Edited by Justin Healey

Young Drivers and Road Safety

Issues in Society

Volume 389
Young Drivers and Road Safety

Edited by Justin Healey

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**INTRODUCTION**

*Young Drivers and Road Safety* is Volume 389 in the ‘Issues in Society’ series of educational resource books. The aim of this series is to offer current, diverse information about important issues in our world, from an Australian perspective.

**KEY ISSUES IN THIS TOPIC**

Although there has been a sustained reduction in Australia’s national road death toll over recent years, young people are still over-represented in road fatality and injury statistics, particularly young males. Young drivers continue to engage in a range of dangerous on-road behaviours, including drink and drug driving, speeding, aggressive driving, driver fatigue, mobile phone use and distraction. This book presents the latest statistics and reports on road safety rates and attitudes in Australia and examines the risk behaviours of young drivers. The book is aimed at educating young people and learner drivers, and contains a range of advice on how to avoid risks and increase road safety and awareness.

**SOURCES OF INFORMATION**

Titles in the ‘Issues in Society’ series are individual resource books which provide an overview on a specific subject comprised of facts and opinions. The information in this resource book is not from any single author, publication or organisation. The unique value of the ‘Issues in Society’ series lies in its diversity of content and perspectives.

The content comes from a wide variety of sources and includes:

- Newspaper reports and opinion pieces
- Website fact sheets
- Magazine and journal articles
- Statistics and surveys
- Government reports
- Literature from special interest groups

**CRITICAL EVALUATION**

As the information reproduced in this book is from a number of different sources, readers should always be aware of the origin of the text and whether or not the source is likely to be expressing a particular bias or agenda. It is hoped that, as you read about the many aspects of the issues explored in this book, you will critically evaluate the information presented. In some cases, it is important that you decide whether you are being presented with facts or opinions. Does the writer give a biased or an unbiased report? If an opinion is being expressed, do you agree with the writer?

**EXPLORING ISSUES**

The ‘Exploring issues’ section at the back of this book features a range of ready-to-use worksheets relating to the articles and issues raised in this book. The activities and exercises in these worksheets are suitable for use by students at middle secondary school level and beyond.

**FURTHER RESEARCH**

This title offers a useful starting point for those who need convenient access to information about the issues involved. However, it is only a starting point. The ‘Web links’ section at the back of this book contains a list of useful websites which you can access for more reading on the topic.
National road toll down on previous year, but cycling fatalities doubled

The national road toll has revealed a drop in road fatalities for most states and territories in 2013, with an overall lower figure than 2012. An ABC News report by Mohamed Taha and Gillian Bennett

There was a total of 1,193 deaths on the roads last year, a decrease of more than 8 per cent when compared to the previous year. New South Wales and Victoria experienced record low figures for road fatalities. Northern Territory, Queensland, the Australian Capital Territory and Western Australia recorded fewer roads deaths. However, Tasmania and South Australia recorded slight increases.

Victoria, NSW lead country with record low figures

Victoria led the country with a 14 per cent drop in deaths compared to 2012, the state’s lowest figures since 1924. But the Victorian Government says they are adamant in working towards no fatalities.

NATIONAL ROAD TOLL FIGURES

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasmania</td>
<td>36</td>
<td>31</td>
</tr>
<tr>
<td>Victoria</td>
<td>242</td>
<td>282</td>
</tr>
<tr>
<td>New South Wales</td>
<td>339</td>
<td>369</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Queensland</td>
<td>272</td>
<td>280</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>South Australia</td>
<td>97</td>
<td>94</td>
</tr>
<tr>
<td>Western Australia</td>
<td>163</td>
<td>182</td>
</tr>
</tbody>
</table>

“The key thing is that these deaths are avoidable. There are no accidents on our roads,” Victoria’s Acting Premier Peter Ryan said.

“Drivers make poor choices. They choose to speed, they choose to drive under the influence of alcohol and drugs.

“They choose to be distracted from the particular task at hand.”

Victorian Police Assistant Commissioner Robert Hill says the figures are not a reason to become complacent.

“The key thing is that these deaths are avoidable. There are no accidents on our roads. Drivers make poor choices. They choose to speed, they choose to drive under the influence of alcohol and drugs. They choose to be distracted from the particular task at hand.”

Victoria’s Acting Premier, Peter Ryan

New South Wales also recorded its lowest figure since 1924, with 339 road fatalities in 2013. Roads Minister Duncan Gay says the figure could be improved.

“While fewer fatalities is encouraging, that still means 339 people do not get to spend the new year with friends and family, and their loss will be felt by everyone they knew as we start 2014,” he said.

Cycling fatalities double 2012 figure

In 2013, the number of cyclist deaths on roads rose...
He says the challenge is greater education and awareness.

“It’s not as simple as saying we need car drivers to be more observant of cyclists. It is a two-way street,” he said.

“We need a better education program, not only for car drivers but for cyclists as well.”

Mr Gay says there has not previously been a serious policy approach to this issue.

“It’s been pretty laissez faire in this area in the past,” he said.

“We need to concentrate on it and if we need to legislate, that’s one of the things we need to look at.”

NRMA spokesman Peter Khoury says there needs to be a continued focus on safer roads and driving.

“If we’re looking at reducing the road toll further there’s no single-bullet solution,” he said.

“We need to continue to work on safer cars, safer roads and safer drivers.”

Mr Khoury says there has been a lack of educational campaigns and planning around cycle paths and roads.

“We’ve not done nearly enough to educate all road users on how to share the road safely,” he said.

“We’ve not been strategic enough on how and where we build cycle paths, we’ve not tried hard enough to separate cyclists and road users.”

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Road deaths in Australia: at a glance

This Bureau of Infrastructure, Transport and Regional Economics report summary presents annual counts and rates for fatal road crashes and fatalities. The focus is on the last ten years of data including calendar year 2013.

- Over the last decade (to 2013), national annual fatalities decreased by 25 per cent, fatalities per population decreased by 35 per cent, and annual fatal crashes decreased by 23 per cent. The decline in fatalities was weaker during the first half of the decade (9 per cent) but accelerated to 17 per cent over the last five years.

- All jurisdictions achieved reductions in the annual fatality rate per population over the decade. The strongest falls were seen in New South Wales, Victoria, Tasmania and the Australian Capital Territory. The trends are not uniform, but with the exception of Queensland and Tasmania, all jurisdictions have seen rates fall significantly over the last three years.

- The 65 years and over age group has the highest rate of annual fatalities per population. It accounts for 14 per cent of the population but 23 per cent of fatalities. The 17-25 years age group also has a significantly higher than average rate. The trend rate of decrease over the decade for the 17-25 age group however is strongest among all age groups at 8.2 per cent per annum.

- Counts of all types of fatal crash are decreasing. Single vehicle crashes (no pedestrian involved) currently account for 47 per cent of the total. Ten years ago the proportion was 44 per cent.

- Vehicle occupants (drivers or passengers) account for 64 per cent of all fatalities (down from 71 per cent ten years ago). Motorcyclist fatalities now account for 18 per cent of fatalities (up from 12 per cent ten years ago).

- Annual counts of fatal crashes involving articulated trucks have trended down at 3.5 per cent per year. The trend for heavy rigid involvement is a slightly weaker decline of 2.2 per cent per year.

NOSE-TO-TAIL COLLISIONS ARE THE NUMBER ONE CRASH ON AUSSIE ROADS

The latest AAMI Crash Index reveals parked car dings are on the rise. Nearly a third of drivers blame distraction or loss of concentration for their accidents.

Aussie drivers are finding themselves in nose-to-tail accidents more often than any other type of crash, according to new data from leading national car insurer, AAMI.

After studying almost 250,000 accident insurance claims between October 2012 and September 2013 for the annual AAMI Crash Index, the five most common types of accidents happening on our roads are:

<table>
<thead>
<tr>
<th>#</th>
<th>MOST COMMON ACCIDENT TYPES</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Nose to tail</td>
<td>27.8%</td>
</tr>
<tr>
<td>2.</td>
<td>Parked car dings</td>
<td>21.4%</td>
</tr>
<tr>
<td>3.</td>
<td>Failed to give way</td>
<td>20.5%</td>
</tr>
<tr>
<td>4.</td>
<td>Collision with a stationary object</td>
<td>14.7%</td>
</tr>
<tr>
<td>5.</td>
<td>Collision while reversing</td>
<td>11%</td>
</tr>
</tbody>
</table>

Previous Crash Index reports show that the incidence of nose-to-tail collisions has remained stable for the past decade, hovering between 27% and 29%. Failure to give way has come down steadily during this time from 23.1% in 2001 to 20.5% in the past 12 months.

Parked car dings however continue on an upward trend having risen from 15% in 2004 to 21.4% in this year’s Crash Index. According to AAMI spokesperson, Reuben Aitchison, with drivers taking to the roads for the holiday season that’s a worrying statistic.

Aussie drivers are finding themselves in nose-to-tail accidents more often than any other type of crash, according to new data from leading national car insurer, AAMI.

“Parked car dings are often a result of not driving the car properly or paying attention to what’s going on around you. As we lead into the silly season, we urge all drivers to stay alert when behind the wheel, particularly during the Christmas period when we see a significant rise in the number of serious accidents and minor prangs.”

AAMI’s research has shown that alarmingly a third of drivers (28%) identified distraction or loss of concentration as a contributing factor in their crash, with men being the worst offenders (32%) compared to...
just under one in four women (24%).

Mr Aitchison said: “Smart phones and technology are major distractions for motorists and pose a serious safety issue on our roads. We know that many young drivers regularly read and send text messages, tweet, update their Facebook status and astonishingly even read ebooks while driving.

A quarter of motorists have experienced an accident in the last five years. 71% say that accident was avoidable. Interestingly in the past five years most accidents occurred when vehicles were travelling at low speed (47%) or stationary (28%). Only 20% experienced accidents when travelling at high speed.

“However, it doesn’t matter if you’re adjusting a Sat Nav or looking out the window, allowing yourself to be distracted and take your eyes off the road, even for a split second, is incredibly dangerous for you and everyone else on the road.”

According to the AAMI Crash Index, a quarter of motorists have experienced an accident in the last five years. 71% say that accident was avoidable. Interestingly in the past five years most accidents occurred when vehicles were travelling at low speed (47%) or stationary (28%). Only 20% experienced accidents when travelling at high speed.

AAMI’s data has also shown that almost half (46%) of drivers blame other drivers for the cause of their crash and nearly a quarter (23%) admit to being careless while behind the wheel.

<table>
<thead>
<tr>
<th>#</th>
<th>TOP 10 CONTRIBUTING FACTORS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Other drivers</td>
<td>46%</td>
</tr>
<tr>
<td>2.</td>
<td>Distraction/loss of concentration</td>
<td>28%</td>
</tr>
<tr>
<td>3.</td>
<td>Carelessness</td>
<td>23%</td>
</tr>
<tr>
<td>4.</td>
<td>Bad weather</td>
<td>12%</td>
</tr>
<tr>
<td>5.</td>
<td>Impatience</td>
<td>12%</td>
</tr>
<tr>
<td>6.</td>
<td>Traffic congestion</td>
<td>10%</td>
</tr>
<tr>
<td>7.</td>
<td>Bad roads/infrastructure</td>
<td>10%</td>
</tr>
<tr>
<td>8.</td>
<td>Fatigue</td>
<td>6%</td>
</tr>
<tr>
<td>9.</td>
<td>Speeding</td>
<td>6%</td>
</tr>
<tr>
<td>10.</td>
<td>Animal on road</td>
<td>5%</td>
</tr>
</tbody>
</table>

**FOOTNOTES**

i. Newpoll Market and Social Research conducted an independent internet survey of 3,726 Australian drivers, 18 years of age and older, across a full national sample in 2013. Data was collected in line with ISO – 20252 – Market, Social and Opinion Research and has been weighted with current ABS population demographics to ensure any extrapolation of results is representative of age, gender and area.

Road safety: modelling a global phenomenon

Executive summary from a Bureau of Infrastructure, Transport and Regional Economics report which describes an approach for modelling the fatality and injury rates for twenty-one countries around the world

**Background**

Road transport is the dominant mode of transportation around the world and a vital link that brings people and goods together. And yet, mobility comes at a cost, one of which is the exposure to the possibility of death and injury on the road. The statistical representations of that risk are the fatality and injury rates (the number of deaths and injuries per billion vehicle kilometres travelled).

This report describes an approach for modelling the fatality and injury rates for each of 21 countries around the world. The models constructed allow an understanding of the forces underlying the fatality and injury rates in each of the countries covered, and also allow forecasts of future trends in road safety – or its obverse, death and injury.

Models were derived for Australia (eight states/territories), Austria, Belgium, Britain, Canada (ten provinces), the Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Japan, Korea, the Netherlands, New Zealand, Norway, Sweden, Switzerland and the United States.

**Patterns of road safety in twenty-one countries**

The basic finding of the research is that fatality rates have trended down as societies have become motorised. Initially, the gain came from adopting basic measures that managed the growing traffic, things as basic as stop signs, traffic lights, lane separation – the list goes on. Then in the early 1970s it was the turn of vehicle safety improvements, the most important by far being the fitting and wearing of seatbelts. Finally, in the 1980s onward came the turn of enforcement, principally aimed at control of speed and driver impairment. This pattern is illustrated by Australia in Figure ES1.

Of course this is only a very general pattern for the fatality rate. The 21 countries throw up a great variety of patterns, depending on the timing of the principal determinants. The trend in the level of fatalities also varies with the growth path of total traffic (itself dependent lately mainly on population growth in a country).

Injury rates, while linked with movements in fatality rates, often have their own sub-trends. Figure
Although the fatality rate (a proxy for the general level of road safety) explains a lot of the injury rate decline, there is a recent independent upward movement in the injury rate [in Australia].

**FIGURE ES2: AUSTRALIA’S ROAD INJURY RATE VERSUS ITS FATALITY RATE**

Beyond that, an understanding of the challenges nations face in trying to continue the downward trends in death and injury is also vital. As the main measures that have been responsible for downward movements in rates begin to reach maximum effect, and traffic continues to grow, the tendency will be for flat to rising levels of death and injury, unless previous measures are ramped up and/or new road safety measures are brought into play.

An understanding of the trends revealed by this report and of the effects of the great variety of measures in different nations, will aid policy makers when planning future road safety measures.

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**Conclusion**

Road safety has in the past been achieved by a variety of measures. Principal among these have been seatbelt wearing, and speed and alcohol control (with lower legal limits and roadside testing). As these measures will continue to apply in the future, it is vital to establish beyond doubt their continuing importance.
INTERNATIONAL ROAD SAFETY COMPARISONS: AT A GLANCE

This report summary presents tabulations of road deaths and road death rates for Organisation for Economic Co-operation and Development (OECD) nations and Australian states and territories. The rates allow for a comparison of Australia’s road safety performance with that of other OECD nations by accounting for the differing levels of population, motorisation and distances travelled. Courtesy of the Bureau of Infrastructure, Transport and Regional Economics.

- In terms of annual deaths per 100,000 population in 2012:
  - Iceland 2.81
  - United Kingdom 2.83

Between 2003 and 2012, the annual population-standardised risk of a road crash fatality in Australia declined by a total of 30.5 per cent. Over the same period the OECD median rate fell by 38.9 per cent. The rates for all Australian jurisdictions decreased by between 5 per cent (Australian Capital Territory) and 45 per cent (South Australia).

Between 2003 and 2012, the annual population-standardised risk of a road crash fatality in Australia declined by a total of 30.5 per cent. Over the same period the OECD median rate fell by 38.9 per cent.

ROAD DEATHS PER 100,000 POPULATION – OECD NATIONS, 2012

The number of road deaths per population is a measure of the public health risk associated with road crashes.

<table>
<thead>
<tr>
<th>Nation</th>
<th>Road deaths</th>
<th>Population (000s)</th>
<th>Deaths per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland</td>
<td>9</td>
<td>320</td>
<td>2.82</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,802</td>
<td>63,705</td>
<td>2.83</td>
</tr>
<tr>
<td>Norway</td>
<td>145</td>
<td>5,019</td>
<td>2.89</td>
</tr>
<tr>
<td>Denmark</td>
<td>167</td>
<td>5,592</td>
<td>2.99</td>
</tr>
<tr>
<td>Sweden</td>
<td>285</td>
<td>9,519</td>
<td>2.99</td>
</tr>
<tr>
<td>Israel</td>
<td>263</td>
<td>7,911</td>
<td>3.32</td>
</tr>
<tr>
<td>Netherlands</td>
<td>562</td>
<td>16,755</td>
<td>3.35</td>
</tr>
<tr>
<td>Ireland</td>
<td>162</td>
<td>4,587</td>
<td>3.53</td>
</tr>
<tr>
<td>Mexico</td>
<td>4,539</td>
<td>117,054</td>
<td>3.88</td>
</tr>
<tr>
<td>Japan</td>
<td>5,237</td>
<td>127,515</td>
<td>4.11</td>
</tr>
<tr>
<td>Spain</td>
<td>1,903</td>
<td>46,147</td>
<td>4.12</td>
</tr>
<tr>
<td>Switzerland</td>
<td>339</td>
<td>7,955</td>
<td>4.26</td>
</tr>
<tr>
<td>Germany</td>
<td>3,600</td>
<td>81,932</td>
<td>4.39</td>
</tr>
<tr>
<td>Finland</td>
<td>255</td>
<td>5,414</td>
<td>4.71</td>
</tr>
<tr>
<td>Turkey</td>
<td>3,750</td>
<td>75,176</td>
<td>4.99</td>
</tr>
<tr>
<td>Australia</td>
<td>1,299</td>
<td>22,710</td>
<td>5.72</td>
</tr>
<tr>
<td>France</td>
<td>3,653</td>
<td>63,519</td>
<td>5.75</td>
</tr>
<tr>
<td>median</td>
<td></td>
<td></td>
<td>5.75</td>
</tr>
<tr>
<td>Canada</td>
<td>2,104</td>
<td>34,680</td>
<td>6.03</td>
</tr>
<tr>
<td>Hungary</td>
<td>605</td>
<td>9,920</td>
<td>6.10</td>
</tr>
<tr>
<td>Italy</td>
<td>3,653</td>
<td>59,540</td>
<td>6.14</td>
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<tr>
<td>Austria</td>
<td>531</td>
<td>8,430</td>
<td>6.30</td>
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<td>Slovenia</td>
<td>130</td>
<td>2,057</td>
<td>6.32</td>
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<tr>
<td>Luxembourg</td>
<td>34</td>
<td>531</td>
<td>6.40</td>
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<tr>
<td>Slovak Republic</td>
<td>352</td>
<td>5,408</td>
<td>6.51</td>
</tr>
<tr>
<td>Portugal</td>
<td>718</td>
<td>10,515</td>
<td>6.83</td>
</tr>
<tr>
<td>Belgium</td>
<td>767</td>
<td>11,128</td>
<td>6.89</td>
</tr>
<tr>
<td>New Zealand</td>
<td>308</td>
<td>4,433</td>
<td>6.95</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>742</td>
<td>10,509</td>
<td>7.06</td>
</tr>
<tr>
<td>Greece</td>
<td>984</td>
<td>11,090</td>
<td>8.87</td>
</tr>
<tr>
<td>Poland</td>
<td>3,571</td>
<td>38,534</td>
<td>9.27</td>
</tr>
<tr>
<td>United States</td>
<td>33,561</td>
<td>313,914</td>
<td>10.69</td>
</tr>
<tr>
<td>Korea</td>
<td>5,392</td>
<td>50,004</td>
<td>10.78</td>
</tr>
<tr>
<td>Chile</td>
<td>1,980</td>
<td>17,403</td>
<td>11.38</td>
</tr>
</tbody>
</table>

| ACT | 12  | 375 | 3.20 |
| VIC | 282 | 5,633 | 5.01 |
| NSW | 369 | 7,307 | 5.05 |
| SA  | 94  | 1,656 | 5.68 |
| TAS | 31  | 512  | 6.05 |
| QLD | 280 | 4,568 | 6.13 |
| WA  | 182 | 2,438 | 7.47 |
| NT  | 49  | 236  | 20.77 |
In terms of annual deaths per 10,000 registered vehicles in 2012:
Australia's rate of 0.78 was the 14th lowest rate out of the 30 nations with available data. The nations with the two lowest rates were:
- Iceland 0.34
- Norway 0.39

Annual road deaths in Australia relative to vehicle ownership declined between 2003 and 2012 by a total of 37.0 per cent. During this period the median rate for OECD nations declined by 49.2 per cent.

Annual road deaths in Australia relative to vehicle ownership declined between 2003 and 2012 by a total of 37.0 per cent. During this period the median rate for OECD nations declined by 49.2 per cent. Australian jurisdictions achieved reductions of between 13 per cent (Australian Capital Territory) and 49 per cent (South Australia).

In terms of annual deaths per 100 million vehicle-kilometres-travelled in 2012:
Australia's rate of 0.56 was the 12th lowest rate out of 20 nations with available data. The nations with the two lowest rates were:
- Iceland 0.29
- Norway 0.33

Between 2003 and 2012, Australia's rate declined by a total of 29.0 per cent whilst the OECD median declined by 43.3 per cent.

For Australian jurisdictions, the reductions ranged from 2 per cent (Australian Capital Territory) to 42 per cent (South Australia).

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This is the twenty-third in the long running Community Attitudes Survey program. The main purpose of the research is to monitor attitudes to a variety of road safety issues, evaluate specific road safety countermeasures, suggest new areas for intervention and identify significant differences between jurisdictions.

The in-scope population for the survey is persons aged 15 years and over. Interviews were conducted in October and November 2013 using Computer Assisted Telephone Interviewing (CATI) technology and a Random Digit Dialling (RDD) sampling frame comprising of both landline and mobile sample. A total of 1,500 interviews were conducted and the average interview length was 16 minutes. The response rate (completed interviews divided by all contacts, excluding those ‘away for survey period’) was 65%.

A summary of the main findings from the 2013 survey, along with a description of emerging trends and patterns, is provided below. More detailed results are provided in the main body of the report.

**MAIN FINDINGS**

**Factors perceived to contribute to road crashes**

The Australian community continues to identify speed as the factor which most often leads to road crashes. When asked to nominate the factor that most often leads to road crashes, 31% mention speed, 18% inattention/lack of concentration, 11% drink driving, 8% driver distraction/driving while on a mobile and 7% driver fatigue.

When asked to nominate the factor that most often leads to road crashes, 31% mention speed, 18% inattention/lack of concentration, 11% drink driving, 8% driver distraction/driving while on a mobile and 7% driver fatigue.

More than three-quarters of the in-scope population (81%) had seen police conducting random breath tests in the last six months (similar to 2011 with 80%). In addition, 35% of the community report having been breath tested in the previous six months, in line with the 2011 result of 37% however a marked increase on results in previous years.

**Self-reported drink driving behaviour**

The self-reported drink driving behaviour of motorists shows that 39% of ‘active drivers’ restrict what they drink when driving (38% in 2011), 38% don’t drink at all when driving (down from 43%) and 23% don’t drink at any time (up from 19%).

Most (76%) ‘active drivers’ modify their drinking behaviour when driving, either by abstaining from alcohol (38%) or restricting what they drink (39%). The practice of restricting alcohol intake when driving (as distinct from abstaining) is more common among males (41%) than females (36%), a finding consistent with previous years. This approach to drink driving is also more common among those aged 25 to 59 years than either younger or older drivers. Nearly four out of ten (39%) provisional car licence holders and 33% of 15 to 24 year olds indicate that they don’t drink at any time.

Active drivers in Western Australia and the Northern Territory showed a similar pattern, with respondents being significantly more likely to modify their drinking behaviour when driving (85% and 84% respectively) and significantly less likely to not drink at all (15% and 16%).

Three per cent of active drivers said it was either very likely or fairly likely that they had driven when over the blood alcohol limit in the last 12 months (down from 4% in 2011 and 2009).

**Awareness of standard drinks and alcohol consumption guidelines**

Community knowledge regarding the number of standard drinks in everyday volumes of alcohol is varied, with nearly two-thirds of all respondents interviewed accurately identifying the number of standard drinks in a stubby/can of full strength beer, yet only just under a third correctly identified the number of standard drinks in a 750 ml bottle of wine.

The proportion of beer drinkers able to accurately identify the number of standard drinks in a stubby/can of full strength beer was similar to 2011 at 64% (compared with 66% in 2011), while the proportion that underestimate the volume of alcohol in a stubby/can of full strength beer, thereby being at...
greater risk of over-consumption, is 12% (compared with 11% in 2011).

The proportion of wine drinkers able to correctly nominate the number of standard drinks in a 750 ml bottle of wine is slightly up on previous results (30% in 2013, compared with 27% in 2011). The proportion of wine drinkers who underestimated the alcohol content of a bottle of wine was 55% (61% in 2011).

Only 44% of females have accurate knowledge of the number of standard drinks they can have in the first hour and remain under the legal blood alcohol limit.

Sixty-four per cent of males made a safe assumption regarding the number of standard drinks they can have in the first hour while remaining under the 0.05 blood alcohol concentration (BAC) limit, with 50% correctly identifying two standard drinks and a further 14% of the view that they can have one standard drink or less in the first hour. By comparison, only 44% of females have accurate knowledge of the number of standard drinks they can have in the first hour and remain under the legal blood alcohol limit.

The published guidelines stipulate that to remain under 0.05 BAC, men should limit their consumption of alcohol to two standard drinks in the first hour and one standard drink in each hour after that, while women should consume no more than one standard drink in each hour they are drinking. Seventy-one per cent of males (compared with 63% in 2011) and 56% of females (compared with 40% in 2011) made a safe assumption about both parts of these guidelines.

Support for reducing the blood alcohol limit

Respondents were asked how they feel about suggestions that the general blood alcohol concentration (BAC) limit should be lowered from 0.05 to 0.02. Overall, 38% (23% strongly approve, 16% somewhat approve) of people said they would approve of such a change, while 39% (24% strongly disapprove, 15% somewhat disapprove) would disapprove.

One in five (19%) did not care if the blood alcohol limit was reduced, indicating that more than half (58%) of all respondents interviewed would not disapprove of this change.

SPEED
Selected attitudes to speed and speed regulation

The areas of greatest change regarding attitudes to speeding and speed enforcement are detailed below:

- Fifty-four per cent of the community agree with the view that speeding fines are mainly intended to raise revenue, a result that is significantly less than the 2011 level of agreement (62%).
- Those that agreed that “If you increase your driving speed by 10 kilometres per hour you are significantly more likely to be involved in an accident” has shown a decrease (70% in 2011; 66% in 2013).
- The level of agreement with the statement that “an accident at 70 km/h will be a lot more severe than an accident at 60 km/h” declined from 42% in 2011 to 38% for the current reporting period.

The following results have tended to be more stable over time regarding attitudes to speed enforcement and speeding:

- The proportion of the community in 2013 who consider “it is okay to exceed the speed limit if you are driving safely” (31%) is higher than in 2011 (28%) and closer to levels reported in the late nineties and early 2000s.
- Seventy-nine per cent feel that speed limits are generally set at reasonable levels. This result is similar to 2011 (81%) and has remained fairly steady in recent times.

In response to a question about the use of low speed limits, the majority of respondents (63%) strongly supported limits of 40 km/h or lower on streets with high pedestrian activity, such as shopping areas. Residents of South Australia were significantly less likely to strongly agree with this proposition (53%).

Respondents were also asked about the promotion of speed in television commercials for new cars. Just under half (47%) felt that there is too much emphasis on speed in car advertisements, with 27% strongly agreeing with this view.

Perceived acceptable and actual speed tolerances

A large proportion of the community (52%) supports quite strict speed enforcement (nominating speeds of 60-64 km/h as acceptable). The most common views are that only speeds of 60 km/h and below are acceptable (31% of the in-scope population), and that 65 km/h is an acceptable speed for someone to drive in a 60 km/h zone in an urban area without being booked (also 31%). In contrast, only 15% think speeds above 65 km/h should be tolerated.

When looking at perceptions as to what speed is actually permitted, 18% of the adult community think that zero tolerance is applied in urban 60 km/h zones. Some 18% of people (compared with 17% in 2011) believe that speeds greater than 65 km/h will be tolerated without a speeding fine being issued, with 7% of those nominating speeds of 70 km/h or higher.

In relation to rural 100 km/h zones, 25% of the population are of the view that no speed in excess of 100 km/h is acceptable. A further 30% supported speeds of 101-105 km/h and 4% supported speeds of 106-109 km/h. The most common view (held by 29% of the in-scope population) is that 110 km/h is an acceptable speed for someone to drive in a 100 km/h zone in a rural area without being booked, while 9% think speeds above 110 km/h should be tolerated.

When asked what speeds are actually permitted in rural 100 km/h zones, 15% believe that the limit is strictly enforced (compared with 13% in 2011), while 37% nominated speeds of 101 to 105 km/h, and a further...
28% nominated speeds up to 110 km/h. The most common responses when looking at perceived actual speed tolerances in 100 km/h zones in rural areas were 21% suggesting driving at 105 km/h was permitted and 20% suggesting driving at 110 km/h permitted.

**Perceived changes in speed enforcement**

Sixty-two per cent of respondents are of the view that the level of speed limit enforcement has increased in the last two years, 26% feel it has stayed the same and just 5% feel the amount of speed limit enforcement has decreased, and there were 7% offering 'don’t know' as a response.

The incidence of drivers booked for speeding in the last two years (20%) and the last six months (8%) shows significant increases on findings in 2011 (16% and 5% respectively).

Full motorcycle licence holders recorded a higher incidence of being booked for speeding than any other licence holder type within the last two years.

Full motorcycle licence holders recorded a higher incidence of being booked for speeding than any other licence holder type within the last two years (36%) and within the last six months (28%) shows significant increases on findings in 2011 (16% and 5% respectively).

**Attitudes to speed enforcement and speeding penalties**

Overall, 36% (compared with 35% in 2011) of the in-scope population support an increased amount of speed limit enforcement, 13% support a decrease (up from 12% in 2011) and 48% want no change (on par with 2011 at 50%).

A quarter of respondents (25%) are in favour of making the penalties for exceeding the speed limit more severe. The current year result is comparable to the 2011 result of 24%. A further 13% believe speeding penalties should be made less severe and 56% opt for no change to the current penalties.

Just over one-third (36%) strongly approved of the use of point-to-point speed enforcement cameras on main roads (equating to 66% total approval). Strong approval was significantly lower amongst motorcycle licence holders (23%), residents of the Northern Territory (25%) and frequent distance drivers (28%).

**Self-reported speeding behaviour**

The proportion of recent drivers (current drivers and those that have driven in the last two years) who report ‘always’, ‘nearly always’ or ‘mostly’ driving at 10 km/h over the speed limit (5% in 2013) has significantly increased since 2011 (3%). However, this result is still dramatically lower than the mid 1990s peak of 17% in 1995. There has been quite a significant increase in the proportion of full motorcycle licence holders (17% for 2013) and heavy vehicle licence holders (12% for 2013) who ‘always’, ‘nearly always’ or ‘mostly’ drive at 10 km/h over the speed limit, compared to the previous reporting period (4% and 2% respectively).

**DRIVER FATIGUE**

The incidence of drivers reporting having ever fallen asleep while driving is 13% for the current reporting period. This result is in line with the time series data back to 2001 (with the exception of the 2004 result which showed an incidence of just 10%).

As was the case in previous years, the current survey suggests a degree of recidivism, in that of those who have ever fallen asleep while driving, 42% have done so more than once and 24% on three or more occasions. For 12% of those who have fallen asleep while driving, the most recent episode resulted in a road accident.

**OTHER ISSUES**

**Seatbelt wearing**

Over 1 in 6 respondents (16%) are of the view that the level of enforcement of compulsory seatbelt wearing has increased over the last two years, 50% think it is unchanged, 5% feel as though there has been a decrease and 29% don’t know.

The proportion of people aged 15 years and over that always wear a seatbelt when travelling in the front seat of a car (97% in 2013) has remained steady at between 95% and 97% since 1993. The gap between seatbelt wearing in the front and rear seats has closed in the last few years, from four percentage points in 1993 to one percentage point for the current period.
Mobile phone usage

CAS 23 is the sixth survey in the series that asks about the use of mobile phones when driving.

Nine in ten active drivers (91%) have a mobile phone and 61% report that they use a mobile phone while driving (59% in 2011).

With the exception of reading text messages (result virtually unchanged), other mobile phone usage measures among active drivers, have increased since these questions were last asked in 2011:
- 56% answered calls while driving (54% in 2011)
- 35% made calls (27% in 2011)
- 32% read text messages (31% in 2011), and
- 18% sent text messages (14% in 2011).

The last five surveys have included a question to measure whether people thought that their chances of having an accident would increase if they were using a mobile phone while driving. Results show that the majority (82% of respondents) believed this to be the case, a significant decrease from 86% in 2011.

When asked to nominate up to three factors that lead to road crashes, 48% of respondents included speed in their response, 42% drink driving, 29% inattention/lack of concentration, 22% driver distraction/driving while on a mobile, and 22% driver fatigue.

STATE/TERRITORY AND REGIONAL COMPARISONS

Factors perceived to contribute to road crashes

There is a degree of variability across the states and territories and across capital city/non-capital city locations when it comes to views about the leading causes of road crashes. While at the national level total mentions of speed as a contributing factor in road crashes remains high at 48%, this result ranges from 40% in the Northern Territory to 58% in Victoria. In terms of year-on-year change at the state/territory level, Tasmania is the only state that saw a significant change in perceptions of speed as a contributing factor in road crashes (decreasing from 62% in 2011 to 50% for the current period).

The perception of drink driving as a contributing factor in road crashes (42% nationally) ranges from a low of 35% in New South Wales to the significantly higher results of 54% in Victoria and 70% in the Northern Territory, where drink driving tends to be the dominant perceived cause of road crashes.

The increase in the nomination of ‘inattention/lack of concentration’ as a contributing factor in road crashes (up from 26% to 29%) seems mainly attributable to the significant increases in Western Australia (up from 33% to 46%), while Queensland (down from 27% to 21%) and South Australia (down from 45% to 39%) both recorded decreases.

Mentions of ‘driver distraction/driving while on a mobile,’ which has only been coded as a separate response since the 2011 survey, have also increased (from 14% to 22%). The Northern Territory reported the lowest result of 8% (down from 14% in 2011) and Queensland reported a significant increase from last year (25% for 2013 compared to 18% for 2011).

The proportion of the community mentioning ‘driver fatigue’ as a contributing factor in road crashes remain similar to the last survey (up from 21% to 22%). Across all state and territories, results ranged from 9% in Tasmania to 28% in the North Territory.

Alcohol and drink driving

Support for RBT remains extremely high (96% nationally, down from 98% in 2011). There were a number of significant differences across the states and territories with both Tasmania and the ACT reporting 100% support and Western Australia only 91% support.

The perceived level of RBT activity does, however, show some state/territory variations. Only 25%
of residents from Tasmanian and the ACT respondents are of the view that RBT activity has increased over the last two years compared with 33% nationally. Sixteen per cent of residents of the ACT and 19% of Tasmanians are of the view that the level of RBT activity has decreased over the last two years, compared with 10% nationally. At the other end of the scale only 7% of Northern Territory and 8% of Victorians and South Australians residents share this view.

In terms of RBT visibility, Tasmanians were the least likely to report having seen RBT in operation in the last six months (65% compared with 81% nationally) and NSW residents the most likely (87%).

South Australians were the least likely to report having been personally tested in the last six months (21% compared with 35% nationally) and Victorian residents the most likely (39%).

Sixty-four per cent of the in-scope population made a safe assumption about the number of standard drinks they could have in both the first hour and subsequent hours. Differences across the states/territories were evident with only 52% of Victorians displaying an accurate knowledge of the guidelines (significantly less than the population) compared with 68% of those from the ACT and 66% of Western Australian residents.

**Speed**

There is some variation in perceptions across the states and territories regarding changes in speed limit enforcement activity. The perception that there has been an increase in speed limit enforcement in the last two years (62% nationally, similar to the last survey with 64%) is most common in Queensland (75%) and least common in Tasmania (44%).

In terms of state and territory comparisons, Western Australians (26%) and Victorians (24%) are more likely to report having been booked for speeding in the last two years (compared with 20% nationally); while Western Australians residents (13%) are more likely to have been booked within the last six months (compared with 8% nationally).

In terms of attitudes to speeding and speed limit enforcement, the following state/territory differences were noted:

- Residents of Western Australia are less likely (44%, compared with 54% overall) to be of the view that ‘fines for speeding are mainly intended to raise revenue’. There is also greater acceptance in Tasmania of the link between speeding and road crashes irrespective of whether you are driving safely (20% compared with 31% nationally).
- There is also a significant difference in the view that ‘speed limits are generally reasonable’ with 88% of ACT residents concurring with the statement compared with 79% nationally.

There are significant gender differences in relation to speeding. Males are more likely than females to have been booked for speeding in the last two years.

- Residents of Victoria are more likely to agree that if you increase your driving speed by 10 km/h you are significantly more likely to be involved in an accident (71% compared with 66% overall), Tasmanians also shared similar views (70%).
- To the extent that these attitudes may be reflected in driving behaviour, it is interesting to note that 8% of those who reside in New South Wales report ‘always, nearly always or mostly’ driving at 10 km/h over the speed limit, compared with only 1% in South Australia, which is significantly lower than the national result (5%).

**Alcohol and drink driving**

Consistent with the results of recent years, a significantly higher proportion of males (39%) than females (31%) report having had a random breath test in the last six months. This result is likely to be associated with the different driving patterns of males and females, and is supported by the fact that frequent distance drivers and commuters (both predominantly male groups) also report being more likely to have seen RBT in operation and to have been personally tested.

When exposure to RBT activity is considered by age group, it appears that those aged 60 years or over, (who tend to spend less time driving), are less likely to have seen RBT activity (73% versus 81% overall) and are also less likely to have had their breath tested in the previous six months (30% versus 35% overall).

With respect to drink driving behaviour, females (40%) are more likely than males (36%) to say they abstain from drinking when driving. Males are more likely to claim that, when driving, they restrict how much they drink (41% compared with 36% of females). Similarly, 47% of 15 to 24 year olds say they don’t drink when driving, compared with 38% overall and 33% of 15 to 24 year olds don’t drink at any time compared to 23% overall.

Seventy-one per cent of males and 56% of females made a safe assumption about the number of standard drinks they can have in both the first hour and subsequent hours. A likely reason for this difference is the higher proportion of females who don’t drink at all when they drive and therefore do not need to draw on an accurate knowledge of the BAC guidelines to modify their drinking behaviour when driving.
Females are also much more likely to say they definitely have not driven over the blood alcohol limit in the last 12 months than males (86% and 71% respectively) compared with 78% overall.

**Speed**

There are significant gender differences in relation to speeding. Males are more likely than females to have been booked for speeding in the last two years (26% for males compared with 14% for females) and in the last 6 months (10% for males compared with 5% for females).

Males are also less likely to support a zero tolerance approach to speed limit enforcement in 100 km/h zones in rural areas (19% for males compared with 30% for females) and less likely to support an increase in the level of speed limit enforcement (30% compared with 42%) or an increase in the severity of penalties (20% for males compared with 30% for females).

By extension males are less likely to see the nexus between increased speed and involvement in an accident, more likely to think speeding is okay if driving safely, and less likely to think that speed limits are generally reasonably set.

The driving behaviour of older respondents (that is, those aged 60 years and over) is quite different to other age groups. Forty per cent of those aged 60 years and over (compared with 30% overall) report never driving at 10 km/h or more over the speed limit. There is also a difference in their attitudes to speeding: they are much more likely to support zero tolerance speed limit enforcement and more likely to support an increase in penalties for speeding.

Further information can be obtained through the Australian Government Department of Infrastructure and Regional Development at www.infrastructure.gov.au

**NOTES**

1. ‘Driver distraction/driving while on a mobile’ has been coded as a separate response since the 2011 survey. Previously such responses were included as part of ‘inattention/ lack of concentration’. For time series comparisons later in this report, a composite of the two responses has been used.
2. Current licence holders who drive a vehicle.
3. 1.4 or 1.5 standard drinks.
4. Between 7 and 8 standard drinks.
5. Please note this analysis is based on a relatively small sample size of 181.

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INTRODUCTION

Road crashes are a major cause of both injury and mortality for young adults. This paper presents statistics on comparisons between crashes involving the death of a young adult with those involving the deaths of older more experienced road users, as well as comparisons across time for the last decade. Significant improvements are evident in young adult fatality statistics in developed countries, and in Australia. Despite the improvements, young adults remain over-represented in crash statistics.

There has been a research focus on young adult road safety for over a decade. See for example ECMT (2006). Some of the increased risk carried on trips made by young or novice operators is due to both inexperience and immaturity, and further increases may be related to the interactions of these with peer passengers, night-time and weekend travel.

The structure of the paper is as follows: firstly, the international experience is summarised using the latest OECD and WHO statistics; next, a discussion around Australia’s states and territories’ licensing regimes is provided, and; finally an updated set of Australian statistics is presented. The comparisons are broad and based mainly on fatalities. It is hoped nevertheless that the statistical picture presented is informative and contributes to ongoing research.

INTERNATIONAL

Road crashes are a leading cause of death for young adults. In many developed countries this cause is

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ranked highest. Figure 1 shows the proportion of deaths attributed to road crashes for a selection of developed countries, WHO (2008). For more detail, and a wider selection of countries see IHME (2013).

In developing countries, the proportions attributed to road crashes are lower. This is due to comparative increases of disease/medical issues, and to other external causes including assault. See Figure 2.

In absolute numbers, each year worldwide there are 360,000 people aged 15-29 killed in road crashes, WHO (2008). This is around 11% of all deaths in that age group. The total number of people killed each year in road crashes is approximately 1.3 million, Lozano (2012). The next figure shows the changes in annual road crash deaths updated to 2010.

Since 2004, the reductions in developed (OECD) countries have been slightly more pronounced than the average reductions worldwide.

Comparing road crash deaths across age groups further, Figure 4 shows the spike during the young adult period. Total deaths by age group for 24 OECD nations across two years are shown.

Two main features shown in Figure 4 are firstly that between 2004 and 2010, there were reductions in deaths for all age groups, and secondly, the numbers of deaths of people aged 15 to 24 years remains around 10 per cent higher than those in the older 10-year age groups.

The peak during the young adulthood is expanded into single year bands in Figure 5 below.

Following licensure, the number of annual deaths increases rapidly and remains high through to age 24 years. Standardising by population within age groups, the issue is even more pronounced: the rate of annual road deaths per population for young adults is more than 50% higher than that for the total population (Figure 6).

The set of statistics presented in Figure 6 show that since 2004 there have been significant improvements in road deaths within the young adults age group (nearly 40% reduction to 2010). Despite this improvement, this group remains significantly over-represented in fatal crashes.

AUSTRALIA’S LICENSING SCHEMES FOR NEW DRIVERS

All states and territories have graduated licensing schemes that are based around a Learner period – with stringent conditions, and a Provisional period – with conditions that aim to give the holder more experience and more freedom. The last decade has seen evolution in the designs of most jurisdictions’ schemes and this evolution continues.


FIGURE 4: ANNUAL NUMBERS OF ROAD CRASH DEATHS BY AGE GROUP – OECD NATIONS 2004 AND 2010

FIGURE 5: OECD NATIONS – ANNUAL NUMBERS OF ROAD CRASH DEATHS AT EACH YEAR OF AGE

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Age and inexperience separately and combined are both associated with increased crash risk McCartt (2009). In addition, these factors interact with the ability to manage risk in high-load situations, such as night-time travel, and carriage of passengers. The focus of this paper is young adults rather than novice drivers, but clearly the experience gained as a driver transitions to full licensure will affect his/her ongoing risk management and driving safety. Australia’s and many other jurisdictions around the world have introduced extended learner periods and sets of restrictions on provisional licence holders that aim to increase drivers’ skills before situations are encountered that may increase risk to unacceptable levels.

Across Australia’s jurisdictions, the Learner period conditions and the rules for Provisional licence-holders vary considerably. Some of the variations in the Learner period relate to minimum tenure, numbers of supervised hours and vehicle speed limits. Learner period commonalities across Australia’s jurisdictions are the minimum age (16 years) and the BAC limit (zero). Similarly, variations exist in jurisdictions’ Provisional licence rules. Most have two stages (P 1 and P 2), with a minimum tenure in both.

Some also have restrictions on:
- Vehicle travel speed
- Use of high-powered vehicles
- Carriage of peer-aged passengers
- Night-time travel.

The more stringent regimes restrict the type of vehicle allowed to be driven, the time of day that carriage of peer passengers is allowed, maximum vehicle speed and hands-free mobile phone use. Less stringent systems do not include night-time travel restrictions or peer passenger restrictions.

It is not possible to evaluate all specific changes in Australia that have occurred in the last decade, but there are some recent published evaluations focusing on major changes in specific jurisdictions, for example Healy (2012). Also, in foreign jurisdictions, evaluations including meta-analyses are being published, for example Vanlaar (2009). These reviews demonstrate that significant improvements have occurred as a result of the changes to licensing rules, and highlight the most effective changes in terms of crash outcomes. These include minimum provisional age McCartt (2009), night-time restrictions Williams et al. (2010) and passenger carriage, Fell (2011).

Compared to a decade ago, in Australia today there are much more stringent rules for novice/provisional drivers. Fatality statistics over the last decade show that of all age groups, the young adult group (which includes almost all novice and provisional drivers) has


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<td>Total</td>
<td>1,715</td>
<td>1,603</td>
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seen the greatest improvement. The fatality outcomes are explored in greater detail in the next section.

AUSTRALIA’S YOUNG ADULT ROAD SAFETY STATISTICS

The age patterns in Australia’s road fatality statistics are similar to that of the OECD countries discussed in Section 1, and this section replicates some of those analyses. Only minimal information is presented for non-fatal injury. The age structure for these appears similar to that of fatally injured road users, but the data is older and the trend over the last decade is less clear.

The reductions in deaths over the last decade (to 2012) have been significant, especially in certain age groups – including young adults. During the last half of the decade, road fatalities decreased much faster than during the first half. The rate of deaths per population for young adults remains more than 50% higher than that of the general population.

Table 1 and Figure 7 present latest available data for Australian road deaths by age.

Over the last five years, the total reduction in annual deaths was 18%. In all age groups below age 55, the reductions have been larger. Figure 7 presents this information in a line chart. Three years are shown. Figure 8 standardises this by population.

FIGURE 9: ANNUAL ROAD DEATHS IN AUSTRALIA – TOTAL DEATHS AND 15-24 YEARS AGE GROUP

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Table 2: Annual road deaths in Australia by jurisdiction – 15-24 years age group

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<td>71</td>
<td>59</td>
<td>11</td>
<td>48</td>
<td>4</td>
<td>13</td>
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<tr>
<td>2012</td>
<td>81</td>
<td>64</td>
<td>65</td>
<td>17</td>
<td>37</td>
<td>3</td>
<td>4</td>
<td>2</td>
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</tr>
</tbody>
</table>

Average annual per cent change over decade: -4.7 -3.9 -5.1 -10.2 -4.4 -13.2 -4.7 -3.5 -5.2

Table 3: Annual road deaths per 100,000 population by jurisdiction – 15-24 years age group

<table>
<thead>
<tr>
<th>Year</th>
<th>NSW</th>
<th>Vic</th>
<th>QLD</th>
<th>SA</th>
<th>WA</th>
<th>Tas</th>
<th>NT</th>
<th>ACT</th>
<th>Aust.</th>
</tr>
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<td>21.1</td>
<td>22.2</td>
<td>15.8</td>
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<td>15.6</td>
</tr>
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<td>2004</td>
<td>12.6</td>
<td>13.7</td>
<td>17.5</td>
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<td>20.1</td>
<td>29.7</td>
<td>32.4</td>
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</tr>
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</tr>
<tr>
<td>2006</td>
<td>15.7</td>
<td>11.2</td>
<td>15.6</td>
<td>13.6</td>
<td>24.0</td>
<td>29.2</td>
<td>43.0</td>
<td>7.4</td>
<td>15.7</td>
</tr>
<tr>
<td>2007</td>
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<td>15.4</td>
<td>16.7</td>
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<td>18.4</td>
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<td>7.2</td>
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<td>2008</td>
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<td>9.7</td>
<td>13.1</td>
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<td>20.0</td>
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<tr>
<td>2010</td>
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<td>9.8</td>
<td>14.0</td>
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<td>2012</td>
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<td>10.3</td>
<td>7.7</td>
<td>10.9</td>
<td>4.6</td>
<td>11.3</td>
<td>3.5</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Average annual per cent change over decade: -5.5 -5.4 -6.9 -11.1 -6.6 -13.6 -6.5 -4.6 -6.5

Figure 9 focuses on the time trends. As can be seen in Figures 7, 8 and 9, the reductions for young adults have been significant, especially in the last five years. Since 2007, young adult road deaths have declined by 29%. This contrasts with a decline for all Australian road deaths of 18%.

Road deaths by individual year of age are given in Figure 10.

Like in Figure 5 (OECD), numbers of deaths increase through the late teen years and peak around ages 18 to 19. Non-fatal injuries are presented in Figure 11, AIHW (2012).

The age pattern in hospitalisations is very similar to fatalities (Figure 7), but the trend is increasing rather than decreasing.

Jurisdictional young adult counts and rates per population are presented in Tables 2 and 3 respectively. There are strong declines in all jurisdictions except the Northern Territory and the Australian Capital Territory. The fitted lines used for the average annual reductions are based on relatively noisy data for these smaller jurisdictions.

The remaining comparisons mostly compare the first half of the last decade with the second. Crash characteristics are presented, showing both change over

FIGURE 10: ANNUAL NUMBERS OF ROAD CRASH DEATHS AT EACH YEAR OF AGE
time and young adult versus total. More detail is found in MUARC (2009).

Males account for 72% of deaths in total (unchanged over the decade), and 75% of young adult deaths.

Compared to all fatalities, fewer young adults are pedestrians and more are vehicle occupants. The respective proportions have not changed over the decade.

Table 5 looks at the type of fatal crash (single vehicle or multiple vehicle) for vehicle occupant deaths.

The distributions have not changed over the decade but young adults have a greater proportion of single vehicle crashes.

The final two analyses look at time of day and week. Defining ‘night-time’ in Figure 13 as 9 pm to 5 am, such crashes account for around 28% of all fatal crashes, but approximately 40% of crashes involving the death of young adults.

In Figure 14, the week is divided into 28 six-hour blocks, and the percentage of fatalities within each is shown. The ‘Night’ in this figure category is from 9 pm one day to 3 am the next.

Looking at the distribution of all fatal crashes, an over-representation occurs in the ‘Evening’ period (3 pm to 9 pm) (where most of the peaks occur in the green series). For crashes in which young adults die, there is a strong bias towards Friday and Saturday nights (red).

This paper uses available fatality data to highlight some recent key statistics on young adults road safety outcomes. There are clear differences in the crash risk of young adults versus older road users, and these differences result in distinct crash characteristics and higher crash counts. It is clear however that declining trends in fatalities are evident in the raw counts.

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ‘Young adults’ is a term used here for a person aged approximately between 15 and 25 years. Depending on the focus of the analysis and on data availability, ‘young adults’ are those with ages approximately within this age band.</td>
</tr>
<tr>
<td>2. The relevant Global Burden of Disease (WHO) data is provided for the 15-29 years age group.</td>
</tr>
<tr>
<td>3. The 29 countries included account for 88 per cent of the total deaths across all 34 OECD nations. Age-specific data was not available for the remaining five countries.</td>
</tr>
<tr>
<td>4. Australian road crash fatality data is sourced from Department of Infrastructure and Regional Development (2013). Population data are sourced from ABS (2013).</td>
</tr>
</tbody>
</table>

**REFERENCES**

- Healy (2012), Healy, D., Catchpole, J. & Harrison, W., Victoria’s...
graduated licensing system evaluation interim report, Melbourne: Vicroads 2012.


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Accidental injury and death: young people and road traffic accidents

DATA FROM THE AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE

In 2010-11, hospitalised injuries from land transport accidents were more common for males, especially for teenagers and young adults (see Figure 6.18). Injuries for young males aged 15-19 (609 per 100,000) were more than double those for young females (276 per 100,000) and almost double those for 45-49 year old males (329 per 100,000) (AIHW: Pointer 2013).

Age and inexperience separately or combined are associated with the higher death rate [of young people] as well as risky driving behaviour, including speeding, driving when fatigued, and driving under the influence of alcohol or drugs.

Transport injury rates for Aboriginal and Torres Strait Islander young males (15-19 years) were higher than for non-indigenous young males (809 and 614 per 100,000 population respectively).

Young men are significantly more likely than the rest of the population, including young women, to be killed or injured in a motor vehicle accident. In 2012, young males accounted for three-quarters of road transport accident deaths involving young people, with death rates over twice as high among males as females (13 and 5 per 100,000 respectively) (Figure 6.19).

In 2012, almost half (47%) of 15-24 year olds killed in a vehicle accident were the driver; around 28% were passengers. The rest were motorcycle riders (13%), pedestrians (9%) or cyclists (0.7%) (Department of Infrastructure and Regional Development 2013).

Young men are significantly more likely than the rest of the population, including young women, to be killed or injured in a motor vehicle accident.

Young people differ from the general population in that their fatal vehicle accidents occur more often at weekends or at night. Age and inexperience separately or combined are associated with the higher death rate as well as risky driving behaviour, including speeding, driving when fatigued, and driving under the influence of alcohol or drugs (AIHW 2011b; BITRE 2013).
Overall (all ages) injury and death rates from road accidents are slowly falling and fewer deaths of young people are part of this decline. In 2012, there were 272 road deaths for the 15-24 age group, a rate of 9 per 100,000, which is a substantial fall from 34 per 100,000 rate of 1989 (when there were 928 deaths) (Australian Road Deaths Database). The decline is the collective result of a range of factors, including better roads, safer vehicles, a legal requirement to wear seatbelts and random alcohol and drug testing of drivers.

For the period 2005-06 to 2009-10, fatal land transport injury rates for indigenous young people tended to be higher than for other young people. The greatest disparity between indigenous and non-indigenous young people was among 15-19 year old males (35.2 compared with 16.6 per 100,000 population) (AIHW: Henley & Harrison 2013). This may be explained, in part, by the fact that more indigenous people live in Remote and Very remote areas where local factors can include greater distances travelled, higher speed limits, lack of public transport, and poor roads (Thomson et al. 2009).


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What happens to your body in a crash?

Road crashes are uncompromising affairs, which is why they kill such large numbers of people each year. What really happens when you crash your car? Why do some people get badly injured – or worse – in a seemingly simple prang? David Washington from the GEARED website takes a close look at the ugly anatomy of a road crash.

The hard truth: people are soft and cars are hard

Take a look around when you’re next in the driver’s seat. Think about your steering wheel, windscreen, windows, the dashboard and the pillar between the two side windows.

While 30 or 40 km/h seems slow in your car, that’s about the same speed that you travel when you’re going flat out on a bicycle.

Imagine a thick sheet of glass whacking you in the head at that speed.

Road crashes are uncompromising affairs, which is why they kill such large numbers of people each year.

What happens to you in a crash?

Crashes are all different and there are many different factors that can affect the severity of the injury – the kind of crash (rollover, head-on etc), the speed you’re driving at, whether you’ve got air bags, whether you’re wearing a seatbelt, whether you’re the passenger or driver, whether you hit a solid object or a car and much more.

Researchers at Monash University’s Accident Research Centre in Melbourne have been working with government departments, major car companies, insurers and others to collect masses of info about road crashes in Australia that have caused serious injuries to drivers and passengers.

They’ve looked at over 390 road crashes in fine detail and, while they’ve still got a lot more work to do, they have come up with some interesting facts and figures.

They have collected info on what parts of people’s bodies are injured in the different types of crashes and how the injury happened, right down to which bit of the car smacked into which bit of the body. Below is a summary of some of their work.

All crashes

Just under half of all crashes involved a vehicle hitting another vehicle, with the next biggest category being crashes into hard, immovable, narrow objects (poles and the like).

Road crashes are uncompromising affairs, which is why they kill such large numbers of people each year.

The severity of injuries was rated and the results are pretty scary. To put it in perspective, hospitals rate ‘major trauma’ as a score of 15 or above and the average score for these crashes was 14.6. Males tended to be more severely injured than females.

Head injuries were suffered by 39 per cent of people in the study, with severe injuries suffered by almost half of these. Two thirds of people suffered chest injuries and just under half of these were severe.

On average, the most severe injuries occurred in multiple-impact crashes where the car also rolled, and in side impact crashes.
Stats show us exactly how people are crashing on the road. The top five crashes are listed below.

Some are common in fatal crashes and some in minor crashes.

1. **The rear-ender**: The most common crash in Australia – it’s why tailgating is such a problem.
2. **The side-on crash**: Otherwise known as getting ‘T-boned’.
3. **The head-on**: Two cars whacking into each other – head to head.
4. **Running off the road on a straight stretch**: This happens when people are speeding. Tiredness and distraction are also problems and this type of crash can also often occur when drivers swerve to miss something on the road. One third of all P plate crashes happen when there’s nobody else involved in the crash – just you, your car and something to hit.
5. **Running off the road on a curve**: This is usually caused by going too fast, although being tired or getting distracted can also be factors. Unfortunately, you can encounter a range of immovable objects in this kind of crash – trees, electricity poles and more. And this is a big problem.

People injured in road crashes often end up in hospital, with a lengthy rehabilitation ahead of them and some people never fully recover. Of course, many people don’t survive.

### Front-on crashes

The damage: Belted drivers and passengers typically suffered chest and lower limb injuries. Those not wearing seatbelts often had severe head and facial injuries and more severe damage to their chest and lower extremities (this includes the pelvis, legs and feet).

How does it happen? The severely injured crash victim typically hits the steering wheel and instrument panel. The study shows that injuries are far worse for those not wearing seatbelts.

### Side-on crashes

The damage: Side-on crashes can cause serious injuries at relatively low speeds (an impact at 30 km/h can cause severe injuries). For people on the struck side of the vehicle, severe injuries were most commonly inflicted to the person's chest, followed by the lower extremities, head and abdomen/pelvis (this means the contents of the pelvis – your insides). For people on the non-struck side, severe injuries were most commonly suffered to the head, followed by the chest.

How does it happen? On the struck side, severely injured people are most commonly hit by the door panel. For non-struck side occupants, severely injured people most commonly hit the driver or person next to them and then the ‘B pillar’ on the rebound – the upright pillar immediately behind the front door, where the seatbelt is anchored.

### Rear crashes

The damage: Severe injuries were most commonly suffered to the chest, head, neck and spine.

How does it happen? People are severely injured by the whiplash effect – whiplash is thought to result from the movement of the head forwards and then backwards very quickly.

### Multiple impacts and rollovers

The damage: When a vehicle hits more than one other vehicle or object, or when it rolls over, the damage can be severe. The highest proportion of these crashes in the study involved a vehicle rolling over and then hitting a tree, or hitting a tree and then rolling over.

Rollovers most commonly caused severe injuries to the upper extremities followed by the chest. Head and face injuries were also common. In multiple-impact crashes, the most severely injured people commonly had upper (hands, arms and shoulders) and lower extremity injuries, followed by chest, abdomen/pelvis, and head and face injuries.

How does it happen? In straightforward rollovers (not hitting anything else), people are most commonly injured by hitting the doors and the roof. People are also hurt when their body is ejected from the vehicle. In rollovers where the car hits something, people are commonly injured by the door, the floor, an object other than their car and the steering wheel. You get the picture that if you’re not wearing a seatbelt you would be tossed around helplessly inside the car. For multiple-impact crashes, severe injuries are most commonly caused by the person hitting the instrument panel, followed by the door.

### Bottom line

People injured in road crashes often end up in hospital, with a lengthy rehabilitation ahead of them and some people never fully recover. Of course, many people don’t survive. Wearing a seatbelt is the simplest and most effective way to reduce the risk of injury in front-on crashes and many other types of crashes. There are other safety devices, such as airbags, that can also reduce the severity of injuries in a crash, while others, such as electronic stability control – or ‘ESC’ – can actually reduce the possibility of a crash occurring.

The truth is that most crashes can be avoided altogether through safe driving.
Young drivers and road safety

Road crashes are one of the leading causes of injury, disability and death among young Australians. Here is a list of the key risk groups and driving behaviour factors to consider.

GROUPS AT HIGHEST RISK
- Young children (passenger or pedestrian)
- Males aged 15-24 years (drivers and passengers)
- Drivers who speed and/or drink drive (road crashes)
- Indigenous young people
- Young people living in rural and remote areas.

RISK FACTORS
- **Brain development**: the areas in the brain which are responsible for self-control and hazard recognition and management do not fully mature until adulthood, predisposing young drivers towards experimentation and dangerous risk taking.
- **Driving inexperience**: often young drivers don’t realise that it takes lots of time and practice to develop safe driving skills.
- **Disobeying road rules**: particularly speeding, tailgating, failing to give way, not wearing seatbelts. Speeding is the major cause of road crashes, and speed-related crashes are more likely to result in fatality.
- **Overconfidence**: young drivers can be overconfident about their driving ability and underestimate dangers on the road.
- **Speeding**: some young drivers mistakenly believe they are sufficiently skilled to control the vehicle at high speeds. Some see speeding as socially acceptable and are more likely to speed in their local area.
- **Passenger distractions**: young drivers may be distracted by other people in the vehicle – especially by peer-aged friends – or may feel extra peer pressure to show off and take risks, such as speeding.
- **Use of mobile phones**: using a mobile phone while driving (especially texting), is highly distracting.
- **Alcohol and other drugs**: alcohol and other drugs affect a driver’s skills, mood and behaviour. Safe driving requires clear concentration, good judgement and the ability to react to what is happening on the road. For young drivers the risks are greater because of their inexperience both with drinking alcohol and driving. They are more affected by alcohol and experience an increased risk of crashing even with lower blood alcohol content (BAC).
- **Fatigue**: young drivers may drive when they are fatigued, which can be associated with lifestyle patterns such as driving late at night and combining study and work.
- **Driving at night and on weekends**: young people differ from the general population in that their fatal vehicle accidents occur more often at weekends or at night.
- **Rural areas**: crash risk is higher amongst young drivers in rural areas, due to factors such as lack of alternative transport, greater travelling distances and higher speed limits on rural roads.
- **Driving older and less safe vehicles**: older, cheaper cars in a poor condition are more likely to be driven by young people, and often lack the latest safety features in crash protection, such as airbags.

INFORMATION COMPILED FROM THESE SOURCES:
Since AAMI’s first *Young Driver Index* launched in 2001 with the aim of informing and educating the community about the attitudes and behaviours of young drivers aged 18 to 24 years old, a raft of new challenges have emerged for both drivers and policy makers.

Never have there been more distractions vying for a driver’s attention: text messages, phone calls, sat navs and internet the most prevalent. Despite countless lives lost and damaged because of distractions, young drivers are the most likely to send that SMS or answer that call.

Young drivers are also the most likely to admit to getting behind the wheel while probably over the limit or taking recreational drugs.

While no one would ever call young drivers perfect, they often unfairly get labelled as ‘speed demons’ and ‘aggressive drivers’. AAMI’s research, though, shows that drivers aged 25 to 49 years old are actually the most likely to speed and display aggressive driving behaviours on the road. Part of growing up is to learn from our own and others’ mistakes. Unfortunately, on the road those mistakes can be very costly indeed. While the majority of young drivers are doing the right thing, most of the time, there is still much to do to ensure Australia’s young drivers become Australia’s older drivers.

Apart from blaming other drivers, the top causes of accidents amongst young drivers are carelessness, loss of concentration, bad weather, poor roads and safety infrastructure such as signage, congestion and distraction from both within and outside their cars.

### THE LATEST SURVEY ON YOUNG DRIVERS AND ROAD SAFETY, FROM AAMI

**Types of Accidents Experienced by Young Drivers in the Last Five Years**

- **Two-vehicle collision**: 25%
- **Single vehicle**: 17%
- **Collision with an inanimate object**: 14%
- **Minor ding in a car park or at an intersection**: 6%
- **Three or more vehicle collision**: 4%
- **Collision with an animal**: 3%
- **Something else**: 3%

### Young Drivers Crash ... A LOT

A third of all young drivers have experienced a crash in the last five years, a higher accident rate than any other age group, despite many of them having been driving less than five years. A large majority of those accidents were avoidable, by the driver’s own admission. So, as the largest national car insurer in Australia, AAMI has to ask the question:

**Why are young drivers crashing more than anyone else, and what can we, as a community, do about it?**

All drivers that have experienced an accident in the last five years:

- **18-24 yrs**: 33%
- **25-49 yrs**: 27%
- **50+ yrs**: 20%

Young male and young female drivers that have experienced an accident in the last five years:

- **Male**: 31%
- **Female**: 35%
Young drivers are more than twice as likely to make a phone call without a hands-free kit while driving than motorists aged over 50, and the statistics don’t get much better when it comes to other technological distractions on the road. Younger drivers are more than four times more likely to send a text message while driving, and more than five times more likely to use the internet or read an email while driving than drivers aged over 50.

However, since the 2005 Young Driver Index, the numbers have at least been moving in the right direction.

While young men might receive a lot of attention for their risk taking behaviour, in many cases young women are the most likely to be multi-tasking on the motorway.

**What young people think about drink and drug driving ...**

It’s OK for me to drink and drive after a few drinks as long as I feel capable of driving 13%

Driving after using recreational drugs is safer than driving after drinking alcohol 13%

Using a little amount of recreational drugs before driving doesn’t really affect your driving 8%

**DRINK AND DRUG DRIVING**

Alarmingly, 15 per cent of young drivers admit to driving while probably over the limit over the last year, and seven per cent admit to driving having taken recreational drugs such as marijuana, cocaine, speed or ecstasy.

But, these shocking statistics have improved since AAMI first introduced this question into the Young Driver Index in 2002. Worryingly though, the number of young women who admit to driving when probably over the blood-alcohol limit has almost doubled in ten years.

Young men are nearly twice as likely to have had a drink driving infringement than young women (22% compared to 13%).

In the past year I have driven while probably over the drink-drive limit:

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>All young drivers</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>Male young drivers</td>
<td>29%</td>
<td>16%</td>
</tr>
<tr>
<td>Female young drivers</td>
<td>9%</td>
<td>7%</td>
</tr>
</tbody>
</table>

In the past year I have driven having taken recreational drugs, such as marijuana, cocaine, speed or ecstasy:

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>All young drivers</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Male young drivers</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Female young drivers</td>
<td>12%</td>
<td>5%</td>
</tr>
</tbody>
</table>

In the past year I have driven while probably over the drink-drive limit:

<table>
<thead>
<tr>
<th></th>
<th>NSW</th>
<th>VIC</th>
<th>QLD</th>
<th>WA</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>14%</td>
<td>13%</td>
<td>16%</td>
<td>17%</td>
<td>18%</td>
</tr>
</tbody>
</table>

In the past year I have driven having taken recreational drugs, such as marijuana, cocaine, speed or ecstasy:

<table>
<thead>
<tr>
<th></th>
<th>NSW</th>
<th>VIC</th>
<th>QLD</th>
<th>WA</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>9%</td>
<td>4%</td>
<td>7%</td>
<td>4%</td>
<td>7%</td>
</tr>
</tbody>
</table>

While young people’s attitude to drink and drug driving has clearly improved over time, there are still a worrying number of young people getting behind the wheel who do not seem to comprehend that their actions have consequences that reach far and wide.
RACING AGAINST TIME

If you want to know why Australia’s young drivers crash, and which areas still need to be tackled, you simply can’t ignore the issue of speeding. This is despite decades of concerted effort at all levels to change attitudes towards speeding. No matter what the community does to try to stop people speeding, some young people will see just how far they can push boundaries.

Speed is a contributing factor to one third of fatal crashes on Australian roads. So, it should be no surprise that young men are over represented in the nation’s crash statistics when you consider their attitudes about speeding, and how those behaviours manifest.

However the finger should not be pointed exclusively at young drivers in this instance. Drivers with more experience on the road, who should know better, are equally as guilty when it comes to speeding while driving.

AGGRESSIVE DRIVING

There is very little difference between the age groups in attitudes and behaviours when it comes to aggressive driving. But, young drivers are the most likely to tailgate another driver, an action that robs them of reaction time and makes them more likely to have a fender bender. Despite having the least experience on the road of any age group, more than a third readily admit to being an impatient driver.

A majority of young drivers have experienced some form of road rage, yet may not be prepared for how to deal with it. Being the victim of road rage can be a terrifying experience, and can seriously affect confidence on the road.

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KEY FINDINGS

- More young drivers have reported having an accident over the last five years than any other age group. This is despite many having been driving less than five years.
- Apart from blaming other drivers, the top causes of accidents amongst young drivers are carelessness, loss of concentration, bad weather, poor roads and safety infrastructure such as signage, congestion and distraction from both within and outside their cars.
- Young drivers are the most likely to have either called, texted or used the internet on their mobile phones while driving over the last 12 months.
- It is more common for young women to multi-task while driving than their male counterparts, but young male drivers are still more likely to speed, read emails, drive with too many people in the car and drive after drinking or taking drugs.
- However, young drivers are far less likely to drive while probably over the limit than their counterparts 10 years ago, with only 15 per cent admitting to this particular crime compared to 21 per cent in 2002.

More training needed

Young drivers tend to crash more, exhibit more risky driving behaviours and not embrace the safe driving attitudes that could save their and other motorists’ lives. However they are self-critical, with one in five admitting they weren’t confident in their own driving abilities when they first started driving solo. They want more training and identify a lack of driver education and skill as the single greatest factor leading to safety issues on Australian roads.

I felt confident in my abilities when I first started driving on my own 20%

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<td>51%</td>
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Top five greatest factors leading to safety issues on our roads according to 18-24 year olds:
1. Lack of driver education and skill
2. Alcohol and drug use
3. Dangerous overtaking, lane changes or running red/amber lights
4. Speeding
5. Distractions
6. Bad roads

What do young drivers want in order to better prepare them for a lifetime of safe driving?
- Compulsory for all young drivers to do a safe driving course 75%
- Zero tolerance for P-Plate drivers caught speeding 59%
- Tougher penalties for unsafe driving behaviour 46%
- Longer probationary periods and more skills testing 28%

What to do?

Sadly there is no magic bullet to get young drivers to stop crashing in greater numbers than anyone else. It is a problem that has been tackled by communities the world over for decades.

However, AAMI’s research shows that young people themselves want greater levels of training as part of their licensing requirements, and rank lack of driver education as skill as the greatest safety issue on our roads.

Courses like the AAMI Skilled Drivers course certainly help to bridge this gap. But, it’s up to all drivers to educate and set a good example on the road for those with less experience and who are still learning the consequences of their actions.

ABOUT AAMI SKILLED DRIVERS

Inexperience and poor decision making is a contributing factor to many crashes, and so since 1982 AAMI has run its Skilled Drivers course. AAMI is committed to providing young drivers with a better understanding of what it takes to be a safer driver.

The one-day course is a mix of theory and practical, and helps young drivers understand how common crashes occur, and how to avoid them in the future.

The AAMI Skilled Drivers course is free for AAMI comprehensive car insurance policy holders under 25 years old, and also to the children or grandchildren of AAMI comprehensive car insurance policy holders. For those who complete the course, AAMI also offers to reduce their comprehensive car insurance policy premium by 10% until they turn 25.

NOTES

1. About the 2012 Young Drivers Index Research: Newspoll Market & Social Research conducted an independent internet survey of 3,706 Australians, 18 years of age and older, across all states and territories in 2012. Collected data has been weighted in line with current ABS population demographics to ensure any extrapolation of results is representative of age, sex and area.

Young people taking risks in the driver’s seat

An Institute of Family Studies report has found young Australians in their mid-twenties are involved in risky driving behaviour including speeding; drink driving; not wearing a seatbelt; being under the influence of an illegal drug and using a mobile phone while driving.

The report In The Drivers Seat II – Beyond The Early Driving Years by the Australian Institute of Family Studies also found a marked increase in the level of drink driving among young people, up from 14 per cent when they were aged 19-20, to 23 per cent by the time they were 23-24.

The study – a collaborative research project with the Victorian Transport Accident Commission (TAC) and the RACV – reflects the driving habits of 1,000 Victorians aged 23-24, as part of the Australian Institute of Family Studies’ Australian Temperament Project. The research was carried out in two waves, four years’ apart, when the participants were 19-20 and 23-24.

The study showed 60 per cent of the 23-24 year olds had been involved in a crash while driving since gaining their licence, and more than 80 per cent had exceeded the speed limit during recent stints behind the wheel.

About two-thirds of young Australians aged between 23-24 had also driven while very tired or used a mobile phone to send or receive text messages while driving, with a further 55 per cent having talked on a hand-held mobile.

One in five had driven near – or over – the legal limit for alcohol use during the previous month.

One in five young Australians had driven near – or over – the legal limit for alcohol use during the previous month.

Institute Director Professor Alan Hayes said the study provided valuable insights into young people’s driving behaviour patterns.

“Early adulthood can be a period of considerable risk-taking when the prevalence of substance abuse reaches a lifetime high, yet relatively little is known about drivers in their mid-twenties. We wanted to find out if people who engage in drink driving are more likely to engage in other types of risky driving and this was found to be true,” he said.

“Speeding, driving without a seatbelt, driving while fatigued, and driving under the influence of an illegal drug or while on a mobile were all considerably more common among young drink drivers than among other young drivers,” Professor Hayes said.

“Risky driving appears to be one element of a risk-taking lifestyle for a number of young people,” said the project’s lead author, Institute Research Fellow Suzanne Vassallo.

“The study aims to inform intervention efforts targeted at reducing risky driving among young drivers by providing valuable new evidence about the driving experiences and practices of young adults, and the personal, family and environmental factors associated with differing profiles of driving behaviour,” Ms Vassallo said.

“We also looked back to see if young people’s driving behaviour had improved. The last time we checked in with them, the study sample was aged 19-20. Comparing their behaviour then and now, we found that while there are signs of a small decline in risky driving overall, there was still a sizable increase in...
drink driving. This is dangerous because alcohol increases a driver’s risk of crashing six-fold.

“We found that parents can play an important role in their kids’ driving behaviour through the advice and support they give when young people buy a car.”

The report’s co-author Samantha Cockfield, the Road Safety Manager with the TAC said: “This study is invaluable to increasing our understanding of not only the way young people behave on the roads but also the key influencers in their lives such as parents, schools and their peers.”

“Young people who’ve been involved in multiple crashes as drivers had also been engaged in speeding or had driven when very tired.”

“It helps road safety agencies like the TAC to develop new initiatives targeted at reducing risky driving among young drivers who continue to be over-represented in our road toll. Nationally, drivers aged from 17 to 25 represent around 24 per cent of deaths, despite representing only 13 per cent of the driver population,” Ms Cockfield said.

The RACV’s Chief Behavioural Scientist Anne Harris – another co-author of the report – said: “Young people who’ve been involved in multiple crashes as drivers had also been engaged in speeding or had driven when very tired.”

**Overall trends:**
- Sixty per cent of young people had been involved in a crash, with crashes resulting in property damage the most common and crashes resulting in injury and death rare.
- More than half had been caught speeding and about one in seven had come into police contact for a driving-related offence in the past 12 months.
- More than 80 per cent had exceeded the speed limit by up to 10 kilometres on at least one of their ten most recent trips and close to half by 11-25 kms per hour on at least one occasion.
- About two thirds had driven when very tired or used a mobile phone to send or receive text messages when driving and around half had talked on a hand-held mobile.
- Other types of risky driving, such as driving affected by illegal drugs, were less common and ranged in incidence from two per cent to 14 per cent.

**Gender differences:**
- Young men were more likely to have been apprehended for a driving offence than young women.
- Young men were more likely to engage in several unsafe driving practices than young women including moderate and high-level speeding, and driving under the influence of alcohol.
- Young women were more likely to drive when tired.
- A higher percentage of young men than young women had driven when near or over the legal alcohol limit.

**City and country differences:**
- Young people in metropolitan areas had more often been involved in a crash and had experienced more crashes on average than non-metropolitan 23-24 year olds.
- Rates of hands-free mobile use were higher among young people who live in metropolitan areas than those outside.

About two thirds of young people had used a mobile phone to send or receive text messages when driving and around half had talked on a hand-held mobile.

- Non-metropolitan drivers were more likely to report that they’d not worn a seatbelt when driving for part of a trip.
- There were no significant difference in rates of drink driving, but avoidance strategies differed with young country people leaving the car behind and those in the city were more likely to alter their drinking habits.
behaviour, with one exception – those in high-status occupations were less likely to engage in drink driving after making plans to avoid doing so.

**Education level differences:**
- Young people with a university degree were less likely to have had their licence cancelled or suspended than those with another type of post secondary qualification.
- Those with secondary education levels were more likely to have been fined or charged.
- Young people with university degrees had been caught speeding on fewer occasions.
- Young people with university degrees were less likely to have friends who were drink drivers or to drink drive themselves after making plans not to.
- To avoid drink driving, those in the post secondary group were more likely to abstain from drinking while university educated young people were more likely to arrange alternative transport.

**Risky driving over time:**
- Comparing the study members when they were 19-20 to now at 23-24 showed a modest decrease in speeding over this time.
- Rates of drink driving increased substantially over this time period from 14 per cent at 19-20 to 23 per cent at 23-24.
- Fewer young people drove without a seatbelt in their mid twenties than when they were 19-20.

Young drink drivers were 9.5 times more likely than their peers to have driven when affected by ecstasy and about six times more likely to have driven when affected by marijuana.

**Stability of different types of risky driving among individuals:**
- The great majority of young people who didn’t engage in risky driving aged 19-20 continued not to do so at 23-24. Only four per cent of 19-24 year-olds who didn’t engage in high-level speeding, drive while affected by an illegal drug or drive without a helmet, did so at 23-24.
- About a quarter of those who had often engaged in risky driving behaviour at 19-20 weren’t doing it any longer by the age of 23-24, and half were engaging in the behaviour less often.

**Co-occurrence of drink driving and other types of risky driving:**
- While rates of driving when affected by an illegal drug were low overall, young drink drivers were 9.5 times more likely than their peers to have driven when affected by ecstasy and about six times more likely to have driven when affected by marijuana use and 4.5 times more likely to have driven when affected by amphetamines.
- Rates of speeding and driving without a seatbelt were also much higher among young drink drivers, with drink drivers being four to five times more likely than their peers to engage in these behaviours on a recent driving trip.

**Comparison of substance use among high-level risky drivers and other drivers:**
- Young people who engaged in high or moderately high level risky driving tended to have higher rates of substance use at 23-24 than young people of the same age who rarely engaged in unsafe driving.
- Binge drinking, marijuana use, ecstasy use and amphetamine use were more prevalent among the high and moderate level groups than the low level group.
- Strong links were found between risky driving and multiple substance use.

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DANGEROUS DRIVING BEHAVIOURS
SAFE DRIVING TIPS FROM SOUTH AUSTRALIA’S DEPARTMENT OF PLANNING, TRANSPORT AND INFRASTRUCTURE

INATTENTION

Inattention is an issue in both rural and metropolitan areas, for all age ranges and for both males and females.

Distractions can cause you:
• To straddle lanes on a multi-lane road or veer across the road
• To drive inconsistently, speeding up or slowing down without apparent reason
• Difficulty in maintaining appropriate safe following distances from vehicles in front (e.g. tailgating)
• Less awareness of safe gaps in traffic
• Slower reaction times and hence heightened crash risk
• Impairment of judgement.

Any lapse in concentration increases the risk of your vehicle being involved in a crash. To anticipate and avoid hazards on the road, you must give driving your full attention at all times.

Younger drivers having passengers in the vehicle is a distraction and coupled with peer pressure can increase the risk of a crash.

Dangerous driving, careless driving, failure to have proper control of the vehicle and causing the vehicle to make excessive noise or smoke are considered hoon-related offences involving the improper use of a motor vehicle.

Four main types of driver distraction

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<th>Description</th>
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<tr>
<td>Visual</td>
<td>The things you see</td>
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<tr>
<td>Auditory</td>
<td>The things you hear</td>
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<tr>
<td>Physical</td>
<td>The things you do with your hands</td>
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<tr>
<td>Cognitive</td>
<td>The things you think about</td>
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Dangerous driving or hoon driving is:
- Travelling at excessively high speeds
- Doing burnouts and doughnuts
- Street racing
- Deliberately or recklessly entering a level crossing when a train is approaching
- Carrying more passengers than there are seatbelts
- Repeat offences of unlicensed or disqualified driving
- Repeat drink or drug driving.

This dangerous driving behaviour places the safety of other road users at risk.

DO YOU WANT TO RISK IT ALL?

To help keep yourself and your passengers safe, you can:
- Keep your speed down, you will have more time to react to avoid a crash and reduce the severity if you do crash. Stay at least three seconds behind the car in front of you. Exceeding the speed limit and driving recklessly can be dangerous.
- Consider the weather conditions and reduce your speed accordingly. Extreme weather such as strong wind, storm, dust, fog and ice make driving a hazardous task.
- Make sure you and any other passengers in the vehicle are wearing their seatbelt, regardless of their age. It doesn't matter if you are only travelling a few kilometres. Most road crashes happen close to home. It does not make any difference if you are sticking to the posted speed limits or travelling very fast because a crash at 40 kilometres is like falling from a two storey building onto concrete.
- Don't drink and drive. Alcohol and drugs reduce your ability to drive safely and increase your risk of a crash.
- Think about your safety and the safety of your passengers, every time you drive. Showing off can be fatal. Dangerous driving, careless driving and failure to have proper control of the vehicle places you and other road users at risk.
- Buy the safest car you can afford. You can reduce your chances of being hurt in a crash if your vehicle has a high safety rating.

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Even though the NSW road toll has dropped from more than 1,200 each year in the 1970s to less than 500 (based on the 2008 road toll and the preliminary figures for 2009), speeding remains an ongoing problem.

In the 1970s and early 1980s, drink driving was Australia’s biggest road safety challenge. However since random breath testing was introduced in 1982 there has been a change in community opinion – drink driving is not acceptable. If we can all adopt this attitude to speeding as well our roads will be a much safer place.

With the decrease in drink driving, speed has become the biggest road safety challenge for NSW.

THE SIZE OF THE PROBLEM

In NSW speeding is a factor in about 40 per cent of road deaths. This means on average around 177 people die each year in speed-related crashes in NSW.

Speeding was a factor in the deaths of 857 people over five years 2006-2010. In addition to those killed, more than 4,100 people are injured in speed-related crashes every year.

Did you know each year around 700,000 speeding offences are recorded in NSW?

RISKY BUSINESS

It’s not that hard to work out that speeding increases the risk of a crash and the severity of the crash outcome.

The risk of causing death or injury in an urban 60 km/h speed zone increases rapidly even with relatively small increases in speed. If you are driving are 65 km/h in a 60 km/h speed zone you are doubling your chances of having a crash. At 70 km/h, your risk of having a crash is more than four times the risk at 60 km/h.

The risk of a crash when driving at 68 km/h in a 60 km/h zone is the same as driving with a blood alcohol level of 0.08. The risk of a crash when driving at 72 km/h in a 60 km/h zone is the same as driving with a blood alcohol level of 0.12.

A key issue in speeding-related crashes is that most motorists underestimate the distance needed to stop. A car travelling at 60 km/h in dry conditions takes about 38 metres to stop. A car travelling at 80 km/h needs an extra 20 metres.

THE MESSAGE IS SIMPLE: ‘DON’T RUSH’

In order to help raise awareness of the issue surrounding speeding Roads and Maritime Services launched the road safety speeding campaign ‘Don’t Rush’. The campaign focuses around the need to reinforce the crash consequences of speeding, and to contribute to an overall reduction in the road toll. It is important that communities are conscious of the emotional and physical impact on others road trauma has. Therefore the ‘Don’t Rush’ campaign also focuses on encouraging community caution amongst peers in speaking out against other in their peer group who don’t stick to the road rules.

Males in particular are the campaign’s primary focus, as they are overrepresented in speed-related crashes in NSW.

You can see the ‘Don’t Rush’ messages from Professor Owler and Testimonials spoken by real life crash survivors and their families on the Centre for Road Safety website at http://roadsafety.transport.nsw.gov.au/campaigns/dont_rush/index.html

The GEARED website is operated by Roads and Maritime Services, New South Wales.
THE FACTS
What is it?

While not everyone agrees about how aggressive driving should be defined, it is normally taken to include such behaviours as:

Minor:
- Shouting abuse
- Making obscene gestures
- Flicking lights on and off to get other drivers to move out of the way
- Deliberately braking or slowing suddenly to irritate others
- Giving a prolonged blast of the horn deliberately
- Driving too close behind another vehicle.

Severe:
- Pursuing another vehicle
- Swerving in front of another vehicle
- Trying to run another vehicle off the road
- Attempting to stop another vehicle
- Deliberately bumping another vehicle
- Getting out and approaching another road user
- Damaging or attempting to damage a vehicle
- Assaulting or attempting to assault another road user (i.e. pedestrians, cyclists and other drivers).

What do we know about it?
Research has helped us to understand that:
- Aggressive driving is linked with high levels of driving anger and/or general hostility.
- Aggressive drivers are more likely to:
  - Be involved in crashes
  - Be young men
  - Have high frustration levels and a low regard for others
  - Be competitive in nature, and
  - Tend to speed, drive impaired by alcohol and/or drugs and engage in other unsafe practices such as unlicensed driving and driving without a seatbelt.

- Aggressive drivers may also suffer from disorders such as conduct disorder, ADHD or intermittent explosive disorder.
- Research suggests that aggressive driving varies in degree across cultures and is likely to differentially impact on cyclists and pedestrians.

What causes it?
The causes of aggressive driving are complex. Aggressive road user behaviour is often the result of the driver’s frustration at being unable to progress unimpeded by traffic, but frustration can also be provoked by individual life events, emotional state, and driver behaviour. Some psychiatrists point to deep-rooted personal causes such as stress disorders that lead to impaired judgement. Social scientists have tended to see a connection between societal problems and uncivil or violent forms of driving behaviour.
‘Road rage’

This is not the same as aggressive driving. Road rage is a term used to describe violence associated with motor vehicle use. It refers only to the most severe form of driving aggression (i.e. assault/attempted assault). Though incidents of this type are severe, fortunately they are also uncommon. Surveys of drivers consistently show that only between 2 and 5% of drivers report being assaulted or attacked by another driver.

**TIPS FOR STAYING SAFE**

**Tips for reducing your own aggressive driving**
- Remember that getting angry at someone may make you feel worse than you do already.
- Don’t get into your car in an emotional state (angry, upset, aggressive, distracted) that may affect your driving or patience with other people.
- Remember that it is not someone else’s fault that you are running late.
- Consider how you may feel after you calm down.
- Be aware of the consequences for the person you harass. They may feel upset, frightened, and unsure about driving alone. There may even be small children in the car who do not understand what is going on.

**Avoiding becoming a victim**

If you’re being hassled by another driver, try not to react. Avoid making eye contact and do not accelerate, brake, or swerve suddenly.
- If a driver continues to hassle you or you think you are being followed, lock your door and drive on to the nearest police station or busy place for help.
- When stopped in traffic, leave enough space to pull out from behind the car you are following.
- If someone tries to get into your car, attract attention with your horn.
- Do not be tempted to start a fight and do not be tempted to carry any sort of weapon. It may only provoke a potential assailant and could end up in his or her hands.

**Penalties for aggressive driving**

If you or another driver are driving aggressively, the offending vehicle’s registration number can be passed to the police along with an official report. Aggressive driving penalties may include a fine, loss of demerit points or licence disqualification. Assault, ‘reckless driving’ and ‘intentionally causing serious injury’ are criminal offences and serious incidents may involve a jail term.

**CARRS-Q’S WORK IN THIS AREA**

CARRS-Q has an active research program examining aggressive driving, including:

1. **Where does driver aggression begin and end? The on and off-road factors associated with aggressive driving.**

   This project:
   - Explores the nature of aggressive driving in Queensland
   - Explores the person-related and situational factors contributing to aggressive driving behaviour by young drivers
   - Addresses the subsequent displacement of aggression to and from the on-road environment
   - Develops a model of aggressive driving behaviour, and
   - Informs the design of appropriate driver education modules.

2. **Developing and testing a comprehensive model of aggressive driving.**

   This project:
   - Examines triggers for aggressive driving, thoughts and emotions experienced during aggressive driving incidents and driver aggressive responses to on-road events
   - Further develops the model of aggressive driving.
The causes of aggressive driving are complex. Aggressive road user behaviour is often the result of the driver's frustration at being unable to progress unimpeded by traffic, but frustration can also be provoked by individual life events, emotional state, and driver behaviour.

driving being developed at CARRS-Q, and
- Tests the model using ordinary drivers and the CARRS-Q advanced driving simulator.

FUTURE DIRECTIONS
- Further research on the contexts for aggressive or risky driving
- The development of an effective public education campaign
- The development of a driver education intervention for repeat aggressive drivers
- Further research on effective enforcement countermeasures
- Road engineering improvements to reduce driver frustration and improve victim safety
- The development of intelligent transport systems applications.

This fact sheet is a community service provided by CARRS-Q. Not all of the research included in this fact sheet was provided by CARRS-Q. For research authors, please see the reference list below.

REFERENCES

The CARRS-Q fact sheets are regularly updated. For the latest versions please visit www.carrsq.qut.edu.au

MOBILE PHONE USE AND DISTRACTION WHILE DRIVING

Fact sheet from the Centre for Accident Research and Road Safety – Queensland

> Distraction has been identified as a contributing factor in 22% of car crashes and near crashes\(^1\) and 71% of truck crashes (and 46% of near crashes) in naturalistic driving studies.\(^3\)
> Using a mobile phone whilst driving is highly distracting and increases your risk of a crash four-fold.\(^3\)
> Despite the dangers and illegality, approximately 25% of surveyed Queensland drivers reported using their hand-held mobile phone on a daily basis to answer or make calls, as well as read text messages, while 14% reported using their hand-held phone to send a text message on a daily basis.\(^4\)

THE FACTS

- Driver distraction is identified as one of the main causes of road crashes, estimated to account for approximately one quarter of car crashes.\(^1\)
- Using a mobile phone while driving (especially texting), is highly distracting.
- A person using a hand-held or hands-free mobile phone while driving is four times more likely to have a serious crash resulting in hospital attendance.\(^3\)

The prevalence of mobile phone use

- A 2011 government survey\(^6\) found that 93% of Australian drivers owned a mobile phone and, of these drivers, 59% reported using their mobile phone while driving, with 31% of drivers reading, and 14% sending, text messages while driving. In addition, the study found that only 28% of drivers surveyed reported using a hands-free kit indicating that a large amount of mobile phone use while driving is conducted on hand-held mobiles.
- In Australia, young adults have the highest level of general mobile phone use, with the age groups of 18 to 24 years and 25 to 39 years reporting the highest percentages of 94% and 91%, respectively.\(^7\) These age groups are also more likely to use a mobile phone while driving than older drivers, with three-fifths of Australian drivers aged between 18 and 24 years reporting that they had sent or received a text while driving compared with one third drivers aged over 25 years.\(^8\) Mobile phone use, and particularly texting while driving, represents an increased safety risk for young drivers.
- Despite legislative bans, between 39%\(^9\) and 73%\(^10\) of Australian drivers report using a hand-held mobile phone at some time while driving.
- A QUT survey of nearly 800 Queensland drivers found that 77% reported using their mobile phone for any purpose while driving, with approximately 40% of the sample doing so on a daily basis (either hands-free or hand-held). Overall, 25% of drivers reported using their hand-held mobile phone to answer calls on a daily basis, 20% of drivers reported doing so to make a call, 27% to read a text message and 14% to send a text message.\(^4\)

A person using a hand-held or hands-free mobile phone while driving is four times more likely to have a serious crash resulting in hospital attendance.

Why is using a mobile phone while driving dangerous?

- Driving is a complex activity performed in an environment that is constantly evolving and involves the simultaneous performance of multiple subtasks. Despite this complexity, drivers often engage in additional activities that can take both their mind and their eyes off the road and their hands off critical vehicle controls.\(^11\)
- Data from naturalistic driving studies suggest that up to 22% of car crashes and near crashes\(^1\) and 71% of truck crashes (and 46% of near crashes)\(^1\) involve, as a contributing factor, distraction from non-driving related activities. The use of hand-held devices was found to contribute to 7% of

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those car crashes and near crashes. Inattention in the broader sense has been found to be a contributing factor in 78% of car crashes and 65% of near crashes. It has been estimated that 55% of all known sources of distraction are avoidable (61% of sources from within the vehicle and 31% of sources outside the vehicle).12

It is illegal in all Australian states and territories to use a hand-held mobile phone while driving. This includes talking, texting, playing games, taking photos or video and using other phone functions.

• Using a mobile phone while driving is distracting in the following ways:3
  - Physical distraction – as the driver’s hand is moved from the steering wheel to pick up the phone, answer or end the call, or type a message.
  - Visual distraction – as the driver’s eyes are diverted from the road to seek the phone, view the buttons, read a message, etc.
  - Cognitive distraction – even the best drivers have difficulty processing two or more pieces of information at the same time. Talking on a mobile phone while driving may cause lapses of attention, concentration and judgement as the driver’s attention is divided between the driving task and conversation. It is difficult to have a simple conversation in complex driving situations such as driving at peak hour, on unfamiliar roads, at night and in wet weather. Similarly, it is difficult to have a complex conversation whilst performing a simple driving task as the conversation task demands a greater investment of the driver’s attention.

• Text messaging while driving is especially dangerous. An Australian simulator study conducted in 2006 found that young novice drivers spent about four times as much time looking away from the road when texting than when not texting.13 This can lead to incorrect lane changes and wandering, and failure to see road signs, hazards and other road users.

• Research shows that dialling, texting and talking on a mobile phone while driving can lead to:
  - Riskier decision making – with attention and concentration diverted, a driver’s ability to judge distances, speed, space and environmental conditions may be affected.
  - Slower reactions.
  - Speed variations.
  - Less controlled braking – with reaction times slowed, the driver will tend to brake later, with more force and less control.
  - Reduced following distances.
  - Wandering from the lane.

• Reduced awareness of the surroundings – when deep in conversation, the driver will tend to spend less time checking their mirrors and monitoring the traffic and road environment.

• Talking to a passenger is less distracting than talking on a mobile phone. If a dangerous situation develops, the passenger can stop talking to allow the driver to concentrate. On a mobile phone, the other person is unaware of the danger and will continue talking, distracting the driver further when full concentration is required.

The legislation

• It is illegal in all Australian states and territories to use a hand-held mobile phone while driving. This includes talking, texting, playing games, taking photos or video and using other phone functions.

• Using a hand-held mobile phone is also illegal when your vehicle is stationary but not parked (when stopped at a traffic light).

• It is illegal to use a hands-free phone while driving if it causes you to lose proper control of your vehicle.

• Learner and Pt drivers are not permitted to use a hand-held or hands-free mobile phone while driving.3

Crash risk

• Anyone using a mobile phone while driving is at increased risk of a serious crash.

• Young drivers are particularly at risk as there is a greater prevalence of driving while using a mobile phone in this age group. A 2010 survey conducted by AAMI4 found that 61% of Australian drivers aged between 18 and 24 years reported that they had sent or received a text while driving (compared with 32% of drivers aged over 25 years). In addition, evidence demonstrates that undertaking secondary tasks while driving, such as using a mobile phone, causes greater problems for inexperienced drivers (who already have a higher crash risk).14

• Older drivers also find it difficult to conduct two tasks simultaneously and their response times are impaired.14

• Where hands-free devices are concerned, a case-crossover study conducted in Western Australia in 2005 showed that using a mobile phone while driving increased the likelihood of a crash four-fold, irrespective of whether or not a hands-free device is used.3

• The most common types of crashes associated with mobile phone usage are ‘run off the road’ and ‘rear end’ crashes.

TIPS FOR STAYING SAFE

It is wise to carry a mobile phone in case of emergency. The best advice regarding mobile phone use while driving is “delay making and receiving phone calls and text messages until you have stopped driving”. If you must communicate with others while driving:
• Pull over safely and park your car, and then make your mobile calls.
• Use voicemail and return all calls when you reach your destination.
• Plan breaks in your trip to contact family and friends and advise them not to call when you know you’ll be driving.
• Never read or send text messages while driving.
• Whilst it is legal to make and receive mobile phone calls using a hands-free kit (excluding Learner and P-plated drivers), remember that it puts the driver and passengers at risk. Though use of a hands-free kit reduces the level of physical and visual distraction to the driver, cognitive distraction remains high.

To maximise safety:
- Keep conversations short and avoid complex or emotional topics.
- Tell callers you are driving and may have to end the call. End the call if you are finding it distracting.
- Use a hands-free device only in light traffic, and avoid all calls in heavy traffic and poor weather conditions.

CARRS-Q/QUT’S WORK IN THE AREA
• An investigation was conducted into the beliefs influencing drivers’ hands-free and hand-held mobile phone use. The investigation involved a cross-sectional survey of 796 Australian drivers aged 17 to 76 years who owned mobile phones. The survey assessed frequency of calling and text messaging while driving (overall, hands-free, hand-held) as well as drivers’ behavioural, normative, and control beliefs relating to mobile phone use while driving.4
• A study was conducted into the psychological influences on young drivers’ (17-24 years) texting intentions and behaviour. The applicability of an extended theory of planned behaviour to predict intentions was tested.15
• CARRS-Q is operating the state’s first Advanced Driving Simulator which enables researchers to study drivers in critical situations with a high degree of realism. Simulator-based research has, and will continue to provide valuable insights to advance our understanding of distracted driving and mobile phone use.

FUTURE DIRECTIONS
Distracted driving is an important road safety issue. Society is becoming increasingly reliant on mobile phone use and an increasing number of vehicles are being fitted with Bluetooth technology, facilitating voice activation and thus totally hands-free phone use. Though this may lead to fewer hand-held phones being used while driving in the future, research indicates that these conveniences may not eliminate the risk. With new hands-free technology likely to increase mobile phone use in vehicles, the potential for increased crashes is concerning. Previous studies have tended to explore mobile phone use while driving in general terms.

Future research may focus on:
• Understanding the psychosocial factors influencing mobile phone use and texting to
inform future interventions. To date, campaigns to reduce mobile phone use while driving have adopted a deterrence-based approach involving the combined use of law enforcement and education campaigns. The continued high level use of mobile phones while driving indicates that such broad-scale approaches may be ineffective due to the range of personal and motivational factors which influence driver behaviour. Further understanding of these factors will inform improved deterrence campaigns.

- Developing best practice public education campaigns to reduce mobile phone use while driving. Education campaigns should attempt to minimise the perceived benefits of the behaviour, increase public disapproval for it, and highlight the preventable risks of this unsafe driving practice. Young drivers and those who drive a vehicle for work purposes should particularly be targeted.

- Differentiating the levels and safety implications of legal (hand-held) and illegal (hands-free) mobile phone use while driving.

- Differentiating the distracting effects of different types of hands-free phones (i.e. using an earpiece versus a fully installed hands-free kit) to inform safer policy.

- Investigating the potential differences in the distracting effects of sending and reading texts.

- Better quantifying the involvement of mobile phones in road crashes. The current lack of data to record whether or not drivers involved in a crash had a mobile phone in the vehicle and whether or not it was being used, means that it is difficult to calculate the increased risk and estimate the level of crashes caused, or contributed to, by drivers who are using mobile phones. ITS (intelligent transport systems) technology which can record mobile phone use whilst driving may assist future data collection. Improved data collection methods at crash sites (to record mobile phone use at the time of the crash) may also help.

- Evaluating the effectiveness of current legislation and its enforcement.

- Developing and ensuring widespread implementation of best practice fleet policy regarding mobile phone use while driving to improve the safety of people driving for work purposes. Such policy should outline the company’s expectations regarding safe phone use, employee responsibilities, associated penalties for inappropriate use, equipment standards (e.g. fully installed hands-free systems able to record voicemails) and the employer’s legal responsibilities and potential liabilities.

REFERENCES


The CARRS-Q fact sheets are regularly updated. For the latest versions, please visit www.carrsq.qut.edu.au

This fact sheet is a community service provided by CARRS-Q. Not all of the research included in this fact sheet was provided by CARRS-Q. For research authors, please see the reference list below.

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Drug driving is an increasing road safety problem, according to this fact sheet from the Centre for Accident Research and Road Safety – Queensland

There is a particularly strong association between drug use and crash involvement, with accident risk estimated to equal that of a driver with a blood alcohol concentration of 0.1 to 0.15%.

THE FACTS

- Research demonstrates that an alarming number of motorists are driving after consuming illegal drugs and the occurrence of drug driving in some groups may be greater than drink driving.
- A 10-year evaluation of road crashes in Australia estimated that 1 in 4 drivers killed in road crashes tested positive to drugs other than alcohol.
- Drug driving is a contributing factor in approximately 7% of road fatalities in Australia.

How do drugs affect me?

- Many drugs can affect our ability to drive safely.
- These drugs include illegal (illicit) drugs, as well as legal drugs such as alcohol and medicines (prescribed and over-the-counter).
- Drugs that affect driving include cannabis, amphetamines, benzodiazepines, hallucinogens, antihistamines and opiates.
- The most commonly used illegal drugs are marijuana followed by speed and ecstasy.

<table>
<thead>
<tr>
<th>BAC level</th>
<th>Effects from alcohol on driving</th>
</tr>
</thead>
</table>
| 0.02 to 0.05 | - Reduced ability to see or locate moving lights correctly  
- Reduced ability to judge distances  
- Increased tendency to take risks  
- Decreased ability to respond to several stimuli. |
| 0.05 | - Twice as likely to have a crash as before they started drinking. |
| 0.05 to 0.08 | - Further reduction in your ability to judge distances reduces  
- Impaired sensitivity to red lights  
- Slower reactions  
- Shorter concentration span. |
| 0.08 | - Five (5) times more likely to have a crash than before you started drinking. |
| 0.08 to 0.12 | - Overestimate abilities  
- ‘Euphoria’ sets in  
- Recklessly drive  
- Impaired peripheral vision (resulting in accidents due to hitting vehicles while passing)  
- Impaired perception of obstacles  
- 10 times more likely to have a crash. |

Drug use can affect drivers and the driving task by:

- Many drugs are highly addictive to the extent that users need them in order to function in their daily routine. Excessive drug use can cause cognitive impairment, which can affect judgement, memory and reaction time.
- The time it takes to remove drugs from the body can impinge on work and driving performance. An individual can consume drugs in the evening and still have drugs present in his or her body the next day.
- The level of drugs which will remain in a person’s system over time can depend on a range of factors including the strength of the drug, if it was taken in combination with other drugs, the situation in which it was used and the individual’s metabolism.

− Over-confidence in driving skills that is not supported by an actual improvement in driving ability.
− Aggressive and dangerous driving.
− The sudden onset of fatigue as the stimulant effects wear off.
− Altering their view and experience of reality, with their actions and responses quite different to what is actually needed. They may be unaware of how much their driving skills are impaired.

Can I have a small quantity of drugs and still drive?

Illegally manufactured drugs vary in strength and purity. This makes it difficult to predict the extent to which a person’s driving skills will be impaired. Often drugs are consumed in combination, or with alcohol, and the impairment to driving ability can be much greater. Severe penalties apply to anyone caught driving under the influence of illegal drugs.

TIPS FOR STAYING SAFE

The best advice regarding drug use is simply ‘do not drive’ whilst under the influence, however, if you are going to use drugs, plan ahead:

• Organise a driver who will not be using drugs or alcohol.
• Arrange alternative transport.
• Use public transport or ‘grab a cab’.

• Stay overnight.
• Speak to your doctor or pharmacist about the potential affect a medication may have on your driving and be aware of the dangers of mixing medications and consuming alcohol.

Penalties for drug drivers

Drug driving detection legislation has recently been introduced around Australia. The consequences of drug-affected driving include not only a fine and loss of licence, but also the potential loss of insurance. In Queensland, police conduct random drug testing via a simple saliva test to detect the presence of:

• THC – the active ingredient in marijuana
• Methylamphetamine (speed/ice)
• MDMA – the active ingredient in ecstasy.

A 10-year evaluation of road crashes in Australia estimated that 1 in 4 drivers killed in road crashes tested positive to drugs other than alcohol.

A first drug driving offence in Queensland carries a penalty of up to AUD $1,050 and licence disqualification for up to nine months. Prosecutions can be commenced as a result of breaches of the Workplace Health and Safety Act for any worker (under the influence of drugs) who has been found negligent in his/her duties. Management, supervisors or fellow workers could also be legally liable if they were aware of a driver’s drug driving and failed to respond to the situation (e.g. send the driver home and/or suspend his/her driving tasks).

CARRS-Q’S WORK IN THIS AREA

• Research to examine the prevalence of drug driving among Queensland and Victorian motorists.
• Piloting of random roadside oral drug testing.
• The first Australian study to specifically examine the deterrent impact of drug driving detection methods on motorists.
• Profiling the culture of drug driving within the context of drug use.
• The development of alcohol and other drug consumption profiles, and alcohol-related behaviour profiles for the eight Queensland police regions.
• Investigation of the prevalence and attitudes towards drug driving among long haul truck drivers.
• A Queensland analysis of the epidemiology and health surveillance of drug overdose cases.
• A comparison of the efficacy of two approaches to medication warnings about driving.
• Community understanding and management of the impact of prescribed drugs on driving and machine operation.
• Evaluation of the lockout liquor trading hours in Brisbane City and Fortitude Valley.
CARRS-Q’s research is highlighting that a considerable proportion of the Queensland driving population consume illicit drugs before driving.

Drug driving is a contributing factor in approximately 7% of road fatalities in Australia.

**FUTURE DIRECTIONS**

The National Road Safety Strategy identifies a number of goals in this area:

- Investigating the use of emerging roadside drug testing technology to apply to other illicit and licit drugs.
- Collaborating with police to strengthen the deterrence effects of random roadside drug testing programs, and to improve public awareness of them.
- Expanding the use of vehicle-based sanctions for drug driving offences.
- Developing national workplace random drug testing standards for use in the commercial vehicle industry, giving companies with testing regimes (which meet these standards) a defence against chain of responsibility prosecutions.
- Compulsory blood testing for drugs for all drivers involved in serious casualty crashes.
- Reviewing international best practice and identifying the cost-effectiveness of interventions for dealing with high risk and repeat traffic offenders.

This fact sheet is a community service provided by CARRS-Q. Not all of the research included in this fact sheet was provided by CARRS-Q. For research authors, please see the reference list below.

**REFERENCES**


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**Alcohol and safe driving tips**

The safest option is not to drink alcohol at all. However, if you do intend to drink alcohol before you drive, here are a number of tips for you to consider:

- Keep track of how much alcohol you drink by carefully monitoring the number of standard drinks you consume each hour.
- Limit your alcohol intake by starting with a non-alcoholic drink, then have a non-alcoholic drink every second or third drink.
- Avoid having your glass topped up so that you can accurately keep track of how much alcohol you have had.
- Drink low-alcohol drinks; avoid mixed drinks as it is difficult to tell how much alcohol they contain.
- Avoid drinking in rounds or shouts to avoid the pressure to keep up with your friends.
- Sip drinks; avoid salty snacks or other foods that increase thirst.
- Wait for your BAC to drop before driving (note: BAC can continue to rise for up to 3 hours after your last drink).
- The only way to remove alcohol from your system is to allow your body enough time to process it (coffee, showers or fresh air do not reduce BAC). Before driving, you should wait at least an hour for each standard drink you’ve had.
- Have a back-up plan (or ‘plan B’). If you do end up having too much to drink, you should be prepared to make other arrangements to avoid driving home.


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INSUFFICIENT SLEEP BOOSTS CRASH RISK FOR YOUNG PEOPLE

Frequently sleeping six hours or less increases the risk of a crash, a study of young drivers shows. By Ellen Adamcewicz and Sunanda Creagh

Insufficient sleep puts young drivers at greater risk of a car crash, a large study by Australian researchers has found. The new findings, published in the journal *JAMA Paediatrics*, show that sleeping less on weekends and sleeping six hours or less per night over a sustained period are both factors that increase the chance of run-off road crashes.

The authors of the study analysed the association between sleep and motor vehicle crashes in newly licensed people aged between 17 and 24. Measuring a sample size of 20,000, the participants were followed up on average two years after being enrolled in the study.

Beginning in 2003, the researchers analysed police-reported crash data and driver sub-groups to determine who had an increased crash risk.

The study found that less sleep per night significantly increased young drivers' crash risk and that less sleep on weekends increases run-off road and late-night crash risks.

"Young drivers who sleep six hours a night or less have an increased risk of crashing their vehicle and that's an effect that's isolated from other risks for crash, since we were able to take those into consideration," said an author of the study, Associate Professor Alexandra Martiniuk, Senior Research Fellow at The George Institute for Global Health.

"Existing literature tended to look at more drastic sleep reduction, so usually looking at five hours sleep a night or less, whereas we looked at six hours sleep a night or less, which is obviously much more common."

Young people who slept less on the weekend are likely to crash at night between 8pm and 6am.

**Fatigue: tips for staying safe**

Do not begin driving if you are already feeling tired. If you notice signs of fatigue, these strategies may help:

- Ensure you regularly get enough sleep. Most people need 7-9 hours sleep per day and young people require more.
- Get a good night’s sleep before travelling.
- Avoid driving at high-risk times (during normal sleep times).
- Take frequent breaks (a rest break every 2 hours is recommended).
- Both drivers and passengers should be alert to the signs of fatigue and how to take action. The only cure for fatigue is sleep. If you are feeling sleepy, stop immediately and a short nap of 10-20 minutes will prevent some fatigue. Allow time to recover from your sleep before continuing. Consuming a caffeine drink may help.
- Share the driving task with others.
- Avoid travelling long distances after a full day’s work.
- Seek medical advice if you regularly feel sleepy.
- Be aware of the effects of any medications you are taking. See your pharmacist or GP for advice on your current medication schedule.

were more likely to have run-off-road crashes, Dr Martiniuk said.

“We’re quickly learning that young people are getting less and less sleep because of school, work or socialising such as being on Facebook at night or texting their friends.”

**SLEEP NEEDS**

Leon Lack, Professor of Psychology at Flinders University and a sleep expert, said that other studies have shown that younger people tend to be higher risk takers in general.

“Even though, intellectually, they may appreciate they will be sleepy and should not be driving, in reality they may do so anyway,” said Professor Lack.

“We have recently done a nationwide study on sleepiness. As a group, people of this age tend to report more sleepiness. Sleepiness continues to be reported up to about the age of 50 and then tends to decline with older age groups,” he said.

“Sleep need of that younger age group is still quite high, an average of about eight hours a night with individual variations. Younger people are perhaps pushing the boundaries a little more than older people.”

Professor Lack said young people may feel they don’t have enough time for sleep.

“They may have a second job, they may be studying full time, they may be married and if they have young kids, they have a lot of commitments,” he said.

“That, in conjunction with potentially a bit of alcohol and the effect of circadian rhythms on late night driving, can have a very strong effect to produce extreme sleepiness.”

Ellen Adamcewicz and Sunanda Creagh are editors at *The Conversation*.

**THE CONVERSATION**

Many driving schools let you come along for the first lesson, so you can see how your child is being taught. This can guide the way you teach your child. An Australian Government-funded program called ‘keys2drive’ gives learner drivers and their supervisors a free lesson with an accredited driving instructor.

Your child learning to drive: feelings and facts

Learning to drive – it’s something many teenagers can’t wait to do, but it can make some parents nervous. There are plenty of media reports about crashes involving young people, so it’s natural to feel anxious about this new phase of your child’s life.

It might help to know that the risk of a crash when a learner is behind the wheel is lower than when an experienced adult is driving. It’s also worth knowing that most P-platers start out driving safely and legally.

Planning ahead for learning to drive

If you plan ahead, you can help your child become a safe and responsible driver.

The early to mid-teen years, before your child is old enough to get a learner permit, is a good time to start thinking about your child learning to drive.

Some things you might consider include the following:

• How your child will learn – that is, whether to teach your child yourself or use a driving instructor or a combination of both.
• The legal requirements in your state for learner drivers and provisional drivers – for example, most states have a minimum number of hours that learner drivers must do, and some restrict the number of passengers or type of car that a newly licensed driver can drive.
• Rules about using the family car – for example, whether your child can drive with friends in the car after getting his P-plates, or whether he can drive at night.
• Car insurance – that is, checking that your car insurance covers your teenage driver.

It’s a good idea to let your child know that learning to drive and getting a driving licence is just the start of a lifelong learning process.

Learning to drive: getting started

The first step in learning to drive is getting a learner permit or licence. For this, your child needs to be 16 years old – except in the ACT, where it’s 15 years and 9 months.

In some states, you just fill in an learner licence application form. In other states, your child must also pass a written or computer-based test on road rules. Some states also have an eyesight test.

In most Australian states and territories, learner drivers must gain driving experience on the road before they can do the test to get their Ps. They must do their learner driving under the supervision of a driver who holds a full unrestricted licence.

The number of driving hours learners must do and other rules – such as whether they must pass a hazards test – vary across states and territories.

Restrictions on learner permits also differ across states and territories – for example, the maximum speed and blood alcohol level.

When learner drivers pass their driving test, they can get their Ps. The minimum age at which drivers can get their Ps ranges from 16 years and 6 months in the Northern Territory to 18 years in Victoria. It’s 17 years in other states and territories.

Learning to drive: practical steps

Driving practice with you is a free and effective way for your child to learn. Here are some tips that can make it a safe and positive experience for everyone:

• Discuss in advance the ground rules of driving. A basic rule might be that when you say to stop the car, your child needs to stop immediately and ask questions later.
• Stay calm: if your child isn’t following your instructions, ask her to pull over, and then gently tell her what she needs to be doing.
• Give your child lots of opportunities to drive in a range of conditions – for example, at night, on freeways and in the rain. This way he experiences these conditions for the first time under your supervision.
• When you’re driving, talk about what you’re doing and why. This is a good way to start helping your child learn to read the road.
• Consider using a qualified driving instructor for some lessons. A qualified instructor will ensure your child learns the most current road rules and is ready for the licence test.

Modelling and reinforcing safe driving
Your child learns about driving not only from formal lessons, but also by watching how you drive. You have a big role to play in modelling safe, legal and responsible driving and road use, even when your child is younger. Children of parents with a history of road crashes and road safety violations are more likely to be involved in crashes or break road laws themselves.

Learning to drive with special needs
Some young people have a medical condition that can impact on their ability to drive – for example, epilepsy, diabetes, disability or other special need. All states and territories have rules covering these situations.

Common causes of road crashes in younger drivers
Being inexperienced puts young people at a higher risk of a crash when they first start driving by themselves than at any other stage.

The most common risk factors of road crashes in younger drivers are:
• Speeding: this is the biggest killer of young drivers
• Distraction: this includes the effects of passengers talking and texting on mobile phones
• Driving at night: this includes fatigue and factors such as reduced vision
• Type of vehicle: young drivers who share their parents’ car are less risky on the road. So it’s a good idea to delay the purchase of your teenage child’s own car if possible
• Alcohol use: compared to older drivers, young drivers are less likely to drink and drive and to drink less if they do drink and drive. But when they do drink and drive, their risk of crashing is higher.

Licensing requirements and special needs provisions

Australian Capital Territory
• ACT Road Transport Authority

**New South Wales**
- NSW Roads & Maritime Services

**Northern Territory**
- NT Government Department of Transport

**Queensland**

**South Australia**
- mylicence.sa.gov.au

**Tasmania**
- Tasmanian Government Department of State Growth
  - Pre-learner stage, www.transport.tas.gov.au/novice/pre_learner

**Victoria**
- VicRoads

**Western Australia**
- WA Government Department of Transport

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WORKSHEETS AND ACTIVITIES

The Exploring Issues section comprises a range of ready-to-use worksheets featuring activities which relate to facts and views raised in this book.

The exercises presented in these worksheets are suitable for use by students at middle secondary school level and beyond. Some of the activities may be explored either individually or as a group.

As the information in this book is compiled from a number of different sources, readers are prompted to consider the origin of the text and to critically evaluate the questions presented.

Is the information cited from a primary or secondary source? Are you being presented with facts or opinions?

Is there any evidence of a particular bias or agenda? What are your own views after having explored the issues?

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Brainstorm, individually or as a group, to find out what you know about road safety.

1. What is aggressive driving, and what are some of the associated behaviours?

2. What does the abbreviation BAC stand for in relation to drink driving, and explain how it is used?

3. What is fatigue, and how does it contribute to road crashes?

4. What are some driver distractions that contribute to dangerous driving behaviours?
Complete the following activities on a separate sheet of paper if more space is required.

Consider the following risk factors associated with young drivers and road safety. Write a few paragraphs on each to outline the risks involved; recommend what can be done to reduce the risks.

**SPEEDING**

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

**SEATBELT USE**

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

**ALCOHOL AND DRUG USE**

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

**NIGHT-TIME DRIVING**

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________

______________________________________________________________________________________
Complete the following activity on a separate sheet of paper if more space is required.

Choose one (1) of the following topics and create a design concept for a promotional road safety poster. Illustrate how the selected issue can affect your driving and offer ways to stay safe:

1. Aggressive driving
2. Drink driving
3. Fatigue
4. Mobile phone use.

Ensure the concept includes the following: images/illustrations (give reasons for your selection); words you would use for headlines, subheadings, body text etc. Ensure that you include an explanation of what the issue means; how it affects driving; and offer tips for staying safe.
Complete the following activity on a separate sheet of paper if more space is required.

Consider the following statement. Form into pairs or small groups, and discuss the major factors which contribute to road crashes among young drivers. Include any potential risky behaviours, and also gender, age, socioeconomic or environmental factors you think could contribute to these statistics.

“In developed countries, road crashes account for around a quarter of all deaths in the 15-24 years age group.”
Complete the following multiple choice questionnaire by circling or matching your preferred responses. The answers are at the end of this page.

1. What BAC level is the set legal limit for fully licensed drivers in Australia?
   a. 0
   b. 0.05
   c. 0.08
   d. 0.12
   e. 0.15
   f. 0.5

2. If you have not slept for 17 hours your driving ability will be similar to that of a driver with what BAC level?
   a. 0
   b. 0.05
   c. 0.08
   d. 0.12
   e. 0.15
   f. 0.5

3. What do the letters RBT stand for in relation to drink driving?
   a. Recommended Beer Threshold
   b. Roadside Breath Threshold
   c. Random Breath Testing
   d. Reduced Brain Testing
   e. Random Beverage Testing

4. Which of the following are common risk factors for road crashes among younger drivers? (select all that apply)
   a. Alcohol use
   b. Driving at the speed limit
   c. Type of vehicle
   d. Driving at night
   e. Wearing a seatbelt
   f. Distraction
   g. Speeding

5. When can you use a hand-held mobile phone while driving your vehicle?
   a. While you are driving in a built-up area with limited traffic
   b. While stopped at the traffic lights
   c. When you are travelling on country roads outside built-up areas
   d. When you are driving under 30 km/h
   e. Not at all

MULTIPLE CHOICE ANSWERS

1 = b; 2 = b; 3 = c; 4 = a, c, d, f, g; 5 = e.
In 2010, almost half (47%) of 15-24 year olds are more likely to have driven while probably over the limit over the last year, and 7% admit to driving having taken recreational drugs such as marijuana, cocaine, speed or ecstasy (ibid). (p.27)

Young drink drivers were 9.5 times more likely than their peers to have driven when affected by ecstasy and about 6 times more likely to have driven when affected by marijuana use and 4.5 times more likely to have driven when affected by amphetamines (AIFS, Young people taking risks in the drivers seat). (p.32)

Younger drivers having passengers in the vehicle is a distraction and coupled with peer pressure can increase the risk of a crash (DPTI, SA, Safe driving tips – dangerous behaviours). (p.33)

In the 1970s and early 1980s, drink driving was Australia’s biggest road safety challenge. However since random breath testing was introduced in 1982 there has been a change in community opinion – drink driving is not acceptable (RMS, Speeding – the biggest killer on our roads). (p.35)

The risk of a crash when driving at 68 km/h in a 60 km/h zone is the same as driving with a blood alcohol level of 0.08 (ibid). (p.35)

Surveys of drivers consistently show that only between 2 and 5% of drivers report being assaulted or attacked by another driver (QUT, CARRS-Q, State of the Road: Aggressive driving fact sheet). (p.37)

Despite legislative bans, between 39% and 73% of Australian drivers report using a hand-held mobile phone at some time while driving (QUT, CARRS-Q, State of the Road: Mobile phone use and distraction while driving fact sheet). (p.39)

It is illegal in all Australian states and territories to use a hand-held mobile phone while driving. This includes talking, texting, playing games, taking photos or video and using other phone functions (ibid). (p.40)
Blood alcohol concentration (BAC)
Measures the amount of alcohol you have in your system in grams of alcohol per 100 millilitres of blood. A BAC of 0.05 means you have 0.05 grams (50 milligrams) of alcohol in every 100 millilitres of blood. The legal limit for drivers around Australia is below 0.05. For drivers on a probationary licence (P plates) or (L plates), no alcohol is allowed.

Casualty
Person killed, admitted to hospital, or injured requiring medical attention as a result of a road crash. Excludes injured persons who do not require medical attention.

Crash
Any apparently unpremeditated collision reported to police which resulted from the movement of at least one road vehicle on a public road, and involving death or injury to any person, or property damage.

Demerit points
Penalty points for a range of driving offences, used as an incentive to drive within the law.

Driver
The person who is driving a vehicle (except a motorcycle, bicycle, animal or animal-drawn vehicle).

Fatal crash
A road crash where at least one person dies within 30 days of a crash as a result of injuries sustained in the crash. The crash must occur on a road open to and used by the public, and involve a vehicle which was in motion. It cannot be an ‘act of nature’, an act of deliberate intent, or as a result of a prior event such as a heart attack.

Fatality
A person who dies, within 30 days of a road crash, from injuries sustained in that road crash.

Hazards
Anything on or near the road that could become a danger or a problem for safe driving. Possible hazards are other road users (pedestrians, cyclists etc); weather conditions (rain, fog, bright sunlight etc); road conditions and types (gravel, tight curves etc) and intersections (with or without signals).

Helmet
Protective device worn on the head to prevent injuries in the event of a crash. Motorcyclists and bicyclists are required by legislation to wear a helmet which meets Australian standards.

Hospitalisation
A person admitted to hospital as a result of a road crash and who does not die from injuries sustained in the crash within 30 days of the crash.

Injury severity
The four levels of injury sustained by a person involved in a crash are:

1. Killed from crash injuries within 30 days of the crash
2. Injured, admitted to hospital
3. Injured, requiring medical treatment
4. Injured, no medical treatment required.

Passenger
Person other than the driver travelling in or on a car, truck or bus. Does not include motorcyclists or bicyclists.

Pedestrian
Person on foot or a person on roller skates, roller blades, child’s tricycle, non-motorised wheelchair, skateboard, or other non-powered vehicles (excluding bicycles). Includes a person who has just alighted from a vehicle.

Restraints
Devices designed to hold a person within the body of a vehicle and limit movement during a crash, thereby reducing severity of injury. Includes inertia reel and fixed lap or sash seatbelts, and child restraints such as capsules. Restraints must meet the relevant Australian Vehicle Design Rules and the Australian Standards, and must be worn by all drivers and passengers of motor vehicles.

Rider
The person who is riding a motorcycle, bicycle, animal or animal-drawn vehicle.

Risks factors for young drivers
Young people are involved in more crashes than other drivers. Certain things increase the possibility of being involved in a crash: speeding, driving when tired or fatigued, mixing alcohol and other drugs with driving, and taking passengers who distract them from driving safely.

Road rage
A term used to describe Violence associated with motor vehicle use. It refers only to the most severe form of driving aggression (i.e. assault/attempted assault).

Road toll
The count of fatalities resulting from road crashes in a given year.

Road user
Includes drivers, passengers, motorcyclists, bicyclists and pedestrians.

Serious injury
When a person suffers injury from a road crash with enough severity to require hospitalisation.

Speeding
A vehicle is considered to be speeding if it travels at excessive speed for the prevailing conditions, or above the posted speed limit.

Unsafe
Dangerous, exposed to harm.

Vehicle
A device upon which any person or property may be transported or drawn upon a road, including bicycles.
WEB LINKS

Websites with further information on the topic

- Australasian College of Road Safety (ACRS)  www.acrs.org.au
- Bureau of Infrastructure, Transport and Regional Economics (BITRE)  www.bitre.gov.au
- Centre for Accident Research and Road Safety – Queensland (CARRS-Q)  www.carrsq.qut.edu.au
- Centre for Road Safety (NSW)  http://roadsafety.transport.nsw.gov.au
- Department of Infrastructure and Regional Development  www.infrastructure.gov.au
- Department of State Growth, Transport (Tas)  www.transport.tas.gov.au/roadsafety
- Department of Transport (NT)  www.transport.nt.gov.au/safety/road-safety
- Keys2Drive  www.keys2drive.com.au
- Monash University Accident Research Centre  www.monash.edu.au/miri/research/research-areas/transport-safety
- Office of Road Safety (WA)  www.ors.wa.gov.au
- Road Safety Education  www.rse.org.au
- Road Safety Education Victoria  www.roadsafetyeducation.vic.gov.au
- Road Safety Victoria  www.roadsafety.vic.gov.au
- Young Driver Factbase  www.youngdriverfactbase.com

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