and linguistically diverse communities, children and youth, the elderly and people with disability) as a priority area for action (COAG 2012).

The development of the National Emergency Management Strategy for Remote Indigenous Communities was initiated by the Australian Emergency Management Committee in 2004 (RICAC 2007) and endorsed by the then Augmented Australasian Police Ministers' Council. The strategy aims to improve the disaster resilience of remote Aboriginal and Torres Strait Islander communities.

D.4 Future directions in performance reporting

This emergency management sector overview will continue to be developed in future reports. It is anticipated that work undertaken to achieve the COAG aspirations will lead to improvements in performance reporting for the emergency management sector. There are several important national initiatives currently underway. These include:

- development of risk registers that assess the likelihood and potential impacts of particular emergency events
- development of a database and report on the economic costs of natural disasters
- a review of the implementation of the National Strategy for Disaster Resilience with the aim of renewing its practical focus and identify national priority actions
- development of measures and indicators to assess communities' resilience to natural disasters.

The Fire and ambulance services chapter (chapter 9) contains a service-specific section on future directions in performance reporting.

D.5 List of attachment tables

Attachment tables are identified in references throughout this sector overview by a 'DA' prefix (for example, table DA.1). A full list of attachment tables is provided at the end of this sector overview, and the attachment tables are available from the Review website at www.pc.gov.au/gsp.

Emergency management

Table DA.1 Summary of emergency management organisations by event type

Table DA.2 Major sources of emergency service organisations' revenue, 2013-14

Table DA.3 Emergency service organisations' costs, 2013-14

Table DA.4 Emergency services human resources, 2013-14

Table DA.5 Australian Government Natural Disaster Resilience Program, funding to State and Territory governments ($ million) (2013-14 dollars)

Table DA.6 Australian Government Natural Disaster Relief and Recovery Arrangements expenses, funding to State and Territory governments ($ million) (2013-14 dollars)

Table DA.7 Australian Government disaster recovery payments to eligible communities, business, families and individuals by state or territory of the declared natural disaster event ($ million) (2013-14 dollars)

Table DA.8 National security and preparedness survey, 2011-12

Table DA.9 Asset loss from emergency events ($ million) (2013-14 dollars)

Table DA.10 Asset loss from emergency events, per person (2013-14 dollars)

Table DA.11 Road traffic death rate

Table DA.12 Exposure to forces of nature death rate

Table DA.13 Total selected emergency events death rate

State and Territory Emergency Services

Table DA.14 All activities of State and Territory Emergency Services

Table DA.15 Major sources of State and Territory Emergency Service organisations' revenue (2013-14 dollars)

Table DA.16 State and Territory Emergency Service organisations' costs ($'000) (2013-14 dollars)

Table DA.17 State and Territory Emergency Service organisations' human resources

Table DA.18 State and Territory Emergency Service incidents

Table DA.19 State and Territory Emergency Service hours in attendance

D.6 References

ABS (Australian Bureau of Statistics) 2014, *Causes of Death Australia, 2012*, Cat. no. 3303.0, Canberra.

AEM (Australian Emergency Management) 2014a, *Australian Emergency Management Knowledge Hub*, www.emknowledge.gov.au/disaster-information (accessed 10 October 2014).

—— 2014b, *National Emergency Management Projects 2013-2014*, www.em.gov.au/Fundinginitiatives/NationalEmergencyManagementProjects/Pages/NationalEmergencyManagementProjects20132014.aspx (accessed 13 October 2014).

ANAO (Australian National Audit Office) 2014, *Emergency Defence Assistance to the Civil Community*, The Auditor-General Audit Report No.24 2013–14, www.anao.gov.au/Publications/Audit-Reports/2013-2014/Emergency-Defence-Assistance-to-the-Civil-Community (accessed 12 September 2014).

Australian Government 2010, *Australia to 2050: future challenges — 2010 Intergenerational Report*, Canberra.

ATC (Australian Transport Council) 2011, *National Road Safety Strategy 2011–2020*, Australian Government, Canberra.

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2009, *Road Crash Costs in Australia 2006*, Canberra.

CAA (Council of Ambulance Authorities) 2013, *Disaster and Emergency Management — The Ambulance Role*, www.caa.net.au/publications/disaster-and-emergency-management (accessed 13 October 2014).

COAG (Council of Australian Governments) 2009, *National Disaster Resilience Statement*, Excerpt from Communiqué, Council of Australian Governments, Brisbane, 7 December.

—— 2011, *National Strategy for Disaster Resilience*, Australian Government, Council of Australian Governments, Canberra.

—— 2012, *Standing Council on Police and Emergency Management: Terms of Reference*, www.ag.gov.au/Committeesandcouncils/Ministerialcouncils/Pages/StandingCouncilonPoliceandEmergencyManagement.aspx (cited 1 Nov 2012)

CSIRO (Commonwealth Scientific and Industrial Research Organisation) 2012, *Extreme weather events — what can we expect*, www.csiro.au/Outcomes/Climate/adapt-extreme-weather.aspx (accessed 1 October 2012).

Dawson M. and Morris S., 2008, 'Modelling community vulnerability to fires using socio-economic indexes', *Modelling, Monitoring and Management of Forest Fires*, ed. J. de la Heras, C.A. Brebbia, D. Viegas and V. Leone, WIT Press, pp. 277–285.

DHS (Victorian Department of Human Services) 2009, *January 2009 Heatwave in Victoria: an Assessment of Health Impacts,* Melbourne,

www.health.vic.gov.au/chiefhealthofficer/publications/heatwave.htm (accessed 1 October 2014).

EMA (Emergency Management Australia) 1998, *Australian Emergency Terms Thesaurus*, Australian Emergency Manuals Series, Australian Government, Canberra.

FESA (Fire and Emergency Services Authority of Western Australia) 2010, *Fatal Fires in Western Australia 2001–2006*, www.fesa.wa.gov.au/publications/GeneralReports/FESA_Report-FatalFiresinWA2001–2006.pdf (accessed 31 August 2011).

Ganewatta, G. and Handmer, J. 2007, *The Value of Volunteers in State Emergency Services*, prepared for ACSES and AFAC.

ICA (Insurance Council of Australia) 2014, *Historical & current disaster statistics*, www.insurancecouncil.com.au/statistics (accessed 10 October 2014).

Keelty M.J. 2011, *A Shared Responsibility: The Report of the Perth Hills Bushfire February 2011 Review*, Government of Western Australia, Perth.

LCCSC (Law, Crime and Community Safety Council) 2014, *Procedures for the law, crime and community safety council*, www.lccsc.gov.au (accessed 5 October 2014).

Monash Injury Research Institute 2012, *Review of recent Australian disaster inquiries*, by Goode N., Spencer C., Archer F., McArdle D., Salmon P. and McClure R. funded by Attorney-General's Department, Monash University, Melbourne.

Nairn, J. and Fawcett, R. 2013, *Defining heatwaves: heatwave defined as a heat-impact event servicing all community and business sectors in Australia*, Kent Town, South Australia Centre for Australian Weather and Climate Research.

NCTC (National Counter-Terrorism Committee) 2012, *National counter-terrorism plan*, 3rd edition 2012, Australian Government, Canberra.

Nitschke M., Tucker G., Hansen A., Williams S., Zhang Y. and Bi P. 2011, 'Impact of two recent extreme heat episodes on morbidity and mortality in Adelaide, South Australia: a case-series analysis', *Environmental Health*, 10:42.

PWC (Price Waterhouse Coopers) 2011, *Protecting human health and safety during severe and extreme heat events: A national framework*, prepared for the Department of Climate Change and Energy and Efficiency, www.pwc.com.au/industry/government (accessed 5 October 2014).

Queensland Floods Commission of Inquiry 2012, *Queensland Floods Commission of Inquiry: Final Report*, by Commissioner Holmes C.E., Queensland Floods Commission of Inquiry, Brisbane.

Ramirez, S., Western, M., Mazerolle, L., and Wiedlitzka, S. 2013, '2011-2012 National Security and Preparedness Survey: Technical Report', Institute for Social Science Research and the Australian Research Council Centre of Excellence in Policing and Security, The University of Queensland: Brisbane, unpublished.

RICAC (Remote Indigenous Communities Advisory Committee) 2007, *Keeping our mob safe: National emergency management strategy for remote Indigenous communities*, Commonwealth of Australia, Canberra.

Tasmanian Bushfires Inquiry 2013, *2013 Tasmanian Bushfire Inquiry Report*, by Malcolm Hyde, Tasmanian Government, Hobart.

Victorian Bushfires Royal Commission 2010, *2009 Victorian Bushfires Royal Commission: Final Report*, by Commissioner Teague B., McLeod R., and Pascoe S., Parliament of Victoria, Melbourne.

Western, M., Mazerolle, L., and Boreham, P. 2012, National Security and Preparedness Survey 2011-2012, Institute for Social Science Research and the Australian Research Council Centre of Excellence in Policing and Security, The University of Queensland, Brisbane, 2012.

DA Emergency management — attachment

Unsourced information was obtained from the Australian, State and Territory governments, with the assistance of the Australasian Fire and Emergency Service Authorities Council and the Council of Ambulance Authorities.

Data in this Report are examined by the Emergency Management Working Group, but have not been formally audited by the Secretariat.

Data reported in the attachment tables are the most accurate available at the time of data collection. Historical data may have been updated since the last edition of RoGS.

This file is available on the Review web page (www.pc.gov.au/gsp).

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All jurisdictions — Emergency management

Table DA.1 Summary of emergency management organisations by event type (a), (b)

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Fires								
Fire and Rescue NSW	Metropolitan Fire Brigade	Queensland Fire and Emergency Services	Department of Fire and Emergency Services	Country Fire Service	Tasmania Fire Service	ACT Emergency Services Agency	NT Fire and Rescue Service	Airservices Australia (Rescue and Fire Fighting Service)
NSW Rural Fire Service	Country Fire Authority	Qld Police Service	Department of Parks and Wildlife	Metropolitan Fire Service	Forestry Tasmania	ACT Fire and Rescue	Bushfires NT	Department of Defence
NSW Police Force	Department of Environment and Primary Industries	Department of Natural Resources and Mines			Parks and Wildlife			
Ambulance Service of NSW		Department of National Parks, Recreation, Sport and Racing	Forest Products Commission			ACT Rural Fire Service	Aviation Rescue and Fire Fighting Authority	Attorney-General's Department
Office of Environment and Heritage	Parks Victoria		Department for Child Protection and Family Support			Canberra Urban Parks and Places		Bureau of Meteorology
	Airport Rescue and Firefighting Service	Department of Agriculture, Fisheries and Forestry						
	Gas distribution companies	Local government	WA Police Service			Territory and Municipal Services Directorate	Parks and Wildlife	Australian Building Codes Board
		Qld Ambulance Service	Local governments					Department of Infrastructure and Regional Development
		Queensland Government Air rescue service (QGAir), Public Safety Business Agency (PSBA)						

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Medical transport and emergencies								
Ambulance Service of NSW	Ambulance Victoria	Qld Ambulance Service	St John Ambulance	SA Ambulance Service	Ambulance Tasmania	ACT Emergency Services Agency	St John Ambulance	Department of Health — National Incident Room
NSW Health	Metropolitan Fire Brigade	Queensland Government Air rescue service (QGAir), Public Safety Business Agency (PSBA)	Department of Fire and Emergency Services			ACT Ambulance Service	Royal Flying Doctor Service	Attorney-General's Department (Australian Medical Transport Coordination Group)
Helicopter Rescue Services (under ambulance control)		Department of Health	Royal Flying Doctor Service				Territory Health Service	
		Royal Flying Doctor Service	Department of Fire and Emergency Services/St John Ambulance - Rescue Helicopter Service					
Road crash rescues								
Fire and Rescue NSW	Metropolitan Fire Brigade	Queensland Fire and Emergency Services	WA Police Service	State Emergency Service	Tasmania Fire Service	ACT Fire and Rescue	NT Fire and Rescue Service	
NSW Police Force		Qld SES	Department of Fire and Emergency Services	Metropolitan Fire Service	State Emergency Service		NT Emergency Services	
Ambulance Service of NSW	Country Fire Authority	Qld Ambulance Service						
NSW SES	Victoria SES	Qld Police Service	St John Ambulance	Country Fire Service				
Volunteer Rescue Association								

Table DA.1 Summary of emergency management organisations by event type (a), (b)

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Rescues (other)								
Fire and Rescue NSW	Metropolitan Fire Brigade	Queensland Fire and Emergency Services	WA Police Service	State Emergency Service	Tasmania Police	ACT Emergency Services Agency	NT Fire and Rescue Service	Australian Maritime Safety Authority
NSW Police Force	Country Fire Authority	Qld SES	Department of Fire and Emergency Services	Metropolitan Fire Service	State Emergency Service	ACT Fire and Rescue	NT Emergency Services	Department of Defence
Ambulance Service of NSW	Victoria SES	Qld Ambulance Service		Country Fire Service	Tasmania Fire Service	Australian Federal Police	NT Police	Australian Customs and Border Protection Service
NSW SES	Victoria Police	Qld Police Service	St John Ambulance	SA Police		ACT State Emergency Service		
Volunteer Rescue Association	Ambulance Victoria		Department of Fire and Emergency Services/St John Ambulance - Rescue Helicopter Service	SA Ambulance Service	Ambulance Tasmania			
Mines Rescue Service	Municipal councils	Queensland Government Air rescue service (QGAir), Public Safety Business Agency (PSBA)		State Rescue Helicopter Service				
Marine Rescue NSW	Building Control Commissioner							
Natural events								
State Emergency Service	Victoria State Emergency Service	Local government	Department of Fire and Emergency Services	Functional Services and Hazard Leader's as per State Emergency Management Plan	State Emergency Service	ACT State Emergency Service	NT Emergency Service	Attorney-General's Department
NSW Police Force	Victoria Police	Qld Police Service			Department of Police and Public Safety	Australian Federal Police	NT Police	Department of Infrastructure and Regional Development
Fire and Rescue NSW	Metropolitan Fire Brigade	Qld SES	WA Police Service				NT Fire and Rescue Service	
NSW Rural Fire Service	Country Fire Authority	Queensland Fire and Emergency Services	Department for Child Protection and Family Support		Tasmania Fire Service	ACT Fire and Rescue	Parks and Wildlife	Geoscience Australia
Ambulance Service of NSW	Municipal councils	Qld Ambulance Service	Department of Mineral and Petroleum Resources		Ambulance Tasmania	ACT Emergency Service	Local Councils	Bureau of Meteorology
		Department of the Premier and Cabinet	Department of Agriculture		Local government authorities	Territory and Municipal Services		Department of Defence
		Department of Natural Resources and Mines						

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Natural events (continued)								
Volunteer Rescue Association		Department of Communities, Child Safety and Disability Services	Department of Health		Department of Health and Human Services	ACT Ambulance Service		Australian Building Codes Board
Department of Finance and Services		Department of Health	Department of Water		Department of Primary Industries, Water and Environment	ACT Rural Fire Service		All Australian Government Agencies under the Australian Government Crisis Management Framework
Department of Primary Industry		Department of Transport and Main Roads	Water Corporation		Tasmania Police			
NSW Environment Protection Authority		Department of Agriculture, Fisheries and Forestry	Department for Planning and Infrastructure		Department of Premier and Cabinet			
Transport for NSW		Department of Environment and Heritage Protection	Local governments					
Department of Premier and Cabinet		Department of State Development, Infrastructure and Planning	Bureau of Meteorology					
NSW Treasury		Department of Housing and Public Works	Main Roads WA					
Department of Family and Community Services		Department of Energy and Water Supply	Department of Parks and Wildlife					
Mines Rescue Service			Port Authorities					
NSW Health								
Local government authorities								
Ministry for Police and Emergency Services								

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Technological and hazardous material incidents								
Fire and Rescue NSW	Metropolitan Fire Brigade	Queensland Fire and Emergency Services	Department of Fire and Emergency Services	Functional Services and Hazard Leader's as per State Emergency Management Plan	Department of Primary Industries, Water and Environment	ACT Fire and Rescue	NT Fire and Rescue Service	Australian Maritime Safety Authority
NSW Rural Fire Service	Country Fire Authority	Department of Justice and Attorney-General, Hazardous Industries and Chemicals Branch	WA Police Service			Australian Federal Police	NT Police	Department of Infrastructure and Regional Development
NSW Environment Protection Authority	Victoria Police		Department of Health		Tasmania SES	Environment Protection Authority	Department of Health	
NSW Police Force	Ambulance Victoria	Department of Transport and Main Roads	Department for Planning and Infrastructure	SA Ambulance Service	Department of Police and Public Safety	Health Directorate	St John Ambulance	Attorney-General's Department
NSW Health	Department of Human Services	Department of Health	Department of Mineral and Petroleum Resources				MBT	Airservices Australia
Ambulance Service of NSW		Qld Ambulance Service			Tasmania Fire Service		Northern Territory Emergency Service	Civil Aviation Safety Authority
National Oil Spill Committee	Vic Workcover Authority	Qld Police Service	Department of Environment Regulation		Ambulance Tasmania			Australian Transport Safety Bureau
Port Corporations	Environmental Protection Authority	Department of Environment and Heritage Protection	St John Ambulance		Department of Health and Human Services		WorkSafe NT	Department of Defence
Oil Companies		Department of Agriculture, Fisheries and Forestry	Water Corporation		Local government authorities			Department of Health
Department of Environment and Climate Change NSW	Marine Board (Vic Channels, Local Ports Operators)		Alinta Gas		Department of Infrastructure, Energy and Resources			Australian Radiation Protection and Nuclear Safety Agency
	Department of Environment and Primary Industries		Port Authorities		Tasmania Police			Australian Customs and Border Protection Service
	Parks Victoria		Industry Emergency Response Groups					Department of Agriculture

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Quarantine and disease control								
NSW Health	Department of Environment and Primary Industries	Department of Health	Department of Health	Functional Services and Hazard Leader's as per State Emergency Management Plan	Department of Primary Industries, Water and Environment (Quarantine)	Health Directorate	NT Emergency Service	Department of Health
Department of Primary Industry	(Water Agencies and Agriculture)	Queensland Fire and Emergency Services	Department of Agriculture			Environment ACT	Territory Health Service	Biosecurity Australia
Water Authorities	Municipal councils	Department of National Parks, Recreation, Sport and Racing	Water Corporation			ACT Electricity and Water	NT Police	Australian Customs and Border Protection Service
NSW Police Force			Department of Fire and Emergency Services				Transport and Works Department	
NSW Environment Protection Authority					Department of Health and Human Services		Department Primary Industry and Fisheries	Attorney-General's Department
Fire and Rescue NSW	Department of Human Services (Public Health)	Department of Transport and Main Roads						Department of Agriculture
		Local government						Department of Foreign Affairs and Trade
		Department of Energy and Water Supply						
		Department of Environment and Heritage Protection						
		Qld Police Service						

Table DA.1 **Summary of emergency management organisations by event type (a), (b)**

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Emergency relief and recovery								
State Emergency Management Committee	Municipal councils	Local government	Department for Child Protection and Family Support	Functional Services and Hazard Leader's as per State Emergency Management Plan	Department of Health and Human Services (Community and Rural Health)	ACT Emergency Services Agency	Northern Territory Emergency Service	Department of Social Services
NSW Police Force	Department of Human Services (Public Health)	Queensland Reconstruction Authority	Utility agencies			Community Services Directorate	Department of Health	Centrelink
Department of Finance and Services	Church/ charitable organisations	Department of Communities, Child Safety and Disability Services	Department of Health		Department of Infrastructure Energy and Resources	Territory and Municipal Services Directorate	Government departments	Department of Infrastructure and Regional Development
Department of Family and Community Services	Victoria SES	Department of Housing and Public Works	Department of the Premier and Cabinet		Local government	ACT State Emergency Service		Attorney-General's Department
Department of Premier and Cabinet	Victoria Police		Local governments		Tasmania SES			
NSW Treasury	Department of Environment and Primary Industries (Agriculture)	Department of State Development, Infrastructure and Planning	Insurance Council of Australia		Tasmania Police			
NSW Health			Department of Treasury					
Department of Primary Industry	Vic Roads	Department of Transport and Main Roads	Department Agriculture and Food		Department of Premier and Cabinet			
Ministry for Police and Emergency Services	Utility companies	Department of Energy and Water Supply	Department of Water		Department of Primary Industries, Parks, Water and Environment			
Department of Transport		Department of Agriculture, Fisheries and Forestry	Department Mineral and Petroleum Resources					
Department of Education and Communities		Department of Environment and Heritage Protection	Department for Planning and Infrastructure		Department of Economic Development			
Community Relations Commission		Queensland Fire and Emergency Services						

Table DA.1 Summary of emergency management organisations by event type (a), (b)

NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus Gov* (c)
Emergency relief and recovery (continued)								
Ministry for Police and Emergency Services		Qld SES						
		Department of Health						
Local government authorities		Queensland Police Service						
		Utility agencies						

(a) The scope of this table is primary response agency or agencies (that is government agencies with legislative responsibility). Non-government agencies that provide support, but do not have a direct legislative responsibility, are not included.

(b) Organisations are ordered by level of involvement in each event type, except for the column under the heading of Australian Government. That is, the first mentioned organisation for each jurisdiction under each event type is the most involved combating organisation, the second mentioned is the second main combating organisation, through to the last mentioned, which is the most minor combating organisation listed (and there may be other organisations with a role, more minor again which are not listed).

(c) Emergency Management Australia, within the Attorney-General's Department, is the central coordinating Australian Government agency for any hazard, at the request of the jurisdictions. Deployment of interstate SES volunteers is managed by the Australian Council of SES (ACSES).

Source: Australian, State and Territory governments (unpublished).

Table DA.2 **Major sources of emergency service organisations' revenue, 2013-14 (a), (b), (c), (d)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (d)
Total ambulance, fire and emergency service organisations										
Revenue										
Government grants/contributions	$m	951.1	1 167.0	572.3	170.1	136.7	59.3	94.7	57.3	3 208.4
Total levies	$m	716.3	429.7	390.6	273.1	203.0	52.6	–	–	2 065.2
User/Transport charges	$m	263.1	187.9	164.9	98.5	84.1	19.8	6.1	2.8	827.1
Subscriptions and other income	$m	57.8	115.4	86.8	40.4	35.1	6.9	4.2	1.1	347.8
Total	**$m**	**1 988.2**	**1 899.8**	**1 214.6**	**582.1**	**459.0**	**138.6**	**105.0**	**61.2**	**6 448.5**
Total revenue per person	**$**	**266.32**	**328.07**	**258.93**	**228.21**	**273.64**	**269.64**	**273.26**	**252.20**	**276.53**
Ambulance service organisations										
Revenue										
Government grants/contributions	$m	562.4	414.0	457.2	112.7	125.8	49.9	33.6	21.6	1 777.0
Total levies	$m	–	–	–	–	–	–	–	–	–
User/Transport charges	$m	227.2	154.9	114.8	90.8	77.9	7.0	6.1	2.8	681.5
Subscriptions and other income	$m	8.5	90.7	10.3	37.5	32.1	2.7	0.6	1.1	183.4
Total	**$m**	**798.1**	**659.6**	**582.3**	**241.0**	**235.9**	**59.5**	**40.2**	**25.4**	**2 641.9**
Total revenue per person	**$**	**106.90**	**113.90**	**124.13**	**94.47**	**140.62**	**115.83**	**104.65**	**104.90**	**113.29**
Fire and emergency service organisations (Fire and SES)										
Revenue										
Government grants/contributions	$m	388.7	753.0	115.1	57.4	10.9	9.5	61.1	35.7	1 431.4
Total levies	$m	716.3	429.7	390.6	273.1	203.0	52.6	–	–	2 065.2
User/Transport charges	$m	35.9	32.9	50.1	7.7	6.2	12.8	–	–	145.6
Subscriptions and other income	$m	49.3	24.7	76.5	2.9	3.0	4.2	3.6	–	164.4
Total	**$m**	**1 190.2**	**1 240.3**	**632.3**	**341.1**	**223.1**	**79.1**	**64.8**	**35.7**	**3 806.6**
Total revenue per person	**$**	**159.42**	**214.17**	**134.80**	**133.74**	**133.02**	**153.82**	**168.61**	**147.29**	**163.24**

Table DA.2 **Major sources of emergency service organisations' revenue, 2013-14 (a), (b), (c), (d)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (d)
State/Territory emergency service (SES) organisations										
Revenue										
Government grants/contributions	$m	22.5	50.8	10.1	na	0.3	3.0	1.9	3.1	91.8
Total levies	$m	62.8	–	–	na	14.6	–	–	–	77.4
User/Transport charges	$m	..	..	..	..	..	..	..	..	..
Subscriptions and other income	$m	3.0	4.8	0.2	na	0.3	1.9	0.1	–	10.3
Total	**$m**	**88.4**	**55.6**	**10.2**	**na**	**15.3**	**4.9**	**2.0**	**3.1**	**179.5**
Total revenue per person	**$**	**11.83**	**9.60**	**2.18**	**na**	**9.11**	**9.57**	**5.14**	**12.96**	**7.70**
Fire service organisations										
Revenue										
Government grants/contributions	$m	366.2	702.2	105.0	na	10.6	6.4	59.2	32.6	1 282.2
Total levies	$m	653.5	429.7	390.6	na	188.4	52.6	–	–	1 714.7
User/Transport charges	$m	35.9	32.9	50.1	na	6.2	12.8	–	–	137.8
Subscriptions and other income	$m	46.3	19.9	76.3	na	2.7	2.4	3.6	–	151.2
Total	**$m**	**1 101.8**	**1 184.7**	**622.1**	**na**	**207.8**	**74.1**	**62.8**	**32.6**	**3 285.9**
Total revenue per person	**$**	**147.59**	**204.57**	**132.62**	**na**	**123.91**	**144.24**	**163.47**	**134.33**	**140.91**

(a) Population data used to derive rates are as at 31 December. Estimated Resident Population (ERP) data are on the 2011 Census of Population and Housing. Estimates for 2013 are preliminary. See chapter 2 (table 2A.2) for details.

(b) Other income is equal to the sum of subscriptions, donations and miscellaneous revenue.

(c) Government grants/contributions includes Australian Government grants, Local government grants, and indirect government funding.

(d) Caveats for the fire service organisation and ambulance service organisation funding data are available in chapter 9 and attachment 9A. Caveats for the SES organisation data are available in table DA.15.

na Not available. – Nil or rounded to zero. .. Not applicable.

Source : State and Territory governments; ABS (unpublished), *Australian Demographic Statistics* , Cat. no. 3101.0 (table 2A.2).

Table DA.3 **Emergency service organisations' costs, 2013-14 (a), (b), (c)**

	Unit	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total ambulance, fire and emergency service organisations										
Labour costs - Salaries and payments in the nature of salaries	$m	1 148.5	973.5	701.0	303.6	290.3	90.8	76.2	49.5	3 633.4
Capital costs (d)										
Depreciation	$m	70.7	104.0	51.9	30.2	28.6	9.0	7.1	5.1	306.6
User cost of capital - Other	$m	53.9	205.3	27.8	25.6	25.6	8.8	6.2	4.4	357.6
Other costs (e)	$m	710.8	705.6	376.7	215.9	134.1	40.9	33.1	11.1	2 228.2
Total costs (f)	**$m**	**1 984.0**	**1 988.3**	**1 157.4**	**575.3**	**478.5**	**149.5**	**122.6**	**70.2**	**6 525.8**
Total costs per person	**$**	**265.76**	**343.35**	**246.73**	**225.54**	**285.29**	**290.89**	**319.12**	**289.32**	**279.85**
Other expenses										
Labour costs - Payroll tax	$m	*30.5*	*25.9*	*29.9*	–	*5.8*	*2.7*	–	*1.6*	*96.3*
User cost of capital - Land	$m	*na*	*126.2*	*na*	*9.5*	*6.4*	*na*	*1.9*	*0.7*	*144.6*
Interest on borrowings	$m	–	–	*na*	*3.0*	–	–	–	–	*3.7*
Ambulance service organisations										
Labour costs - Salaries and payments in the nature of salaries	$m	530.8	406.1	391.2	127.9	165.8	44.3	27.8	17.9	1 711.7
Capital costs (d)										
Depreciation	$m	17.5	29.5	35.7	14.0	8.9	2.8	1.2	1.7	111.3
User cost of capital - Other	$m	12.6	18.1	26.4	8.4	4.5	2.0	0.8	–	73.0
Other costs (e)	$m	258.7	209.8	129.4	63.6	62.1	16.5	13.9	5.9	760.0
Total costs (f)	**$m**	**819.6**	**663.5**	**582.7**	**213.8**	**241.4**	**65.6**	**43.7**	**25.7**	**2 656.0**
Total costs per person	**$**	**109.78**	**114.58**	**124.21**	**83.81**	**143.95**	**127.60**	**113.80**	**106.12**	**113.90**
Other costs										
Labour costs - Payroll tax	$m	–	–	*16.2*	–	–	–	–	–	*16.2*

Table DA.3 **Emergency service organisations' costs, 2013-14 (a), (b), (c)**

	Unit	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
User cost of capital - Land	$m	*9.1*	*6.0*	*8.8*	*2.0*	*1.3*	*0.5*	*0.6*	–	*28.4*
Interest on borrowings	$m	–	–	–	–	–	–	–	–	–
Fire and emergency service organisations (FSO and SES)										
Labour costs - Salaries and payments in the nature of salaries	$m	617.8	567.4	309.8	175.7	124.5	46.5	48.4	31.7	1 921.6
Capital costs (d)										
Depreciation	$m	53.2	74.5	16.2	16.2	19.6	6.2	5.9	3.4	195.3
User cost of capital - Other	$m	41.3	187.2	1.5	17.3	21.0	6.8	5.4	4.1	284.6
Other costs (e)	$m	452.2	495.8	247.3	152.3	71.9	24.4	19.1	5.2	1 468.2
Total costs (f)	**$m**	**1 164.4**	**1 324.8**	**574.7**	**361.5**	**237.1**	**83.9**	**78.9**	**44.4**	**3 869.8**
Total costs per person	**$**	**155.98**	**228.77**	**122.52**	**141.74**	**141.34**	**163.28**	**205.33**	**183.21**	**165.95**
Other expenses										
Labour costs - Payroll tax	$m	*30.5*	*25.9*	*13.7*	–	*5.8*	*2.7*	–	*1.6*	*80.1*
User cost of capital - Land	$m	*na*	*120.1*	*na*	*7.5*	*5.0*	*na*	*1.3*	*0.7*	*na*
Interest on borrowings	$m	–	–	*na*	*3.0*	–	–	–	–	*na*
State/Territory emergency service (SES) organisations										
Labour costs - Salaries and payments in the nature of salaries	$m	31.3	18.9	1.9	na	4.5	2.4	1.0	1.3	61.4
Capital costs (d)										
Depreciation	$m	4.9	5.8	–	na	2.2	–	–	–	14.0
User cost of capital - Other	$m	4.0	4.8	na	na	2.4	na	–	–	12.3
Other costs (e)	$m	46.7	25.3	8.2	na	8.0	2.2	0.9	1.0	92.3
Total costs (f)	**$m**	**87.0**	**54.9**	**10.2**	**na**	**17.2**	**4.6**	**2.8**	**3.2**	**179.9**

Table DA.3 **Emergency service organisations' costs, 2013-14 (a), (b), (c)**

	Unit	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total costs per person	**$**	**11.65**	**9.48**	**2.18**	**na**	**10.24**	**9.02**	**7.38**	**13.22**	**7.72**
Other expenses										
Labour costs - Payroll tax	$m	*1.6*	*0.9*	*–*	*na*	*–*	*–*	*–*	*–*	*2.9*
User cost of capital - Land	$m	*na*	*0.7*	*na*	*na*	*–*	*na*	*–*	*–*	*1.4*
Interest on borrowings	$m	*–*	*–*	*na*	*na*	*–*	*–*	*–*	*–*	*–*
Fire service organisations (FSO)										
Labour costs - Salaries and payments in the nature of salaries	$m	586.4	548.4	307.8	na	120.0	44.1	47.4	30.4	1 684.5
Capital costs (d)										
Depreciation	$m	48.3	68.7	16.1	na	17.4	6.2	5.5	3.0	165.1
User cost of capital - Other	$m	37.3	182.3	1.5	na	18.6	6.8	4.9	3.6	255.1
Other costs (e)	$m	405.5	470.5	239.1	na	63.9	22.2	18.2	4.2	1 223.6
Total costs (f)	**$m**	**1 077.5**	**1 269.9**	**564.5**	**na**	**219.9**	**79.3**	**76.0**	**41.2**	**3 328.4**
Total costs per person	**$**	**144.33**	**219.30**	**120.34**	**na**	**131.11**	**154.27**	**197.94**	**169.98**	**142.73**
Other expenses										
Labour costs - Payroll tax	$m	*28.9*	*25.0*	*13.6*	*na*	*5.6*	*2.7*	*–*	*1.5*	*77.2*
User cost of capital - Land	$m	*11.6*	*119.4*	*–*	*na*	*4.8*	*1.4*	*1.1*	*–*	*138.7*
Interest on borrowings	$m	*–*	*–*	*–*	*na*	*–*	*–*	*–*	*–*	*–*

(a) Population data used to derive rates are as at 31 December. Estimated Resident Population (ERP) data are on the 2011 Census of Population and Housing. Estimates for 2013 are preliminary. See chapter 2 (table 2A.2) for details.

(b) Caveats for the fire service organisation data and ambulance service organisation expenditure data are available in chapter 9 and attachment 9A. Caveats for the SES organisation data are available in table DA.16.

(c) Figures vary from year to year as a result of abnormal expenditure related to response to specific major emergencies.

Table DA.3 **Emergency service organisations' costs, 2013-14 (a), (b), (c)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Total*

(d) The user cost of capital is partly dependent on depreciation and asset revaluation methods employed. Details of the treatment of assets by emergency management agencies across jurisdictions are outlined in table 9A.50.

(e) Includes the running, training, maintenance, communications, provisions for losses and other recurrent costs.

(f) Total costs excludes payroll tax, the user cost of capital associated with land, and interest on borrowings.

na Not available. – Nil or rounded to zero.

Source : State and Territory governments; ABS (unpublished), *Australian Demographic Statistics* , Cat. no. 3101.0 (table 2A.2).

Table DA.4 **Emergency services human resources, 2013-14 (a), (b), (c), (d)**

		NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Total ambulance, fire and emergency service organisations										
Salaried personnel										
Operational	FTE	na	8 649	5 858	2 009	1 876	607	556	363	na
Support personnel	FTE	na	2 773	967	744	493	267	147	72	na
Total	FTE	**9 890**	**11 422**	**6 825**	**2 753**	**2 370**	**874**	**703**	**435**	**35 270**
Per 100 000 people		**132.5**	**197.2**	**145.5**	**107.9**	**141.3**	**170.0**	**182.9**	**179.3**	**151.2**
Volunteers										
Operational	no.	na	42 099	na	33 035	na	na	na	943	na
Support volunteers	no.	na	19 821	na	1 130	na	na	na	810	na
Total	no.	**88 187**	**61 920**	**40 822**	**34 165**	**16 782**	**6 080**	**1 878**	**1 753**	**251 587**
Community first responders (ambulance)	no.	**241**	**422**	**201**	**1 502**	**45**	**45**	**–**	**–**	**2 456**
Ambulance service organisations										
Salaried personnel										
Operational	FTE	3 754	3 064	3 415	889	954	302	189	119	12 686
Support personnel	FTE	627	808	467	435	305	79	57	40	2 818
Total	FTE	**4 382**	**3 872**	**3 882**	**1 324**	**1 259**	**381**	**246**	**159**	**15 503**
Per 100 000 people		**58.7**	**66.9**	**82.8**	**51.9**	**75.0**	**74.0**	**63.9**	**65.5**	**66.5**
Volunteers										
Operational	no.	109	674	122	3 050	1 283	511	–	–	5 749
Support volunteers	no.	35	–	–	–	188	–	–	–	223
Total	no.	**144**	**674**	**122**	**3 050**	**1 471**	**511**	**–**	**–**	**5 972**
Community first responders	no.	**241**	**422**	**201**	**1 502**	**45**	**45**	**–**	**–**	**2 456**

Table DA.4 **Emergency services human resources, 2013-14 (a), (b), (c), (d)**

		NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Fire and emergency service organisations (Fire and SES)										
Salaried personnel										
Operational	FTE	na	5 585	2 443	1 120	923	305	367	244	na
Support personnel	FTE	na	1 965	500	309	188	188	90	32	na
Total	FTE	**5 508**	**7 550**	**2 943**	**1 429**	**1 111**	**493**	**457**	**276**	**19 767**
Per 100 000 people		**73.8**	**130.4**	**62.7**	**56.0**	**66.2**	**95.9**	**119.0**	**113.8**	**84.8**
Volunteers										
Operational	no.	na	41 425	na	29 985	na	na	na	943	na
Support volunteers	no.	na	19 821	na	1 130	na	na	na	810	na
Total	no.	**88 043**	**61 246**	**40 700**	**31 115**	**15 311**	**5 569**	**1 878**	**1 753**	**245 615**
State/Territory emergency service (SES) organisations										
Salaried personnel										
Operational	FTE	na	57	na	na	33	10	8	13	na
Support personnel	FTE	na	124	na	na	10	16	–	6	na
Total	FTE	**292**	**181**	**na**	**na**	**43**	**26**	**8**	**19**	**na**
Per 100 000 people		**3.9**	**3.1**	**na**	**na**	**2.5**	**5.1**	**2.1**	**7.8**	**na**
Volunteers										
Operational	no.	na	3 377	na	1 986	na	na	na	344	na
Support volunteers	no.	na	626	na	57	na	na	na	–	na
Total	no.	**7 282**	**4 003**	**5 700**	**2 043**	**1 711**	**548**	**257**	**344**	**21 888**

Table DA.4 **Emergency services human resources, 2013-14 (a), (b), (c), (d)**

		NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Fire service organisations										
Salaried personnel										
Operational	FTE	3 939	5 528	na	na	890	295	359	231	na
Support personnel	FTE	1 277	1 841	na	na	178	172	90	26	na
Total	FTE	**5 216**	**7 369**	**na**	**na**	**1 068**	**467**	**449**	**257**	**na**
Per 100 000 people		**69.9**	**127.2**	**na**	**na**	**63.7**	**90.9**	**116.9**	**105.9**	**na**
Volunteers										
Operational	no.	64 602	38 048	na	27 999	10 463	5 021	1 621	599	na
Support volunteers	no.	16 159	19 195	na	1 073	3 137	–	–	810	na
Total	no.	**80 761**	**57 243**	**35 000**	**29 072**	**13 600**	**5 021**	**1 621**	**1 409**	**223 727**

(a) Population data used to derive rates are as at 31 December. Estimated Resident Population (ERP) data are on the 2011 Census of Population and Housing. Estimates for 2013 are preliminary. See chapter 2 (table 2A.2) for details.

(b) Caveats for the fire service organisation data and ambulance service organisation human resource data are available in chapter 9 and attachment 9A. Caveats for the SES organisation data are available in table DA.17.

(c) In Qld and WA fire and emergency service salaried personnel have cross hazard responsibilities and are not broken down between fire and SES roles. For Australian totals, salaried personnel is provided for Fire and emergency services, but not for fire service organisations and SES organisations separately.

(d) NSW, Qld, SA, Tas and the ACT report total volunteers, but are unable to separately identify operational and support volunteers. For Australian totals, data are not available for operational and support volunteers.

na Not available. – Nil or rounded to zero.

Source : State and Territory governments; ABS (unpublished), *Australian Demographic Statistics* , Cat. no. 3101.0 (table 2A.2).

Table DA.5 **Australian Government Natural Disaster Resilience Program, funding to State and Territory governments ($ million) (2013-14 dollars) (a), (b), (c), (d), (e)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
2013-14	3.4	2.1	6.0	3.1	1.0	0.7	0.7	0.7	17.6
2012-13	6.8	4.2	3.0	1.6	2.1	3.8	1.3	1.3	24.2
2011-12	6.8	4.2	6.0	3.2	2.1	5.6	1.3	1.3	30.7
2010-11	7.2	4.2	6.3	3.2	3.0	1.6	1.6	0.4	27.5
2009-10	11.9	3.7	7.2	3.4	4.9	1.2	1.5	2.4	37.4

(a) Time series financial data are adjusted to 2013-14 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2013-14 = 100) (table 2A.51). See chapter 2 (sections 2.5-6) for details.

(b) Data presented are the accrual expenses.

(c) The Natural Disaster Resilience Program (NDRP), which was administered under a National Partnership Agreement, began in the 2009-10 financial year, subsuming the previous Bushfire Mitigation and Natural Disaster Mitigation Programs. The 2009-10 financial year data represent the net position for these three programs.

(d) The amounts for Tasmania in the 2011-12 and 2012-13 financial years include funding for the Launceston Flood Levee, which was funded under the National Disaster Resilience Program.

(e) Payments to State and Territory governments under the NDRP are normally made biannually. In 2012-13, only one payment was made to Queensland and WA, with the second payment carried over to 2013-14. Additionally, only one payment was made to all State and Territory governments in 2013-14, with the second payment carried over to 2014-15.

Source: Australian Government (unpublished); ABS 2014, *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0 (table 2A.51).

Table DA.6 **Australian Government Natural Disaster Relief and Recovery Arrangements expenses, funding to State and Territory governments ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
2013-14	57.9	5.2	310.4	2.2	0.2	0.3	–	1.3	377.3
2012-13	106.1	49.6	1 741.4	2.7	0.1	7.4	–	0.4	1 907.7
2011-12	54.9	46.7	1 403.0	11.7	–	0.2	–	4.7	1 521.3
2010-11	239.1	282.3	5 663.7	154.7	3.2	3.7	–	17.3	6 364.0
2009-10	6.7	4.7	101.0	–	–	0.7	–	3.0	175.0
2008-09	–	303.6	13.6	–	–	–	–	10.7	327.9
2007-08	9.0	–	–	–	2.3	–	–	8.4	19.7

(a) Time series financial data are adjusted to 2013-14 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2013-14 = 100) (table 2A.51). See chapter 2 (sections 2.5-6) for details.

(b) From 2011-12 onward, data presented are the accrual expenses. The Australian Government calculates accrual expenses as the present value of future payments expected to be made to the State and Territory governments under the Natural Disaster Relief and Recovery Arrangements (NDRRA). This is regardless of whether or not a State or Territory has completed eligible disaster reconstruction work or submitted an eligible claim. State and Territory government claims on expenditure for NDRRA eligible events can be made within 24 months after the end of the financial year in which the relevant disaster occurred unless an extension is granted. In 2010-11, expenses are calculated as a combination of cash payments made and provision for the change in the liability. Prior to 2010-11, expenses are calculated as actual cash payments.

(c) For a summary of eligible disaster events see www.disasterassist.gov.au.

– Nil or rounded to zero.

Source: Australian Government (2014 and previous), *Final budget outcome*, Commonwealth of Australia, Canberra; ABS 2014, *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0 (table 2A.51).

Table DA.7 **Australian Government disaster recovery payments to eligible individuals by State or Territory of the declared major disaster ($ million) (2013-14 dollars) (a), (b), (c), (d), (e), (f), (g), (h), (i)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
2013-14	1.1	–	–	0.4	–	–	–	–	1.5
2012-13	18.7	–	148.1	–	–	8.2	–	–	175.0
2011-12	53.1	8.8	13.0	–	–	–	–	–	75.0
2010-11	16.2	44.4	903.6	9.3	–	–	–	–	973.4
2009-10	–	4.9	11.7	0.5	–	–	–	–	17.2
2008-09	34.9	91.2	76.4	–	–	–	–	–	202.5

(a) Time series financial data are adjusted to 2013-14 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2013-14 = 100) (table 2A.51). See chapter 2 (sections 2.5-6) for details.

(b) Data presented are the total cash payments.

(c) Payments relate to the overall administered expenditure for a disaster event from 2008-09 to 2013-14. Included are payments under the Australian Government disaster recovery payment (AGDRP), New Zealand ex gratia payment (ex gratia), the Disaster Income Recovery Subsidy (DIRS), and the Disaster Recovery Allowance (DRA). For a summary of eligible disaster events see www.disasterassist.gov.au.

(d) Data have been allocated to the state/territory where the disaster event occurred. This may differ from the state of residence of the recipients.

(e) Data have been allocated to the financial year in which the disaster event occurred. This may differ from the financial year in which payment were made.

(f) Data exclude events where there are fewer than 20 claimants or where there is less that $20 000 of total claims paid.

(g) Figures are based on the 2008-09 to 2009-10 data that have been extracted from the end of financial year report and the summary of AGDRP and Ex-Gratia Assistance, 2010-11 data have been extracted from the end of financial year report, the Summary of AGDRP and Ex-Gratia Assistance table and Closed events summary due to appeal payments for 2008-09 & 2009-10 events, 2011-12, 2012-13, 2013-14 has been extracted from the end of financial year reports provided by the Department of Human Services.

(h) Prior to 2010 disaster assistance payments were administered by FaHCSIA (now known as DSS).

(i) The appropriation for DRA was administered by DSS until March 2014.

– Nil or rounded to zero.

Source: Australian Government (unpublished); ABS 2014, *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0 (table 2A.51).

Table DA.8 **National security and preparedness survey, 2011-12 (a), (b), (c)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Number of respondents	no.	1 122	885	791	390	431	159	378	50	4 257
Proportion of people that think that a natural disaster is likely to occur in the next 6 months:										
Somewhere in the local community	%	49.2	47.1	63.5	55.6	43.4	45.3	41.3	66.0	50.7
That will affect their own home	%	18.7	20.8	30.6	25.4	18.8	18.2	15.1	52.0	22.1
Precautions in the event of a natural disaster										
Proportion of people that have undertaken the following precautions in the event of a natural disaster:										
Developed emergency plans (evacuations/meeting places)	%	23.7	32.4	36.3	25.9	33.2	35.2	31.7	66.0	30.7
95% confidence interval (d)	±	2.5	3.1	3.4	4.3	4.4	7.4	4.7	13.1	1.4
Stockpiled supplies	%	11.9	12.4	42.7	16.7	12.3	15.1	13.8	54.0	19.0
Purchased things to make you (or your home) safer	%	11.1	12.5	28.3	14.6	11.4	13.2	19.6	50.0	16.2
At least one of the above	%	31.2	37.2	56.3	34.1	37.1	42.1	39.9	74.0	39.6
Proportion of people that have developed emergency plans and think that a natural disaster is likely to occur in the next six months:										
Somewhere in the local community	%	31.2	46.5	43.6	33.0	44.9	50.0	42.3	69.7	40.5
That will affect their own home	%	40.5	56.5	56.2	43.4	51.9	69.0	49.1	80.8	51.6
Knowledge of what to do in the event of a natural disaster										
Proportion of people that have 'a fair bit' or 'a lot' of knowledge of:										
The different kinds of natural disasters in Australia	%	50.6	52.9	58.2	47.7	48.0	47.8	57.1	70.0	52.4
What the government has done to prepare for natural disasters	%	13.3	15.3	20.0	13.1	13.0	11.9	18.3	30.0	15.5
What to do to prepare for natural disasters	%	25.0	29.4	41.0	26.2	25.8	23.3	31.2	58.0	29.9
Where to get information about preparing for natural disasters	%	20.7	25.8	33.2	20.8	21.8	16.4	32.5	52.0	25.3
Where to get information when a warning is issued for a natural disaster	%	23.8	29.0	41.8	25.4	24.8	27.0	35.2	64.0	30.0

Table DA.8 **National security and preparedness survey, 2011-12 (a), (b), (c)**

	Unit	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
What the government recommends you do to protect yourself against a natural disaster	%	17.3	23.1	35.5	16.2	19.3	22.0	30.2	54.0	23.6
Proportion of people that have 'a fair bit' or 'a lot' of knowledge what to do to prepare for a natural disasters and think that a natural disaster is likely to occur in the next six months:										
Somewhere in the local community	%	30.6	37.4	46.6	31.8	31.6	23.6	39.1	66.7	36.7
That will affect their own home	%	31.4	39.1	54.1	28.3	37.0	24.1	40.4	76.9	40.2

(a) The National Security and Preparedness Survey (NSPS) aims to benchmark attitudes and perceptions of Australians towards national security policy and seeks to better understand citizen preparedness for potential terrorist and natural disasters.

(b) The NSPS was conducted between November 2011 and May 2012. A series of floods in northern New South Wales and southern Queensland in January and February 2012 may have influenced respondent perceptions about, and/or actions around, disaster preparedness.

(c) The survey was designed to produce descriptive statistics and these may not be representative of the population.

(d) The percentages reported for the Proportion of people that have developed emergency plans (evacuations/meeting places) include 95 per cent confidence intervals (for example, 40.0 per cent ± 2.7 per cent). Confidence intervals have been calculated for this Report on the assumption that a random sample of the population was selected.

na Not available.

Source : Western, M., Mazerolle, L., & Boreham, P. (2012), *National Security and Preparedness Survey 2011-2012,* Brisbane: Institute for Social Science Research and the Australian Research Council Centre of Excellence in Policing and Security, The University of Queensland, 2012.

Table DA.9 **Asset loss from emergency events ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
2013-14									
Fire	183.4	–	–	15.0	–	–	–	–	198.4
Storm	–	–	–	–	–	–	–	–	–
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**183.4**	**–**	**–**	**15.0**	**–**	**–**	**–**	**–**	**198.4**
2012-13									
Fire	35.8	–	–	–	–	91.0	–	–	126.8
Storm	124.0	–	999.0	–	–	–	–	–	1 123.0
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**159.8**	**–**	**999.0**	**–**	**–**	**91.0**	**–**	**–**	**1 249.8**
2011-12									
Fire	–	–	–	55.8	–	–	–	–	55.8
Storm	–	759.8	–	–	–	–	–	–	759.8
Flood	118.1	19.4	137.1	–	–	–	–	–	274.6
Other	–	–	–	–	–	–	–	–	–
Total	**118.1**	**779.2**	**137.1**	**55.8**	**–**	**–**	**–**	**–**	**1 090.2**
2010-11									
Fire	–	–	–	37.2	–	–	–	–	37.2
Storm	–	516.5	1 496.0	–	–	–	–	–	2 012.6
Flood	–	134.0	2 529.3	–	–	–	–	–	2 663.3
Other	–	–	–	–	–	–	–	–	–
Total	**–**	**650.5**	**4 025.3**	**37.2**	**–**	**–**	**–**	**–**	**4 713.0**
2009-10									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	1 129.9	–	1 139.6	–	–	–	–	2 269.5
Flood	–	–	50.5	–	–	–	–	–	50.5
Other	–	–	–	–	–	–	–	–	–
Total	**–**	**1 129.9**	**50.5**	**1 139.6**	**–**	**–**	**–**	**–**	**2 320.0**
2008-09									
Fire	–	1 175.8	–	–	–	–	–	–	1 175.8
Storm	–	–	339.6	–	–	–	–	–	339.6
Flood	93.4	–	20.9	–	–	–	–	–	114.3
Other	–	–	–	–	–	–	–	–	–
Total	**93.4**	**1 175.8**	**360.4**	**–**	**–**	**–**	**–**	**–**	**1 629.7**
2007-08									
Fire	–	–	–	–	–	–	–	–	–
Storm	544.6	53.2	41.9	–	16.2	5.1	–	–	660.9

Table DA.9 **Asset loss from emergency events ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
Flood	10.7	17.2	556.3	–	–	–	–	–	584.2
Other	–	–	–	–	–	–	–	–	–
Total	**555.3**	**70.4**	**598.2**	**–**	**16.2**	**5.1**	**–**	**–**	**1 245.1**
2006-07									
Fire	–	–	–	–	–	–	–	–	–
Storm	1 807.6	–	–	9.4	–	–	–	–	1 817.0
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**1 807.6**	**–**	**–**	**9.4**	**–**	**–**	**–**	**–**	**1 817.0**
2005-06									
Fire	–	27.3	–	–	–	–	–	–	27.3
Storm	–	–	732.9	–	–	–	–	–	732.9
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**–**	**27.3**	**732.9**	**–**	**–**	**–**	**–**	**–**	**760.2**
2004-05									
Fire	–	–	–	–	34.8	–	–	–	34.8
Storm	130.1	96.7	22.1	66.9	29.9	9.5	6.4	–	361.6
Flood	31.4	–	67.8	–	–	–	–	–	99.2
Other	–	–	–	–	–	–	–	–	–
Total	**161.5**	**96.7**	**89.9**	**66.9**	**64.7**	**9.5**	**6.4**	**–**	**495.7**
2003-04									
Fire	–	–	–	–	–	–	–	–	–
Storm	17.3	12.8	36.8	–	–	1.3	0.9	–	69.0
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**17.3**	**12.8**	**36.8**	**–**	**–**	**1.3**	**0.9**	**–**	**69.0**
2002-03									
Fire	32.9	15.8	–	–	–	–	459.9	–	508.5
Storm	–	–	–	–	–	–	–	–	–
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**32.9**	**15.8**	**–**	**–**	**–**	**–**	**459.9**	**–**	**508.5**
2001-02									
Fire	46.4	–	–	–	–	–	46.4	–	92.9
Storm	107.7	–	–	–	–	–	–	–	107.7
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**154.1**	**–**	**–**	**–**	**–**	**–**	**46.4**	**–**	**200.5**

Table DA.9 **Asset loss from emergency events ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
2000-01									
Fire	–	–	–	–	–	–	–	–	–
Storm	85.5	–	–	–	–	–	–	–	85.5
Flood	34.5	–	51.0	–	–	–	–	–	85.5
Other	–	–	–	–	–	–	–	–	–
Total	**120.0**	**–**	**51.0**	**–**	**–**	**–**	**–**	**–**	**171.0**
1999-2000									
Fire	–	–	–	–	–	–	–	–	–
Storm	65.1	–	37.6	–	–	–	–	–	102.7
Flood	–	14.5	17.4	–	–	–	–	–	31.8
Other	–	–	–	–	–	–	–	–	–
Total	**65.1**	**14.5**	**55.0**	**–**	**–**	**–**	**–**	**–**	**134.6**
1998-99									
Fire	–	–	–	–	–	–	–	–	–
Storm	2 492.7	–	145.2	51.3	–	–	–	–	2 689.1
Flood	58.7	–	–	–	–	–	–	–	58.7
Other	–	–	–	–	–	–	–	–	–
Total	**2 551.3**	**–**	**145.2**	**51.3**	**–**	**–**	**–**	**–**	**2 747.8**
1997-98									
Fire	–	–	–	–	–	–	–	–	–
Storm	68.6	–	–	–	–	–	–	–	68.6
Flood	–	–	105.8	–	–	–	–	104.3	210.1
Other	–	–	–	–	–	–	–	–	–
Total	**68.6**	**–**	**105.8**	**–**	**–**	**–**	**–**	**104.3**	**278.7**
1996-97									
Fire	–	15.1	–	–	–	–	–	–	15.1
Storm	291.1	–	–	–	–	–	–	–	291.1
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**291.1**	**15.1**	**–**	**–**	**–**	**–**	**–**	**–**	**306.2**
1995-96									
Fire	–	–	–	–	–	–	–	–	–
Storm	15.2	–	60.9	–	–	–	–	–	76.1
Flood	23.6	–	23.6	–	–	–	–	–	47.2
Other	–	–	–	–	–	–	–	–	–
Total	**38.8**	**–**	**84.5**	**–**	**–**	**–**	**–**	**–**	**123.3**
1994-95									
Fire	–	–	91.9	–	–	–	–	–	91.9
Storm	45.1	–	–	17.1	–	–	–	–	62.2

Table DA.9 **Asset loss from emergency events ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
Flood	–	–	–	–	–	–	–	–	–
Other	57.9	–	–	–	–	–	–	–	57.9
Total	**103.0**	**–**	**91.9**	**17.1**	**–**	**–**	**–**	**–**	**212.0**
1993-94									
Fire	92.9	–	–	–	–	–	–	–	92.9
Storm	–	–	–	58.3	–	–	–	–	58.3
Flood	–	18.9	–	–	–	–	–	–	18.9
Other	–	–	–	–	–	–	–	–	–
Total	**92.9**	**18.9**	**–**	**58.3**	**–**	**–**	**–**	**–**	**170.1**
1992-93									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	–	–	–	–	–	–	–	–
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
1991-92									
Fire	19.5	–	–	–	–	–	–	–	19.5
Storm	192.2	–	–	–	–	–	–	–	192.2
Flood	–	39.1	–	–	–	–	–	–	39.1
Other	–	–	–	–	–	–	–	–	–
Total	**211.7**	**39.1**	**–**	**–**	**–**	**–**	**–**	**–**	**250.8**
1990-91									
Fire	–	–	–	–	–	–	–	–	–
Storm	230.3	20.0	–	–	49.9	–	–	–	300.2
Flood	–	–	53.2	–	–	–	–	–	53.2
Other	–	–	–	–	–	–	–	–	–
Total	**230.3**	**20.0**	**53.2**	**–**	**49.9**	**–**	**–**	**–**	**353.4**
1989-90									
Fire	–	–	–	–	–	–	–	–	–
Storm	552.9	34.7	57.2	–	–	–	–	–	644.7
Flood	17.3	17.3	69.3	–	–	–	–	–	104.0
Other	1 493.9	–	–	–	–	–	–	–	1 493.9
Total	**2 064.1**	**52.0**	**126.5**	**–**	**–**	**–**	**–**	**–**	**2 242.6**
1990-91									
Fire	–	–	–	–	–	–	–	–	–
Storm	4.8	–	43.0	–	–	–	–	–	47.8
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**4.8**	**–**	**43.0**	**–**	**–**	**–**	**–**	**–**	**47.8**

Table DA.9 **Asset loss from emergency events ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
1987-88									
Fire	–	–	–	–	–	–	–	–	–
Storm	–	–	–	39.1	–	–	–	–	39.1
Flood	48.9	–	–	–	–	–	–	19.6	68.5
Other	–	–	–	–	–	–	–	–	–
Total	**48.9**	**–**	**–**	**39.1**	**–**	**–**	**–**	**19.6**	**107.6**
1986-87									
Fire	–	–	–	–	–	–	–	–	–
Storm	215.8	–	–	–	20.7	–	–	–	236.5
Flood	72.6	–	–	–	–	–	–	–	72.6
Other	–	–	–	–	–	–	–	–	–
Total	**288.4**	**–**	**–**	**–**	**20.7**	**–**	**–**	**–**	**309.1**
1985-86									
Fire	–	–	–	–	–	–	–	–	–
Storm	56.1	–	89.7	–	–	–	–	–	145.7
Flood	–	–	–	–	–	–	–	–	–
Other	–	–	–	–	–	–	–	–	–
Total	**56.1**	**–**	**89.7**	**–**	**–**	**–**	**–**	**–**	**145.7**
1984-85									
Fire	60.4	–	–	–	–	–	–	–	60.4
Storm	–	–	–	–	–	–	–	–	–
Flood	193.2	–	–	–	–	–	–	–	193.2
Other	–	–	–	–	–	–	–	–	–
Total	**253.6**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**253.6**

(a) Time series financial data are adjusted to 2013-14 dollars using the Domestic Final Demand (DFD) deflator (2013-14 = 100). The DFD deflator is preferred to the General Government Final Consumption Expenditure deflator for this table, as asset losses are more closely aligned to the range of consumption and capital goods rather than general government consumption. (The index has been modelled for 1984-85 and 1985-86 using the DFD implicit price deflator.)

(b) Costs not taken into account: emergency response by emergency services; local, State, Territory and Commonwealth governments; non-government organisations; local government clean-up; remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion); community dislocation; loss of jobs; rehabilitation/recovery services; and basic medical and funeral costs associated with injuries and deaths.

(c) Total Asset Loss: all insurance losses (claims by policy holders, based on figures from the Insurance Council of Australia). The data are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers. Events are only recorded where there is a potential for the insured loss to exceed $10 million.

– Nil or rounded to zero.

Table DA.9 **Asset loss from emergency events ($ million) (2013-14 dollars) (a), (b), (c)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*

Source : Insurance Council of Australia 2014, *Historical & current disaster statistics* , http://http://www.insurancecouncil.com.au/statistics (accessed 10 October 2014); Australian Emergency Management 2014, *Knowledge Hub* , http://www.emknowledge.gov.au/ (accessed 10 October 2014); ABS 2014, *Australian National Accounts: National Income, Expenditure and Product, June 2014* , Cat. no. 5206.0.

Table DA.10 **Asset loss from emergency events, per person (2013-14 dollars) (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
Annual rate									
2013-14	24.57	–	–	5.88	–	–	–	–	8.51
2012-13	21.75	–	216.65	–	–	177.59	–	–	54.56
2011-12	16.29	139.78	30.37	23.37	–	–	–	–	48.48
2010-11	–	118.37	907.23	16.05	–	–	–	–	212.56
2009-10	–	208.49	11.57	503.42	–	–	–	–	106.10
2008-09	13.34	221.30	84.30	–	–	–	–	–	75.88
2007-08	80.67	13.54	143.79	–	10.24	10.24	–	–	59.25
2006-07	266.36	–	–	4.55	–	–	–	–	88.09
2005-06	–	5.44	184.89	–	–	–	–	–	37.43
2004-05	24.22	19.51	23.23	33.56	42.24	19.51	19.51	–	24.73
2003-04	2.61	2.61	9.71	–	–	2.61	2.61	–	3.48
2002-03	4.98	3.25	–	–	–	–	1 411.02	–	25.94
2001-02	23.50	–	–	–	–	–	143.81	–	10.34
2000-01	18.50	–	14.43	–	–	–	–	–	8.94
1999-2000	10.16	3.09	15.80	–	–	–	–	–	7.11
1998-99	402.49	–	42.35	27.89	–	–	–	–	146.90
1997-98	10.93	–	31.30	–	–	–	–	545.45	15.06
1996-97	46.84	3.31	–	–	–	–	–	–	16.70
1995-96	6.32	–	25.82	–	–	–	–	–	6.80
1994-95	16.96	–	28.73	9.95	–	–	–	–	11.85
1993-94	15.43	4.23	–	34.47	–	–	–	–	9.60
1992-93	–	–	–	–	–	–	–	–	–

Table DA.10 **Asset loss from emergency events, per person (2013-14 dollars) (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
1991-92	35.72	8.81	–	–	–	–	–	–	14.43
1990-91	39.28	4.54	18.18	–	34.69	–	–	–	20.58
1989-90	355.69	11.96	44.17	–	–	–	–	–	132.41
1990-91	0.83	–	15.47	–	–	–	–	–	2.86
1987-88	8.63	–	–	25.86	–	–	–	123.05	6.57
1986-87	51.73	–	–	–	14.95	–	–	–	19.15
1985-86	10.20	–	34.53	–	–	–	–	–	9.17
1984-85	46.69	–	–	–	–	–	–	–	16.18
Annual rate (3 year average)									
2011-12 to 2013-14	20.9	45.7	82.2	9.6	–	59.2	–	–	36.9
2010-11 to 2012-13	12.8	85.4	380.6	13.0	–	59.3	–	–	104.4
2009-10 to 2011-12	5.5	155.2	316.3	176.8	–	–	–	–	122.1
2008-09 to 2010-11	4.4	182.2	339.2	173.3	–	–	–	–	132.2
2007-08 to 2009-10	30.9	149.1	78.8	172.5	3.4	3.4	–	–	80.7
2006-07 to 2008-09	118.8	79.8	76.7	1.5	3.4	3.4	–	–	74.3
2005-06 to 2007-08	115.9	6.4	109.3	1.5	3.4	3.4	–	–	61.7
2004-05 to 2006-07	97.6	8.2	69.2	12.5	14.0	6.5	6.4	–	50.4
2003-04 to 2005-06	8.9	9.2	73.9	11.2	14.1	7.4	7.4	–	22.0
2002-03 to 2004-05	10.6	8.5	11.2	11.3	14.2	7.4	475.3	–	18.0
2001-02 to 2003-04	10.3	2.0	3.3	–	–	0.9	519.5	–	13.2
2000-01 to 2002-03	15.6	1.1	4.7	–	–	–	523.2	–	15.1
1999-2000 to 2001-02	17.4	1.0	10.0	–	–	–	48.5	–	8.8
1998-99 to 2000-01	142.3	1.0	24.0	9.2	–	–	–	–	53.8
1997-98 to 1999-2000	141.1	1.0	29.7	9.3	–	–	–	178.8	56.3

Table DA.10 **Asset loss from emergency events, per person (2013-14 dollars) (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*
1996-97 to 1998-99	154.6	1.1	24.8	9.4	–	–	–	182.1	60.0
1995-96 to 1997-98	21.4	1.1	19.1	–	–	–	–	185.8	12.9
1994-95 to 1996-97	23.5	1.1	18.0	3.3	–	–	–	–	11.8
1993-94 to 1995-96	12.9	1.4	18.4	14.6	–	–	–	–	9.4
1992-93 to 1994-95	10.8	1.4	9.8	14.8	–	–	–	–	7.2
1991-92 to 1993-94	17.0	4.3	–	11.6	–	–	–	–	8.0
1990-91 to 1992-93	24.9	4.4	5.9	–	11.5	–	–	–	11.6
1989-90 to 1991-92	142.4	8.4	20.5	–	11.6	–	–	–	55.3
1990-91 to 1990-91	132.0	5.5	26.0	–	11.7	–	–	–	52.1
1987-88 to 1989-90	123.0	4.0	20.3	8.4	–	–	–	40.6	47.9
1986-87 to 1990-91	20.1	–	5.3	8.6	4.9	–	–	41.1	9.4
1985-86 to 1987-88	23.5	–	11.3	8.8	5.0	–	–	41.8	11.6
1984-85 to 1986-87	36.2	–	11.5	–	5.0	–	–	–	14.8

(a) Time series financial data are adjusted to 2013-14 dollars using the Domestic Final Demand (DFD) deflator (2013-14 = 100). The DFD deflator is preferred to the General Government Final Consumption Expenditure deflator for this table, as asset losses are more closely aligned to the range of consumption and capital goods rather than general government consumption. (The index has been modelled for 1984-85 and 1985-86 using the DFD implicit price deflator.)

(b) Population data used to derive rates are as at 31 December. Estimated Resident Population (ERP) data for 1984 to 2010 are final, based on the 2011 Census of Population and Housing. Estimates for 2012 onwards are preliminary. See chapter 2 (table 2A.2) for details.

(c) Costs not taken into account: emergency response by emergency services; local, State, Territory and Commonwealth governments; non-government organisations; local government clean-up; remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion); community dislocation; loss of jobs; rehabilitation/recovery services; and basic medical and funeral costs associated with injuries and deaths.

(d) Total Asset Loss: all insurance losses (claims by policy holders, based on figures from the Insurance Council of Australia). The data are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers. Events are only recorded where there is a potential for the insured loss to exceed $10 million.

– Nil or rounded to zero.

Table DA.10 **Asset loss from emergency events, per person (2013-14 dollars) (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aus*

Source: Insurance Council of Australia 2014, *Historical & current disaster statistics*, http://http://www.insurancecouncil.com.au/statistics (accessed 10 October 2014); Australian Emergency Management 2014, *Knowledge Hub*, http://www.emknowledge.gov.au/ (accessed 10 October 2014); ABS 2014, *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0; ABS (unpublished), *Australian Demographic Statistics*, Cat. no. 3101.0 (table 2A.2)

Table DA.11 **Road traffic death rate (a), (b), (c), (d), (e)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (f)
Road traffic deaths									
Annual rate				***per million people***					
2012	48.0	51.2	71.5	79.4	67.7	68.4	53.4	204.4	59.7
2011	46.7	58.1	68.6	76.1	65.3	46.9	40.8	194.6	60.1
2010	56.3	63.7	69.5	90.8	86.0	82.5	91.2	187.1	67.9
2009	58.4	62.2	88.7	94.6	72.1	119.0	64.8	185.8	72.4
2008	48.5	67.3	91.5	105.4	74.9	96.3	66.0	336.6	73.2
2007	50.8	66.2	92.9	116.8	91.0	97.3	49.6	196.5	74.7
2006	63.3	72.5	88.1	101.4	87.0	114.4	50.7	215.3	78.4
2005	54.4	78.0	73.0	84.0	102.7	102.8	78.5	252.5	74.0
2004	58.6	70.0	80.2	90.4	92.3	122.1	36.5	167.8	73.6
2003	68.3	72.6	79.6	94.2	110.5	83.6	39.7	267.7	79.3
2002	79.5	83.6	93.3	95.9	98.6	78.0	40.0	281.8	87.7
2001	82.2	93.4	104.4	91.8	101.1	105.6	46.7	213.1	92.9
2000	94.2	89.7	91.2	110.7	110.9	61.3	63.0	281.2	96.1
1999	90.2	92.2	91.8	100.9	101.9	97.2	50.9	168.4	93.3
1998	89.3	88.8	83.1	95.3	107.2	59.1	102.7	326.6	92.0
1997	86.1	100.7	110.6	102.9	83.4	44.2	64.4	216.1	95.5
1996	95.7	91.1	119.0	138.0	119.8	124.1	80.7	346.9	107.9
1995	102.7	98.9	146.4	121.0	114.6	126.4	65.4	278.4	114.1
1994	103.2	97.0	129.8	133.2	111.4	114.0	99.3	223.0	111.4
1993	93.9	103.7	130.2	126.9	144.0	129.2	36.7	238.8	111.5
1992	113.1	105.6	140.9	126.6	119.6	138.3	91.6	237.3	119.3
1991	113.9	126.7	134.4	127.1	148.0	177.8	114.1	416.9	129.4
1990	141.4	143.9	153.5	128.3	159.2	155.8	127.6	390.9	146.9
1989	160.5	200.2	154.5	148.2	152.9	180.1	115.8	359.8	169.6
1988	175.7	201.1	188.0	162.8	181.5	181.8	158.0	578.5	187.3
1987	159.5	188.1	170.5	138.3	188.8	189.2	180.8	341.3	172.2
1986	185.7	179.5	190.9	174.8	208.3	199.3	154.5	349.7	187.3
1985	193.8	165.0	205.0	161.4	203.5	187.4	159.1	350.1	186.8
1984	166.2	170.0	200.1	156.0	165.4	189.6	252.9	323.6	175.2
1983	173.9	187.6	202.6	160.0	198.4	171.0	117.2	551.8	185.4
Annual rate (3 year average)				***per million people***					
2010 to 2012	50.3	57.6	69.9	82.0	72.9	65.9	61.6	195.4	62.6
2009 to 2011	53.7	61.3	75.5	87.0	74.4	82.6	65.5	189.2	66.8
2008 to 2010	54.4	64.4	83.1	96.8	77.7	99.2	74.2	235.3	71.2
2007 to 2009	52.6	65.2	91.0	105.4	79.3	104.3	60.2	239.5	73.4
2006 to 2008	54.1	68.6	90.9	107.9	84.3	102.6	55.5	250.5	75.4

Table DA.11 **Road traffic death rate (a), (b), (c), (d), (e)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (f)
2005 to 2007	56.1	72.2	84.8	101.0	93.5	104.8	59.5	221.1	75.7
2004 to 2006	58.8	73.5	80.5	92.0	93.9	113.1	55.2	212.1	75.4
2003 to 2005	60.4	73.6	77.5	89.5	101.8	102.9	51.6	229.4	75.6
2002 to 2004	68.8	75.4	84.3	93.5	100.4	94.7	38.7	239.0	80.1
2001 to 2003	76.6	83.2	92.3	94.0	103.4	89.0	42.1	254.2	86.5
2000 to 2002	85.2	88.9	96.3	99.4	103.5	81.6	49.8	258.6	92.2
1999 to 2001	88.8	91.8	95.9	101.1	104.6	88.0	53.5	221.1	94.1
1998 to 2000	91.2	90.2	88.7	102.3	106.7	72.6	72.1	258.5	93.8
1997 to 1999	88.5	93.9	95.1	99.7	97.5	66.8	72.6	236.7	93.6
1996 to 1998	90.3	93.5	104.0	111.8	103.4	75.8	82.6	296.2	98.4
1995 to 1997	94.8	96.9	125.1	120.5	105.9	98.2	70.2	279.8	105.7
1994 to 1996	100.5	95.7	131.7	130.7	115.3	121.5	81.7	283.8	111.1
1993 to 1995	100.0	99.9	135.6	127.0	123.3	123.2	67.2	247.0	112.3
1992 to 1994	103.4	102.1	133.5	128.9	125.0	127.2	75.8	232.9	114.0
1991 to 1993	106.9	112.0	135.1	126.9	137.1	148.4	80.3	296.6	120.0
1990 to 1992	122.7	125.3	142.9	127.4	142.1	157.3	110.8	347.6	131.8
1989 to 1991	138.4	156.6	147.3	134.4	153.3	171.2	119.1	389.5	148.5
1988 to 1990	159.1	181.5	165.0	146.2	164.5	172.4	133.6	442.2	167.7
1987 to 1989	165.3	196.5	170.8	149.9	174.3	183.7	151.1	426.4	176.4
1986 to 1988	173.6	189.7	183.1	158.6	192.8	190.1	164.5	424.0	182.3
1985 to 1987	179.5	177.6	188.5	158.0	200.2	192.0	165.0	346.9	182.0
1984 to 1986	182.0	171.6	198.6	164.2	192.5	192.2	188.0	341.5	183.2
1983 to 1985	178.0	174.1	202.6	159.1	189.1	182.7	176.8	405.5	182.5
Annual road traffic deaths					***number***				
2012	350	288	326	193	112	35	20	48	1 355
2011	337	322	307	179	107	24	15	45	1 343
2010	402	348	306	208	140	42	33	43	1 497
2009	412	334	384	212	116	60	23	42	1 571
2008	337	354	386	229	119	48	23	74	1 555
2007	347	341	382	246	143	48	17	42	1 555
2006	427	367	353	208	135	56	17	45	1 603
2005	364	389	286	169	158	50	26	52	1 494
2004	390	345	307	179	141	59	12	34	1 467
2003	452	354	298	184	168	40	13	54	1 563
2002	523	403	341	185	149	37	13	57	1 709
2001	537	445	373	175	152	50	15	43	1 790
2000	607	422	320	208	166	29	20	56	1 828

Table DA.11 **Road traffic death rate (a), (b), (c), (d), (e)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (f)
1999	575	429	317	187	152	46	16	33	1 755
1998	563	409	283	174	159	28	32	63	1 711
1997	538	460	371	185	123	21	20	41	1 759
1996	591	413	393	244	176	59	25	64	1 966
1995	627	445	474	210	168	60	20	50	2 054
1994	624	434	411	227	163	54	30	39	1 983
1993	563	463	403	213	210	61	11	41	1 966
1992	674	470	426	210	174	65	27	40	2 086
1991	672	560	398	208	214	83	33	69	2 237
1990	825	630	445	207	228	72	36	64	2 507
1989	927	865	437	234	217	82	32	58	2 852
1988	1 003	857	515	250	255	82	43	92	3 097
1987	896	792	456	207	263	85	48	54	2 801
1986	1 027	747	501	255	288	89	40	54	3 001
1985	1 059	680	527	229	279	83	40	52	2 949
1984	898	693	505	217	225	83	62	46	2 729
1983	931	757	503	219	267	74	28	75	2 854

(a) Data for 2012 are preliminary and subject to a revisions process. Data for 2010 and 2011 have been subject to revisions. See *Causes of Death, Australia* (Cat. no. 3303.0) Technical Note: Causes of Death Revisions. Cells in this table have been randomly adjusted to avoid the release of confidential data. Where necessary, totals have been adjusted separately to the component cells and totals are not necessarily the sum of the component cells.

(b) Road traffic deaths include ICD codes Road traffic accidents (V01-V79), Intentional self-harm by crashing of motor vehicle (X82), Assault by crashing of motor vehicle (Y03), and Crashing of motor vehicle, undetermined intent (Y32). Deaths data are reported by the State or Territory of the deceased's usual residence, and by the year the death was registered.

(c) Population data used to derive rates are as at 30 June. Estimated Resident Population (ERP) data for 1983 to 2011 are final, based on the 2011 Census of Population and Housing. Estimates for 2012 onwards are preliminary. See chapter 2 (table 2A.1) for details.

(d) The number of road traffic deaths provided in Causes of Death (ABS Cat. no. 3303.0) is different to the number of 'Road fatalities' presented in chapter 9. ABS data are sourced from death registrations. 'Road fatalities' in chapter 9 provides more recent data sourced by the Australian Road Deaths Database as reported by the police each month to road safety authorities.

(e) The small number of deaths means it is difficult to establish patterns and provide detailed analysis.

(f) Includes Other Territories.

Source: ABS 2014, *Causes of Death, Australia,* Cat. no. 3303.0; ABS 2014, *Australian Demographic Statistics,* Cat. no. 3101.0 (table 2A.1).

Table DA.12 Exposure to forces of nature death rate (a), (b), (c), (d)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust (e)
Exposure to forces of nature deaths									
Annual rate				***per million people***					
2012	1.2	1.2	1.3	1.6	1.8	5.9	8.0	4.3	1.5
2011	3.5	1.4	6.9	0.8	1.2	3.9	–	13.0	3.4
2010	2.0	1.3	1.6	0.9	4.3	3.9	5.5	21.8	2.1
2009	1.6	5.6	1.2	2.7	18.0	–	–	13.3	3.9
2008	3.6	1.3	0.9	3.7	5.0	6.0	–	31.8	2.8
2007	3.4	1.4	1.5	4.7	5.1	6.1	–	–	2.6
2006	2.7	1.4	1.0	0.5	7.7	12.3	–	4.8	2.4
2005	1.8	0.8	1.3	1.0	9.7	8.2	–	4.9	2.0
2004	2.4	2.6	6.3	–	6.5	2.1	–	19.7	3.3
2003	1.5	1.4	1.1	0.5	3.3	8.4	–	–	1.4
2002	1.4	0.2	1.6	2.1	2.0	–	–	–	1.2
2001	1.7	0.4	0.8	0.5	0.7	2.1	–	–	1.2
2000	1.4	3.6	2.0	1.1	4.0	–	–	20.1	2.3
1999	1.7	1.1	2.9	1.6	1.3	–	12.7	–	1.6
1998	1.3	1.3	0.3	1.1	3.4	–	3.2	20.7	1.3
1997	3.7	2.2	2.1	1.1	3.4	–	–	–	2.6
1996	1.0	2.9	1.8	2.3	2.7	–	–	–	1.9
1995	2.6	0.9	2.5	3.5	2.7	–	–	16.7	2.3
1994	2.5	1.1	0.9	1.8	3.4	–	9.9	17.2	2.0
1993	1.3	1.8	1.0	–	14.4	–	–	17.5	2.6
1992	1.8	1.3	2.3	1.8	4.8	–	–	–	2.0
1991	1.0	1.1	4.4	2.4	4.8	–	–	30.2	2.3
1990	5.7	1.4	1.4	2.5	3.5	6.5	–	–	3.3
1989	2.6	0.7	3.2	4.4	4.2	–	–	–	2.4
1988	2.1	0.7	3.6	–	–	–	–	–	1.8
1987	0.9	0.7	3.0	–	2.9	6.7	–	–	1.6
1986	0.9	–	2.7	–	3.6	–	–	–	1.2
1985	2.0	1.5	2.3	–	2.2	–	–	20.2	1.9
1984	0.6	1.0	1.6	2.2	3.7	–	–	21.1	1.4
1983	1.9	0.7	4.0	2.2	3.0	–	–	22.1	2.1
Annual rate (3 year average)				***per million people***					
2010 to 2012	2.2	1.3	3.3	1.1	2.4	4.6	4.5	12.9	2.3
2009 to 2011	2.3	2.7	3.3	1.5	7.8	2.6	1.8	16.0	3.1
2008 to 2010	2.4	2.7	1.2	2.4	9.1	3.3	1.9	22.2	2.9
2007 to 2009	2.8	2.8	1.2	3.7	9.4	4.0	–	15.2	3.1
2006 to 2008	3.2	1.4	1.1	3.0	5.9	8.1	–	12.4	2.6

Table DA.12 **Exposure to forces of nature death rate (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (e)
2005 to 2007	2.6	1.2	1.2	2.1	7.5	8.9	–	3.2	2.4
2004 to 2006	2.3	1.6	2.8	0.5	8.0	7.5	–	9.7	2.6
2003 to 2005	1.9	1.6	2.9	0.5	6.5	6.2	–	8.2	2.2
2002 to 2004	1.8	1.4	3.0	0.9	3.9	3.5	–	6.6	2.0
2001 to 2003	1.5	0.7	1.2	1.0	2.0	3.5	–	–	1.3
2000 to 2002	1.5	1.4	1.5	1.2	2.2	0.7	–	6.6	1.6
1999 to 2001	1.6	1.7	1.9	1.1	2.0	0.7	4.2	6.7	1.7
1998 to 2000	1.5	2.0	1.7	1.3	2.9	–	5.3	13.6	1.8
1997 to 1999	2.2	1.5	1.8	1.3	2.7	–	5.3	6.9	1.8
1996 to 1998	2.0	2.1	1.4	1.5	3.2	–	1.1	7.1	1.9
1995 to 1997	2.4	2.0	2.1	2.3	2.9	–	–	5.4	2.3
1994 to 1996	2.0	1.6	1.8	2.5	3.0	–	3.3	11.1	2.1
1993 to 1995	2.1	1.3	1.5	1.8	6.8	–	3.3	17.1	2.3
1992 to 1994	1.9	1.4	1.4	1.2	7.5	–	3.3	11.6	2.2
1991 to 1993	1.4	1.4	2.5	1.4	8.0	–	–	15.8	2.3
1990 to 1992	2.8	1.3	2.7	2.2	4.4	2.1	–	10.0	2.5
1989 to 1991	3.1	1.1	3.0	3.1	4.2	2.2	–	10.2	2.7
1988 to 1990	3.5	0.9	2.7	2.3	2.6	2.2	–	–	2.5
1987 to 1989	1.9	0.7	3.3	1.5	2.4	2.2	–	–	1.9
1986 to 1988	1.3	0.5	3.1	–	2.2	2.2	–	–	1.5
1985 to 1987	1.3	0.7	2.7	–	2.9	2.2	–	6.5	1.6
1984 to 1986	1.2	0.8	2.2	0.7	3.2	–	–	13.5	1.5
1983 to 1985	1.5	1.1	2.6	1.4	2.9	–	–	21.1	1.8
Annual exposure to forces of nature deaths				***number***					
2012	9	7	6	4	3	3	3	1	34
2011	25	8	31	2	2	2	–	3	77
2010	14	7	7	2	7	2	2	5	46
2009	11	30	5	6	29	–	–	3	85
2008	25	7	4	8	8	3	–	7	60
2007	23	7	6	10	8	3	–	–	55
2006	18	7	4	1	12	6	–	1	50
2005	12	4	5	2	15	4	–	1	40
2004	16	13	24	–	10	1	–	4	65
2003	10	7	4	1	5	4	–	–	28
2002	9	1	6	4	3	–	–	–	23
2001	11	2	3	1	1	1	–	–	23
2000	9	17	7	2	6	–	–	4	44

Table DA.12 **Exposure to forces of nature death rate (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (e)
1999	11	5	10	3	2	–	4	–	31
1998	8	6	1	2	5	–	1	4	25
1997	23	10	7	2	5	–	–	–	47
1996	6	13	6	4	4	–	–	–	35
1995	16	4	8	6	4	–	–	3	41
1994	15	5	3	3	5	–	3	3	35
1993	8	8	3	–	21	–	–	3	45
1992	11	6	7	3	7	–	–	–	35
1991	6	5	13	4	7	–	–	5	40
1990	33	6	4	4	5	3	–	–	56
1989	15	3	9	7	6	–	–	–	41
1988	12	3	10	–	–	–	–	–	29
1987	5	3	8	–	4	3	–	–	26
1986	5	–	7	–	5	–	–	–	19
1985	11	6	6	–	3	–	–	3	30
1984	3	4	4	3	5	–	–	3	22
1983	10	3	10	3	4	–	–	3	33

(a) Data for 2012 are preliminary and subject to a revisions process. Data for 2010 and 2011 have been subject to revisions. See *Causes of Death, Australia* (Cat. no. 3303.0) Technical Note: Causes of Death Revisions. Cells in this table have been randomly adjusted to avoid the release of confidential data. Where necessary, totals have been adjusted separately to the component cells and totals are not necessarily the sum of the component cells.

(b) Exposure to forces of nature includes ICD codes X30-X39. Deaths data are reported by the State or Territory of the deceased's usual residence, and by the year the death was registered.

(c) Population data used to derive rates are as at 30 June. Estimated Resident Population (ERP) data for 1983 to 2011 are final, based on the 2011 Census of Population and Housing. Estimates for 2012 onwards are preliminary. See chapter 2 (table 2A.1) for details.

(d) The small number of deaths means it is difficult to establish patterns and provide detailed analysis.

(e) Includes Other Territories.

– Nil or rounded to zero.

Source: ABS 2014, *Causes of Death, Australia,* Cat. no. 3303.0; ABS 2014, *Australian Demographic Statistics,* Cat. no. 3101.0 (table 2A.1).

Table DA.13 **Total selected emergency events death rate (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (e)
Total emergency event deaths									
Annual rate				***per million people***					
2012	53.6	56.2	76.1	88.9	75.5	82.0	61.4	251.2	65.6
2011	56.7	63.9	81.5	82.9	72.6	62.6	57.1	242.1	69.2
2010	63.0	69.8	75.4	97.3	92.2	88.4	96.7	226.3	74.5
2009	64.8	104.4	93.6	102.2	98.8	138.8	76.1	216.8	88.7
2008	56.5	75.3	97.4	117.0	89.4	120.3	66.0	372.9	81.7
2007	57.7	73.3	100.5	127.7	103.1	111.5	55.5	229.2	82.7
2006	71.0	79.2	94.8	107.3	106.3	128.8	53.7	220.0	85.9
2005	65.4	84.2	78.9	88.5	120.9	121.3	87.5	267.1	82.9
2004	66.9	77.3	90.3	93.5	106.7	146.9	39.5	192.4	82.4
2003	76.7	80.0	85.5	105.0	124.3	106.6	42.8	272.6	87.9
2002	88.3	90.9	101.6	103.2	108.5	94.9	43.1	291.7	96.1
2001	88.1	97.2	110.0	99.1	112.4	126.7	56.0	218.1	99.5
2000	104.1	99.7	102.9	115.5	120.9	63.4	75.7	306.3	106.0
1999	97.7	98.9	104.2	105.2	114.0	103.6	73.2	188.8	101.6
1998	99.4	96.8	91.6	103.5	118.0	84.5	105.9	352.5	101.6
1997	96.2	109.6	122.2	113.4	98.3	61.1	74.1	237.1	106.0
1996	108.0	102.8	127.5	144.8	132.7	130.4	80.7	368.5	118.7
1995	114.8	108.1	161.9	130.8	131.7	139.1	65.4	295.1	126.2
1994	114.0	107.3	141.8	140.8	129.9	128.8	129.1	240.1	123.0
1993	105.6	114.3	137.9	134.0	168.7	135.6	46.7	273.7	122.9
1992	125.0	118.2	149.2	132.6	142.2	153.2	91.6	267.0	131.4
1991	128.5	138.2	146.6	133.9	167.3	188.5	114.1	465.3	142.3
1990	153.1	153.5	161.8	142.6	171.8	173.1	127.6	409.2	157.9
1989	173.8	211.1	170.8	155.9	169.1	186.7	133.8	359.8	182.5
1988	187.5	213.0	197.5	170.0	193.6	195.1	158.0	597.4	198.6
1987	173.2	200.9	179.4	145.0	198.2	202.6	180.8	360.3	184.0
1986	198.1	190.6	203.5	183.7	220.6	210.5	154.5	369.1	199.1
1985	209.0	179.9	218.2	169.2	217.3	187.4	171.0	370.3	200.6
1984	176.8	179.8	212.0	173.2	177.2	203.3	252.9	344.7	186.5
1983	187.2	217.6	215.1	177.5	232.6	177.9	117.2	596.0	205.0
Annual rate (3 year average)				***per million people***					
2010 to 2012	57.7	63.2	77.7	89.6	80.1	77.7	71.5	240.0	69.7
2009 to 2011	61.4	79.2	83.4	94.0	87.8	96.4	76.5	228.5	77.4
2008 to 2010	61.4	83.2	88.6	105.3	93.5	115.8	79.8	270.8	81.6
2007 to 2009	59.7	84.6	97.1	115.4	97.1	123.6	66.0	272.9	84.4
2006 to 2008	61.6	75.9	97.6	117.4	99.5	120.2	58.5	275.4	83.4

Table DA.13 **Total selected emergency events death rate (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (e)
2005 to 2007	64.7	78.9	91.5	108.1	110.0	120.5	65.4	238.6	83.8
2004 to 2006	67.8	80.3	88.0	96.5	111.3	132.3	60.3	226.7	83.7
2003 to 2005	69.7	80.5	84.8	95.6	117.3	125.0	56.7	244.1	84.4
2002 to 2004	77.3	82.7	92.4	100.5	113.2	116.3	41.8	252.2	88.7
2001 to 2003	84.3	89.3	98.8	102.5	115.1	109.4	47.3	260.8	94.4
2000 to 2002	93.4	95.9	104.8	105.9	113.9	95.0	58.1	271.9	100.5
1999 to 2001	96.6	98.6	105.7	106.6	115.8	97.9	68.2	237.9	102.4
1998 to 2000	100.4	98.5	99.6	108.1	117.6	83.8	84.8	282.3	103.1
1997 to 1999	97.8	101.7	105.9	107.3	110.1	83.0	84.4	259.2	103.1
1996 to 1998	101.2	103.1	113.6	120.3	116.3	92.0	86.9	319.1	108.7
1995 to 1997	106.3	106.8	136.9	129.6	120.9	110.2	73.4	299.7	116.9
1994 to 1996	112.2	106.0	143.6	138.8	131.4	132.8	91.5	302.4	122.6
1993 to 1995	111.5	109.9	147.4	135.2	143.4	134.5	80.4	269.9	124.1
1992 to 1994	114.8	113.3	142.9	135.9	146.9	139.2	89.2	260.1	125.7
1991 to 1993	119.7	123.5	144.5	133.5	159.4	159.0	83.7	334.2	132.1
1990 to 1992	135.4	136.5	152.4	136.3	160.4	171.6	110.8	379.7	143.8
1989 to 1991	151.6	167.3	159.5	144.0	169.4	182.8	125.0	411.9	160.7
1988 to 1990	171.3	192.3	176.3	155.9	178.1	184.9	139.6	454.6	179.5
1987 to 1989	178.2	208.4	182.5	157.1	186.9	194.7	157.2	439.0	188.3
1986 to 1988	186.2	201.6	193.4	166.1	204.1	202.7	164.5	443.1	193.9
1985 to 1987	193.3	190.5	200.1	165.8	212.0	200.2	168.9	366.5	194.5
1984 to 1986	194.7	183.5	211.1	175.5	205.2	200.4	191.9	361.7	195.5
1983 to 1985	191.1	192.3	215.1	173.3	209.0	189.6	180.8	433.7	197.3
Annual emergency event deaths					***number***				
2012	391	316	347	216	125	42	23	59	1 487
2011	409	354	365	195	119	32	21	56	1 546
2010	450	381	332	223	150	45	35	52	1 641
2009	457	561	405	229	159	70	27	49	1 925
2008	392	396	411	254	142	60	23	82	1 735
2007	394	378	413	269	162	55	19	49	1 723
2006	479	401	380	220	165	63	18	46	1 757
2005	438	420	309	178	186	59	29	55	1 672
2004	445	381	346	185	163	71	13	39	1 642
2003	508	390	320	205	189	51	14	55	1 734
2002	581	438	371	199	164	45	14	59	1 873
2001	575	463	393	189	169	60	18	44	1 917
2000	671	469	361	217	181	30	24	61	2 018

Table DA.13 **Total selected emergency events death rate (a), (b), (c), (d)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust* (e)
1999	623	460	360	195	170	49	23	37	1 911
1998	627	446	312	189	175	40	33	68	1 891
1997	601	501	410	204	145	29	23	45	1 953
1996	667	466	421	256	195	62	25	68	2 164
1995	701	486	524	227	193	66	20	53	2 273
1994	689	480	449	240	190	61	39	42	2 190
1993	633	510	427	225	246	64	14	47	2 167
1992	745	526	451	220	207	72	27	45	2 296
1991	758	611	434	219	242	88	33	77	2 460
1990	893	672	469	230	246	80	36	67	2 695
1989	1 004	912	483	246	240	85	37	58	3 068
1988	1 070	908	541	261	272	88	43	95	3 284
1987	973	846	480	217	276	91	48	57	2 992
1986	1 096	793	534	268	305	94	40	57	3 190
1985	1 142	741	561	240	298	83	43	55	3 167
1984	955	733	535	241	241	89	62	49	2 906
1983	1 002	878	534	243	313	77	28	81	3 155

(a) Data for 2012 are preliminary and subject to a revisions process. Data for 2010 and 2011 have been subject to revisions. See *Causes of Death, Australia* (Cat. no. 3303.0) Technical Note: Causes of Death Revisions. Cells in this table have been randomly adjusted to avoid the release of confidential data. Where necessary, totals have been adjusted separately to the component cells and totals are not necessarily the sum of the component cells.

(b) Deaths are coded according to the ICD and Related Health Problems Revision 10 (ICD-10). Deaths data are reported by the year the death was registered. Road traffic deaths includes ICD codes V01-V79, X82, Y03 and Y32. Exposure to forces of nature includes ICD codes X30-X39. Fire deaths include ICD fire death codes X00-X09 plus X76, X97 and Y26. Data are reported by the State or Territory of the deceased's usual residence, and by the year the death was registered.

(c) Population data used to derive rates are as at 30 June. Estimated Resident Population (ERP) data for 1983 to 2011 are final, based on the 2011 Census of Population and Housing. Estimates for 2012 onwards are preliminary. See chapter 2 (table 2A.1) for details.

(c) See chapter 9 for fire deaths data.

(d) The small number of deaths means it is difficult to establish patterns and provide detailed analysis.

(e) Includes Other Territories.

Source: ABS 2014, *Causes of Death, Australia,* Cat. no. 3303.0; ABS 2014, *Australian Demographic Statistics,* Cat. no. 3101.0 (table 2A.1); table 9A.6; tables DA.8-9.

All jurisdictions — State and Territory emergency services

Table DA.14 **All activities of State and Territory Emergency Services**

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

(a) This role is to provide support to another agency in this activity.

(b) WASES and ACTSES undertake air observer duties only, offshore. They do not participate in sea rescue.

Source: State and Territory governments (unpublished).

Table DA.15 Major sources of State and Territory Emergency Service organisations' revenue (2013-14 dollars) (a), (b)

		NSW	*Vic*	*Qld*	*WA* (c)	*SA* (c)	*Tas*	*ACT*	*NT*	*Aust* (c)	*Total* (c)
2013-14											
Government grants and appropriations	$'000	22 493	50 805	10 073	na	329	3 032	1 897	3 144	91 773	91 773
Total levies	$'000	62 809	–	–	na	14 619	–	–	–	77 428	77 428
Other revenue	$'000	3 048	4 785	159	na	333	1 887	79	–	10 291	10 291
Total	**$'000**	**88 350**	**55 590**	**10 232**	**na**	**15 281**	**4 919**	**1 976**	**3 144**	**179 492**	**179 492**
Government grants and appropriations											
Australian	%	––	–	–	na	na	2.1	3.1	–	–	–
State/Territory	%	14.3	91.2	98.4	na	2.2	59.5	92.9	100.0	45.5	45.5
Local	%	11.3	–	–	na	na	–	–	–	5.6	5.6
Levies	%	71.1	–	–	na	95.7	–	–	–	43.1	43.1
Other revenue	%	3.4	8.6	1.6	na	2.2	38.4	4.0	–	5.7	5.7
Total	%	**100.0**	**100.0**	**100.0**	**na**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
2012-13											
Government grants and appropriations	$'000	30 429	53 023	12 206	na	–	3 024	2 089	3 555	104 327	104 327
Total levies	$'000	61 101	–	na	na	15 070	–	–	–	76 170	76 170
Other revenue	$'000	3 289	4 460	na	na	311	2 747	88	1	10 896	10 896
Total	**$'000**	**94 820**	**57 483**	**12 206**	**na**	**15 381**	**5 771**	**2 176**	**3 556**	**191 393**	**191 393**
Government grants and appropriations											
Australian	%	9.7	–	na	na	–	1.8	7.4	–	5.0	5.0
State/Territory	%	12.3	92.0	100.0	na	–	50.6	88.6	100.0	44.5	44.5
Local	%	10.1	–	na	na	–	–	–	–	5.0	5.0
Levies	%	64.4	–	na	na	98.0	–	–	–	39.8	39.8

Table DA.15 **Major sources of State and Territory Emergency Service organisations' revenue (2013-14 dollars) (a), (b)**

		NSW	*Vic*	*Qld*	*WA* (c)	*SA* (c)	*Tas*	*ACT*	*NT*	*Aust* (c)	*Total* (c)
Other revenue	%	3.5	7.8	na	na	2.0	47.6	4.0	–	5.7	5.7
Total	%	**100.0**	**100.0**	**100.0**	**na**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
2011-12											
Government grants and appropriations	$'000	14.0	45.5	na	na	–	3.2	1.8	3.7	na	68 185
Total levies	$'000	54.1	–	na	na	13.8	–	–	–	na	67 822
Other revenue	$'000	3.5	6.9	na	na	2.2	3.9	0.0	0.0	na	16 515
Total	**$'000**	**71.6**	**52.5**	**na**	**na**	**16.0**	**7.0**	**1.8**	**3.7**	**na**	**152 522**
Government grants and appropriations											
Australian	%	0.3	–	na	na	–	–	0.9	–	na	–
State/Territory	%	8.5	86.8	na	na	–	45.1	98.3	99.9	na	39.5
Local	%	10.7	–	na	na	–	–	–	–	na	5.0
Levies	%	75.5	–	na	na	86.2	–	–	–	na	44.5
Other revenue	%	4.9	13.2	na	na	13.8	54.9	0.8	0.1	na	10.8
Total	%	**100.0**	**100.0**	**na**	**na**	**100.0**	**100.0**	**100.0**	**100.0**	**na**	**100.0**

(a) Time series financial data are adjusted to 2013-14 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2013-14 = 100) (table 2A.51). See chapter 2 (sections 2.5-6) for details.

(b) Figures vary from year to year as a result of abnormal expenditure related to the response to specific major emergencies.

(c) Jurisdiction notes:

Qld: The 2013-14 revenue represents State Emergency Service costs for the former Emergency Management Queensland (EMQ) for the period 1 July 2013 to 31 October 2013 and Queensland Fire and Emergency Services (QFES) for the period 1 November 2013 to 30 June 2014. In addition, some functions and assets previously held by the former EMQ were transferred to the Public Safety Business Agency on 1 November 2013. The 2013-14 results are therefore not comparable to prior years.

Table DA.15 **Major sources of State and Territory Emergency Service organisations' revenue (2013-14 dollars) (a), (b)**

	NSW	*Vic*	*Qld*	*WA* (c)	*SA* (c)	*Tas*	*ACT*	*NT*	*Aust* (c)	*Total* (c)

WA: DFES provides a wide range of emergency services under an integrated management structure. Data cannot be segregated for the the State Emergency Service. Financial data for the fire service organisation include data related to the fire service agency, SES and volunteer marine rescue — see chapter 9.

SA: Other revenue includes revenue from fees and charges, interest income, donations and volunteer unit fundraising income. The significant decrease from 2011-12 is partly due to property transferred into the control of the Minister, which was recognised as resources received free of charge in 2011-12 ($0.644 million). Also contributing to the significant variance is the gain on revaluation of property, plant and equipment in 2011-12 ($1.402 million).

Tas: Tasmania SES financial data have been subject to revisions in all years.

Aust: SES totals for financial data exclude WA.

Total: Total of jurisdictions where data are available. In 2011-12, SES total excludes Queensland and WA.

na Not available. – Nil or rounded to zero.

Table DA.16 **State and Territory Emergency Service organisations' costs ($'000) (2013-14 dollars) (a), (b)**

	NSW (f)	*Vic* (f)	*Qld* (f)	*WA* (f)	*SA*	*Tas* (f)	*ACT* (f)	*NT*	*Aust* (f)	*Total* (f)
2013-14										
Labour costs - Salaries and payments in the nature of salaries	31 347	18 939	1 920	na	4 505	2 417	1 000	1 301	61 429	61 429
Capital costs (c)										
Depreciation	4 946	5 814	116	na	2 214	–	459	428	13 977	13 977
User cost of capital - Other	4 001	4 843	na	na	2 440	na	478	497	12 259	12 259
Other costs (d)	46 678	25 284	8 196	na	8 009	2 217	900	981	92 265	92 265
Total costs (e)	**86 972**	**54 880**	**10 232**	**na**	**17 168**	**4 634**	**2 837**	**3 207**	**179 930**	**179 930**
Other expenses										
Labour costs - Payroll tax	*1 596*	*901*	*88*	*na*	*186*	*–*	*–*	*88*	*2 859*	*2 859*
User cost of capital - Land	*na*	*734*	*na*	*na*	*284*	*na*	*192*	*160*	*1 370*	*1 370*
Interest on borrowings	*–*	*326*	*na*	*na*	*–*	*–*	*–*	*–*	*326*	*326*
2012-13										
Labour costs - Salaries and payments in the nature of salaries	28 063	17 916	2 116	na	3 106	2 239	1 039	1 739	56 218	56 218
Capital costs (c)										
Depreciation	4 130	5 569	263	na	2 278	–	508	613	13 360	13 360
User cost of capital - Other	3 545	4 452	na	na	2 601	na	531	490	11 620	11 620
Other costs (d)	55 033	25 889	9 828	na	7 171	2 644	856	1 083	102 504	102 504
Total costs (e)	**90 771**	**53 826**	**12 206**	**na**	**15 156**	**4 883**	**2 935**	**3 925**	**183 702**	**183 702**
Other expenses										
Payroll tax	*1 421*	*733*	*134*	*na*	*134*	*–*	*–*	*94*	*2 516*	*2 516*
User cost of capital - Land	*–*	*740*	*na*	*na*	*226*	*na*	*194*	*206*	*1 365*	*1 365*
Interest on borrowings	*–*	*363*	*–*	*na*	*–*	*–*	*–*	*–*	*363*	*363*

Table DA.16 State and Territory Emergency Service organisations' costs ($'000) (2013-14 dollars) (a), (b)

	NSW (f)	*Vic* (f)	*Qld* (f)	*WA* (f)	*SA*	*Tas* (f)	*ACT* (f)	*NT*	*Aust* (f)	*Total* (f)
2011-12										
Labour costs - Salaries and payments in the nature of salaries	26 943	17 321	na	na	3 592	2 180	1 078	1 991	na	53 104
Capital costs (b)										
Depreciation	4 407	4 558	na	na	2 001	na	308	456	na	11 731
User cost of capital - Other	2 795	4 248	na	na	2 685	na	509	497	na	10 734
Other costs (c)	64 808	28 213	na	na	7 343	6 059	704	1 403	na	108 530
Total costs (d)	**98 952**	**54 341**	**na**	**na**	**15 620**	**8 240**	**2 599**	**4 347**	**na**	**184 099**
Other expenses										
Payroll tax	*6 955*	*725*	*na*	*na*	*150*	*6*	*–*	*94*	*na*	*7 930*
User cost of capital - Land	*14*	*751*	*na*	*na*	*230*	*na*	*197*	*209*	*na*	*1 400*
Interest on borrowings	*–*	*- 385*	*na*	*na*	*–*	*–*	*–*	*–*	*na*	*- 385*

(a) Time series financial data are adjusted to 2013-14 dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator (2013-14 = 100) (table 2A.51). See chapter 2 (sections 2.5-6) for details.

(b) Figures vary from year to year as a result of abnormal expenditure related to response to specific major emergencies.

(c) The user cost of capital is partly dependent on depreciation and asset revaluation methods employed. Details of the treatment of assets by emergency management agencies across jurisdictions are outlined in table 9A.51.

(d) Includes the running, training, maintenance, communications, provisions for losses and other recurrent costs.

(e) Total costs excludes payroll tax, the user cost of capital associated with land, and interest on borrowings.

(f) Jurisdiction notes:

Qld: The user cost of capital is unable to be calculated as many State Emergency Service (SES) non-current physical assets are owned by local governments therefore Queensland Fire and Emergency Services (QFES) is not able to provide asset values required to calculate cost of capital.

Table DA.16 **State and Territory Emergency Service organisations' costs ($'000) (2013-14 dollars) (a), (b)**

	NSW (f)	*Vic* (f)	*Qld* (f)	*WA* (f)	*SA*	*Tas* (f)	*ACT* (f)	*NT*	*Aust* (f)	*Total* (f)

The 2013-14 operating costs represents SES costs for the former Emergency Management Queensland (EMQ) for the period 1 July 2013 to 31 October 2013 and QFES for the period 1 November 2013 to 30 June 2014. In addition, some functions and assets previously held by the former EMQ were transferred to the Public Safety Business Agency on 1 November 2013. The 2013-14 results are therefore not comparable to prior years.

WA: DFES provides a wide range of emergency services under an integrated management structure. Data cannot be segregated for the the State Emergency Service. Financial data for the fire service organisation include data related to the fire service agency, SES and volunteer marine rescue — see chapter 9.

Tas: Tasmania SES financial data have been subject to revisions in all years.

Many SES non-physical assets are owned by Local Governments therefore Tasmania is not able to provide asset values required to calculate cost of capital.

SA: Other costs include the Government Radio Network, repairs and maintenance, and travel and training.

Aust: Australian totals for SES financial data exclude WA.

Total: Total of jurisdictions where data are available.

na Not available. – Nil or rounded to zero.

Source: State and Territory Governments (unpublished); ABS 2014, *Australian National Accounts: National Income, Expenditure and Product, June 2014*, Cat. no. 5206.0, Canberra (table 2A.51).

Table DA.17 **State and Territory Emergency Service organisations' human resources (a)**

		NSW	*Vic* (b)	*Qld* (b)	*WA* (b)	*SA* (b)	*Tas*	*ACT*	*NT* (b)	*Aust*	*Total*
2013-14											
Paid staff											
Operational	FTE	na	57	na	na	33	10	8	13	na	na
Support personnel	FTE	na	124	na	na	10	16	–	6	na	na
Total	**FTE**	**292**	**181**	**na**	**na**	**43**	**26**	**8**	**19**	**na**	**569**
Volunteers											
Operational	no.	na	3 377	na	1 986	na	na	na	344	na	na
Support personnel	no.	na	626	na	57	na	na	na	–	na	na
Total	**no.**	**7 282**	**4 003**	**5 700**	**2 043**	**1 711**	**548**	**257**	**344**	**21 888**	**21 888**
2012-13											
Paid staff											
Operational	FTE	254	42	na	na	31	10	8	13	na	na
Support personnel	FTE	–	131	na	na	10	16	–	6	na	na
Total	**FTE**	**254**	**173**	**na**	**na**	**41**	**26**	**8**	**19**	**na**	**521**
Volunteers											
Operational	no.	7 454	3 317	na	1 971	na	531	243	na	na	na
Support personnel	no.	–	367	na	53	na	–	–	na	na	na
Total	**no.**	**7 454**	**3 684**	**6 000**	**2 024**	**1 617**	**531**	**243**	**324**	**21 877**	**21 877**
2011-12											
Paid staff											
Operational	FTE	na	48	na	na	21	14	8	18	na	na
Support personnel	FTE	na	162	na	na	23	10	–	1	na	na
Total	**FTE**	**311**	**210**	**na**	**na**	**44**	**24**	**8**	**19**	**na**	**616**

Table DA.17 **State and Territory Emergency Service organisations' human resources (a)**

		NSW	*Vic* (b)	*Qld* (b)	*WA* (b)	*SA* (b)	*Tas*	*ACT*	*NT* (b)	*Aust*	*Total*
Volunteers											
Operational	no.	na	4 730	na	1 881	na	na	262	309	na	na
Support personnel	no.	na	770	na	46	na	na	–	35	na	na
Total	**no.**	**7 312**	**5 500**	**5 400**	**1 927**	**1 674**	**559**	**262**	**344**	**22 978**	**22 978**
2010-11											
Volunteers											
Operational	no.	na	3 273	na	1 950	na	na	na	na	na	na
Support personnel	no.	na	1 898	na	44	na	na	na	na	na	na
Total	**no.**	**10 828**	**5 171**	**7 000**	**1 994**	**1 701**	**615**	**240**	**377**	**27 926**	**27 926**
2009-10											
Volunteers											
Operational	no.	na	4 028	na	1 898	na	na	na	na	na	na
Support personnel	no.	na	1 193	na	16	na	na	na	na	na	na
Total	**no.**	**10 356**	**5 221**	**6 800**	**1 914**	**1 532**	**537**	**229**	**335**	**26 924**	**26 924**
2008-09											
Volunteers											
Total	**no.**	**10 954**	**5 500**	**6 300**	**1 900**	**1 613**	**584**	**247**	**299**	**27 397**	**27 397**
2007-08											
Volunteers											
Total	**no.**	**10 114**	**4 833**	**6 430**	**1 827**	**1 828**	**560**	**205**	**293**	**26 090**	**26 090**
2006-07											
Volunteers											
Total	**no.**	**10 331**	**4 411**	**7 000**	**1 854**	**1 821**	**525**	**191**	**347**	**26 480**	**26 480**

Table DA.17 **State and Territory Emergency Service organisations' human resources (a)**

		NSW	*Vic* (b)	*Qld* (b)	*WA* (b)	*SA* (b)	*Tas*	*ACT*	*NT* (b)	*Aust*	*Total*
2005-06											
Volunteers											
Total	**no.**	**10 302**	**4 437**	**9 394**	**1 863**	**1 896**	**577**	**168**	**392**	**29 029**	**29 029**
2004-05											
Volunteers											
Total	**no.**	**9 835**	**4 350**	**12 456**	**2 015**	**1 998**	**575**	**244**	**495**	**31 968**	**31 968**

(a) Data on SES paid staff were not collected prior to 2011-12.

(b) Jurisdiction notes:

Vic: 2012-13 volunteer numbers are less due to cleansing of volunteer records. Data excludes volunteers on leave and associates.

Qld: Volunteer numbers may fluctuate as members leave the service, new members are recruited and data cleansing occurs.

For 2013-14, paid staff who contribute to the SES function have been included within fire service organisation data (chapter 9).

Prior to 2013-14, the SES formed part of Emergency Management Queensland within the former Department of Community Safety. Effective 1 November 2013, Queensland Fire and Emergency Services (QFES) was established as an independent department encompassing fire and rescue, emergency management, SES and the Rural Fire Service.

WA: Data exclude volunteer emergency service members who may also undertake an SES role (557 in 2013-14).

Salaried personnel of the Department of Fire and Emergency Services have cross hazard responsibilities and are not broken down by service.

SA: Data refer to active, operational members.

NT: Transient people in the NT result in fluctuations in the numbers of volunteers.

na Not available. – Nil or rounded to zero.

Source: State and Territory governments (unpublished).

Table DA.18 State and Territory Emergency Service incidents

	NSW	*Vic*	*Qld* (e)	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*	*Total*
2013-14										
Floods, storm and tempest and other natural disasters										
Storms and cyclones	16 618	26 349	na	151	6 734	358	1 398	15	na	51 623
Flood	109	851	na	22	1 012	344	19	5	na	2 362
Other natural disasters (a)	870	–	na	1	1 391	–	–	–	na	2 262
Total	**17 597**	**27 200**	**na**	**174**	**9 137**	**702**	**1 417**	**20**	**na**	**56 247**
Search and rescue and emergency medical service										
Road crash rescue	597	1 032	na	20	791	421	..	10	na	2 871
Vertical rescue	26	40	na	10	23	–	..	6	na	105
Other search and rescue (b)	624	472	na	101	338	25	9	16	na	1 585
Community first response (c)	430	..	na	..	7	..	..	..	na	437
Total	**1 677**	**1 544**	**na**	**131**	**1 159**	**446**	**9**	**32**	**na**	**4 998**
Other emergency incidents (d)	**34**	**na**	**na**	**224**	**..**	**63**	**64**	**90**	**na**	**475**
Total	**19 308**	**28 744**	**na**	**529**	**10 296**	**1 211**	**1 490**	**142**	**na**	**61 720**

(a) Other natural disasters includes landscape fire (bushfire and wildfire) support.

(b) Other search and rescue includes land, air and marine searches.

(c) Community first responders are trained volunteers that provide an emergency response to medical emergencies (with no transport capacity) and provide first aid care before ambulance arrival. Community first response programs are provided by the SES in NSW and SA.

(d) Other emergency incidents includes metropolitan firefighting support, ambulance support, miscellaneous support, and temporary building repairs.

(e) Jurisdiction notes:

Qld: Estimates of the number of incidents that the Queensland SES attended are not available.

na Not available. .. Not applicable. – Nil or rounded to zero.

Source: State and Territory governments (unpublished).

Table DA.19 **State and Territory Emergency Service hours in attendance (a)**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
2013-14									
Floods, storm and tempest and other natural disasters									
Storms and cyclones	173 960	168 041	17 848	6 476	55 610	1 706	6 990	133	430 764
Flood	1 282	3 486	1 031	112	4 966	1 538	95	16	12 526
Other natural disasters (b)	19 190	–	na	–	34 423	–	–	–	53 613
Total	**194 432**	**171 527**	**18 879**	**6 588**	**94 999**	**3 244**	**7 085**	**148**	**496 902**
Search and rescue and emergency medical service									
Road crash rescue	3 920	11 889	1 047	299	8 665	2 702	..	111	28 633
Vertical rescue	349	859	101	210	342	–	..	220	2 081
Other search and rescue (c)	14 872	2 103	26 042	7 072	10 268	687	998	644	62 686
Community first response (d)	1 315	..	..	..	136	..	..	..	1 451
Total	**20 456**	**14 851**	**27 190**	**7 581**	**19 411**	**3 389**	**998**	**975**	**94 851**
Other emergency incidents (e)	**153**	**na**	**21 957**	**3 318**	**na**	**860**	**1 807**	**1 000**	**29 095**
Total	**215 041**	**186 378**	**68 024**	**17 487**	**114 410**	**7 493**	**9 890**	**2 123**	**620 846**

(a) Totals may not sum due to rounding.

(b) Other natural disasters includes landscape fire (bushfire and wildfire) support.

(c) Other search and rescue includes land, air and marine searches.

(d) Community first responders are trained volunteers that provide an emergency response to medical emergencies (with no transport capacity) and provide first aid care before ambulance arrival. Community first response programs are provided by the SES in NSW and SA.

(e) Other emergency incidents includes metropolitan firefighting support, ambulance support, miscellaneous support, and temporary building repairs.

na Not available. .. Not applicable. – Nil or rounded to zero.

Source: State and Territory governments (unpublished).

Data quality information — Emergency management sector overview (sector overview D)

Data quality information

Data quality information (DQI) provides information against the seven ABS data quality framework dimensions, for performance indicators and/or measures in the Emergency management sector overview.

Technical DQI has been supplied or agreed by relevant data providers. Additional Steering Committee commentary does not necessarily reflect the views of data providers.

DQI Contents

Community preparedness for emergency events 2
Deaths from emergency events 4
Total asset from emergency events 7

Community preparedness for emergency events

Data quality information for this indicator has been drafted by the Emergency Management Working Group in consultation with the Emergency Management Working Group (EMWG), with additional Steering Committee comments.

Indicator definition and description

Element Emergency management sector performance indicator framework – Sector wide indicators

Indicator Total asset loss from emergency events

Measure (computation) 'Proportion of Australians that have developed emergency plans for natural disasters' is defined as the proportion of Australians that developed emergency plans (evacuations/meeting places) for natural disasters.

Data source Western, M., Mazerolle, L., & Boreham, P. (2012), National Security and Preparedness Survey 2011-2012. Brisbane: Institute for Social Science Research and the Australian Research Council Centre of Excellence in Policing and Security, The University of Queensland, 2012.

Data Quality Framework dimensions

Institutional environment The study is funded by:

- the Australian Research Council Centre of Excellence in Policing and Security (CEPS) — CEPS is a complex research enterprise consisting of multiple collaborating researchers, and university and partner organisations. CEPS is administered by Griffith University in Brisbane and operates across four University Nodes
- the University of Queensland — the study is led by researchers from the Institute for Social Science Research (ISSR) at the University of Queensland. ISSR is a division of The University of Queensland. The institute provides research and postgraduate research training for the social sciences.
- the Queensland Government.

In kind support to the study is provided by the University of Queensland, the Queensland Government, and the Australian Institute of Criminology.

Relevance Data are available nationally and by state and territory for the 2011-12 financial year.

The questionnaire covers a range of issues, including the following topics:

- confidence and attitudes towards national security and policing measures
- confidence and attitudes towards policing and national security agencies
- relationships and interactions with national security and policing agencies
- perceptions of personal security and national security
- self-reported impact on individual behaviours
- emergency preparedness
- community resilience.

Timeliness The project gathered cross-sectional indicators of economic, social and cultural wellbeing to assess community perceptions of community preparedness, resilience, vulnerability and their attitudes to key policing and security policies, laws and programs. Future surveys will also collect panel and longitudinal information.

The National Security and Preparedness Survey (NSPS) began survey recruitment in November 2011 and concluded in May 2012.

Accuracy

A final random sample of survey respondents (N= 4258) was recruited from all six states and two territories.

The survey was designed to produce descriptive statistics and these may not be representative of the population. Confidence intervals have been prepared for this Report on the assumption that a random sample of the population was selected.

The NSPS was implemented via Computer Assisted Telephone Interview (CATI) recruitment, followed by mail out/online surveys in November 2011.

Summary statistics (minimum, maximum, mean, median, and standard deviation) are available for most variables collected in the survey.

A series of floods in northern New South Wales and southern Queensland in January and February 2012 may have influenced respondent perceptions about, and/or actions around, disaster preparedness.

Coherence

The results of the survey, in concert with a similar survey simultaneously being conducted in the US and possibly other countries that are part of the START consortium, will be useful to the range of government agencies involved in anti-and counter-terrorism initiatives.

Accessibility

The ISSR research team will conduct analysis of the data from the National Survey. There are currently no papers published, but a number in preparation.

For selected results from the survey please contact the ISSR research team or CEPS.

Interpretability

A Technical Report on the survey methodology, survey question wording, and collection instruments are available from the ISSR or CEPS on request.

Data Gaps/Issues Analysis

Key data gaps/issues

The Steering Committee notes the following issue:

- The NSPS has been conducted as a one-off collection at the University of Queensland. Further work to repeat the survey in the future (or the development of time series data) would be welcomed.

Deaths from emergency events

Data quality information for this indicator has been drafted by the Secretariat in consultation with the ABS, with additional Steering Committee comments.

Indicator definition and description

Element	Emergency management sector performance indicator framework – Sector wide indicators
Indicator	Deaths from emergency events
Measure/s (computation)	Deaths from emergency events' is defined as the number of deaths per calendar year in three categories: • *Road traffic deaths* — deaths primarily caused by accidents involving transport vehicles (mainly cars) • *Fire deaths* — deaths primarily caused by exposure to smoke, fire or flames • *Deaths from exposure to forces of nature* — deaths primarily caused by exposure to forces of nature, such as natural disasters, or extreme climatic or weather conditions. Numerator/s The following International Classification of Diseases (ICD) codes are aggregated to define the data set: • *Road traffic deaths* — include ICD codes Road traffic accidents (V01–V79), Intentional self-harm by crashing of motor vehicle (X82), Assault by crashing of motor vehicle (Y03), and Crashing of motor vehicle, undetermined intent (Y32). • *Fire deaths* — include ICD codes Exposure to smoke, fire and flames (X00–X09), Intentional self-harm by smoke, fire and flames (X76), Assault by smoke, fire and flames (X97), and Exposure to smoke, fire and flames, undetermined intent (Y26). • *Deaths from exposure to forces of nature* — includes ICD codes Exposure to excessive natural heat (X30), Exposure to excessive natural cold (X31), Exposure to sunlight (X32), Victim of lightning (X33), Victim of earthquake (X34), Victim of volcanic eruption (X35), Victim of avalanche, landslide and other earth movements (X36), Victim of cataclysmic storm (X37), Victim of flood (X38), and Exposure to other and unspecified forces of nature (X39). Denominator Population by State and Territory and Australian total The measure is expressed by State and Territory and Australian total, by ICD code detail and total, as an annual, and a three year rolling weighted average rate per million people.
Data source/s	Numerator ABS *Causes of Death, Australia*, Cat. no. 3303.0 (Underlying causes of death, State and Territory tables, published and unpublished data). Denominator ABS *Estimated Residential Population*, Cat. no. 3101.0 (for more detail about the population data used in the Report see RoGS Statistical context (chapter 2)).

Data Quality Framework Dimensions

Institutional environment	The Causes of Death collection is published by the Australian Bureau of Statistics (ABS), with data sourced from deaths registrations administered by the various State and Territory Registrars of Births, Deaths and Marriages. It is a legal requirement of each State and Territory that all deaths are registered. The ABS operates within a framework of the Census and Statistics Act 1905 and the Australian Bureau of Statistics Act 1975. These Acts ensure the confidentiality of respondents and ABS' independence and impartiality from political influence. For more information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

Relevance

The ABS Causes of Death collection includes all deaths that occurred and were registered in Australia, including deaths of persons whose usual residence is overseas. Deaths of Australian residents that occurred outside Australia may be registered by individual Registrars, but are not included in ABS deaths or causes of death statistics.

Data in the Causes of Death collection include demographic items, as well as Causes of Death information coded according to the International Classification of Diseases (ICD). The ICD is the international standard classification for epidemiological purposes and is designed to promote international comparability in the collection, processing, classification, and presentation of cause of death statistics. The classification is used to classify diseases and causes of disease or injury as recorded on many types of medical records as well as death records. The ICD has been revised periodically to incorporate changes in the medical field. The 10th revision of ICD (ICD-10) has been used since 1997.

Timeliness

Causes of Death data are published on an annual basis.

Death records are provided electronically to the ABS by individual Registrars on a monthly basis for compilation into aggregate statistics on a quarterly and annual basis. One dimension of timeliness in death registrations data is the interval between the occurrence and registration of a death. As a result, a small number of deaths occurring in one year are not registered until the following year or later.

Preliminary Estimated Residential Population (ERP) data are compiled and published quarterly and are generally made available five to six months after the end of each reference quarter. Commencing with data for September quarter 2006, revised estimates are released annually and made available 21 months after the end of the reference period for the previous financial year, once more accurate births, deaths and net overseas migration data becomes available. In the case of births and deaths, the revised data are compiled on a date of occurrence basis. In the case of net overseas migration, final data are based on actual traveller behaviour. Final estimates are made available every 5 years after a census and revisions are made to the previous inter-censal period. ERP data are not changed once finalised. Releasing preliminary, revised and final ERP involves a balance between timeliness and accuracy.

Accuracy

All ERP data sources are subject to non-sampling error. Non-sampling error can arise from inaccuracies in collecting, recording and processing the data. In the case of Census and Post Enumeration Survey (PES) data, every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures.

For the Causes of Death collection, which constitutes a complete census of the population, non-sample errors are most likely to influence accuracy. Non-sample error arises from inaccuracies in collecting, recording and processing the data. The most significant of these errors are: misreported data items; deficiencies in coverage; incomplete records; and processing errors. Every effort is made to minimise non-sample error by working closely with data providers, running quality checks throughout the data processing cycle, training of processing staff, and efficient data processing procedures.

The ABS has implemented a new revisions process that applies to all coroner certified deaths registered after 1 January 2006. This is a change from previous years where all ABS processing of causes of death data for a particular reference period was finalised approximately 13 months after the end of the reference period. The revisions process enables the use of additional information relating to coroner certified deaths as it becomes available over time, resulting in increased specificity of the assigned ICD-10 codes. See Explanatory Notes 29-33 and Technical Notes, Causes of Death Revisions, 2006 in *Causes of Death, Australia*, 2010 (cat. no. 3303.0) and Causes of Death Revisions, 2010 and 2011 in *Causes of Death, Australia, 2012* (cat. no. 3303.0), for further information on the revision process.

Some rates are unreliable due to small numbers of deaths over the reference period. All rates in this indicator must be used with caution.

Coherence

The ABS provide source data for the numerator and denominator for this indicator.

The number of road traffic deaths provided in *Causes of Death* (ABS Cat. no. 3303.0) is different to the number of 'Road fatalities' presented in Police services (chapter 6). The ABS source their data from death registrations recorded by the State and Territory Registrars of Births, Deaths and Marriages (where each death must be certified by

either a doctor using the Medical Certificate of Cause of Death, or by a coroner). 'Road fatalities' in chapter 6 provides more recent data sourced by the Australian Road Deaths Databases reported by the police each month to the State and Territory road safety authorities.

Accessibility

Causes of Death data are available in a variety of formats on the ABS website, www.abs.gov.au, under Causes of Death, Australia (Cat. no 3303.0).

ERP data are available in a variety of formats on the ABS website, www.abs.gov.au, under the 3101.0 and 3201.0 product families.

Further information on deaths and mortality may be available on request. The ABS observes strict confidentiality protocols as required by the Census and Statistics Act (1905). This may restrict access to data at a very detailed level.

Interpretability

Data for this indicator are presented as crude rates, per million estimated resident population, and as three year rolling averages due to volatility of the small numbers involved.

Information on how to interpret and use the cause of death data is available from the Explanatory Notes in Causes of Death, Australia (Cat. no 3303.0).

Small value data are randomly adjusted to avoid the release of confidential data.

Causes of death statistics for states and territories have been compiled in respect of the state or territory of usual residence of the deceased, regardless of where in Australia the death occurred and was registered.

The ERP is Australia's population reported by state and territory and by place of usual residence.

Data Gaps/Issues Analysis

Key data gaps /issues

The Steering Committee notes the following key data gaps/issues:

- Timeliness — data available for the Report on Government Services are delayed by one reference year. This is due to a tradeoff between accuracy and timeliness.
- Volatility — due to the small numbers of emergency event deaths annually, there is a high level of volatility in reported indicator rates. It is important therefore to assess longer term trends where data are available.

Total asset loss from emergency events

Data quality information for this indicator has been drafted by the Secretariat in consultation with the Australian Government, with additional Steering Committee comments.

Indicator definition and description

Element

Emergency management sector performance indicator framework – Sector wide indicators

Indicator

Total asset loss from emergency events

Measure/s (computation)

Insured losses from disaster events

'Insured losses from disaster events' data are defined as the insured asset losses incurred by the community following disaster event.

Estimates of asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.

To be included as a disaster event, natural, technological and human-caused events must meet at least one of the following criteria:

- three or more deaths
- 20 injuries or illnesses
- significant damage to property, infrastructure, agriculture or the environment; or disruption to essential services, commerce or industry; or trauma or dislocation of the community at an estimated total cost of $10 million or more at the time the event occurred.

For the *Report on Government Services* the following event types are in scope:

- Bushfire
- Cyclone
- Earthquake
- Environmental
- Flood
- Hail
- Landslide
- Severe Storm
- Tornado
- Tsunami
- Urban fire.

Deflator

Time series financial data are adjusted to real dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator.

Data source/s

Numerator

Australian Government 2013, *Australian Emergency Management: Knowledge Hub*, maintained by the Australian Emergency Management Institute, http://www.emknowledge.gov.au (accessed 23 April 2013

Denominator

ABS 2013, Australian National Accounts: National Income, Expenditure and Product, June 2013, Cat. no. 5206.0

Data Quality Framework Dimensions

Institutional environment

Data Collector: Insurance Council of Australia (ICA)

Collection authority: Data are derived from the submissions of ICA member general insurance companies following large events incurring cost to the community and insurers.

The Insurance Council of Australia is the representative body of the general insurance industry in Australia. Its members represent more than 90 per cent of total premium income written by private sector general insurers.

Data Compiler: The Australian Emergency Management Institute (AEMI)

The AEMI hosts the Australian Emergency Management Knowledge Hub. The Knowledge Hub provides research, resources and news relevant to emergency

management and includes statistics and information, photos, video and media about past disaster events.

The AEMI is a centre of excellence for knowledge and skills development in the national emergency management sector. As a part of the Attorney-General's Department, AEMI provides a range of education, training, professional development, information, research and community awareness services to the nation and our region.

Relevance

Data topic: Estimates of asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.

Level of geography: The incurred cost of claims is available for each declared emergency event can be coded to state/territory locations.

Key Data Items: The incurred cost of claims is available for each declared emergency event by disaster/event type, Catastrophe Number (if declared), date, location, state, original cost and normalised cost.

Additional information: Value of asset loss is a measure of the economic cost of emergency events. The prevention/mitigation, preparedness, and response activities of government contribute to reduce the value of total asset loss from emergency events. A low or decreasing value of total asset loss from emergency events is desirable.

Timeliness

Data collected: Data are available for individual emergency events, allowing for the creation of financial year and/or calendar year data.

Data available: Reports are available approximately four months after the reference period.

Additional information: The final loss figure for an event can take many years to resolve.

Accuracy

The asset loss data do not represent the entire cost of the event, it is only an approximation of the insured loss based upon reported data.

- The final loss figure for an event can take many years to resolve.
- Events are only recorded where there is a potential for the insured loss to exceed $10 million. Many large single losses occur on a day to day basis in Australia that are not part of a larger catastrophe event.
- Other costs not taken into account include:
  - the losses of insurance companies that are not a member of the Insurance Council.
  - costs incurred by emergency services; local, State, Territory and Commonwealth governments; non-government organisations; and by local governments during clean-up
  - remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion)
  - costs associated with community dislocation
  - costs associated with job losses
  - costs associated with rehabilitation/recovery
  - medical and funeral costs associated with injuries and deaths.

Coherence

Insurance companies must adhere to common accounting practices for insurance companies, and provide data according to an agreed classification system.

Accessibility

The Attorney-General's Department aims to make information on the Knowledge Hub website accessible to all users. Data are available in a variety of formats on the website, www.emknowledge.gov.au.

Interpretability

Insurance Statistics Australia publishes an Operations Guidebook, which documents the key collection processes, standards and classifications. The guidebook is available at:

- http://www.insurancestats.com.au/objectives.html

Data Gaps/Issues Analysis

Key data gaps /issues

The Steering Committee notes the following key data gaps/issues:

- Volatility — due to the sporadic nature of emergency events, there is a high level of volatility in reported asset loss data. It is important therefore to assess longer term trends where data are available.