



Overseas driver crashes 2016

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Ministry of **Transport**
TE MANATŪ WAKA
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Enquires relating to crash statistics may be directed to the Ministry of Transport, PO Box 3175, Wellington, or by email on info@transport.govt.nz. For more information about road safety, visit the Ministry of Transport website at www.transport.govt.nz.

A selection of fact sheets is available via the research section of the Ministry of Transport website.

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Overseas licence holders in crashes – Summary statistics

- ▶ Over the 5 years, 2011-2015, 6 percent of fatal and injury crashes involved an overseas licence holder. Over the same time-period, 4 percent of all drivers involved in crashes were overseas licence holders.
- ▶ At a local level the proportion of crashes that involve an overseas licence holder can vary markedly due to regional differences in the size of the visitor and immigrant populations and their driving patterns. In the South Island tourist areas crashes involving an overseas driver make up a quarter or more of all road crashes.
- ▶ About three-quarters of overseas licence holders in crashes (77 percent) are short-term visitors to New Zealand, 14 percent are overseas students and 9 percent are migrants. (Visitor status is not recorded for about 40 percent of overseas licence holders).
- ▶ The South Island has the highest proportion of short-term visitors in crashes (87 percent of overseas licence holders in crashes). For Auckland, less than half the overseas licence holders in crashes are short-term visitors. Auckland has the highest proportion of new migrants (23 percent) and the highest proportion of overseas students (30 percent).
- ▶ The majority (68 percent) of short-term visitor crashes are on the open road, with two thirds of those being on state highways. For short-term visitors about a third of their urban crashes are on state highways, the major through routes in urban areas. For new migrants and students the pattern is much more similar to New Zealand licence holders, with about 40 percent of crashes on the open road and less than 15 percent of urban crashes on state highways.
- ▶ At a national level over half (58 percent) of overseas licence holder crashes are on the open road but the pattern varies markedly between regions. For the West Coast and Southland regions about 90 percent of crashes are on the open road. The comparable figure for Wellington and Auckland is about a third.
- ▶ About a third of at-fault overseas licence holders failed to adjust to New Zealand rules or conditions. This rises to 46 percent for fatal crashes.
- ▶ Overseas licence holders (7 percent for drivers from countries that drive on the right and 4 percent for countries that drive on the left) are more likely to fail to keep left than New Zealand drivers (2.6 percent). For fatal crashes these rise to 24 percent for overseas licence holders and 15 percent for New Zealand drivers.
- ▶ For drivers involved in crashes, rental vehicle use by overseas licence holders (36 percent) is much higher than for other drivers (1 percent). Overseas licence holders make up nearly two-thirds (65 percent) of rental vehicle drivers in fatal and injury crashes.
- ▶ The use of rental vehicles is not spread evenly around the country. Rental vehicle drivers make up about three-quarters of overseas licence holders in crashes in the West Coast (76 percent) and Southland regions (72 percent). The lowest proportion of overseas drivers in rental vehicles is in Wellington (20 percent), Taranaki (18 percent) and Auckland (9 percent).
- ▶ There is a much stronger seasonal variation in crashes for overseas licence holders than for New Zealand drivers. This is particularly so for short-term visitors who have over twice as many crashes in the 3 months January to March as in the 3 months May to July. Half of all visitor crashes occur in the 4 months from December to March.
- ▶ The top 6 countries in terms of the number of drivers in crashes are Australia, Germany, China, India, the UK and the USA. Combined, these 6 countries contribute over half (55 percent) of the overseas drivers in crashes.

- ▶ The relative importance of these 6 countries has changed markedly over the last 11 years. For example, while the number of drivers from the UK has more than halved, the number from China has increased to about 6 times what it was in 2005. In the last year, the biggest increases were for China and India, with licence holders from both countries now being involved in a similar number of crashes as Australian and German licence holders.
- ▶ The mix of visitors, students and migrants is quite different for drivers from these 6 countries. So too is the age/sex profile, the use of rental vehicles and the regions and roads they crash on.

Introduction

In this crash fact sheet we present information on the crash involvement of people driving on an overseas licence and how this has changed over time.

The information here is limited to drivers. Overseas drivers are identified in the NZ Transport Agency's Crash Analysis System (CAS) by their licence status. Visitor status information is not collected for passengers, cyclists, pedestrians or other road users injured in road crashes.

To provide enough crashes for the detailed breakdowns shown in this document, we have combined:

- ▶ crash data for the 5 years, 2011-2015 (unless otherwise stated)
- ▶ all fatal, serious and minor injury crashes (Appendix 1 shows the numbers of fatal, serious and minor injury crashes separately).

Crash data for 2015 was extracted from CAS on 13 June 2016.

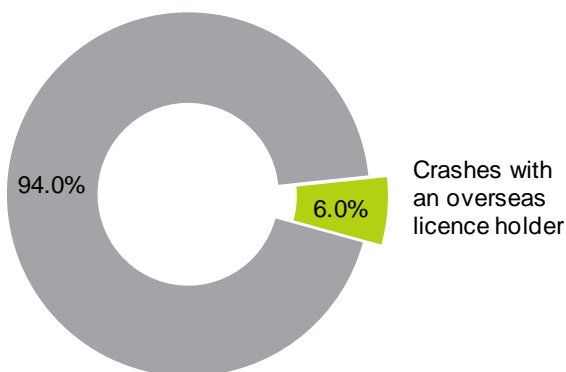
A person can drive on an appropriate overseas licence or international permit for up to 12 months in New Zealand (from when they last entered New Zealand), however they must convert it to a New Zealand licence if they wish to drive after this time. While some information is gathered on whether the driver on an overseas licence is a short-term visitor, student, or migrant, this is not always known.

Overview

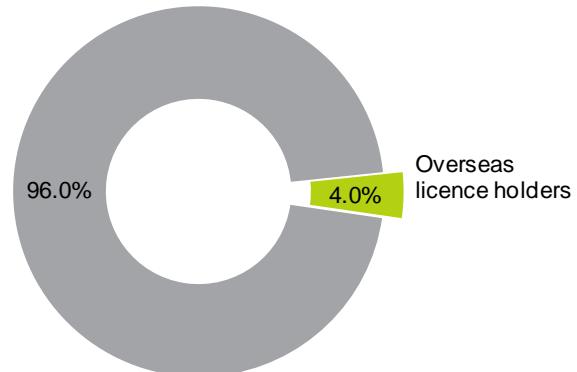
In 2015 overseas drivers (those with an overseas drivers licence) were involved in 19 fatal traffic crashes, 101 serious injury crashes and 543 minor injury crashes. Of these crashes, the overseas driver was at fault¹ in 16 of the fatal crashes, 79 of the serious injury crashes and 390 of the minor injury crashes, resulting in 19 deaths, 113 serious injuries and 616 minor injuries.

Over the 5 years, 2011-2015, 6 percent of all fatal and injury crashes involved an overseas licence holder. Over the same time period, 4 percent of all drivers involved in crashes were overseas licence holders.

Crashes with overseas licence holders as a percentage of all crashes



Overseas licence holders as a percentage of all drivers involved in crashes



¹ The determination of fault for a crash is based on crash movements and crash cause factors assigned in the Crash Analysis System. It is not based on legal liability or court conviction. See terminology section.

Time series

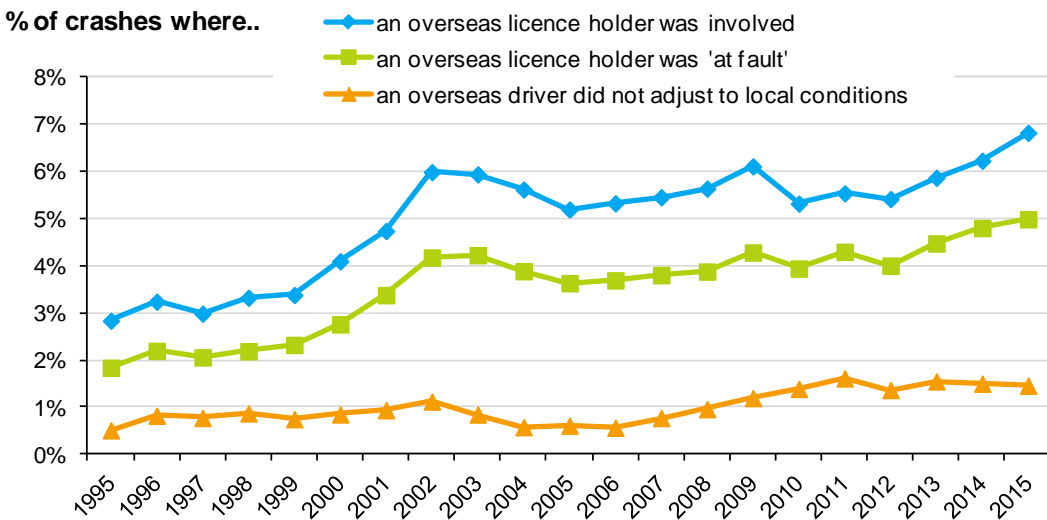
Not all overseas drivers involved in crashes are at fault, and only a minority of those at-fault drivers crashed because they failed to adapt to New Zealand driving conditions (for instance, driving on the wrong side of the road or not understanding give way rules). Most overseas drivers crash for the same reasons as New Zealand drivers.

The three lines in the graphs below show the proportion of crashes where:

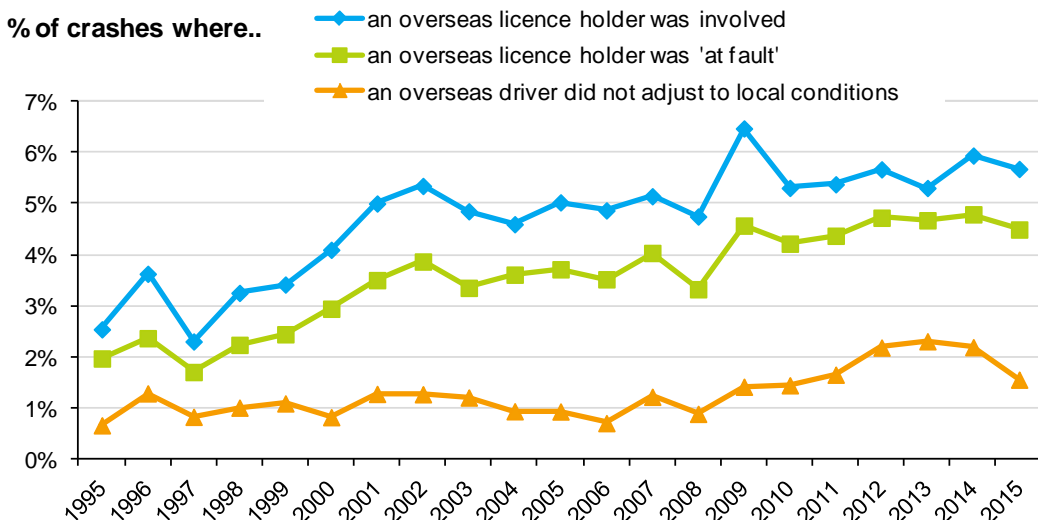
- ▶ an overseas driver was involved
- ▶ an overseas driver was at fault
- ▶ an overseas driver failed to adapt to New Zealand driving conditions.

The top graph includes all fatal, serious and minor injury crashes, while the bottom graph is limited to the smaller number of fatal and serious injury crashes.

Percent of fatal and injury crashes that involve an overseas licence holder



Percent of fatal and serious injury crashes that involve an overseas licence holder



The long-term trends for fatal and serious injury crashes are very similar to the trends for all crashes. The small upturn in 2015 for minor injury crashes (upper graph) is not apparent for fatal and serious injury crashes (lower graph).

Appendix 1 shows the numbers of crashes that involve overseas licence holders, broken down by crash severity.

To provide a large enough number of crashes for the detailed breakdowns shown in the remainder of this document, all fatal, serious and minor injury crashes are used. Fatal and serious injury crashes make up just over one-fifth of these crashes.

Regional variations

While nationally only about 6 percent of crashes involve an overseas driver, at a local level the proportion and scale can vary markedly due to regional differences in the size of the visitor and immigrant populations and their driving patterns. The following table lists the top 20 local bodies, firstly based on the number of crashes involving overseas drivers (left) and then by the proportion of crashes in that region that involve an overseas driver. In the South Island tourist areas, crashes involving an overseas driver are a significant proportion of the crashes, but the largest number of crashes involving overseas drivers is in Auckland, the biggest population centre.

Top 20 local bodies by fatal and injury crashes involving overseas drivers (2011–2015)

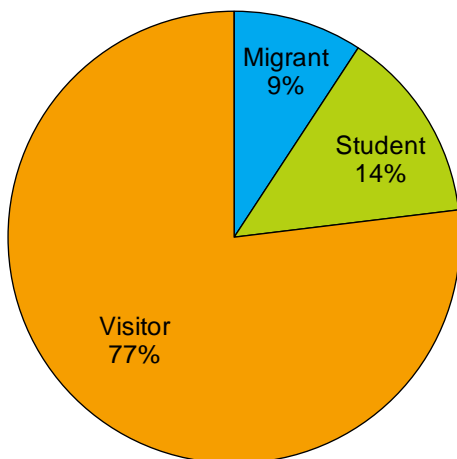
Top 20 by number of crashes involving overseas drivers			Top 20 by proportion of crashes involving overseas drivers		
Local body	Crashes involving overseas drivers	Percentage of crashes that involved an overseas driver	Local body	Crashes involving overseas drivers	Percentage of crashes that involved an overseas driver
Auckland	701	5%	Westland	63	37%
Christchurch	224	6%	Mackenzie	27	27%
Southland	157	24%	Queenstown-Lakes	114	25%
Queenstown-Lakes	114	25%	Southland	157	24%
Far North	86	10%	Kaikoura	21	20%
Dunedin	67	4%	Buller	31	17%
Westland	63	37%	Central Otago	42	16%
Waikato	59	5%	Hurunui	45	15%
Tasman	56	12%	Waitaki	52	13%
Hamilton	54	4%	Tasman	56	12%
Rotorua	53	8%	Thames-Coromandel	47	12%
Waitaki	52	13%	Waitomo	25	11%
Marlborough	51	10%	Ashburton	34	11%
Selwyn	50	10%	Marlborough	51	10%
Western BoP	50	8%	Grey	20	10%
Taupo	49	9%	Clutha	43	10%
Thames-Coromandel	47	12%	Selwyn	50	10%
Hurunui	45	15%	Far North	86	10%
Clutha	43	10%	Otorohanga	15	10%
Central Otago	42	16%	Taupo	49	9%

The South Island has 42 percent of all the crashes that involve overseas drivers. By comparison the South Island has just over a quarter (27 percent) of all New Zealand road crashes.

Types of drivers

How many are tourists?

Note: 42% of overseas licence holders are not categorised on crash forms and are not included on this chart



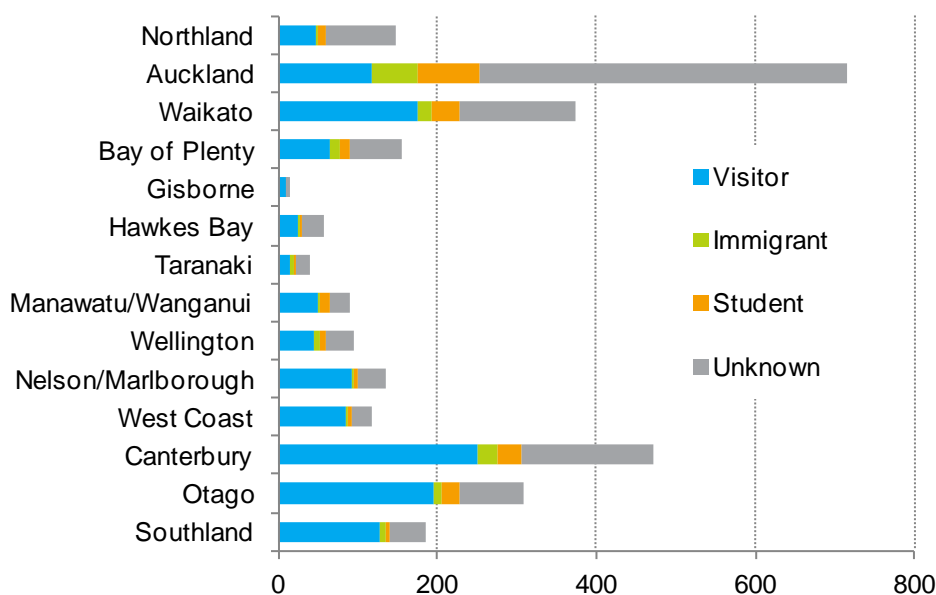
While there is some information on whether overseas licence holders are short-term visitors, students, or migrants, this is not always known.

At a national level, visitor status is not recorded for 42 percent of overseas licence holders in crashes.

For the drivers that have visitor status recorded about three-quarters (77 percent) are short-term visitors to New Zealand, 14 percent are overseas students and 9 percent are migrants.

The following graph shows that, for overseas licence holders involved in crashes, the mix of visitors, students and migrants varies across the country.

Overseas drivers involved in crashes – by region and visitor status



Crash reports from Auckland are least likely to identify whether or not an overseas licence holder is a short-term visitor – for Auckland, visitor status is unknown for 65 percent of overseas licence holders in crashes.

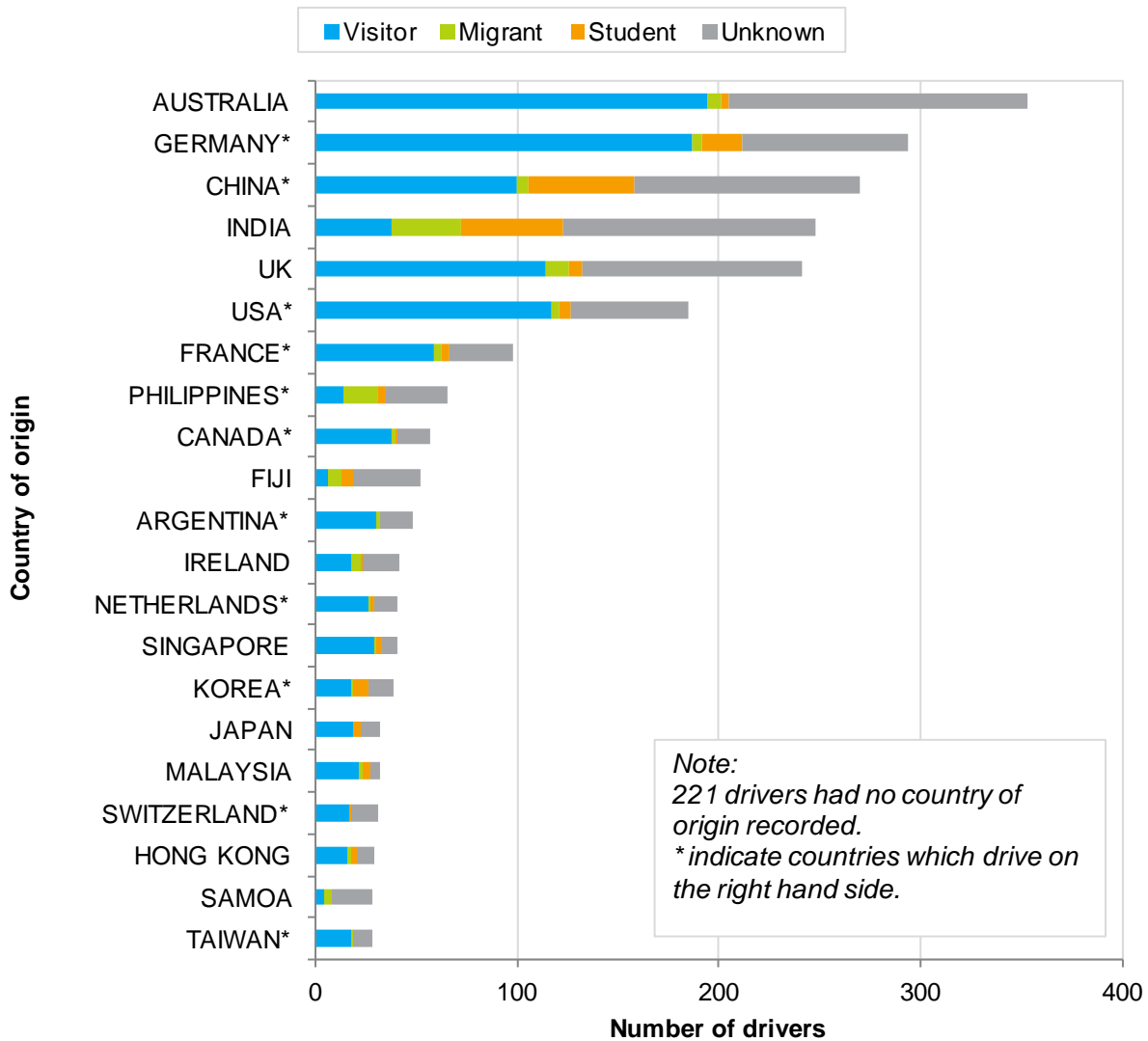
For those overseas licence holders in crashes where the visitor status is recorded:

- ▶ Auckland has the highest proportion of new migrants (23 percent) and also the highest proportion of overseas students (30 percent). Less than half (46 percent) are short-term visitors.

- ▶ The South Island has the highest proportion of short-term visitors (87 percent), ranging from 82 percent in Canterbury to 93 percent on the West Coast. The South Island has 42 percent of all the crashes that involve overseas licence holders and 58 percent of visitor crashes.

The graph below shows the top 21 countries for drivers involved in fatal or injury crashes, and indicates which of these countries drive on the right hand side of the road. Ten of the countries shown drive on the left hand side of the road².

Country of origin of overseas licence holders involved in fatal or injury crashes



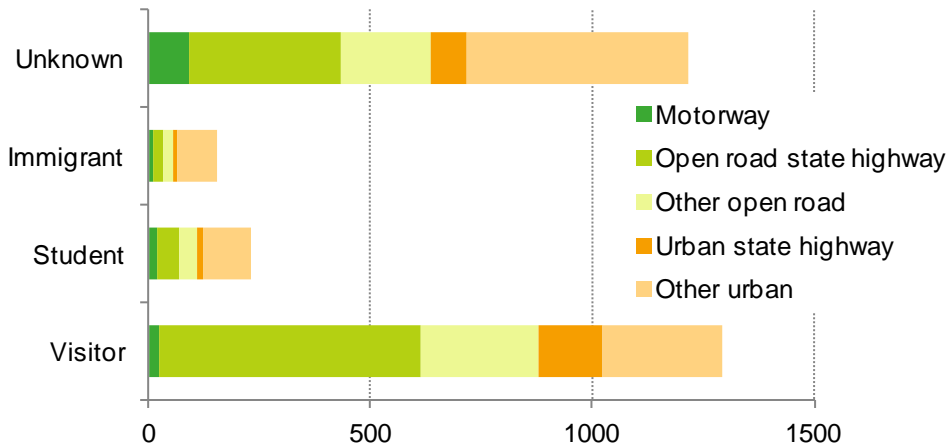
See the 'Selected countries' section for more information about the top 6 countries on this graph. This section shows how the relative contribution of these 6 countries to road crashes has changed over the last few years.

² Samoa changed from driving on the right to driving on the left in 2009.

Road types and types of crashes

Over half (58 percent) of overseas licence holder crashes are on the open road (speed limit 80km/h or higher). The pattern is different for visitors and new migrants. The majority (68 percent) of visitor crashes are on the open road, with two thirds of those being on state highways. For visitors about a third of their urban crashes are on state highways, the major through routes in urban areas. For new migrants and students the pattern is much more similar to New Zealand licence holders with about 40 percent of crashes on the open road and less than 15 percent of urban crashes on state highways.

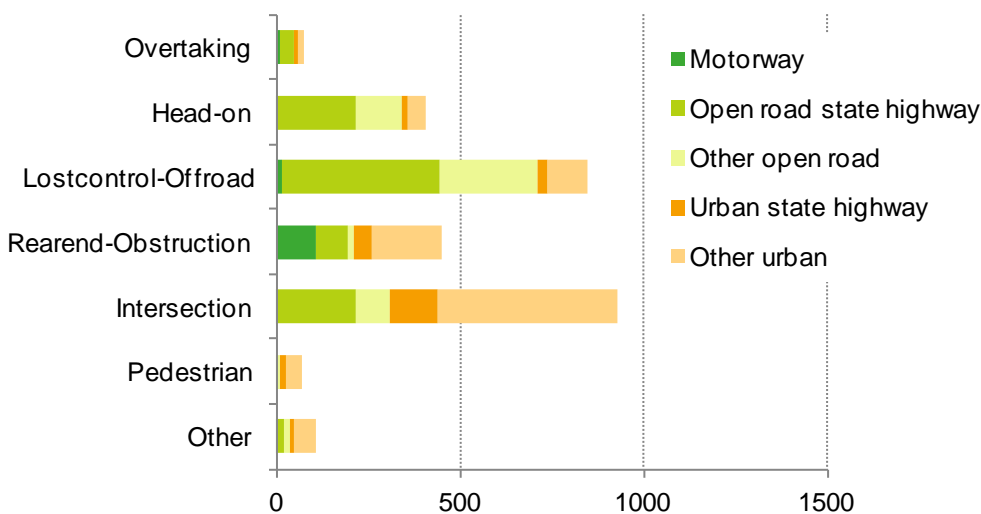
Overseas drivers involved in crashes – by road type and visitor status



The two biggest crash types for overseas licence holders are intersection collisions (32 percent) and single vehicle 'loss of control or run off road' crashes (29 percent). These are followed by 'rear end or collision with obstruction crashes' (15 percent) and head-on crashes (14 percent).

Over 80 percent of single vehicle 'loss of control or run off road' and head-on crashes occur on the open road. About two-thirds of intersection crashes are on urban roads.

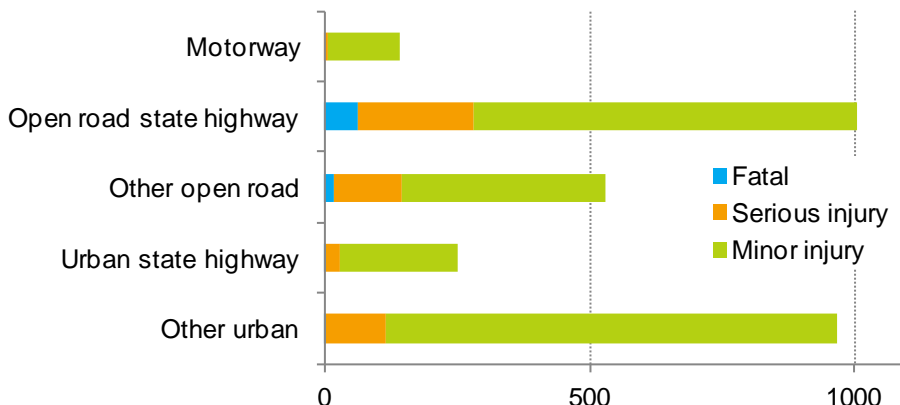
Overseas drivers involved in crashes – by road type and crash type



Crashes that occur in the higher speed environment of the open road are more likely to result in death or serious injury than urban crashes. For overseas drivers over 90 percent of fatal crashes are on the open road; 72 percent on open road state highways and 22 percent on other open roads.

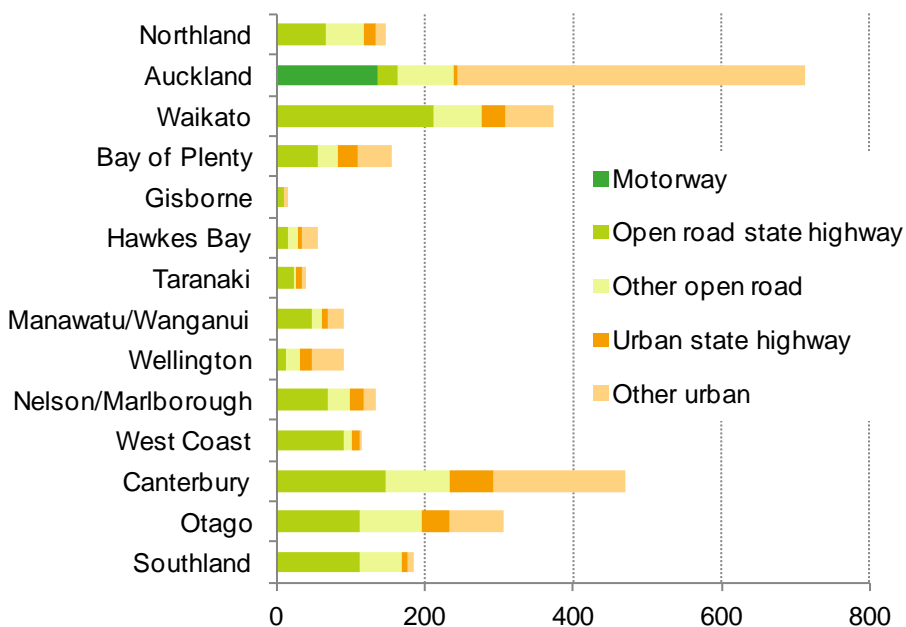
Over two thirds (72%) of serious injury crashes and just over a half (54 percent) of minor injury crashes are on the open road.

Overseas drivers involved in crashes – by road type and crash severity



At a national level over half (58 percent) of overseas licence holder crashes are on the open road but the pattern varies markedly between regions. For the West Coast and Southland regions about 90 percent of crashes are on the open road. The comparable figure for Wellington and Auckland is about a third.

Overseas drivers involved in crashes – by road type and region



Causes

The table below shows the driver factors that contributed to crashes for at-fault drivers. The numbers for New Zealand drivers are shown for comparison to overseas licence holders. The percentage of at-fault drivers with each contributing factor is shown in the following graph.

Driver factors contributing to crashes for at-fault drivers 2011-2015

Driver factors contributing to the crash	Fatal and injury crashes		Fatal crashes	
	Overseas licence holders	NZ drivers	Overseas licence holders	NZ drivers
Driver lost control	752	12006	25	488
Overseas driver failed to adjust to NZ rules/conditions	687	46	35	0
Failed to give way or stop	620	10241	17	121
Did not see other party	400	8394	8	118
Inattention or attention diverted	361	9115	10	173
Too fast for conditions	294	7048	15	364
Too far left	235	3002	7	96
Driver tired or fell asleep	163	2697	13	161
Failed to keep left	119	1086	18	173
Inexperienced	118	3252	2	73
Following too close	105	3547	0	7
Alcohol/drugs	104	6161	6	365
Suddenly braked or turned	77	1273	1	22
Misjudged speed, distance etc	76	1513	0	21
Forbidden movements	69	188	6	9
Overtaking	32	766	3	35
Incorrect use of vehicle controls	19	634	0	8
Illness/Disability	18	1723	1	69
Wrong lane or turned from wrong position	12	234	1	4
Failed to signal in time	8	82	0	1
Showing off / racing	4	323	0	18
Total number of at-fault drivers in crashes	2143	41465	76	1121
Number from countries that drive on the right	1129		40	

Note: There can be more than one factor for each driver.

About a third of at-fault overseas licence holders failed to adjust to New Zealand rules or conditions. This rises to 46 percent for fatal crashes. 'Failing to adjust' includes such things as driving on the wrong side of the road and not understanding give way rules.

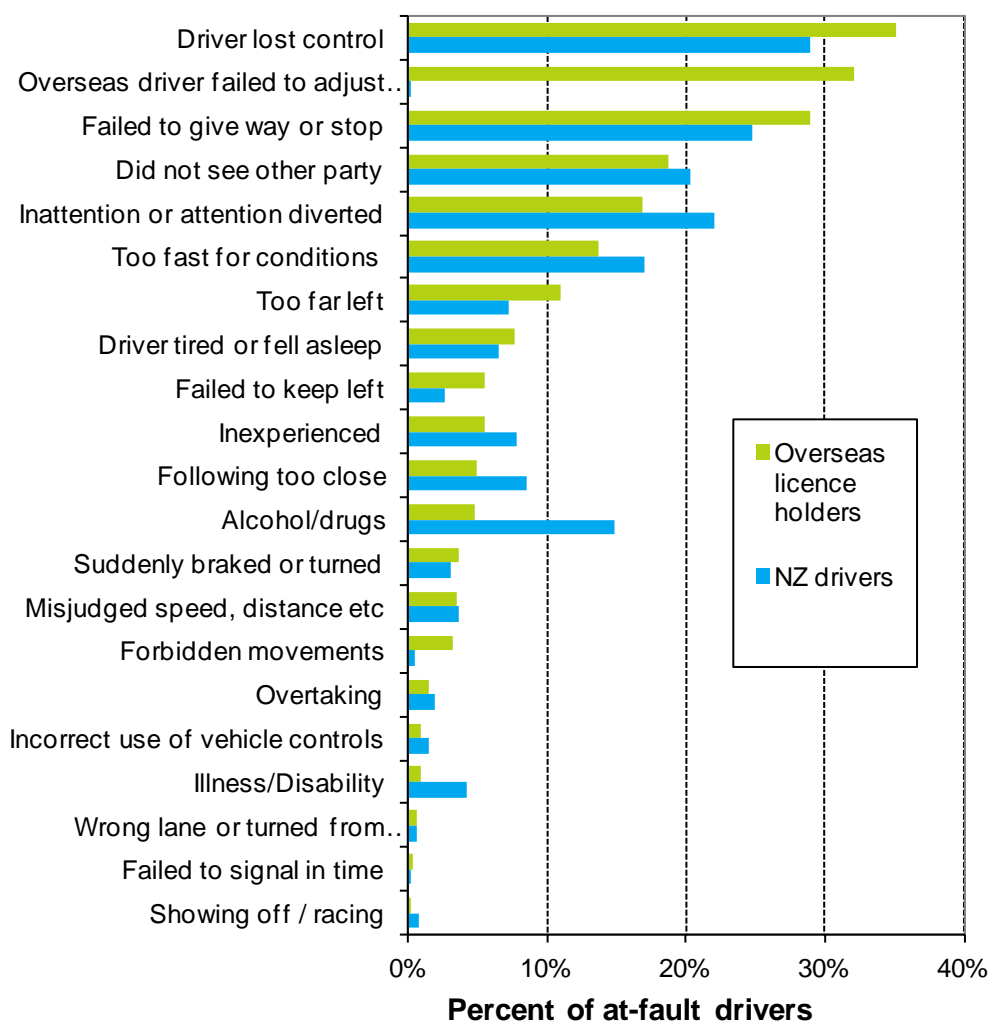
Overseas licence holders (7 percent for drivers from countries that drive on the right and 4 percent for countries that drive on the left) are more likely to fail to keep left than New Zealand drivers (2.6 percent). For fatal crashes these rise to 24 percent for overseas licence holders and 15 percent for New Zealand drivers.

Just over half (53 percent) the overseas licence holders at-fault in crashes are from countries that drive on the right.

There can be many reasons for being on the wrong side of the road including driving too fast, inattention and fatigue. The number of New Zealand at-fault drivers in crashes who fail to keep left is about 9 times the number of overseas licence holders who fail to keep left.

Another major difference is that overseas licence holders (5 percent) are less likely to be affected by alcohol and drugs than New Zealand drivers (15 percent). For fatal crashes these rise to 8 percent and 33 percent respectively.

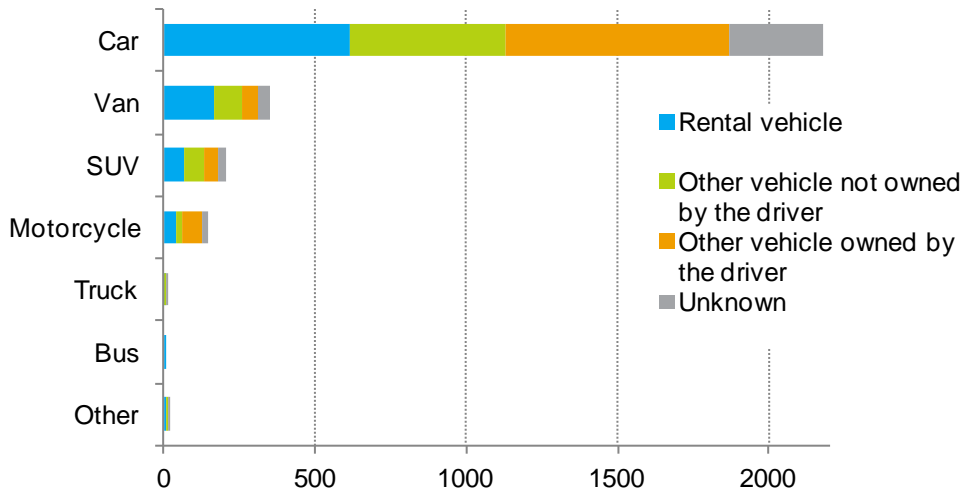
Factors contributing to crashes



Vehicles

Most overseas drivers involved in crashes (75 percent) are driving a car. About 12 percent are driving vans. The 'Other' category on the graph below are mainly bigger campervans.

Overseas drivers involved in crashes – rental vehicles by vehicle type



Overall, where the vehicle ownership is recorded on the crash report, just over a third (36 percent) of overseas drivers are driving rental vehicles. This varies by vehicle type. About a third of cars, SUVs and motorbikes are rentals compared to about a half of vans.

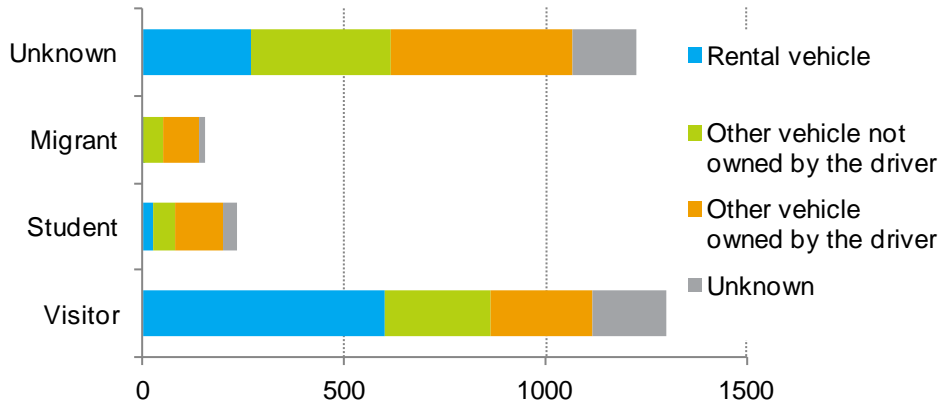
For drivers involved in crashes, rental vehicle use by overseas licence holders (36 percent) is much higher than for other drivers (1 percent). So overseas licence holders make up nearly two thirds (65 percent) of rental vehicle drivers in fatal and injury crashes.

As can be seen in the table and graph below, visitors are much more likely to be driving rental vehicles (over a half – 54 percent) than students (12 percent) or new migrants (2 percent).

Vehicle ownership

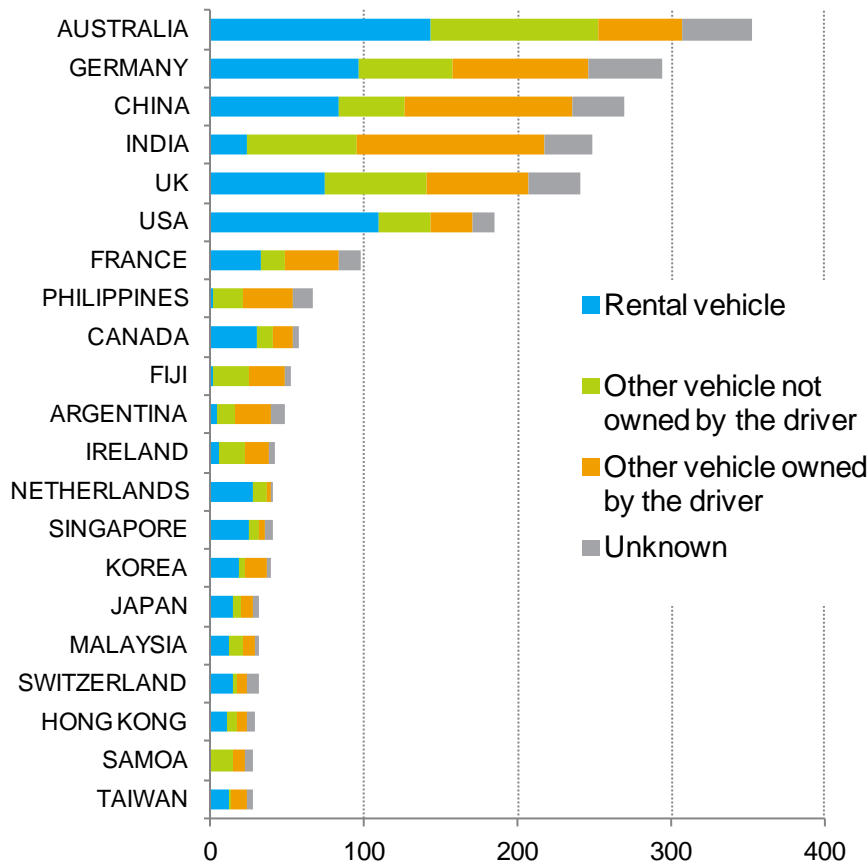
Type of overseas licence holder	Vehicle ownership (from Crash Analysis System)					Rental as a percent of known ownership
	Rental vehicle	Other vehicle not owned by the driver	Other vehicle owned by the driver	Unknown	Total	
Unknown	268	350	447	159	1224	25%
Migrant	3	50	85	18	156	2%
Student	24	54	119	36	233	12%
Visitor	603	259	255	182	1299	54%
Total	898	713	906	395	2912	36%

Overseas drivers involved in crashes – rental vehicles by visitor status



Rental vehicle use varies markedly by country of origin. For the six countries with the greatest number of drivers in crashes, the percentage of drivers in rental vehicles ranges from 11 percent, for drivers from India, to 64 percent, for drivers from the USA.

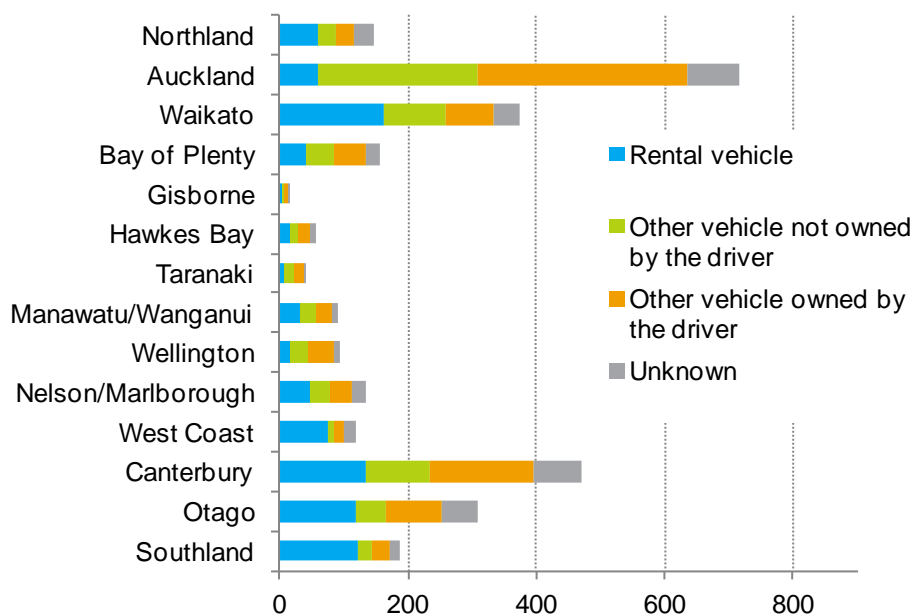
Overseas drivers involved in crashes – rental vehicles by country of origin



The use of rental vehicles is not spread evenly around the country. Over half of the overseas drivers that crash in rental vehicles are in the South Island.

Rental vehicle drivers make up about three-quarters of overseas licence holders in crashes in the West Coast (76 percent) and Southland regions (72 percent). The lowest proportion of overseas drivers in rental vehicles is in Wellington (20 percent), Taranaki (18 percent) and Auckland (9 percent).

Overseas drivers involved in crashes – rental vehicles by region



For overseas drivers, most rental vehicle crashes are on open road state highways (56 percent) and other open roads (20 percent). A further 10 percent occur on the urban sections of state highways that pass through built-up areas.

Half the overseas drivers that crash on state highways or other open roads are in rental vehicles. This compares to only 12 percent on motorways and other (non-state highway) urban roads.

Time of day

The following table and graph show the spread of crashes across the hours of the day for both New Zealand drivers and overseas licence holders.

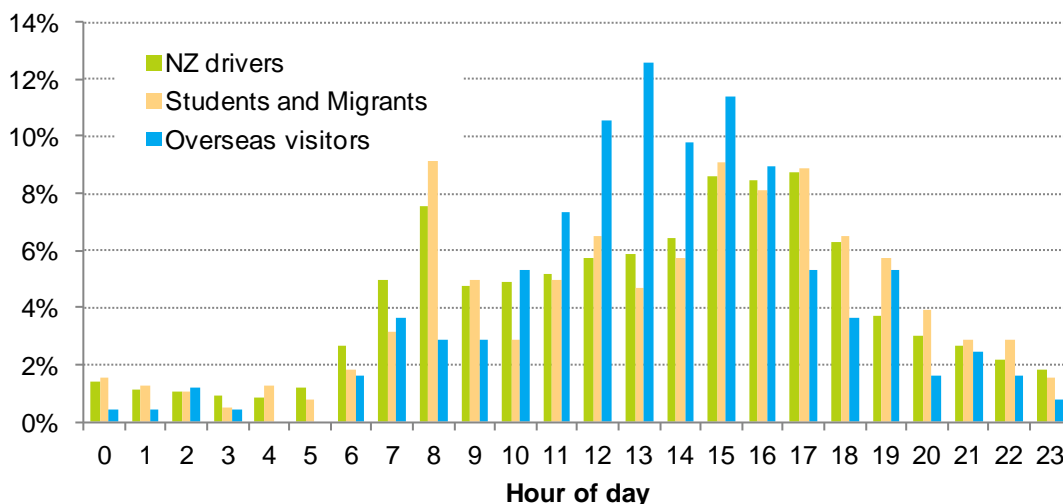
Crashes by time of day.

	Percent of all drivers in crashes				Percent of weekend crashes that are at night
	Day (0600-1759)	Evening (1800-2159)	Night (2200-0559)	Weekend	
NZ drivers	73%	16%	10%	30%	21%
Overseas drivers					
Visitors	79%	16%	4%	30%	7%
Students and migrants	69%	19%	11%	29%	21%

For visitors, 79 percent of crashes are during the day (6am to 6 pm) and only 4 percent are late night (10pm to 6am). This compares to 73 percent during the day and 10 percent at night for New Zealand drivers. For overseas students and new migrants 11 percent are at night.

The proportion of crashes that occur during the weekend (Friday evening to early morning Monday) is similar (about 30 percent) for all groups. The proportion of weekend crashes that occur late night is much lower for visitors (7 percent) than for students/migrants (21 percent) and New Zealand drivers (21 percent).

Time of day for overseas licence holder crashes

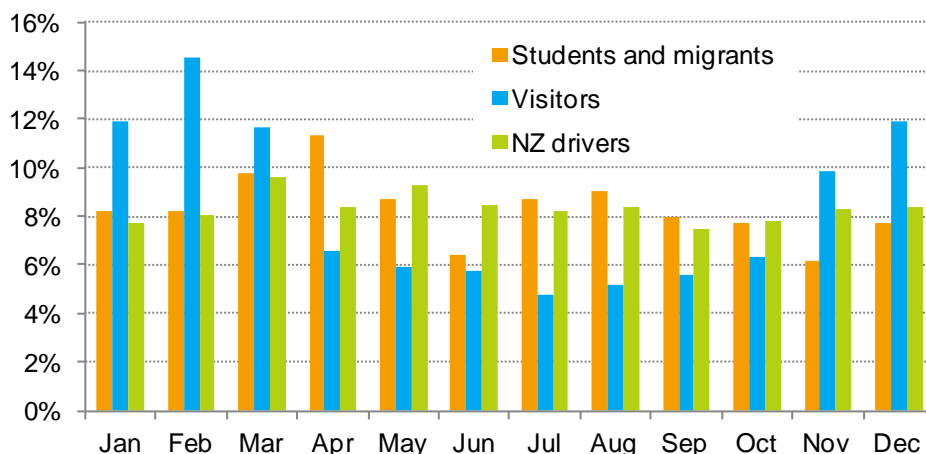


For visitors the number of crashes peaks in early to mid-afternoon. For overseas students and new migrants the pattern is more similar to New Zealand drivers with morning and afternoon commuter peaks.

Seasonal variation

There is a much stronger seasonal variation in crashes for overseas licence holders than for New Zealand drivers. This is particularly so for short-term visitors who have over twice as many crashes in the 3 months January to March as in the 3 months May to July. Half of all visitor crashes occur in the 4 months from December to March.

Crashes by month

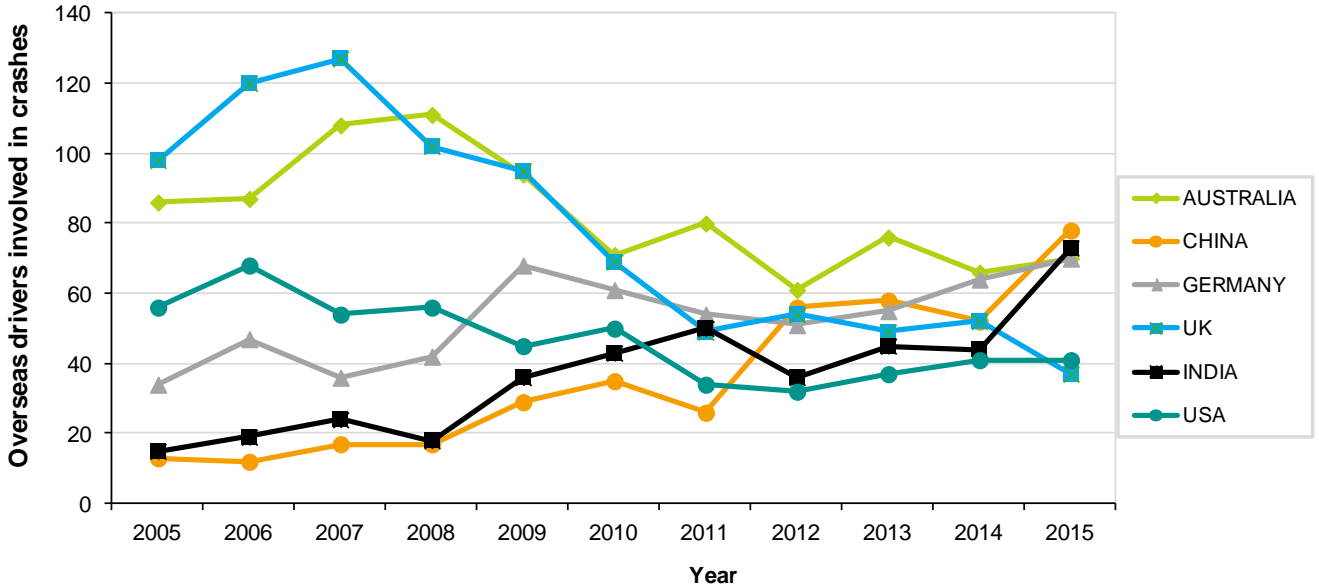


Selected countries

This section looks in more detail at the top 6 countries, each of which contribute more than 5 percent of the overseas drivers involved in crashes (2011-2015). Combined, these 6 countries contribute over half (55 percent) of the overseas drivers in crashes.

The graph below shows the number of drivers involved in crashes each year from 2005, the first year for which information on country of origin for overseas licence holders in crashes is available.

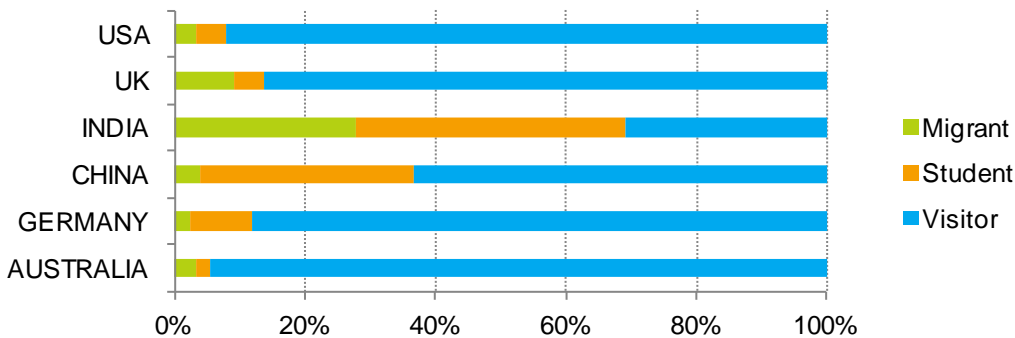
Overseas licence holders involved in crashes – selected countries



The relative importance of the selected countries has changed markedly over the last 11 years. For example, while the number of drivers from the UK has more than halved, the number from China has increased to about 6 times what it was in 2005. In the last year, the biggest increases were for China and India, with licence holders from both countries now being involved in a similar number of crashes as Australian and German licence holders.

The mix of visitors, students and migrants is quite different for these countries. For the USA and Australia over 90 percent are visitors while for India the number of visitors and migrants are about equal and over 40 percent are students. These results should be treated as indicative as the percentage of drivers with no visitor status recorded on the crash report varies from about a quarter to a half (see the table below).

Visitor status (where status is recorded)

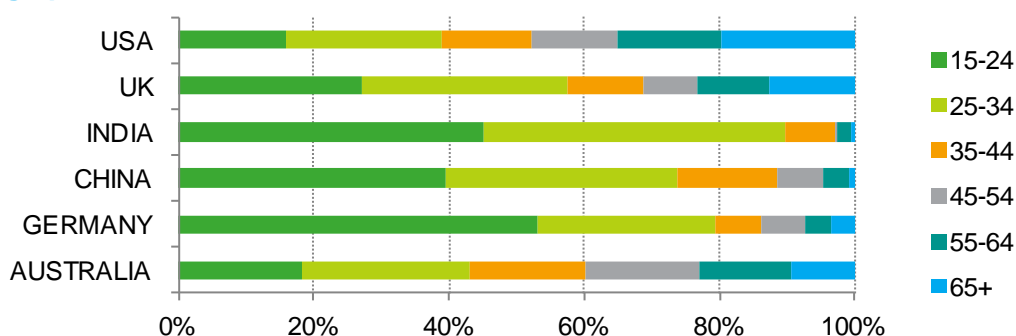


Overseas drivers in crashes by visitor status 2011-2015

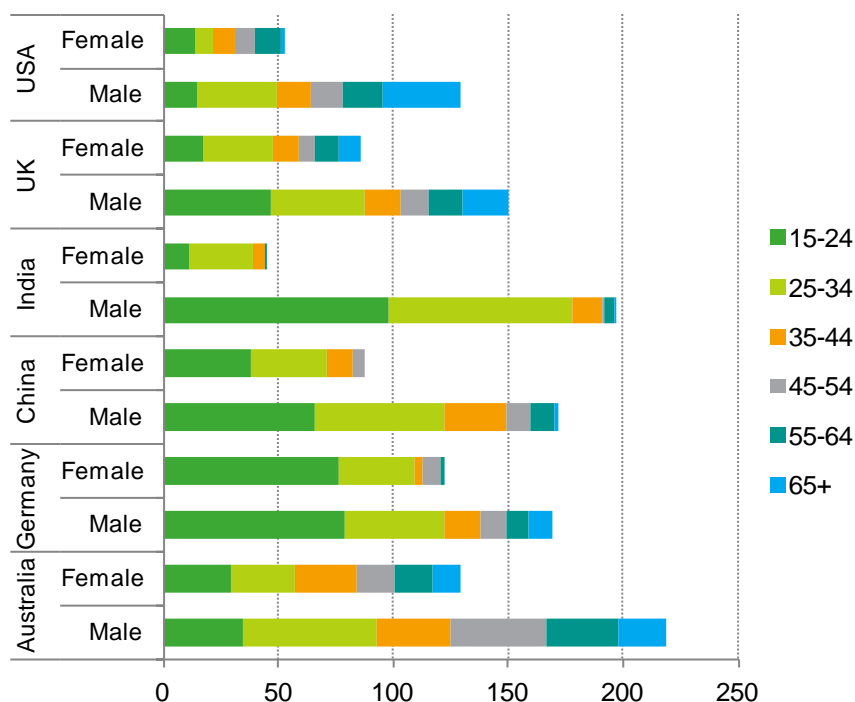
Country	Visitor status					% with unknown status
	Unknown	Migrant	Student	Visitor	Total	
Australia	148	7	4	194	353	42%
Germany	82	5	20	187	294	28%
China	112	6	52	100	270	41%
India	125	34	51	38	248	50%
UK	109	12	6	114	241	45%
USA	58	4	6	117	185	31%

There are also marked differences in the age profiles for drivers from these 6 countries. For China and India, with a bigger proportion of students, about 40 percent of drivers are under 25 years old. For India about 90 percent are under 35 years old. German licence holders in crashes are also young, about half are under 25 and over three-quarters are under 35. For the other countries there is a more even spread across age groups.

Age profile of overseas drivers in crashes



Age and sex of overseas drivers in crashes



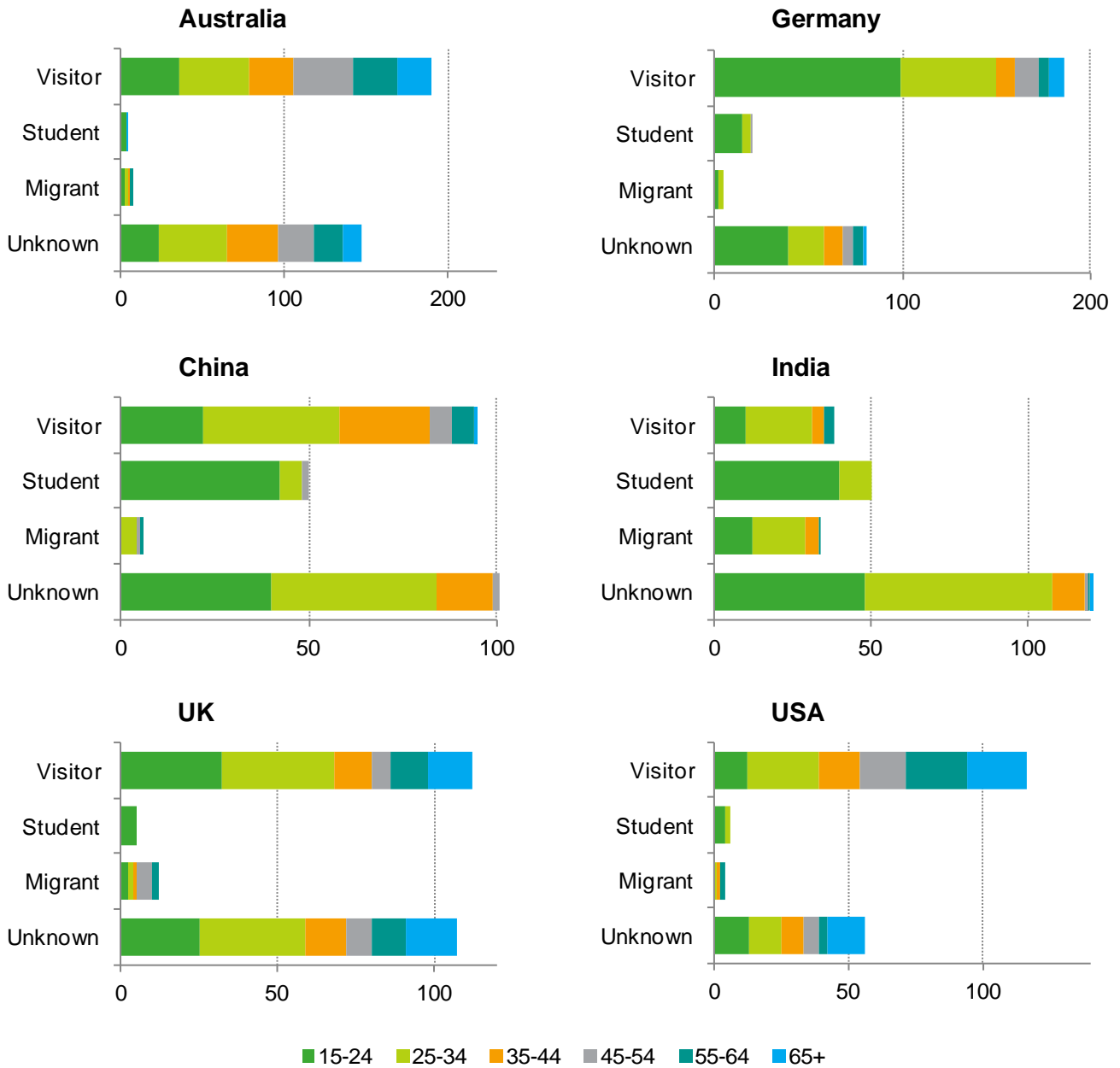
There are also marked differences in the male/female breakdown for drivers from these 6 countries.

The percentage of drivers that are female ranges from 18 percent for India to 42 percent for Germany. For other countries the percentages are; USA 29 percent, China 34 percent, Australia 37 percent and UK 37 percent.

Generally the percentage of female drivers reduces with age. Nearly half the under 25 year old drivers from Germany (49 percent), the USA (48 percent) and Australia (45 percent) are female.

The following graphs show the age profiles broken down by visitor status.

Age profile by visitor status



Note: different axes used for the country graphs to best display age profiles

Germany has the highest proportion of visitors (53 percent) under 25 years old. Over three-quarters (81%) of German visitors are under 35.

India also has a high proportion of visitors (82 percent) under 35 years old. About two-thirds of those are over 25.

For both the UK and China about 60 percent of visitors are under 35.

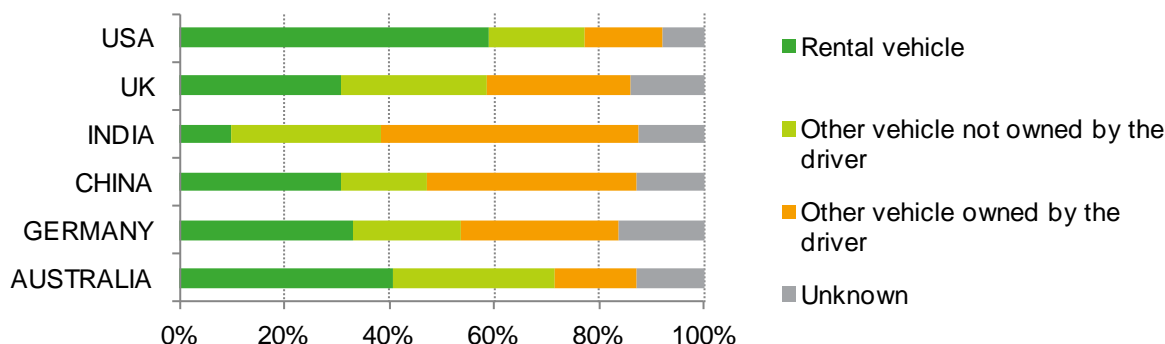
For Australia and the USA there is a more even spread of visitor numbers across all age groups, with about 40 percent or less under 35.

The table and graph below show that vehicle ownership and rental vehicle use varies markedly by country.

Vehicle ownership for overseas licence holders in crashes

Country	Vehicle ownership (from Crash Analysis System)					Rental as a percent of known ownership
	Rental vehicle	Other vehicle not owned by the driver	Other vehicle owned by the driver	Unknown	Total	
Australia	143	109	55	46	353	47%
Germany	97	60	89	48	294	39%
China	83	44	108	35	270	35%
India	24	71	122	31	248	11%
UK	74	67	66	34	241	36%
USA	109	34	27	15	185	64%

Vehicle ownership for drivers in crashes



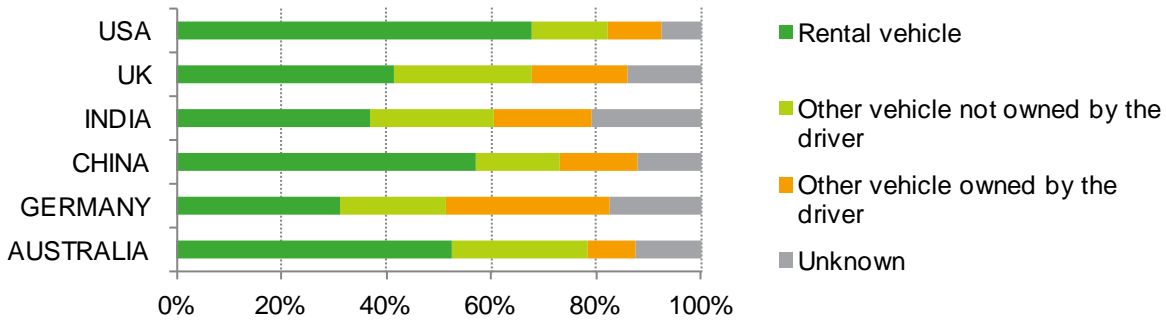
Based on the vehicles where ownership is recorded, drivers from the USA (64 percent) and Australia (47 percent) are much more likely to be driving a rental vehicle than drivers from China (35 percent) or India (11 percent). About half the drivers from China (46 percent) and India (56 percent) were driving their own vehicle.

In an earlier section we saw that visitors are more likely than migrants or students to be driving rental vehicles. The following graph shows vehicle ownership for overseas licence holders who are identified as visitors. The variation between countries is not as great as when migrants and students were included.

Based on the vehicles where ownership is recorded; rental vehicle use ranges from 60 percent or higher for visitors from the USA (73 percent), China (60 percent) and Australia (60 percent) down to less than half for visitors from the UK (48 percent), India (47 percent) and Germany (38 percent).

There are further differences between age groups within each country group. One example is for young German drivers. About half the German visitors in crashes are under 25 and only 15 percent of those are driving rental vehicles. Most are driving vehicles owned by the driver (52 percent) or some other private owner (33 percent), possibly another occupant of the vehicle.

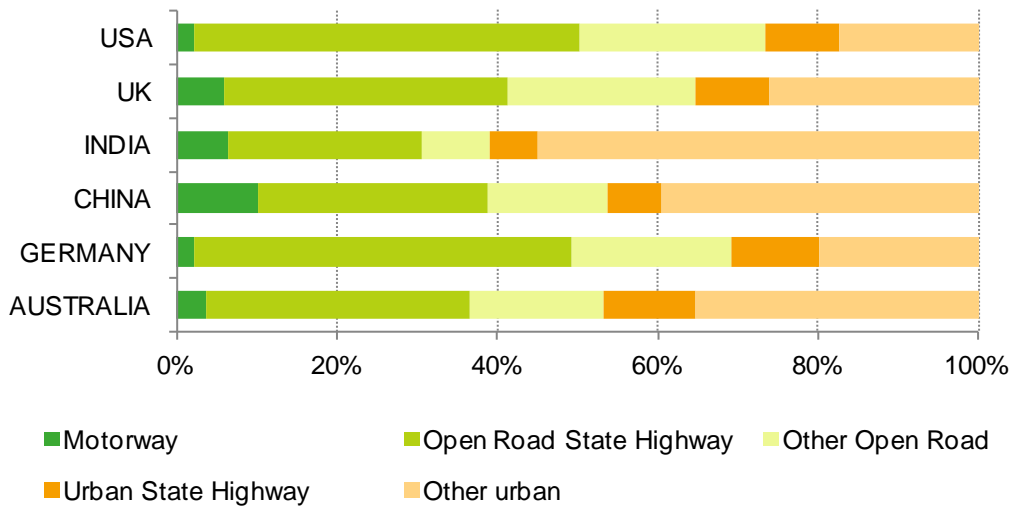
Vehicle ownership for 'visitors' in crashes



As can be seen in the graphs on the following page there is a large variation in the regional spread of crashes for drivers from the selected countries. The graphs show visitors and other overseas drivers separately. Drivers with unknown visitor status are included in the other category, along with students and migrants.

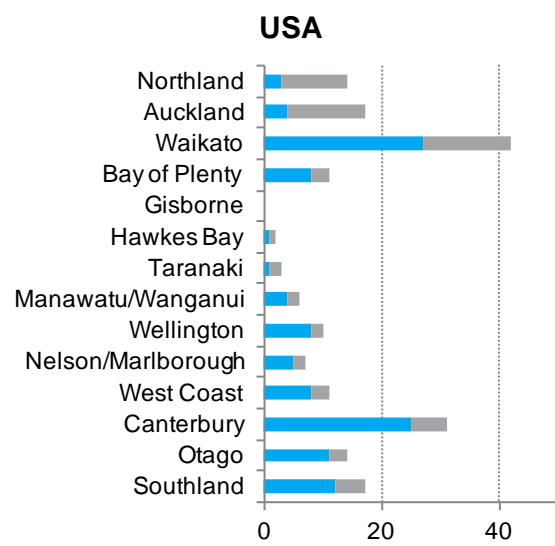
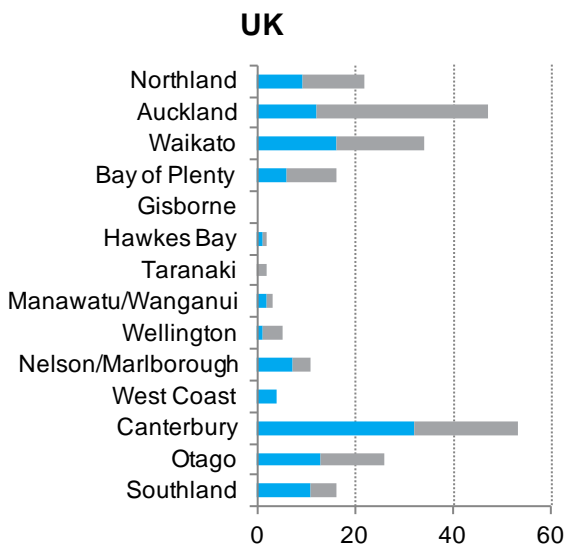
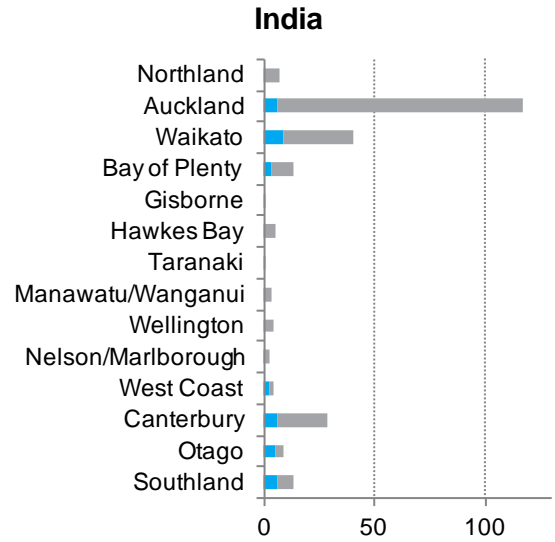
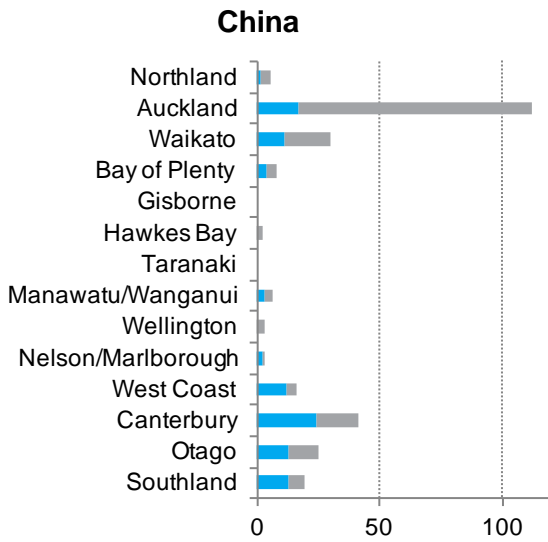
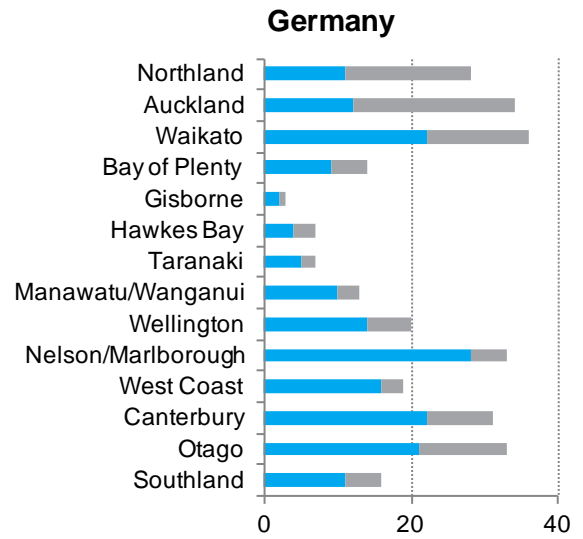
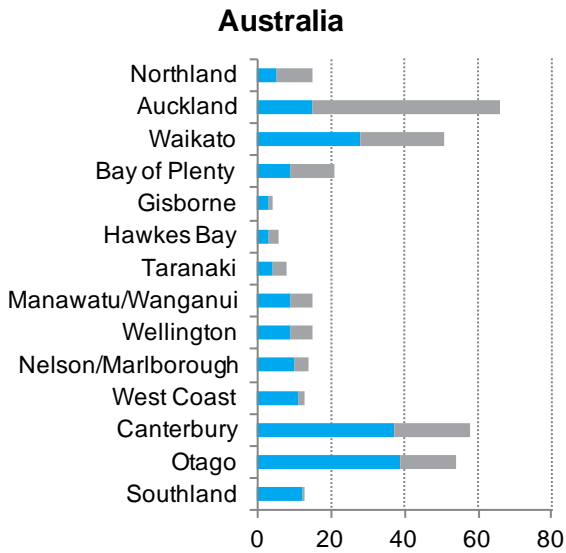
The different mixes of visitor status and regional spread of crashes mean that the mix of road types for crashes varies between the selected countries.

Overseas drivers involved in crashes – percent by road type (selected countries)



Well over half of crashes for drivers from the USA (71 percent), Germany (67 percent) and the UK (58 percent) occur on the open road, excluding motorways. This compares to 43 percent for drivers from China and 32 percent of drivers from India. Under 20 percent of crashes for USA and German licence holders occur on urban roads not on the state-highway system compared to 54 percent for Indian licence holders.

Regional spread of crashes for selected countries



■ Visitor ■ Other overseas

Note: different axes used for the country graphs to best display regional profiles.
 Drivers with unknown visitor status are included in the other category, along with students and migrants

Appendix 1

The tables in this appendix show time series of the numbers of:

- ▶ **crashes** involving overseas drivers
- ▶ **casualties** in those crashes
- ▶ overseas **drivers** in crashes.

Each table is broken down by crash severity.

In each case there are also separate tables for crashes where:

- ▶ an overseas driver was involved
- ▶ an overseas driver was at fault
- ▶ an overseas driver failed to adjust to NZ driving laws or conditions

Example

The following contrived example illustrates some of these categories:

<i>Crash severity</i>	<i>Overseas drivers involved</i>	<i>Other drivers involved</i>	<i>Deaths</i>	<i>Description</i>
<i>Fatal</i>	<i>2 – not at fault</i>	<i>1 at fault</i>	<i>1</i>	<i>Crash 1 involved 3 vehicles, 2 driven by overseas drivers and 1 by a local driver. The local driver was at fault. One passenger with the local driver died.</i>
<i>Fatal</i>	<i>1 – at fault – and failed to adjust to NZ conditions</i>	<i>1 not at fault</i>	<i>2</i>	<i>Crash 2 involved 2 vehicles, 1 driven by an overseas driver from a country that drives on the right. He was on the wrong side of the road. Both drivers died in the head-on collision.</i>
<i>Fatal</i>	<i>1 – at fault</i>	<i>None</i>	<i>2</i>	<i>Crash 3 was a single vehicle crash in which the overseas driver was travelling too fast and went off the road. Both occupants of the car died.</i>
<i>Fatal X17</i>	<i>none</i>	<i>24</i>	<i>30</i>	<i>There were 17 other crashes that did not involve an overseas driver. 24 drivers were involved in these crashes and 30 people died.</i>

Crashes: *There were 20 fatal crashes.*

- ▶ *3 (15 percent) where an overseas driver was involved*
- ▶ *2 (10 percent) where an overseas driver was at fault*
- ▶ *1 (5 percent) where an overseas driver failed to adjust to NZ conditions*

Casualties: *There were 35 deaths.*

- ▶ *5 (14.3 percent) in crashes where an overseas driver was involved*
- ▶ *4 (11.4 percent) in crashes where an overseas driver was at fault*
- ▶ *2 (5.7 percent) in crashes where an overseas driver failed to adjust to NZ conditions*

Drivers: *There were 30 drivers involved in these crashes.*

- ▶ *4 (13.3 percent) were overseas drivers*
- ▶ *2 (6.7 percent) were overseas drivers who were at fault*
- ▶ *1 (3.3 percent) was an overseas driver who failed to adjust to NZ conditions*

Crashes involving overseas drivers, by crash severity

Year	Fatal crashes		Serious injury crashes		Minor injury crashes	
	Crashes	% of crashes	Crashes	% of crashes	Crashes	% of crashes
1995	20	4.0%	56	2.3%	271	2.9%
1996	18	3.9%	83	3.6%	241	3.1%
1997	19	4.1%	39	1.9%	226	3.2%
1998	14	3.2%	63	3.3%	216	3.3%
1999	17	3.9%	64	3.3%	207	3.4%
2000	20	5.2%	69	3.9%	233	4.1%
2001	16	4.1%	101	5.2%	305	4.6%
2002	14	3.8%	120	5.6%	478	6.2%
2003	21	5.2%	99	4.8%	515	6.3%
2004	22	5.9%	90	4.4%	476	5.9%
2005	14	4.1%	109	5.2%	443	5.2%
2006	18	5.1%	105	4.8%	484	5.4%
2007	17	4.5%	113	5.3%	531	5.5%
2008	17	5.1%	100	4.7%	544	5.9%
2009	21	6.2%	129	6.5%	533	6.0%
2010	18	5.3%	99	5.3%	463	5.3%
2011	15	5.8%	92	5.3%	438	5.6%
2012	20	7.5%	94	5.4%	408	5.3%
2013	11	4.6%	90	5.4%	451	6.0%
2014	19	7.1%	100	5.8%	436	6.3%
2015	19	6.5%	101	5.5%	543	7.1%

Crashes where an overseas driver was at fault, by crash severity

Year	Fatal crashes		Serious injury crashes		Minor injury crashes	
	Crashes	% of crashes	Crashes	% of crashes	Crashes	% of crashes
1995	12	2.4%	47	1.9%	166	1.8%
1996	13	2.8%	53	2.3%	166	2.1%
1997	16	3.4%	27	1.3%	153	2.2%
1998	10	2.3%	43	2.2%	140	2.2%
1999	13	3.0%	45	2.3%	140	2.3%
2000	14	3.7%	50	2.8%	153	2.7%
2001	12	3.0%	70	3.6%	219	3.3%
2002	11	3.0%	86	4.0%	330	4.3%
2003	10	2.5%	73	3.5%	369	4.5%
2004	17	4.5%	71	3.4%	319	4.0%
2005	10	2.9%	81	3.8%	305	3.6%
2006	17	4.9%	72	3.3%	332	3.7%
2007	16	4.3%	86	4.0%	359	3.7%
2008	12	3.6%	70	3.3%	373	4.0%
2009	14	4.2%	92	4.6%	373	4.2%
2010	12	3.6%	81	4.3%	337	3.9%
2011	14	5.4%	73	4.2%	336	4.3%
2012	18	6.7%	77	4.4%	291	3.8%
2013	11	4.6%	78	4.7%	332	4.4%
2014	17	6.4%	79	4.5%	332	4.8%
2015	16	5.5%	79	4.3%	390	5.1%

Crashes where an overseas driver failed to adjust to NZ conditions, by crash severity

Year	Fatal crashes		Serious injury crashes		Minor injury crashes	
	Crashes	% of crashes	Crashes	% of crashes	Crashes	% of crashes
1995	9	1.8%	11	0.4%	43	0.5%
1996	10	2.2%	26	1.1%	51	0.7%
1997	10	2.1%	11	0.5%	53	0.8%
1998	6	1.4%	18	0.9%	53	0.8%
1999	4	0.9%	22	1.1%	38	0.6%
2000	7	1.8%	11	0.6%	49	0.9%
2001	3	0.8%	27	1.4%	54	0.8%
2002	6	1.6%	26	1.2%	83	1.1%
2003	5	1.2%	25	1.2%	61	0.7%
2004	5	1.3%	18	0.9%	38	0.5%
2005	5	1.5%	18	0.9%	44	0.5%
2006	4	1.1%	14	0.6%	47	0.5%
2007	6	1.6%	25	1.2%	63	0.7%
2008	1	0.3%	21	1.0%	91	1.0%
2009	6	1.8%	27	1.4%	101	1.1%
2010	7	2.1%	25	1.3%	120	1.4%
2011	6	2.3%	27	1.6%	126	1.6%
2012	9	3.4%	35	2.0%	88	1.2%
2013	7	2.9%	37	2.2%	102	1.4%
2014	7	2.6%	37	2.1%	90	1.3%
2015	6	2.1%	27	1.5%	109	1.4%

Overseas drivers involved in crashes, by crash severity

Year	Drivers in					
	Fatal crashes		Serious injury crashes		Minor injury crashes	
	Drivers	% of drivers	Drivers	% of drivers	Drivers	% of drivers
1995	20	2.6%	56	1.5%	273	1.8%
1996	18	2.7%	84	2.4%	244	2.0%
1997	19	2.7%	40	1.3%	230	2.0%
1998	14	2.0%	64	2.2%	218	2.1%
1999	17	2.5%	67	2.3%	210	2.1%
2000	20	3.3%	71	2.7%	231	2.6%
2001	16	2.7%	103	3.6%	315	3.1%
2002	15	2.7%	126	4.0%	495	4.0%
2003	23	3.7%	102	3.4%	526	4.0%
2004	24	4.1%	93	3.1%	480	3.7%
2005	14	2.6%	117	3.8%	449	3.3%
2006	18	3.3%	109	3.4%	493	3.5%
2007	19	3.4%	119	3.8%	541	3.5%
2008	17	3.6%	104	3.5%	555	3.7%
2009	21	4.1%	137	4.7%	542	3.8%
2010	20	4.0%	101	3.8%	484	3.5%
2011	15	3.9%	94	3.8%	448	3.6%
2012	22	5.5%	99	4.0%	416	3.5%
2013	11	2.9%	91	3.9%	460	3.9%
2014	19	4.8%	107	4.3%	441	4.1%
2015	20	4.5%	106	4.0%	563	4.6%

Overseas drivers at fault in crashes, by crash severity

Year	Drivers in					
	Fatal crashes		Serious injury crashes		Minor injury crashes	
	Drivers	% of drivers	Drivers	% of drivers	Drivers	% of drivers
1995	12	1.5%	47	1.3%	166	1.1%
1996	13	1.9%	53	1.5%	166	1.3%
1997	16	2.2%	27	0.9%	153	1.4%
1998	10	1.5%	43	1.5%	139	1.4%
1999	13	1.9%	45	1.6%	140	1.4%
2000	14	2.3%	50	1.9%	152	1.7%
2001	12	2.0%	70	2.5%	219	2.1%
2002	11	2.0%	85	2.7%	330	2.7%
2003	10	1.6%	73	2.4%	369	2.8%
2004	17	2.9%	71	2.4%	319	2.5%
2005	10	1.9%	81	2.6%	303	2.2%
2006	17	3.1%	72	2.2%	331	2.3%
2007	16	2.9%	85	2.7%	359	2.3%
2008	12	2.5%	70	2.3%	372	2.5%
2009	14	2.8%	92	3.2%	373	2.6%
2010	12	2.4%	81	3.1%	337	2.5%
2011	14	3.6%	73	3.0%	336	2.7%
2012	18	4.5%	77	3.1%	291	2.5%
2013	11	2.9%	78	3.3%	332	2.8%
2014	17	4.3%	79	3.2%	332	3.1%
2015	16	3.6%	79	3.0%	390	3.2%

Overseas drivers who failed to adjust to NZ conditions, by crash severity

Year	Drivers in					
	Fatal crashes		Serious injury crashes		Minor injury crashes	
	Drivers	% of drivers	Drivers	% of drivers	Drivers	% of drivers
1995	9	1.2%	11	0.3%	43	0.3%
1996	10	1.5%	26	0.8%	51	0.4%
1997	10	1.4%	11	0.4%	54	0.5%
1998	6	0.9%	18	0.6%	52	0.5%
1999	4	0.6%	23	0.8%	38	0.4%
2000	7	1.2%	11	0.4%	49	0.6%
2001	3	0.5%	27	1.0%	54	0.5%
2002	7	1.3%	26	0.8%	83	0.7%
2003	5	0.8%	25	0.8%	61	0.5%
2004	5	0.9%	18	0.6%	38	0.3%
2005	5	0.9%	18	0.6%	44	0.3%
2006	4	0.7%	14	0.4%	47	0.3%
2007	6	1.1%	25	0.8%	63	0.4%
2008	1	0.2%	21	0.7%	92	0.6%
2009	6	1.2%	27	0.9%	101	0.7%
2010	7	1.4%	25	0.9%	120	0.9%
2011	6	1.6%	28	1.1%	126	1.0%
2012	9	2.2%	35	1.4%	88	0.7%
2013	7	1.9%	37	1.6%	102	0.9%
2014	7	1.8%	37	1.5%	90	0.8%
2015	6	1.4%	27	1.0%	110	0.9%

Deaths and injuries in crashes involving overseas drivers, by injury severity

Year	Deaths		Serious Injuries		Minor injuries	
	Number	% of deaths	Number	% of serious	Number	% of minor
1995	27	4.6%	77	2.4%	444	3.2%
1996	19	3.7%	114	3.9%	432	3.6%
1997	26	4.8%	71	2.7%	402	3.7%
1998	20	4.0%	92	3.8%	401	4.0%
1999	24	4.7%	105	4.3%	395	4.1%
2000	23	5.0%	108	4.7%	445	5.1%
2001	23	5.1%	146	5.9%	563	5.6%
2002	19	4.7%	181	6.9%	784	6.9%
2003	23	5.0%	148	5.7%	842	7.1%
2004	28	6.4%	130	5.1%	775	6.7%
2005	14	3.5%	153	5.9%	746	6.2%
2006	21	5.3%	151	5.6%	787	6.2%
2007	21	5.0%	158	5.9%	865	6.4%
2008	18	4.9%	141	5.5%	855	6.7%
2009	24	6.3%	194	7.9%	876	7.2%
2010	20	5.3%	144	6.3%	731	6.2%
2011	17	6.0%	124	6.0%	676	6.4%
2012	30	9.7%	134	6.4%	620	6.1%
2013	13	5.1%	119	6.0%	666	6.7%
2014	27	9.2%	149	7.2%	701	7.6%
2015	22	6.9%	143	6.7%	867	8.6%

Deaths and injuries in crashes where an overseas driver was at fault, by injury severity

Year	Deaths		Serious Injuries		Minor injuries	
	Number	% of deaths	Number	% of serious	Number	% of minor
1995	16	2.7%	60	1.9%	281	2.0%
1996	14	2.7%	79	2.7%	296	2.5%
1997	21	3.9%	51	1.9%	282	2.6%
1998	15	3.0%	61	2.5%	272	2.7%
1999	15	2.9%	76	3.1%	274	2.8%
2000	15	3.2%	77	3.4%	303	3.5%
2001	17	3.7%	103	4.2%	405	4.1%
2002	15	3.7%	136	5.2%	542	4.8%
2003	12	2.6%	99	3.8%	606	5.1%
2004	23	5.3%	103	4.1%	511	4.4%
2005	10	2.5%	112	4.3%	511	4.2%
2006	20	5.1%	101	3.8%	548	4.3%
2007	20	4.8%	122	4.5%	605	4.5%
2008	13	3.6%	102	4.0%	596	4.7%
2009	16	4.2%	140	5.7%	603	4.9%
2010	14	3.7%	120	5.2%	543	4.6%
2011	16	5.6%	102	4.9%	531	5.0%
2012	28	9.1%	111	5.3%	449	4.4%
2013	13	5.1%	105	5.3%	515	5.2%
2014	25	8.5%	122	5.9%	552	6.0%
2015	19	6.0%	113	5.3%	616	6.1%

Deaths and injuries in crashes where an overseas driver failed to adjust to NZ conditions, by injury severity

Year	Deaths		Serious Injuries		Minor injuries	
	Number	% of deaths	Number	% of serious	Number	% of minor
1995	11	1.9%	15	0.5%	86	0.6%
1996	11	2.1%	48	1.6%	103	0.9%
1997	13	2.4%	26	1.0%	119	1.1%
1998	9	1.8%	25	1.0%	117	1.2%
1999	4	0.8%	43	1.7%	102	1.1%
2000	7	1.5%	20	0.9%	110	1.3%
2001	3	0.7%	46	1.9%	115	1.2%
2002	7	1.7%	49	1.9%	160	1.4%
2003	7	1.5%	38	1.5%	122	1.0%
2004	7	1.6%	37	1.5%	86	0.7%
2005	5	1.2%	26	1.0%	101	0.8%
2006	4	1.0%	23	0.9%	77	0.6%
2007	7	1.7%	37	1.4%	143	1.1%
2008	1	0.3%	31	1.2%	164	1.3%
2009	8	2.1%	48	2.0%	187	1.5%
2010	7	1.9%	38	1.7%	201	1.7%
2011	7	2.5%	44	2.1%	213	2.0%
2012	15	4.9%	55	2.6%	168	1.7%
2013	9	3.6%	56	2.8%	179	1.8%
2014	10	3.4%	65	3.1%	188	2.0%
2015	9	2.8%	43	2.0%	186	1.8%

Fatal and injury crashes

Year	Overseas licence holders involved in crashes		Crashes that involve an overseas licence holder	% of crashes where...		
	Number	% of all drivers		an overseas licence holder was involved	an overseas licence holder was 'at fault'	an overseas driver did not adjust to local conditions
1995	349	1.8%	347	2.8%	1.8%	0.5%
1996	346	2.1%	342	3.2%	2.2%	0.8%
1997	289	1.9%	284	3.0%	2.1%	0.8%
1998	296	2.1%	293	3.3%	2.2%	0.9%
1999	294	2.2%	288	3.4%	2.3%	0.8%
2000	322	2.7%	322	4.1%	2.8%	0.9%
2001	434	3.2%	422	4.7%	3.4%	0.9%
2002	636	3.9%	612	6.0%	4.2%	1.1%
2003	651	3.9%	635	5.9%	4.2%	0.8%
2004	597	3.6%	588	5.6%	3.9%	0.6%
2005	580	3.4%	566	5.2%	3.6%	0.6%
2006	620	3.5%	607	5.3%	3.7%	0.6%
2007	679	3.5%	661	5.4%	3.8%	0.8%
2008	676	3.7%	661	5.6%	3.9%	1.0%
2009	700	4.0%	683	6.1%	4.3%	1.2%
2010	605	3.6%	580	5.3%	3.9%	1.4%
2011	557	3.7%	545	5.5%	4.3%	1.6%
2012	537	3.6%	522	5.4%	4.0%	1.4%
2013	562	3.9%	552	5.9%	4.5%	1.5%
2014	567	4.2%	555	6.2%	4.8%	1.5%
2015	689	4.5%	663	6.8%	5.0%	1.5%

Terminology

Fatal injuries: injuries that result in death within 30 days of the crash.

Serious injuries: fractures, concussions, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment and any other injury involving removal to and detention in hospital.

Minor injuries: injuries of a minor nature such as sprains and bruises.

Crash severity: is defined by the most severe injury in the crash.

Overseas driver: a driver in a crash who was driving on an overseas licence.

At-fault: The behaviour of several drivers may contribute to a crash, but only one driver is assigned the **primary responsibility**. This driver is called the at-fault driver. The determination of primary responsibility is based on crash movements and crash cause factors assigned in the Crash Analysis System. It is not based on legal liability or court conviction. Fault/responsibility here only considers driver and rider factors contributing to the crash. There may also be road or system factors that contributed to the crash.

‘Failed to adapt to New Zealand driving conditions’: This factor is used when the fact that an overseas driver failed to adapt to New Zealand driving conditions contributed to the crash. This includes drivers who were not used to our driving conditions or who didn’t understand or remember NZ road rules – for example, drivers from countries that drive on the right, driving on the wrong side of the road, or not understanding give way rules.

Urban and Open road: Here these are defined based on speed limit rather than land use. Urban is all roads with a speed limit of 70km/h or less. All other roads are labelled as open road.

Appendix 2: Visitor numbers for context

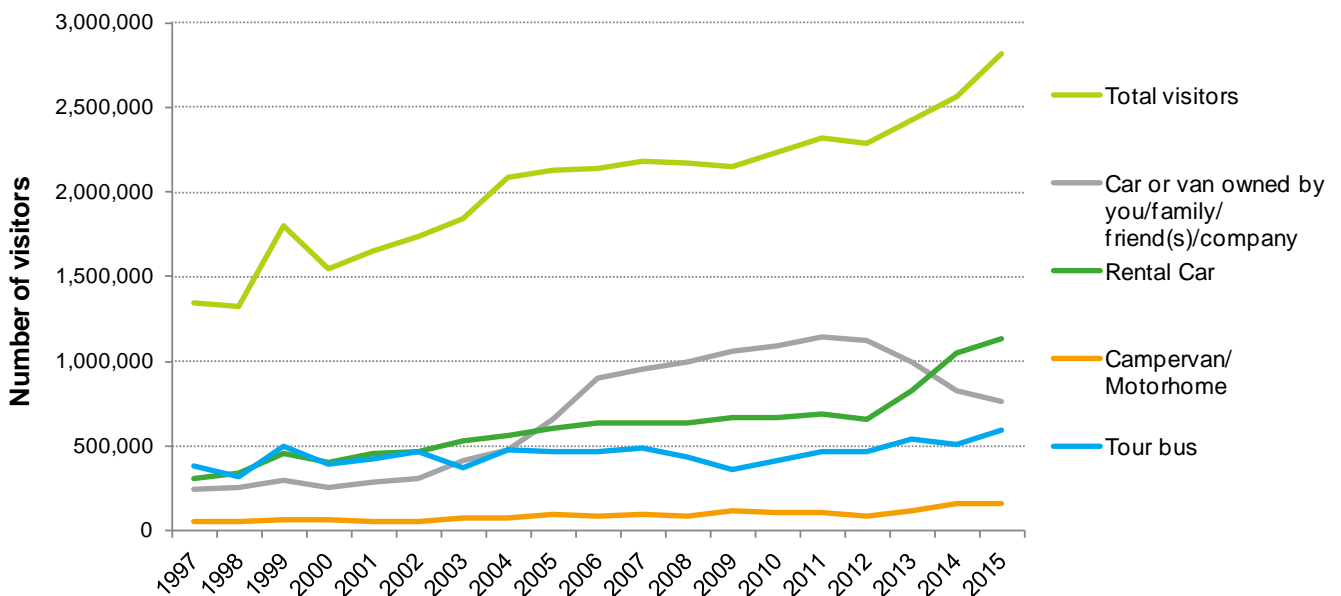
There is no rigorous measure of the amount of driving done by overseas licence holders. This would require good measures of the travel done by short-term visitors, migrants and students, who were using rental vehicles, vehicles owned by the overseas licence holder or vehicles owned by New Zealand friends and relatives.

Without a good measure of distance travelled there can be no direct comparison of risk for different groups of overseas licence holders.

While there is no direct measure of the change in the amount of driving done by overseas licence holders, changes in international visitor numbers provide some context for the marked changes in the numbers of overseas licence holders in crashes.

The following graph shows an increase in international visitor numbers through the early 2000s, including an increase in the number who said they had travelled by rental or privately owned vehicles. These numbers do not include migrants. The number of visitors has increased quite sharply again over the last 2 years.

International visitor numbers and travel mode

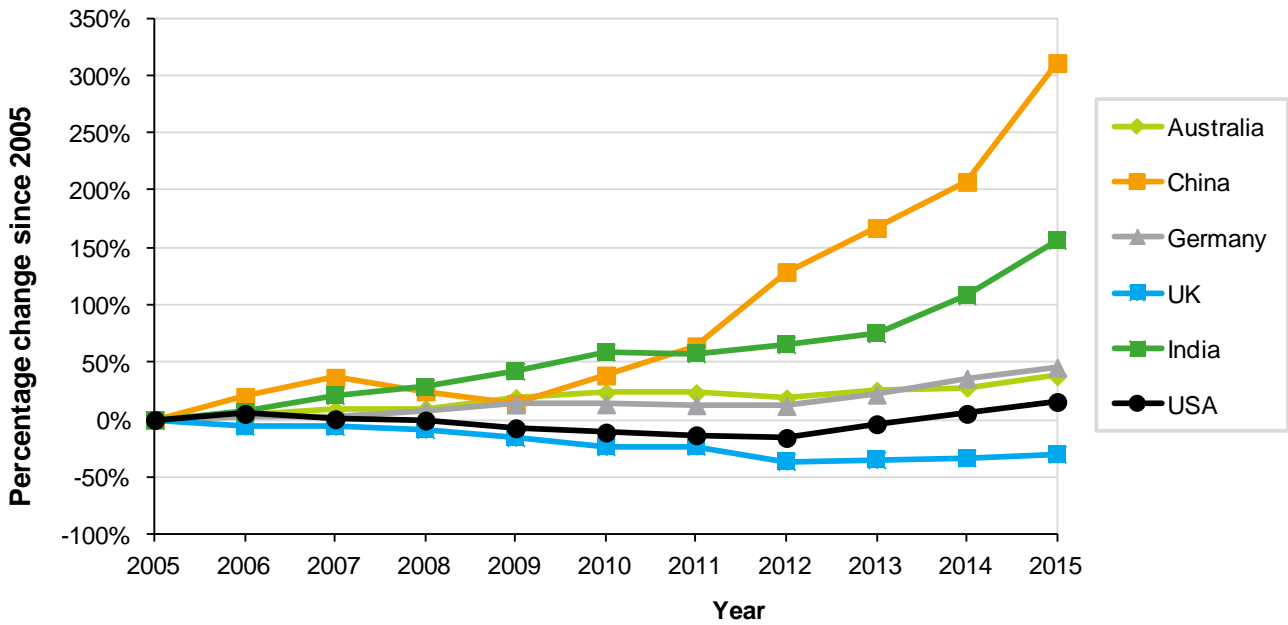


(Source: NZ.Stat, International visitor survey - survey of visitors aged 15 years and over)

The following graph shows the percentage change in short term visitors for the 6 countries discussed in the crash data. The numbers of visitors from China and India have increased by about 300 percent and 150 percent respectively, since 2005. Over the same period the number of visitors from the UK has dropped by 30 percent.

While this is not a direct measure of the change in the amount of driving done by visitors from these countries, and does not include migrants, it does provide some context for the marked change in the relative contribution of these countries to the numbers of overseas licence holders in crashes. For example, while the number of crash involved drivers from the UK has more than halved, the number from China has increased to about 6 times what it was in 2005.

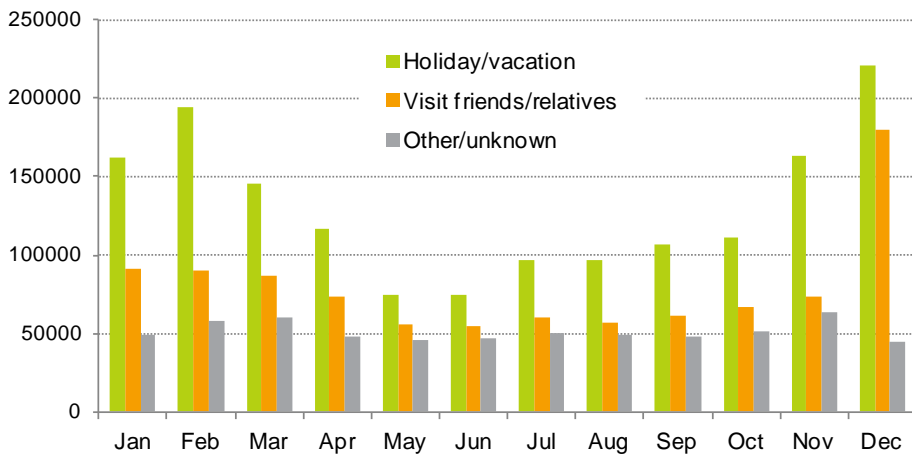
Short-term visitors – selected countries – percentage change



(Source: International Travel and Migration data, Short-term Overseas Visitor Arrivals.³)

There is a large seasonal variation in short-term visitor arrival numbers, especially for those who are on holiday/vacation. This broadly matches the seasonal variation in crashes. There is a big spike in the numbers visiting friends and family in December. There is less variation for those travelling for business or conferences.

Overseas visitor arrivals by month and purpose (2015)



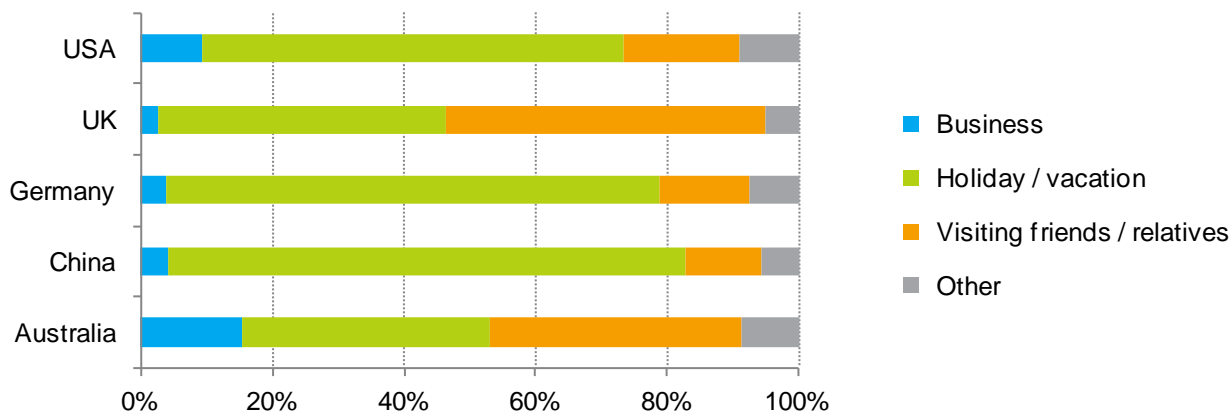
(Source: International Travel and Migration data, Short-term Overseas Visitor Arrivals.)

³ Access to the data was provided by Statistics New Zealand under conditions designed to give effect to the security provisions of the Statistics Act 1975

The following graphs show that visitors from different countries come for different reasons and use a different mix of transport options while here.

German and Chinese visitors are most likely to be here on holiday (about three-quarters), while for visitors from Australia and the UK there are as many here to visit friends and relatives as there are on holiday.

Trip purpose for overseas visitors (2015)

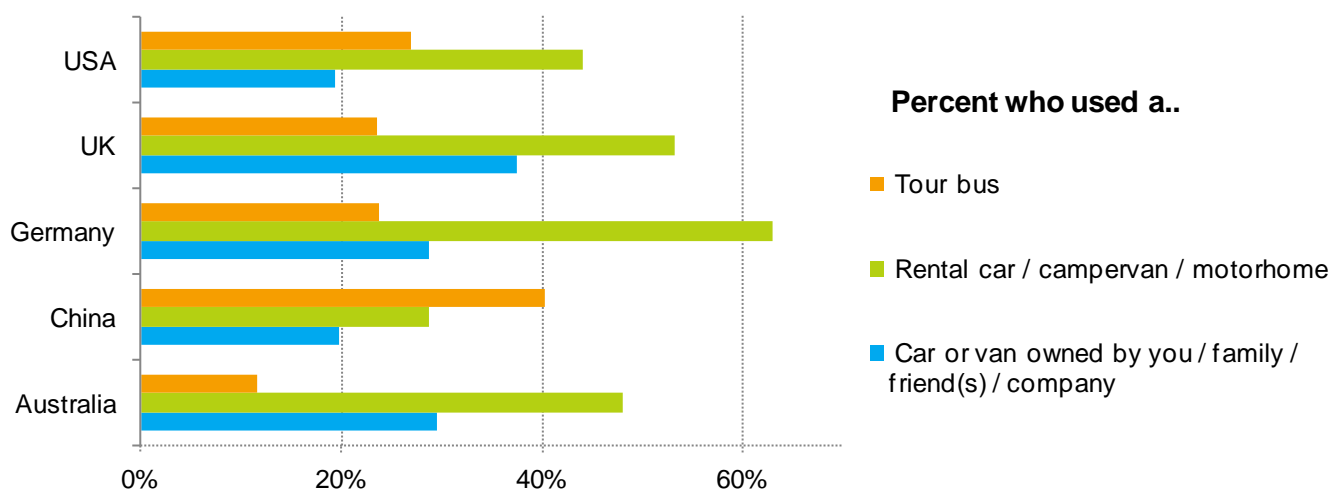


(Source: NZ.Stat, International visitor survey - survey of visitors aged 15 years and over)

Over 60 percent of German visitors used a rental vehicle while in New Zealand. Nearly 40 percent of those from the UK travelled in a privately owned car or van. Visitors from China are most likely to have included a bus tour in their travels.

Again this gives no indication of the amount of driving done in each mode by different groups, but it does illustrate that visitor numbers alone are not a good measure of the amount of driving done by visitors from different countries.

Transport mode for overseas visitors (2015)



(Source: NZ.Stat, International visitor survey - survey of visitors aged 15 years and over)

Note: respondents can select multiple modes of travel.)