Social Research Institute
Understanding Society

Transport Accident Commission Motorcycle Client Research

On-road crash results

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Executive Summary

In 2014, Ipsos was commissioned by the TAC to undertake a survey with clients who had been injured while riding a motorcycle. The aim of the research was to better understand the factors contributing to crashes, crash circumstances and to understand the key differences between injured on-road and off-road motorcyclists. A random sample of TAC clients who had been injured in motorcycle crashes occurring between 2010 -2014 were approached to take part.

Telephone surveys were conducted with a total n=964 TAC clients. The average survey length was 26 minutes.

For the purposes of this study, crashes have been categorised as either on-road or off-road based on the location where they occurred. On-road crashes were determined to be those that either occurred on a:

- sealed road in a built-up area;
- sealed road in a rural area;
- sealed road on a private property;
- public unsealed road; or
- another on-road surface/area.

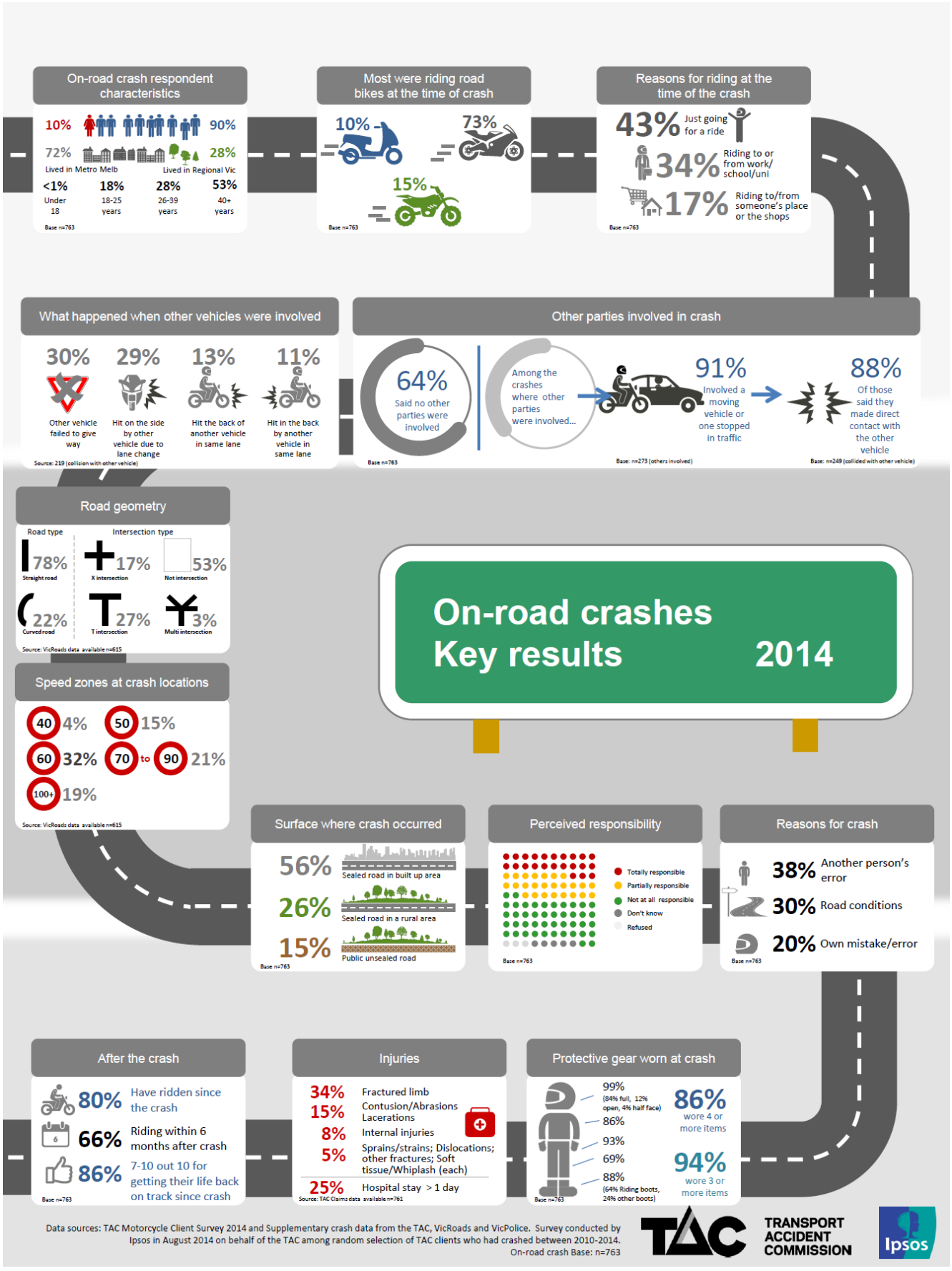
Off-road crashes were those that occurred on a:

- track in state park, forest etc.;
- private property;
- public land in residential areas (e.g. park, reserve, track); or
- another off-road surface/area.

This document primarily covers the findings from the n=763 who said they had crashed on an on-road surface with key differences between on-road and off-road crashes noted where relevant.

Findings from the off-road crash respondents have been documented in a separate report.

Key statistics from the research:



Summary of key findings

On-road crashes

Summary characteristics of on-road crash respondents

In total, 79% of respondents said they had experienced an on-road crash (n=763) compared to 21% who experienced a crash at an off-road location (n=201). Of the n=763 respondents who crashed on-road, younger riders (18%) and those who lived in metropolitan Melbourne (72%) were overrepresented in the on-road group compared to the profile of motorcycle licence and registration holders in Victoria (6% and 62% respectively).

Most respondents had been riding a road bike at the time of the on-road crash. Notably, there was a higher proportion of those who ride for commuting purposes among crash respondents compared to the most recent TAC survey of motorcyclists (TAC Motorcycle Monitor 2014) (67% vs. 54%). On-road crashes were most likely to occur in autumn or summer months (32% and 28% respectively).

Riding behaviour in the year before the crash

Most respondents who crashed on-road mainly rode a road bike in the year before they crashed. Females were more likely to ride scooters and less likely to ride off-road bikes. Sports tourer bikes tended to be more popular among male riders; sports bikes were more popular among younger riders; and tourer cruisers were more popular among those aged 40+ years. As expected, off-road bikes were more commonly ridden among those who lived in rural Victoria.

Recreational riding on-road was common among those who had crashed on-road (79%). Two in three of those who had crashed on-road said they commuted at some point in the year before their crash (67%). Around one in four said they had ridden off-road (26%).

Respondents rode with greater frequency in the warmer months in comparison to the cooler months (59% rode more than 3-4 times a week in the warmer months vs. 45% rode more than 3-4 times a week in the cooler months prior to their crash). In general, those involved in on-road crashes tended to ride more frequently than those involved in off-road crashes.

Three in four of those involved in an on-road crash said they had never taken a break from riding. Of those who had been on a break before the crash, around half (48%) said they had had a break of up to a year. The most popular months for returning to riding were January, and November.

At the time of the crash

Most respondents involved in on-road crashes were riding a road bike at the time of the crash (73%). A minority were riding an off-road or trail bike (15%) with 10% riding a scooter. Most had been riding the same type of bike they mainly rode before the crash (86%).

The most common reason respondents were riding at the time of the crash was for recreational purposes or ‘just going for a ride’ (43%). This was followed by 31% who were riding to or from work.

More than half of crashes occurred on a sealed road in a built-up area (56%). One in four crashes occurred on a sealed road in a rural area (26%). Those who crashed while commuting or riding to/from a friend’s house were more likely to do so on sealed roads in built-up areas (88% and 80% respectively), whereas those who were riding for recreational purposes mostly crashed on a sealed road in a rural area (44%), with 30% crashing on an unsealed public road and only 22% crashing on a sealed road in a built-up area.

Most respondents were riding on their own when they crashed (71%). Riding for commuting purposes or to run errands was almost exclusively done alone (98%). Six in ten (60%) of respondents who were riding recreationally were riding in a group of two or more riders.

Two thirds (64%) of respondents who were involved in on-road crashes reported no other parties were involved in their crash. Where other parties were involved, the majority indicated that a moving vehicle or a vehicle that was stopped in traffic had been involved (91%). Respondents in metropolitan settings were more likely to report that other parties were involved (39% vs. 28% of rural on-road crashes); as were those who were taking commuter-type journeys as compared to recreational journeys (49% vs. 22%).

In the majority (88%) of the crashes involving a vehicle in traffic, the respondent had made direct contact with the other vehicle.

Where the respondent had made contact with another vehicle, the most common type of crash was where another vehicle had not given way at an intersection (30%) or they had been hit on the side by a vehicle changing lanes (29%).

Half (51%) of respondents who crashed on-road said their motorcycle did not make contact with anything. One in three had hit another vehicle (33%). When asked whether their *body* had collided with anything during the crash, six in ten (61%) said it had not and they had only hit the ground. One in five said their body had collided with the vehicle (20%) and 5% said they had only collided with their own bike.

Types of motorcycle crashes

Details of each respondent's crashes were analysed to order to categorise each of the crashes according to the first event in the chain of events that lead to the motorcyclist crashing. Factors used to categorise the crashes included whether there had been an interaction with another vehicle in the first instance (regardless of whether contact was made); whether there had been a collision or not with the primary vehicle; the location of the crash (i.e. intersection or driveway, or midblock crash); and the direction the motorcycle was heading in relation to other vehicles.

Overall, more than half of the crashes were ones where there had been no interaction with another vehicle in the first instance (56%). These included loss of control due to surface conditions (22% of all on-road crashes) and avoiding road surfaces (3%). Losing control due to motorcyclist error accounted for close to one in six of all crashes (17%). Nine percent (9%) of crashes were the result of colliding with a physical object and a further 3% were due to avoiding a physical object.

Among the 44% of crashes where there had been an interaction with another vehicle, collisions made up three quarters of these crashes (or 33% of all on-road crashes). These were more likely to be at an intersection or driveway (20%) than midblock (13%). Crashes that arose out of avoiding another vehicle in the first instance accounted for 11% of crashes. Similar to other results, on-road crashes were significantly more likely to involve another vehicle than off-road crashes (44% vs. 7%).

Factors contributing to the crash

Forty-four percent (44%) said that they did not think they were at all responsible for the crash, with an additional 25% who said they had been partially responsible. Just over one in five believed they were completely at fault (23%). Where a respondent felt they were partially or not at all responsible, 62% believed another *person* had been responsible for the crash.

When asked what respondents personally felt had contributed to the crash, the most common reasons included another person's error (38%), followed by the road conditions (30%). One in five (20%) reported that their own mistake also contributed to the crash.

Few said they were not familiar with the bike they were riding (5%) but one in four (23%) agreed they did not know the crash area well. One in three (33%) agreed that if they had been riding more slowly, they could have done something to avoid the crash. A minority of those involved in on-road crashes agreed that they were stressed (10%) or tired (9%) on the day of the crash.

One in ten (11%) of those who had been involved in an on-road crash said they had been distracted by something before the crash. This was most commonly traffic or road conditions (51%).

Three percent (3%) of respondents indicated they had been drinking in the three hours before the crash.

Protective gear

Almost all respondents involved in an on-road crash were wearing a helmet at the time (99%). Nine in ten reported they were wearing motorcycle-specific or other types of boots (88%), riding gloves (93%), or a motorcycle jacket (86%). Overall, 94% of respondents reported wearing three or more of the items listed in the survey (i.e. helmet, jacket, pants, boots, or gloves). Younger riders tended to wear three or more items of protective gear compared to older riders. Scooter riders were least likely to wear three or more items of protective wear.

Boots of any kind and riding pants were more likely to be worn by those doing recreational riding than while commuting. Jackets were more likely to be worn by those commuting or running errands at the time of the crash.

Seven in ten (71%) of respondents involved in on-road crashes said they wore a jacket with in-built impact protection.

Close to half (48%) of those in on-road crashes said they had been wearing either something hi-vis (19%) and/or reflective (35%) at the time of their crash.

Injuries from the crash

According to VicRoads supplementary data, just over half (55%) of accidents were classified as causing minor injuries. Those riding an off-road motorcycle at the time of the on-road crash were more likely to have been classified as serious injury crashes (57%) than on-road bike riders (44%) and scooter riders (38%). The most common types of injuries sustained from on-road motorcycle crashes were fractured limbs (31%), although contusions and abrasions accounted for 15% of respondents' injuries. Based on the information from the TAC Claims database, more than half of respondents (59%) had not been admitted to hospital in the first seven days after the accident.

As to the number of items of protective gear worn at the time of the crash and the level of injury - as expected those who wore fewer items (up to three) were more likely to have had to stay overnight in hospital for less than a week to up to six weeks (33% vs. 24% for those who wore four or more items).

After the crash

The majority of respondents involved in an on-road crash had ridden a motorcycle again (80%). Two thirds (66%) of all respondents had ridden again within six months of the crash. This increased to 75% of all respondents who had returned to riding within 12 months. Around half were riding at the same frequency (47%), although a similar proportion was riding less than they had before the crash (44%). Those who already rode very frequently (up to 1-2 times a week) were more likely to say they rode around the same amount after the crash as they had before.

Around half (48%) of those who had not ridden again said there was a high likelihood they would ride again in the future. Among those who had not ridden again, more than half said their partner or family preferred they did not ride (62%), with 56% stating they no longer owned a bike, and 55% still affected by the injuries. The most common thing that would need to happen for non-riders to ride again was if they got a new bike (29%).

The vast majority of respondents said the crash did not affect how they drove a car, with 90% saying they drove with the same level of caution after their motorcycle crash as before the accident.

More than half (58%) of those who had been in an on-road crash gave a rating of 10 out of 10 when asked about the extent to which they had been able to 'get their life back on track'. The most common reasons included the fact that the injuries had been minor; they were healing well; or they had been able to go back to work. While in the minority (4%), those who gave the lowest ratings in terms of getting back on track stated this was mainly due to not being fully recovered; being in pain; or having permanent injuries.

1. Research Context

1.1 Background

1.1.1 Transport Accident Commission

The TAC is a Victorian Government-owned organisation created to promote road safety using road safety campaigns, paying benefits to people injured in traffic accidents, increasing the awareness of traffic issues, and reducing the incidence of road trauma[1].

The TAC's objectives under the Act include:

- reducing the cost of compensation for transport accidents to the Victorian community;
- reducing the incidence of transport accidents;
- providing, in the most socially and economically appropriate manner, suitable and just compensation in respect of persons injured or who die as a result of transport accidents;
- determining claims for compensation speedily and efficiently;
- providing suitable systems for the effective rehabilitation of persons injured as a result of transport accidents;
- managing the Scheme as effectively, efficiently and economically as possible; and
- ensuring the Scheme emphasises accident prevention and effective rehabilitation.

1.2 Research Objectives

The main aim of this research was to collect information on TAC motorcycle clients who were injured while riding a motorcycle. Research objectives include:

- Understanding factors contributing to the crash, crash circumstances and risk factors for motorcyclists riding in both on- and off-road settings.
- Understanding the differences between injured on-road and off-road motorcyclists, including accident factors, types of injuries sustained and wearing of protective clothing.
- Providing profiles of on-road and off-road motorcyclists.

[1] Source TAC http://www.tac.vic.gov.au/about-the-tac

2. Research Design

2.1 Data Collection Method

The data collection method for this study was Computer Assisted Telephone Interviewing (CATI).

Ipsos worked closely with the TAC to design a survey instrument to interview TAC motorcycle clients who had experienced a motorcycle accident within the last four years. The final version of the questionnaire is included in the Appendix of this report.

All respondents were initially sent a primary approach letter a week before the fieldwork commenced to notify them about the upcoming research – the overall aim of the project; to inform them about linking survey responses to other data sources, such as information from police reports (if there was one); and to provide an opportunity to opt-out should they wish to.

Fieldwork was conducted from the 19 August 2014 to 18 September 2014. Average interview length was 26.37 minutes.

The surveys conducted on the first day of fieldwork were used as pilot surveys to check that fieldwork was being administered as planned and that the data was captured as it should have been.

Respondents who took part in the survey were also asked whether they would like to provide a detailed sketch of their crash. Those who agreed to take part were sent a stationary pack including a pencil, ruler and eraser to complete the sketch. This sketch letter is also included in the Appendix.

2.2 Sample Sizes and Participation Rate

A client list of n=3200 TAC clients aged between 14-79 years who had experienced a motorcycle crash within the last four years was provided by the TAC. Of these, 1,441 people were contacted by telephone and invited to take part in the research. A total of n=964 participated in the survey.

The response rate from those who were contacted was 71%.

Sample	%	n
Total number of TAC clients in sample		**3200**
Sample exhausted	58%	1866
Clients successfully contacted	45%	1441
Soft refusal (did not want to be involved in this research)	21%	291
Hard refusal (did not want to be involved in any future TAC research)	7%	108

Completes	%	n
Total		**964**
On-road crashes	79%	763
Off-road crashes	21%	201
Opt outs from sketch	19%	180
Returned sketches	20%*	155

** Of those who did not opt out*

2.3 Respondents vs. Motorcycle Client Population

For the most part, the key characteristics of respondents were generally in line with known characteristics of the motorcycle client population, such as age, gender, location and life of claim. As such, the data was not weighted for the analysis in this study.

Table 1: Completions compared to sample and population statistics

Age	% Client population with < 4 year life of claim	% in total sample	% completions
Below 18 years old	1%	<1%	<1%
18-25 years old	17%	16%	16%
26-39 years old	32%	31%	29%
40-59 years old	42%	42%	43%
60-79 years old	8%	10%	11%
Gender			
Male	88%	92%	91%
Female	12%	8%	9%
Location			
Metro	71%	72%	72%
Rural	29%	28%	28%
Life of claim			
0-6 months	9%	8%	10%
7-12 months	14%	28%	15%
13-24 months	27%	30%	30%
25-36 months	25%	21%	28%
37-48 months	24%	14%	18%

2.4 Analysis and reporting of statistical significance

All statistical significance testing in this report was performed using the Q software package. Significance testing was performed using independent samples t-tests for comparison of means, and z-tests for comparisons of proportions. All tests were conducted at the 95% confidence level using the effective sample size. Only statistically different results are stated throughout this report.

A *'significant difference'* means we can be 95% confident the difference observed between the two samples reflects a true difference in the population of interest, and is not a result of chance. Such descriptions are not value judgements on the importance of the difference. The reader is encouraged to make a judgement as to whether the differences are 'meaningful' or not.

A sample of n=984 enables us to be 95% confident that at the overall level, a feature of the Victorian motorcycle rider population we are testing is within a range of ±3.12% of what the survey tells us. For example, this means that if we find that 50% of respondents indicated they were riding with other riders at the time of the crash, we can be 95% confident that between 46.88% and 53.12% of the population represented by the sample actually did this.

Where significance testing has occurred between pairs such as male vs. female riders this has been undertaken as an independent samples t-test. However, where significance testing has occurred between more than two categories within a group (e.g. main motorcycle type ridden – road bike, off-road bike and scooter), the significance testing used tested one category against the average of the others that are not in that category

combined. Such a test is ideal for multiple comparisons as it reduces the likelihood of displaying a significant difference where one does not exist. Green figures indicate the figure reported is statistically higher (9↑); red figures indicate the figure is statistically lower (2↓).

Note that figures may not add up to 100% due to rounding or questions where multiple responses were allowed.

2.5 Reading this report

This report is divided into three main sections covering crashes that have occurred on on-road locations; crashes that have occurred off-road; and a summary of comparisons between on-road versus off-road crashes. The on-road and off-road sections have been divided into three parts, covering riders' characteristics pre-crash; details of the crash itself; and riders' feedback on life after the crash. The data analysis throughout the report also includes identifying statistical differences between subgroups within the rider community – such as demographic characteristics, and motorcycle ownership.

Wherever relevant, supplementary case-level data has also been incorporated into the report. Supplementary data about the respondent and the crash was provided to Ipsos by the TAC. This data came from a number of sources including VicRoads and Victoria Police, as well as the TAC Claims databases. This supplementary data provided further insight into some of the areas that were not covered in the survey, including (but not limited to) injury severity, location details such as road geometry and speed zones; and the number of other vehicles involved. Supplementary data was not available for all respondents so base sizes used in the analysis varied. For example, we were able to link n=615 of on-road crash respondents and n=46 of off-road crash respondents from VicRoads. Off-road crashes were much less likely to have VicRoads data available for additional analysis (n=46 or 23% of off-road crash respondents). Overall, respondents where we were unable to link data were more likely to be from regional locations (36% vs. 29% of metropolitan respondents). We were able to link data for the majority of respondents with the cases of TAC Claims data, with the exception of two on-road crash respondents (where the respondent said they would prefer that the supplementary data was not used in the analysis).

Research Findings

3. On-road crashes

For the purposes of this study, crashes have been categorised as either on-road or off-road based on the location where they occurred. On-road crashes were determined to be those that either occurred on a:

- *sealed road in a built-up area;*
- *sealed road in a rural area;*
- *sealed road on a private property;*
- *public unsealed road; or*
- *another on-road surface/area.*

Off-road crashes were those that occurred on a:

- *track in a state park, forest etc.;*
- *private property;*
- *public land in residential areas (e.g. park, reserve, track); or*
- *another off-road surface/area.*

Please note that when crashes are referred to as an 'on-road' crash or an 'off-road' crash that this is referring to the location and not the type of motorcycle that respondents were riding at the time of the crash. Respondents who could not recall the location of the crash were asked to classify whether it had been on 'another on-road surface/area' or 'another off-road surface/area'.

This report predominately covers the results from on-road crash respondents. The off-road crash results have been covered in a separate report.

3.1 Summary characteristics of on-road crash respondents

In total, 79% of respondents said they had experienced an on-road crash (n=763) compared to 21% who experienced a crash on an off-road location (n=201). The following section provides some of the characteristics of the riders to provide context to the mix of respondents who experienced an on-road crash.

Of the n=763 respondents who crashed on-road, younger riders and those in metropolitan Melbourne were overrepresented in the on-road group compared to the profile of motorcycle licence and registration holders in Victoria.

Not surprisingly, most had been riding a road bike at the time of the crash. Notably, there was a higher proportion of riders who ride for commuting purposes in this survey of crash respondents, as compared to the most recent TAC survey of motorcyclists (TAC Motorcycle Monitor 2014).

Crashes were most likely to occur in autumn or summer months.

Further details of the characteristics of respondents who had an on-road crash have been included in Section 3.6 – Profile of on-road crash respondents.

3.2 Riding behaviour in the year before the crash

Most respondents who crashed on-road mainly rode a road bike in the year before they crashed. Females were more likely to ride scooters and less likely to ride off-road bikes. Sports tourers tended to be more popular among male riders; sports bikes were more popular among younger riders; and tourer cruisers were more popular among those aged 40+ years. As expected, off-road bikes were more commonly ridden among those who lived in rural Victoria

Recreational riding on-road was common among those who had crashed on-road (79%). Two in three (67%) of those who had crashed on-road said they commuted at some point in the year before their crash. Around one in four (26%) said they had ridden off-road.

Not surprisingly, respondents rode with greater frequency in the warmer months in comparison to the cooler months (59% vs. 45% rode more than 3-4 times a week). Those in on-road crashes tended to ride more frequently than those involved in off-road crashes.

Three in four (74%) of those involved in an on-road crash said they had never taken a break from riding. Of those who had been on a break before the crash, around half (48%) said they it had been a break of up to a year. The most popular months for returning to riding were January and November.

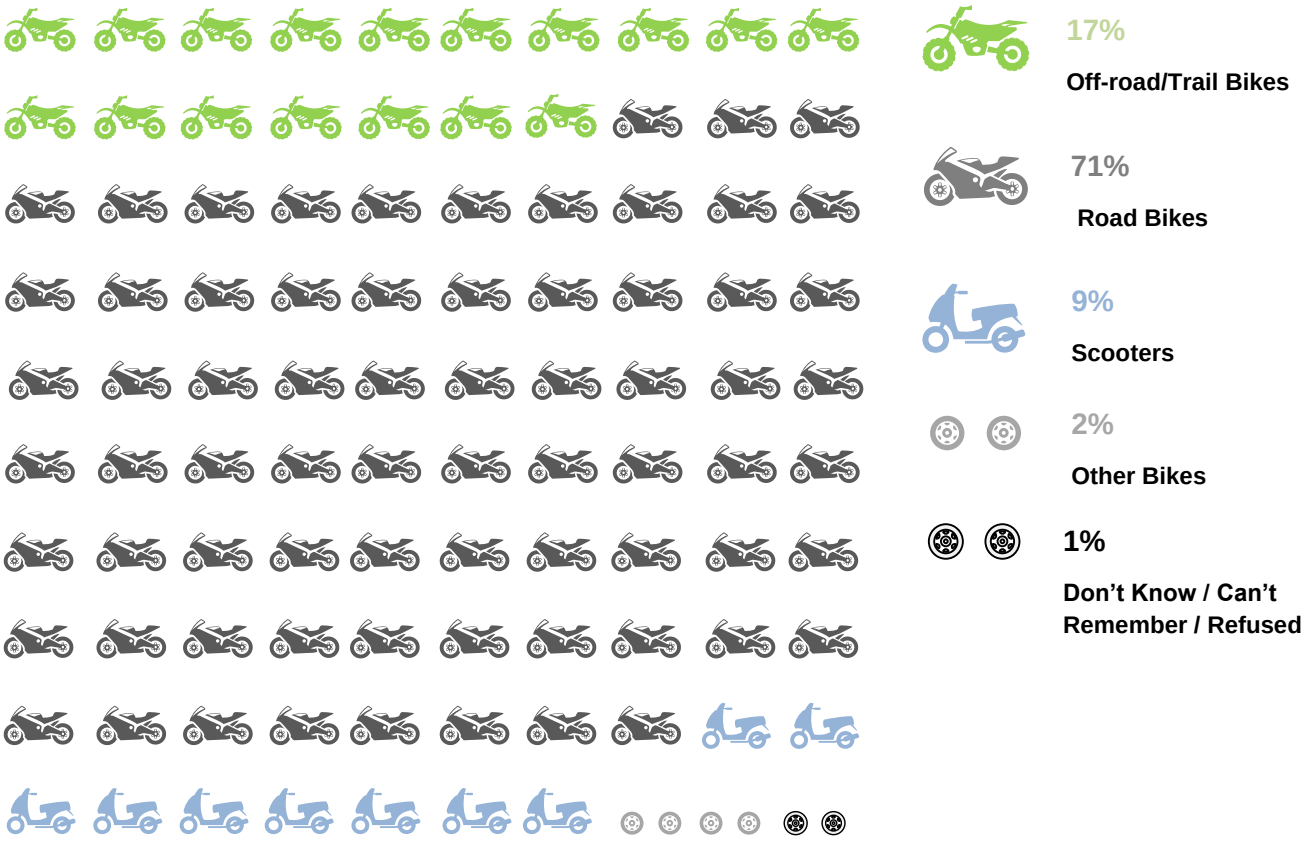
3.2.1 Type of motorcycle ridden prior to the crash

Prior to their crash, the majority (71%) of respondents whose crash occurred on-road mainly rode a road bike. This included one quarter who said their main motorcycle was a sports bike (24%) or a tourer/cruiser (23%).

Off-road or trail bikes were ridden by 17% of respondents.

Close to one in ten (9%) rode a scooter most often before the crash (See Figure 1).

Figure 1: Type of motorcycle ridden prior to the crash *(on-road location crashes only)*



Q3. What type of motorcycle did you ride most often before the crash?
Filter: On-road crashes; base n = 763

Road bikes were more likely to be ridden by those living in Melbourne (75% compared to 62% of those living in rural Victoria).

Off-road and trail bikes were significantly more likely to be the main bike for males (19% vs. 3% of females). This was also the case for those living in rural Victoria (30% mainly rode an off-road bike vs. 12% of those living in Melbourne).

Younger respondents were significantly more likely to mainly ride a sports bike prior to the crash, with 48% of those aged up to 25 years and 33% of those aged 26-39 years reporting to do so compared to 12% of those aged 40 and over.

Scooters were significantly more likely to be ridden by females (33% vs. 7% of males) and those living in Melbourne (11% vs. 5% of rural respondents) (See Table 2).

Table 2: Type of motorcycle ridden prior to the crash by demographics *(on-road crashes only)*

Column %	Overall	Gender		Age (at accident)			Metro/Regional (residence)	
		Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*763*	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Off-road bike/trail bike	17	19↑	3↓	21	17	16	12↓	30↑
Subtotal Road bikes (exc. Scooters)	71	72	62	71	69	73	75↑	62↓
- Sports bike	*24*	*24*	*23*	*48↑*	*33↑*	*12↓*	*28↑*	*14↓*
- Sports tourer	*15*	*16↑*	*7↓*	*9↓*	*12*	*18↑*	*14*	*16*
- Dual sport	*3*	*4*	*0*	*2*	*2*	*4*	*4*	*3*
- Tourer/cruiser	*23*	*23*	*21*	*9↓*	*18↓*	*31↑*	*23*	*25*
- Other type of road bike	*6*	*5*	*11*	*3*	*4*	*8↑*	*7*	*4*
Scooter	9	7↓	33↑	5	12	9	11↑	5↓
Other type of bike	2	2	1	2	1	2	1	3
Don't know /can't remember	0	0	1	0	1	0	0	0
Refused	0	0	0	0	0	0	0	0

Q3. What type of motorcycle did you ride most often before the crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

3.2.2 Type of riding prior to the crash

Figure 2 shows the different reasons people usually rode before their crash and the prevalence of each activity.

The vast majority said they rode recreationally on-road before the crash (79%). One in four (26%) of those who crashed on-road said they rode off-road for recreational purposes. Two thirds (67%) of those who had crashed on-road said they commuted at some point in the year before their crash. In comparison, only 54% of active riders in the TAC's most recent Motorcycle Monitor survey said they rode for commuting purposes.

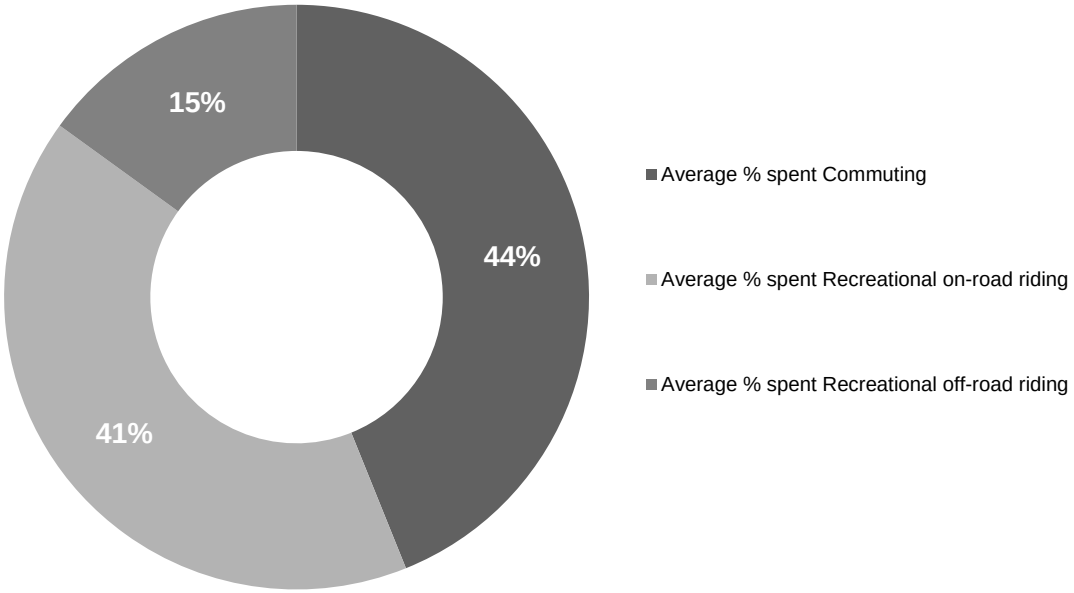
The most common combination was both commuting and recreational on-road riding (45%) including an additional 10% who rode recreationally off-road and on-road as well as commuted in the 12 months before the crash.

Figure 2: Time spent riding for commuting vs. recreation prior to crash *(on-road crashes only)*

Q10. In the last 12 months before your crash, approximately what percentage of the time did you ride in the following categories? Please exclude any riding you might do for work purposes.
Filter: On-road crashes; base n = 763

On average, respondents who had crashed on-road spent 44% of their riding time commuting; 41% of the time riding recreationally on-road; and 15% of the time riding recreationally off-road (See Figure 3).

Figure 3: Time spent riding for commuting vs. recreation prior to crash *(on-road crashes only)*



Q10. In the last 12 months before your crash, approximately what percentage of the time did you ride in the following categories? Please exclude any riding you might do for work purposes.
Filter: On-road crashes; base n = 756 (excludes 'don't know/can't remember/refused')

Males were significantly more likely to report riding recreationally off-road prior to their crash (28% compared to 14% of females). As for age, younger riders (aged up to 25 years) were also significantly more likely to report riding recreationally off-road (39% vs. 22% aged 26+).

Younger respondents aged up to 39 were more likely to report riding for commuting purposes (74% vs. 62% for those aged 40+ years).

Those aged 40 and over were significantly more likely to report riding recreationally on-road (82%) (See Table 3).

Table 3: Time spent riding for commuting vs. recreation prior to the crash by demographics *(on-road crashes only)*

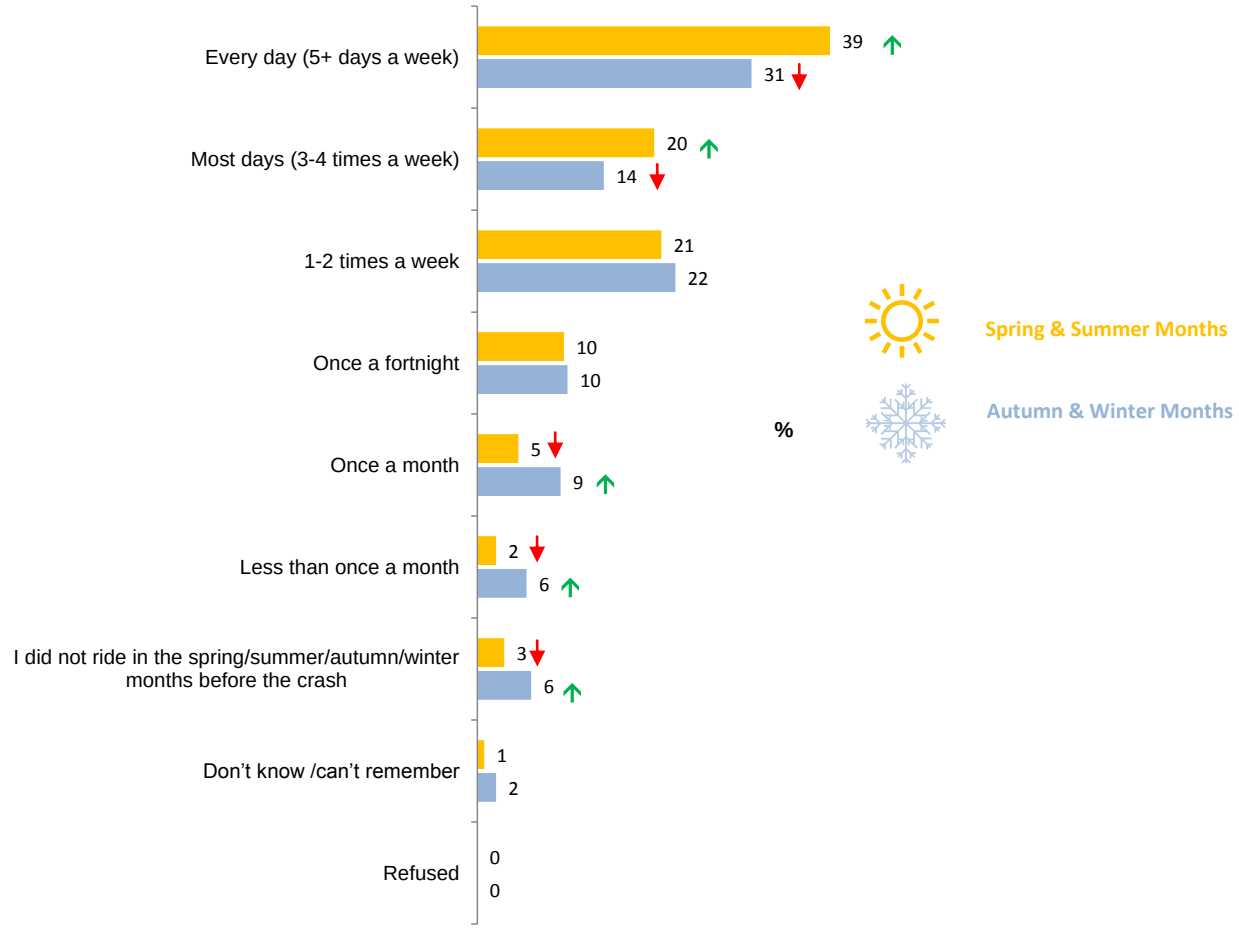
Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Commuting purposes (going to work, study, shops)	68	62	73	74↑	62↓	74↑	50↓
Recreation on-road (public roads, highways, freeways)	78	79	72↓	77	82↑	78	80
Recreation off-road (tracks in state forests, parks or on private property)	28↑	14↓	39↑	27	22↓	21↓	40↑
Don't know/refused)	1	1	1	0	1	1	1

Q10. Which of the following best describes your motorcycle riding history before the crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

3.2.3 Frequency of riding prior to the crash

As expected, motorcyclists ride more frequently in the warmer seasons. Among those who had an on-road crash, close to four in ten respondents rode very frequently in the spring/summer months before their crash (39% rode daily). This was followed by one in five (20%) who rode most days (3-4 times a week). In comparison, in the autumn/winter, one in three (31%) said they rode every day and 14% rode most days.

Figure 4: Frequency of riding in the spring/summer and autumn/winter months prior to crash *(on-road crashes only)*



Q8. How often would you say you rode a motorcycle in the spring or summer months before your crash?
Q9. How often would you say you rode a motorcycle in the autumn or winter months before your crash?
Filter: On-road crashes; base n = 763

↓↑ *indicates statistically significant difference compared to respondents not in that category*

Younger riders involved in on-road crashes (aged up to 25 years) were significantly more likely to be frequent riders during the spring/summer months, riding five or more days a week (47% compared to 34% of those aged 40 and over).

Residents of metropolitan Melbourne were also more likely to ride almost every day in the warmer months (43% compared to 29% of those living in rural Victoria) (See Table 4).

Table 4: Frequency of riding in the spring or summer months prior to the crash by demographics (on-road crashes only)

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Every day (5+ days a week)	40	32	47↑	45	34↓	43↑	29↓
1-4 times a week	40	41	36	37	44↑	39	45
Once a fortnight or less frequent	19	26	15	18	22	18↓	24↑
Don't know /can't remember	1	1	2	0	0	0↓	2↑
Refused	0	0	0	0	0	0	0

Q8. How often would you say you rode a motorcycle in the spring or summer months before your crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Like in the warmer months, among those involved in an on-road crash, younger riders (aged up to 25 years) were also significantly more likely to be frequent riders during the autumn/winter months leading up to the crash, riding five or more days a week (39% compared to 27% of those aged 40 and over).

Residents of metropolitan Melbourne were again more likely to ride almost every day in the colder months of the year (36% compared to 17% of those living in rural Victoria) (See Table 5).

Table 5: Frequency of riding in the autumn or winter months prior to the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Every day (5+ days a week)	31	23	39↑	33	27↓	36↑	17↓
1-4 times a week	37	33	34	39	36	34	42
Less than once a month/did not ride in autumn or winter months	19	23	11↓	19	23↑	17↓	26↑
Don't know /can't remember	11↓	19↑	11	8↓	13	11	12
Refused	2	1	5↑	1	1	2	3

Q9. How often would you say you rode a motorcycle in the autumn or winter months before your crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Off-road and trail bike riders were less likely to ride as frequently as on-road riders (8% rode more than 5 days a week in the spring/summer months and 3% for the autumn/winter months compared to 46% and 36% respectively for on-road riders). Those who rode an off-road bike before the crash were also more likely to ride 20% or less of the time, compared to driving (66%).

Less than half (40%) of those who had crashed on a scooter said they rode every day in the summer before their crash. A similar proportion said they rode daily in the autumn/winter months (36%) (See Table 6).

Table 6: Type of motorcycle ridden before the crash by frequency of riding prior to crash *(on-road crashes only)*

Row %*	Riding in spring/summer months before crash			Riding in autumn/winter months before crash			Whether had a break prior to crash		Riding purpose			Riding vs. Driving before the crash		
	5+ days a week	1-4 times a week	Once a fortnight or less	5+ days a week	1-4 times a week	Once a fortnight or less	Never had a break since learning	Started riding again after a break	Commuting	Recreation on-road	Recreation off-road	Rode <= 20% of the time	Rode 21-80% of the time	Rode 81%+ of the time
n=	*301*	*308*	*148*	*234*	*227*	*236*	*567*	*195*	*513*	*599*	*200*	*299*	*282*	*176*
Off-road bike/trail bike	8↓	42	50↑	3↓	37	60↑	66↓	34↑	25↓	50↓	88↑	66↑	28↓	5↓
Subtotal: Road bike (exc. Scooters)	46↑	40	13↓	36↑	36	28↓	76	24	75↑	88↑	15↓	36↓	37	27↑
-Sports bike	49↑	40	11↓	39↑	39	22↓	83	17↓	82↑	90↑	19↓	27↓	40	34↑
-Sports tourer	42	43	15	37	31	32	73	27	78↑	90↑	12↓	45	31	24
-Dual sport	62↑	23	15	54↑	23	23	73	27	77	96↑	58	31	42	27
-Tourer/cruiser	45	44	11↓	31	40	29	68↓	32↑	68	86↑	6↓	38	41	22
-Other type of road bike	51	41	9↓	45↑	46	9↓	80	20	91↑	67↓	3↓	17↓	51↑	32
Scooter	40	33	27	36	27	36	80	20	68	80	18	47	29	24
Other type of bike	38	46	15	25	50	25	69	31	62	69	15	31	54	15
Don't know /can't remember	0	33	67↑	0	0	100 ↑	100	0	0↓	50	50	67	33	0
Refused	100	0	0	100	0	0	100	0	100	100	0	0	0	100

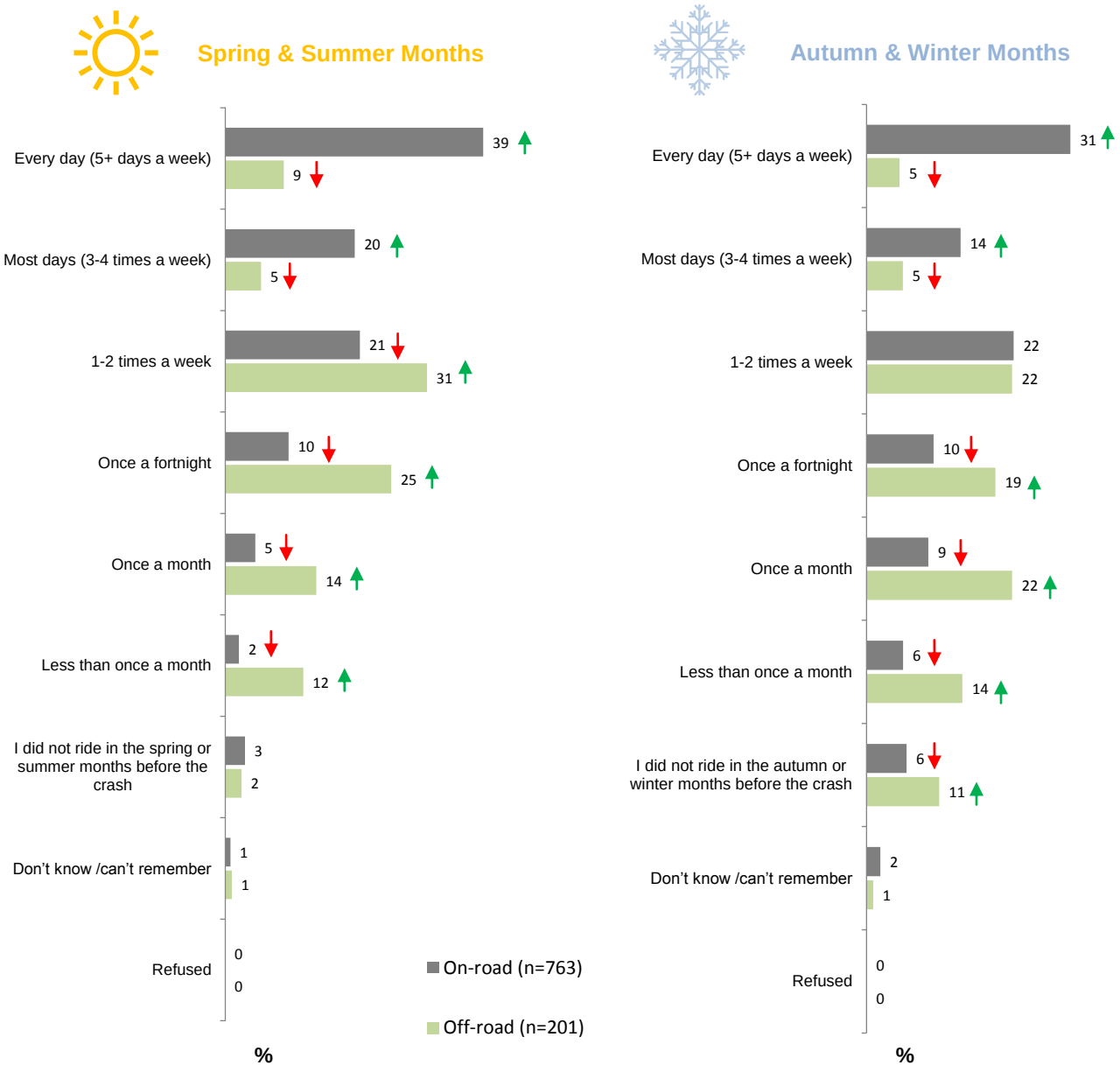
Q3. . What type of motorcycle did you ride most often before the crash?
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other' responses)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Table adds across to 100%*

On-road vs. off-road crashes

When compared to off-road crashes, respondents involved in on-road crashes tended to ride more frequently in both the spring/summer and the autumn/winter months of the year.

During the spring/summer months, on-road respondents were significantly more likely to ride their bike every day (39% vs. 9% of off-road crashes) or most days (20% vs. 5% of off-road crashes). The same was found in autumn/winter months, with 31% of all those involved in on-road crashes riding almost every day and 14% riding 3-4 days a week – compared to just 10% of those involved in off-road crashes who rode daily or most days (See Figure 5).

Figure 5: Frequency of riding in the spring/summer and autumn/winter months prior to crash by crash location *(on-road vs. off-road)*



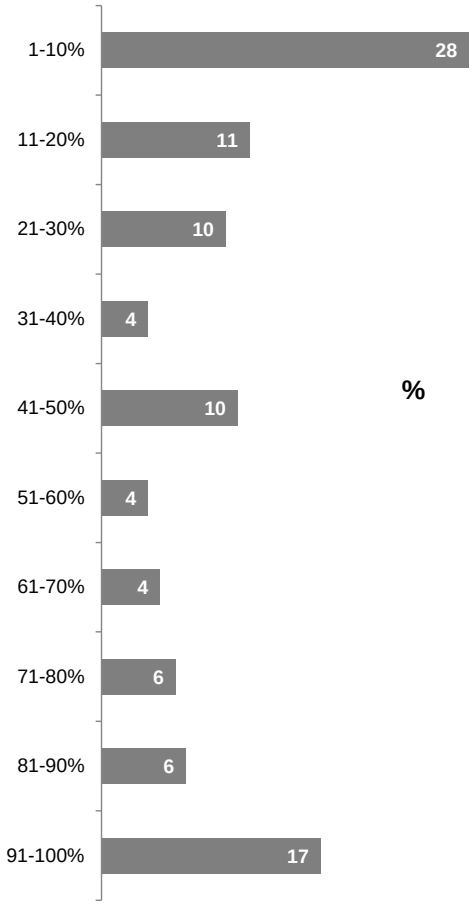
Q8. How often would you say you rode a motorcycle in the spring or summer months before your crash?
Q9. How often would you say you rode a motorcycle in the autumn or winter months before your crash?
Total sample; base n = 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Time spent riding vs. driving prior to the crash

Respondents who crashed on-road were fairly evenly spread with regard to how frequently they rode compared to driving a car. Just under a quarter (23%) of riders were heavily dependent on their motorcycle, saying they rode their bike more than 80% of the time (only driving 20% of the time).

Similar proportions of respondents rode their bike up to 20% of the time (39%), and between 20% to 80% of the time (37%) (See Figure 6).

Figure 6: Time spent riding prior to crash compared to driving a car *(on-road crashes only)*



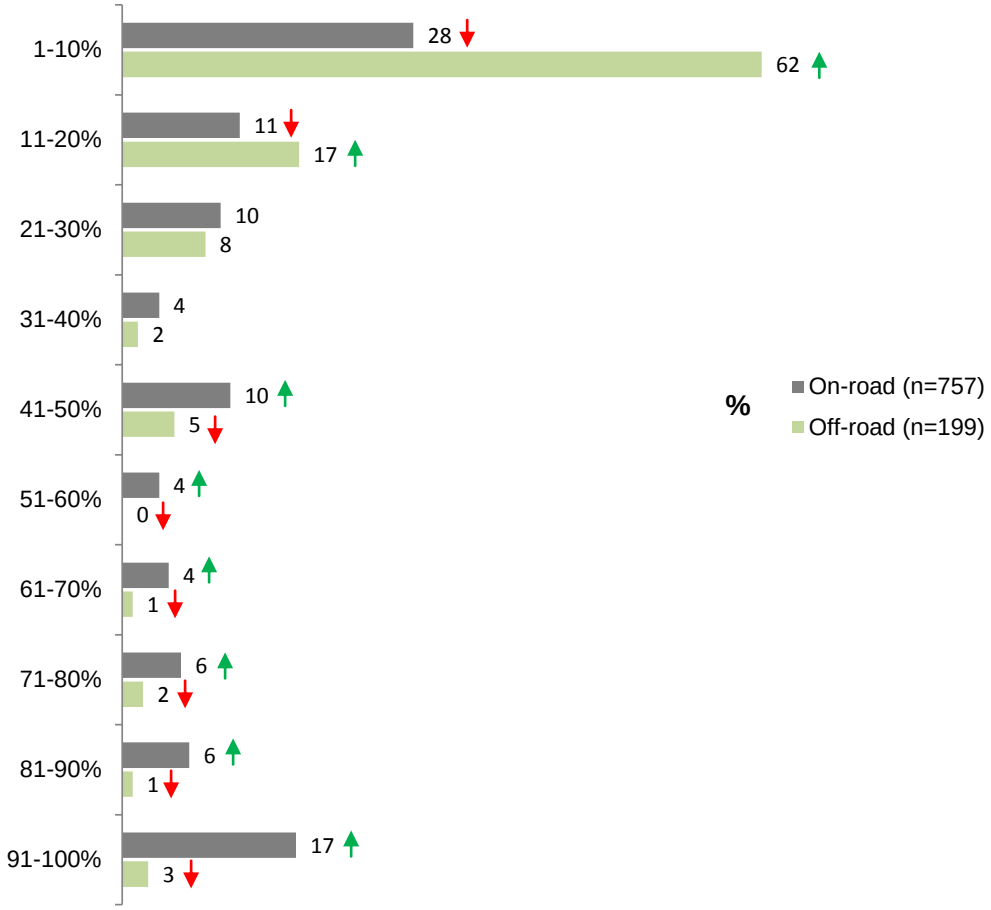
Q4. Thinking about your time spent riding and driving in the last 12 months before the crash, approximately what percentage of the time would you say you rode a motorcycle (on or off-road) compared to driving a car?

Filter: On-road crashes; base n = 757 (excludes 'don't know/can't remember'/refused')

On-road vs. off-road crashes

Of the total sample of respondents, those who had crashed off-road were significantly more likely to ride their motorcycle *infrequently* compared to how often they drove a car – with 79% riding up to 20% of the time and driving the other 80% of the time. This compares to 39% of those involved in an on-road crash (See Figure 7).

Figure 7: Time spent riding prior to crash compared to driving a car by crash location *(on-road vs. off-road)*



Q4. Thinking about your time spent riding and driving in the last 12 months before the crash, approximately what percentage of the time would you say you rode a motorcycle (on or off-road) compared to driving a car?

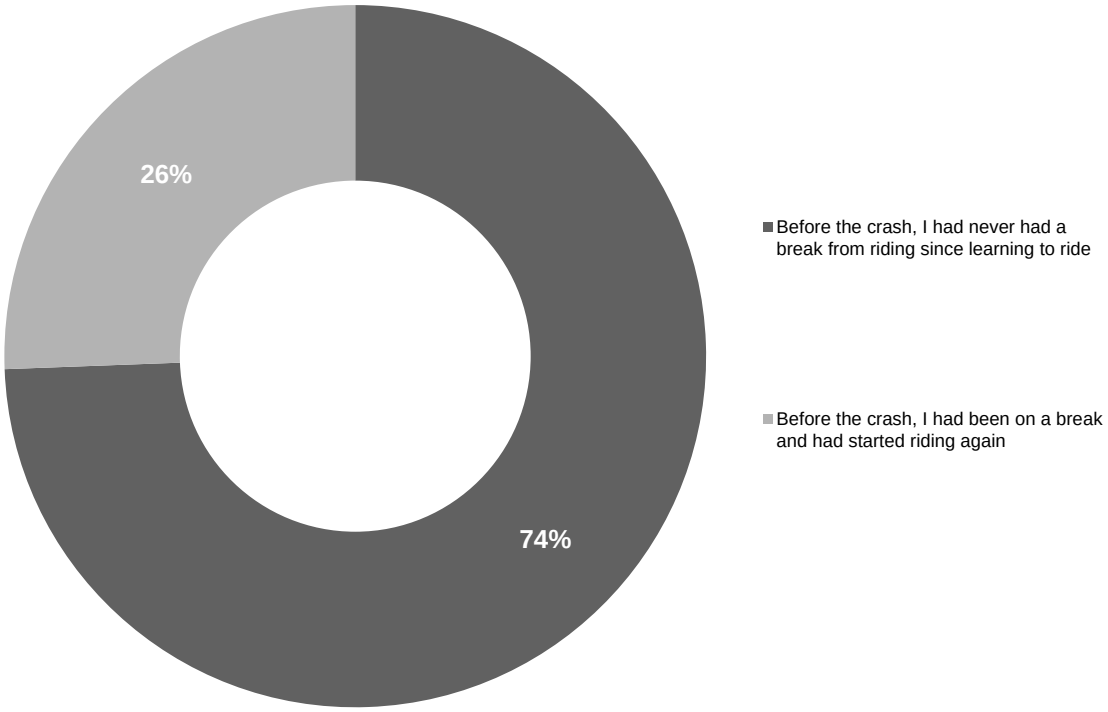
Total sample; base n = 956 (excludes 'don't know/can't remember'/refused')

↓↑ *indicates statistically significant difference compared to respondents not in that category*

3.2.4 Break prior to the crash

Respondents were asked about their riding history immediately prior to their crash, and whether they had ridden continuously since learning to ride. Approximately three quarters (74%) of those who had an on-road crash had *never* taken a break from riding prior to the crash, since learning to ride (See Figure 8). Similar results were found with riders involved in an off-road crash (72%).

Figure 8: Whether there was a break prior to the crash *(on-road crashes only)*



Q5. Which of the following best describes your motorcycle riding history before the crash?
Filter: On-road crashes; base n = 763

As shown in Table 7 below, older respondents involved in an on-road crash were significantly more likely to have had a break prior to their accident (33% compared to 12% of those aged 25 or younger).

Respondents living in rural Victoria were also more likely to have taken a break before the crash (31% vs. 23%).

Table 7: Whether there was a break prior to the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40 years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Before the crash, I had never had a break from riding since learning to ride	74	78	88↑	80↑	67↓	77↑	68↓
Before the crash, I had been on a break and had started riding again	26	21	12↓	20↓	33↑	23↓	31↑
Don't know	0↓	1	0	0	0	0	0
Refused	0	0	0	0	0	0	0

Q5. Which of the following best describes your motorcycle riding history before the crash?
Filter: On-road crashes; base n = 763
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Those who had taken a break and started riding again before their crash, were significantly more likely to ride less than 20% of the time (and drive 80% of the time) (37% compared to 15% of those who rode 81% or more of the time).

Among the road bike riders, a higher proportion of those who rode a tourer or cruiser motorcycle had been on a break prior to the crash (29% of those who had been on a break were riding a tourer/cruiser vs. 21% of those who had not been on a break) (See Table 8).

Table 8: Type of motorcycle ridden most often prior to crash by whether had break prior to crash *(on-road crashes only)*

Column %	Overall	Whether had a break prior to crash	
		Never had a break since learning	Started riding again after a break
n=	*763*	*567*	*195*
Off-road bike/trail bike	17	15↓	23↑
Subtotal: Road bike (exc. Scooters)	71	73	68
-Sports bike	*24*	27↑	16↓
-Sports tourer	*15*	14	15
-Dual sport	*3*	3	4
-Tourer/cruiser	*23*	21↓	29↑
-Other type of road bike	*6*	10	7
Scooter	9	6	5
Other type of bike	2	2	2
Don't know /can't remember	0	0	0
Refused	0	0	0

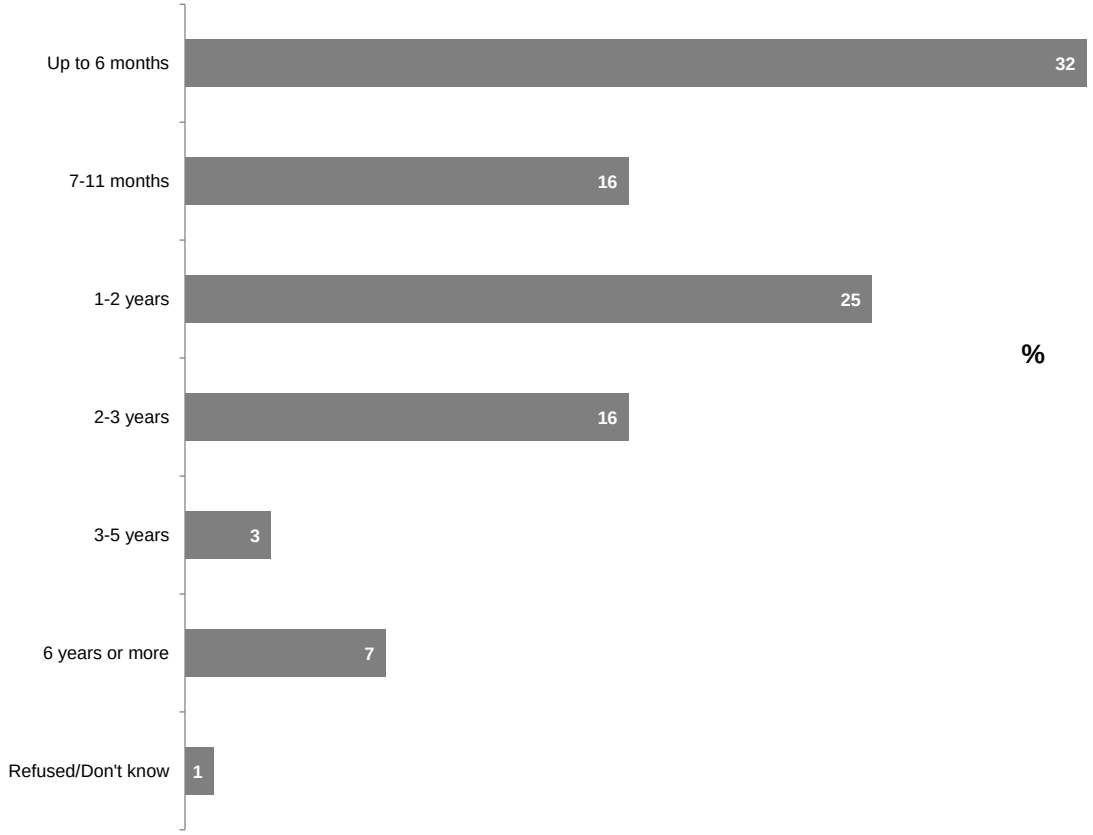
Q3. What type of motorcycle did you ride most often before the crash?
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other' responses)
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Length of break

Of those who said they had had a break before their crash (26% of respondents), over three in ten (32%) respondents had started to ride again following a break of up to 6 months, with an additional 16% saying

they had a break of between 7-11 months prior to the crash. A further one in four (25%) had a break lasting 1-2 years (See Figure 9).

Figure 9: Length of break *(on-road crashes only)*

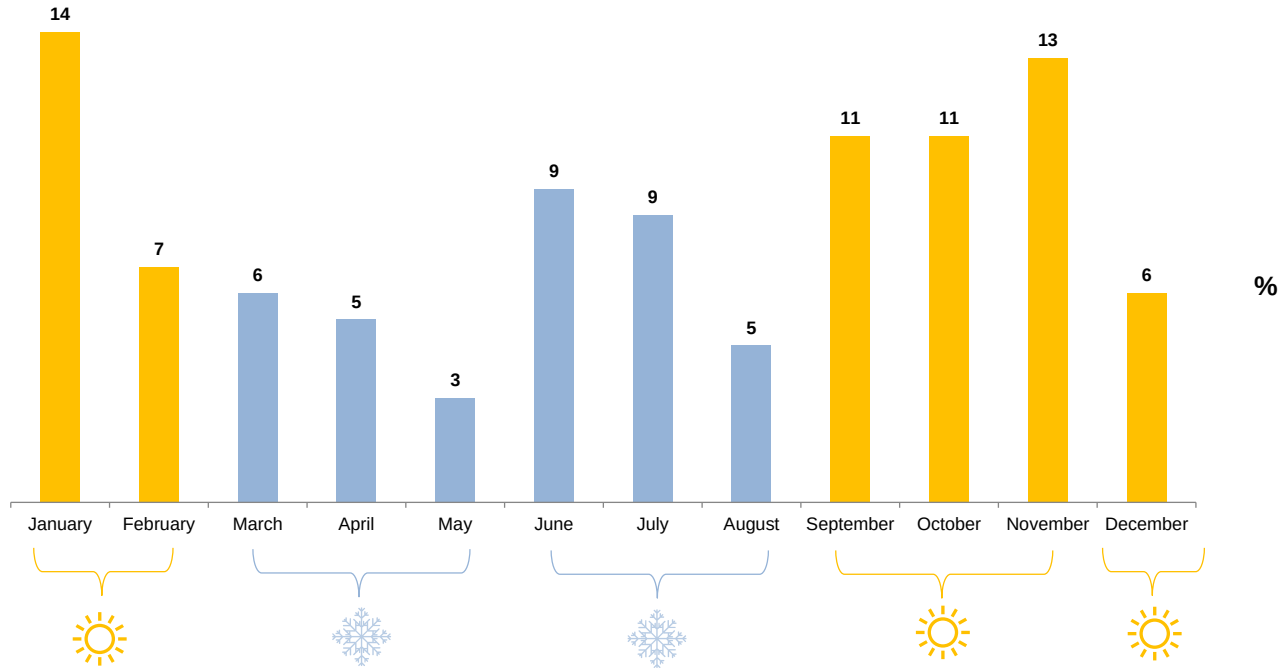


Q6. How long was the break? Please answer in months or years.
Filter: On-road crashes; If had break from riding; base n = 195 (excludes 'don't know/can't remember/refused')

In total just over one in four (27%) restarted in summer and one in three (35%) restarted in spring.

January (14%) and November (13%) were the most common months for respondents to start riding again after their break. This was followed by the spring months of September and October (both 11% each) (See Figure 10).

Figure 10: Date returned to riding *(on-road crashes only)*



Q7. Can you tell me what month and year you started riding again?
Filter: On-road crashes; If had break from riding; base n = 194 (excludes 'don't know/can't remember/refused')

3.3 At the time of the crash

Most respondents involved in on-road crashes were riding a road bike at the time of the crash (73%). A minority were riding an off-road or trail bike (15%) with 10% riding a scooter. Most were riding the same type of bike they mainly rode (86%).

The most common reason respondents were riding at the time of the crash was for recreational purposes or 'just going for a ride' (43%). This was followed by 31% who were riding to or from work.

Overall, most respondents were riding on their own when they crashed (71%). Riding for commuting purposes or to run errands was almost exclusively done alone (98%). Six in ten (60%) of respondents who were riding recreationally were riding in a group of two or more riders.

More than half of crashes occurred on a sealed road in a built-up area (56%). One in four (26%) occurred on a sealed road in a rural area.

Two thirds (64%) of respondents involved in on-road crashes reported that no other parties were involved in their crash. When there was another party involved, in the majority of cases the other party was a moving vehicle or one that had stopped in traffic (91%). Other parties were more likely to be involved in metropolitan settings (39% vs. 28% of rural on-road crashes); and commuter-type journeys (going to/from work/school/uni) compared to recreational journeys (49% vs. 22%).

In the majority (88%) of the crashes involving a vehicle in traffic, the respondent made direct contact with the other vehicle.

Where the respondent had made contact with another vehicle, the most common type of crash was where another vehicle had not given way at an intersection (30%) or the rider had been hit on the side by a vehicle changing lanes (29%). This suggests that from the respondents' point of view, the other party had been at fault.

Half (51%) of respondents who crashed on-road said their motorcycle did not make contact with anything. One in three had hit another vehicle (33%). When asked whether their body had collided with anything during the crash, six in ten (61%) said it had not, and they had only hit the ground. One in five said their body had collided with the vehicle (20%) or their own bike (5%).

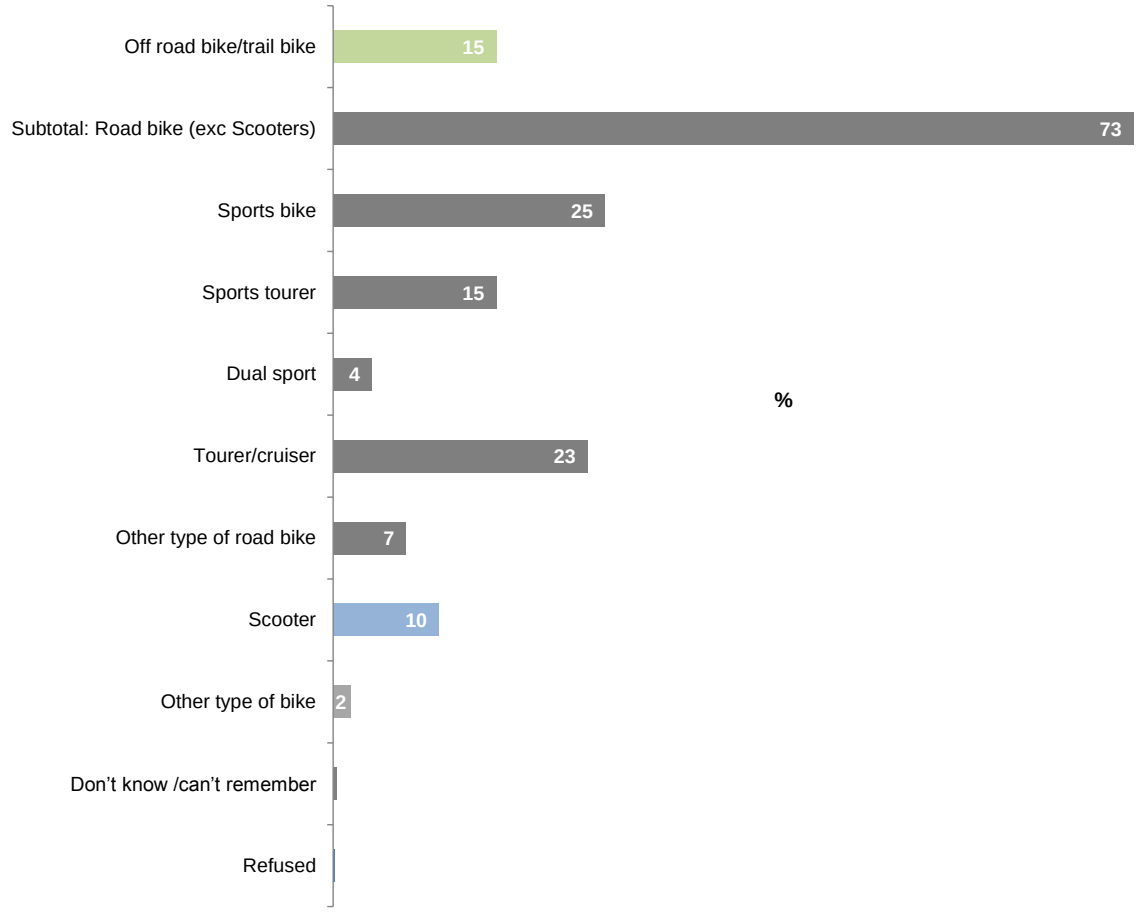
3.3.1 Motorcycle type and riding purpose at time of crash

Type of motorcycle ridden at time of crash

Most of those who were involved in an on-road crash were riding a road bike at the time (73%), including 25% who were riding a sports bike and 23% riding a tourer/cruiser.

An off-road or trail bike was ridden by 15% of respondents involved in on-road crashes and a further one in ten (10%) were riding a scooter when they had their accident (See Figure 11).

Figure 11: Type of motorcycle ridden at time of crash *(on-road crashes only)*



Q11. Firstly, what type of motorcycle were you riding at the time of the crash?
Filter: On-road crashes; base n = 763

For the most part, at the time of the crash, respondents were riding the same type of bike they mainly rode – which suggests that few crashes can be attributed to a lack of familiarity with the type of bike. For example, 93% who mainly rode a road bike were riding a road bike at the time of the crash. This proportion was 87% for off-road bikes and 86% for scooters (See Table 9).

In total, only 14% of respondents indicated they had been riding a different type of bike to one they mainly rode in the lead up to the crash.

Table 9: Type of motorcycle ridden most often prior to the crash by type of motorcycle ridden at the time of the crash *(on-road crashes only)*

	Motorcycle ridden at time of crash										
Column %	**Off-road bike/trail bike**	**Subtotal: Road bike (exc. Scooters)**	***- Sports bike***	***- Sports tourer***	***- Dual sport***	***- Tourer/cruiser***	***- Other type of road bike***	**Scooter**	**Other type of bike**	**Don't know /can't remember**	**Refused**
n=	*114*	*560*	*190*	*114*	*27**	*178*	*51*	*74*	*12**	*2**	*1**
Motorcycle most ridden prior to the crash											
Off-road bike/trail bike	87↑	6↓	*5↓*	*2↓*	*15*	*6↓*	*10*	0↓	8	0	0
Subtotal Road bikes (exc. Scooters)	11↓	93↑	*93↑*	*97↑*	*85*	*93↑*	*86↑*	12↓	17↓	0↓	100
- Sports bike	*6↓*	*31↑*	*87↑*	*4↓*	*4↓*	*1↓*	*0↓*	*4↓*	*17*	*0*	*100*
- Sports tourer	*3↓*	*19↑*	*2↓*	*87↑*	*4*	*1↓*	*2↓*	*4↓*	*0*	*0*	*0*
- Dual sport	*2*	*4*	*1↓*	*2*	*74↑*	*0↓*	*0*	*1*	*0*	*0*	*0*
- Tourer/cruiser	*0↓*	*31↑*	*3↓*	*4↓*	*4↓*	*90↑*	*10↓*	*1↓*	*0*	*0*	*0*
- Other type of road bike	*1↓*	*8↑*	*1↓*	*2↓*	*0*	*1↓*	*75↑*	*1*	*0*	*0*	*0*
Scooter	1↓	1↓	*1↓*	*0↓*	*0*	*1↓*	*2*	86↑	0	50↑	0
Other type of bike	1	1↓	*1*	*1*	*0*	*1*	*0*	0	67↑	0	0
Don't know /can't remember	0	0	*0*	*0*	*0*	*0*	*2*	0	8↑	50↑	0
Refused	0	0	*0*	*0*	*0*	*0*	*0*	1	0	0	0

Q11. What type of motorcycle were you riding at the time of the crash?
Q3. What type of motorcycle did you ride on most often before the crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

Similar to the results for the types of bikes mainly ridden by respondents prior to their crash, males were significantly more likely to be riding a road bike (75% vs. 62% of females) or an off-road/trail bike (16% vs. 5% of females) at the time of the crash.

Scooters were more likely to be ridden by females at the time of their crash (33% of crashes experienced by females were on scooters vs. 7% of males).

Younger riders were more likely to be riding a sports bike at the time of their crash, compared to older respondents (49% of those up to 25 years old vs. 13% of those aged 40 and over).

Respondents aged 40 and over were significantly more likely to be riding a tourer/cruiser at the time of their crash (32% compared to 10% of those aged 25 and under).

Metropolitan Melbourne residents were more likely to have been riding road bikes (76% vs. 67% of rural residents) and scooters when they crashed, compared to those living in other areas of the state (12%

compared to 4%). In contrast, regional respondents were more likely to have been riding an off-road or trail bike in their on-road crash (27% vs. 10%) (See Table 10).

Table 10: Type of motorcycle ridden at the time of the crash by demographics *(on-road crashes only)*

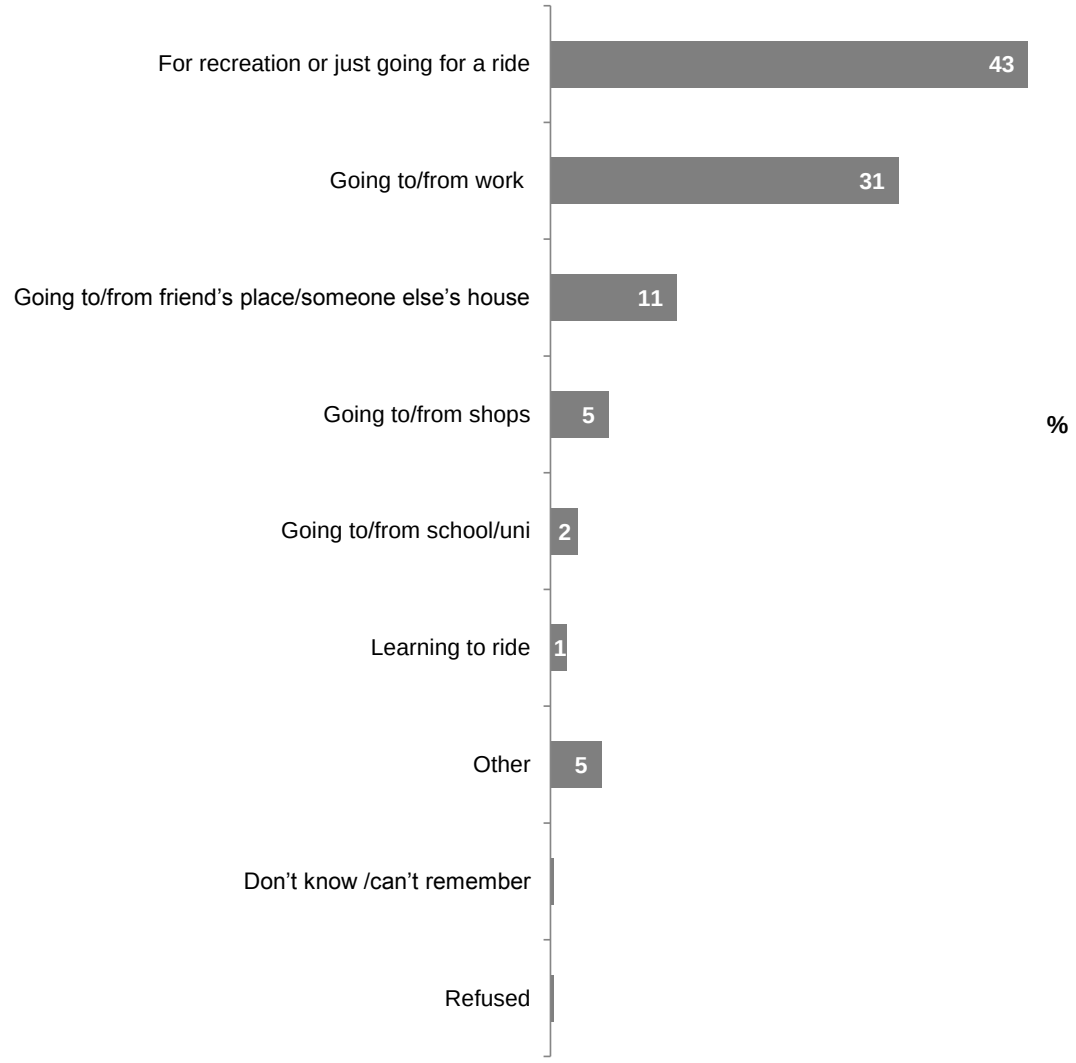
Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Off-road bike/trail bike	16↑	5↓	20	13	14	10↓	27↑
Subtotal: Road bike (exc. Scooters)	75↑	62↓	73	70	75	76↑	67↓
- Sports bike	*25*	*22*	*49↑*	*31↑*	*13↓*	*28↑*	*16↓*
- Sports tourer	*16↑*	*7↓*	*9↓*	*14*	*17*	*15*	*15*
- Dual sport	*4*	*0*	*2*	*3*	*4*	*3*	*4*
- Tourer/cruiser	*24*	*19*	*10↓*	*16↓*	*32↑*	*22*	*26*
- Other type of road bike	*6↓*	*14↑*	*4*	*6*	*8*	*7*	*7*
Scooter	7↓	33↑	6	13	10	12↑	4↓
Other type of bike	2	0	1	2	1	1	2
Don't know /can't remember	0	0	0	1	0	0	0
Refused	0	0	0	0	0	0	0

Q11. What type of motorcycle were you riding at the time of the crash?
Filter: On-road crashes; base n = 763
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Reasons for riding at the time of the crash

Recreation or 'just going for a ride' (43%) was the most common reason for riding at the time of the crash. This was followed by riding to/from work at 31%. A further 11% were riding to/from someone else's house (See Figure 12).

Figure 12: Reasons for riding at the time of the crash *(on-road crashes only)*



Q12. Which of the following best describes the reason you were riding at the time of your crash?
Filter: On-road crashes; base n = 763

Those aged 40 and over were significantly more likely to be riding for recreational purposes or just going for a ride at the time of their crash (50% compared to 35% of those aged up to 39 years). Respondents living in rural Victoria were also more likely to report being just out for a ride, compared to those living in Melbourne (62% vs. 36%).

Riding to/from work was significantly more likely to be the reason for those living in metropolitan Melbourne (38% vs. 14% of rural respondents). Female respondents were more likely to have been learning to ride at the time of their crash (5% vs. 1% of males) (See Table 11).

Table 11: Reason for riding during crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
For recreation or just going for a ride	43	38	36	35↓	50↑	36↓	62↑
Going to/from work	31	33	29	37↑	29	38↑	14↓
Going to/from friend's place/someone else's house	12	8	12	14	10	11	14
Going to/from shops	5	7	7	6	4	6	4
Other	5	3	6	3	5	5	4
Going to/from school/uni	2	5	5↑	4	1	3	1
Learning to ride	1↓	5↑	2	1	1	1	1
Don't know /can't remember	0	0	1↑	0	0	0	0
Refused	0	0	1	0	0	0	0

Q12. Which of the following best describes the reason you were riding at the time of your crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding off-road bikes at the time of their crash were significantly more likely to have been riding for recreation or just going for a ride (86% compared to 39% of those riding road bikes and 8% of those riding scooters).

Those riding a scooter were more likely to say they had been going to or from work at the time of their crash (59%), as were those riding road bikes (33%), compared to those riding off-road bikes (7%) (See Table 12).

Table 12: Reason for riding and type of bike at the time of crash *(on-road crashes only)*

Column %	Type of bike (at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
For recreation or just going for a ride	39↓	86↑	8↓
Going to/from work	33	7↓	59↑
Going to/from friend's place/someone else's house	13↑	4↓	8
Going to/from shops	6	0↓	12↑
Other	5	2	5
Going to/from school/uni	3	1	5
Learning to ride	2	0	1
Don't know /can't remember	0	0	0
Refused	0	1↑	0

Q12. Which of the following best describes the reason you were riding at the time of your crash?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Whether riding alone or with other riders at the time of the crash

Seven in ten (71%) respondents who had crashed on-road were riding alone at the time of the crash. One in ten (10%) had been riding with one other rider, and around one in five (18%) said they had been riding with a larger group.

Sixty percent (60%) of those riding for recreational reasons said they had been riding with others at the time.

However, those riding to/from work, to/from a friend or someone else's house, to/from the shops or to/from school/uni were all significantly more likely to be riding alone than riding with others (See Table 13).

Table 13: Reason for riding during crash by whether riding alone or with others during crash *(on-road crashes only)*

Row %*	Riding alone or with others	
	Riding alone	Riding with others
n=	*545*	*216*
For recreation or just going for a ride	40↓	60↑
Going to/from work	100↑	0↓
Going to/from friend's place/someone else's house	93↑	7↓
Going to/from shops	98↑	3↓
Other	80	20
Going to/from school/uni	100↑	0↓
Learning to ride	64	36
Don't know /can't remember	100	0
Refused	100	0

Q12. Which of the following best describes the reason you were riding at the time of your crash?
Filter: On-road crashes; base n = 759 to 761 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents* ***not*** *in that category*
** Note rows add to 100%*

Those aged 40+ years were more likely to say they were riding with others at the time of the crash (32% vs. 24% of those aged up to 39 years) (See Table 14).

Those living in rural locations were also more likely to say they were riding with others at the time of the crash (44% compared to 22% of those living in metropolitan Melbourne).

This is likely to be linked to the type of riding more prevalent in these groups – i.e., commuters were more likely to be aged under 40 and riding alone; recreational riding was more common among those who lived in rural areas of Victoria, and is more likely to be conducted in groups.

Table 14: Whether riding alone or with others at the time of the crash by selected demographic variables *(on-road only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Riding alone	72	66	74	77↑	68↓	77↑	56↓
Subtotal: Riding with others	*28*	*34*	*26*	*23↓*	*32↑*	*22↓*	*44↑*
Riding with 1 other rider (2 riders in total)	10↓	19↑	11	10	11	8↓	16↑
Riding with 2-3 other riders (3-4 riders in total)	6	4	4	5	7	3↓	12↑
Riding with 4-6 other riders (5-7 riders in total)	5	3	4	2↓	7↑	4	6
Riding with 7 or more riders (8 or more riders in total)	7	8	8	5	8	6	10
Don't know /can't remember	0	0	0	0	0	0	0
Refused	0	0	0	0	0	0	0

Q13. At the time of your crash, were you riding alone or with other riders?
On road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Those who had crashed on-road were significantly more likely to have been riding alone at the time of their crash (71% compared to 20% of those who had off-road crashes) (See Table 15). Close to two thirds (63%) of those who had experienced a crash off-road had been riding in groups of three or greater.

Table 15: Whether riding alone or with others at the time of the crash by crash location *(on-road vs. off-road)*

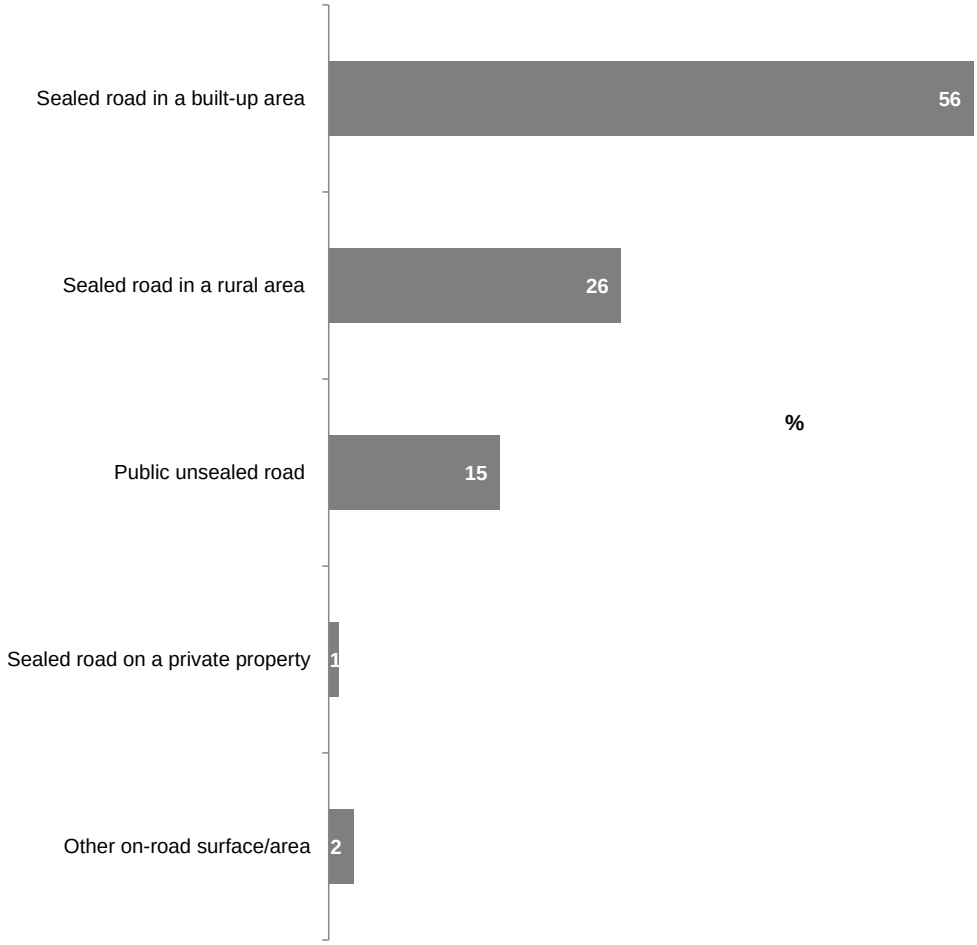
Column %	On-road	Off-road
n=	*763*	*201*
Riding alone	71↑	20↓
Subtotal: Riding with others	28↓	80↑
Riding with 1 other rider (2 riders in total)	10↓	17↑
Riding with 2-3 other riders (3-4 riders in total)	6↓	23↑
Riding with 4-6 other riders (5-7 riders in total)	5↓	18↑
Riding with 7 or more riders (8 or more riders in total)	7↓	22↑
Don't know /can't remember	0	0
Refused	0	0

Q13. At the time of your crash, were you riding alone or with other riders?
Total sample; base n = 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

3.3.2 Where the crash occurred

Over half (56%) of the on-road crashes occurred on a sealed road in a built-up area, followed by just over a quarter (26%) occurring on a sealed road in a rural area. A further 15% of respondents said their crash happened on a public unsealed road (See Figure 13).

Figure 13: Where the crash occurred *(on-road crashes only)*



Q14. Where did the crash occur?
Filter: On-road crashes; base n = 763

Those riding road bikes (60%) or scooters (91%) at the time of their crash were more likely to have crashed on a sealed road in a built-up area (compared to 13% of off-road bike riders). A further one in three crashes involving a road bike occurred on a sealed road in a rural area (32%).

Off-road bikes were most likely to crash on public unsealed roads (73%) (See Table 16).

Table 16: Where the crash occurred by type of bike ridden at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Sealed road in a built-up area	60↑	13↓	91↑
Sealed road in a rural area	32↑	7↓	5↓
Public unsealed road	5↓	73↑	1↓
Sealed road on a private property	1	2	0
Other on-road surface/area	2↓	5↑	3

Q14. Where did the crash occur?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those aged up to 39 (68% vs. 51% of those aged 40 and over) and those living in metropolitan Melbourne (68% vs. 27% of rural respondents) were significantly more likely to have crashed on a sealed road in a built-up area.

Older respondents (aged 40 and over) and those living in rural Victoria were more likely to have crashed on a sealed road in a rural area (31% and 44% respectively).

Crashing on a public unsealed road was more commonly reported by males (16% vs. 5%) and by those living in rural Victoria (25% vs 11% of those living in Melbourne) (See Table 17).

Table 17: Where the crash occurred by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Sealed road in a built-up area	56	58	59	64↑	51↓	68↑	27↓
Sealed road in a rural area	25	33	19↓	20↓	31↑	18↓	44↑
Public unsealed road	16↑	5↓	19	12	15	11↓	25↑
Sealed road on a private property	1	0	1	1	1	1	1
Other on-road surface/area	2	4	3	2	2	3	1

Q14. Where did the crash occur?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents travelling to or from work/school/uni were most likely to have crashed on a sealed road in a built-up area (88% compared to 22% of those riding for recreation or just out for a ride).

Those who had been riding for recreational purposes were more likely to say they had crashed on a sealed road in a *rural* area (44%) or a public unsealed road (30%) than those riding for other purposes.

Respondents who had been riding by themselves were more likely to say they had crashed in a built-up area (74% vs. 11% riding with others), which is consistent with commuting riders being more likely to ride alone and live in Melbourne.

Those who were riding with others at the time were more likely to have crashed on sealed roads in rural areas and public unsealed roads than those who rode alone (47% and 38% respectively) (See Table 18).

Table 18: Where the crash occurred by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Sealed road in a built-up area	22↓	88↑	80↑	36	66	74↑	11↓
Sealed road in a rural area	44↑	7↓	16↓	18	29	17↓	47↑
Public unsealed road	30↑	3↓	3↓	0	6	6↓	38↑
Sealed road on a private property	1	0	1	18↑	0	1	1
Other on-road surface/area	3	2	1	27↑	0	2	4

Q14. Where did the crash occur?

Filter: On-road crashes; base n = from 759 to 761 (excludes 'other' responses)

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

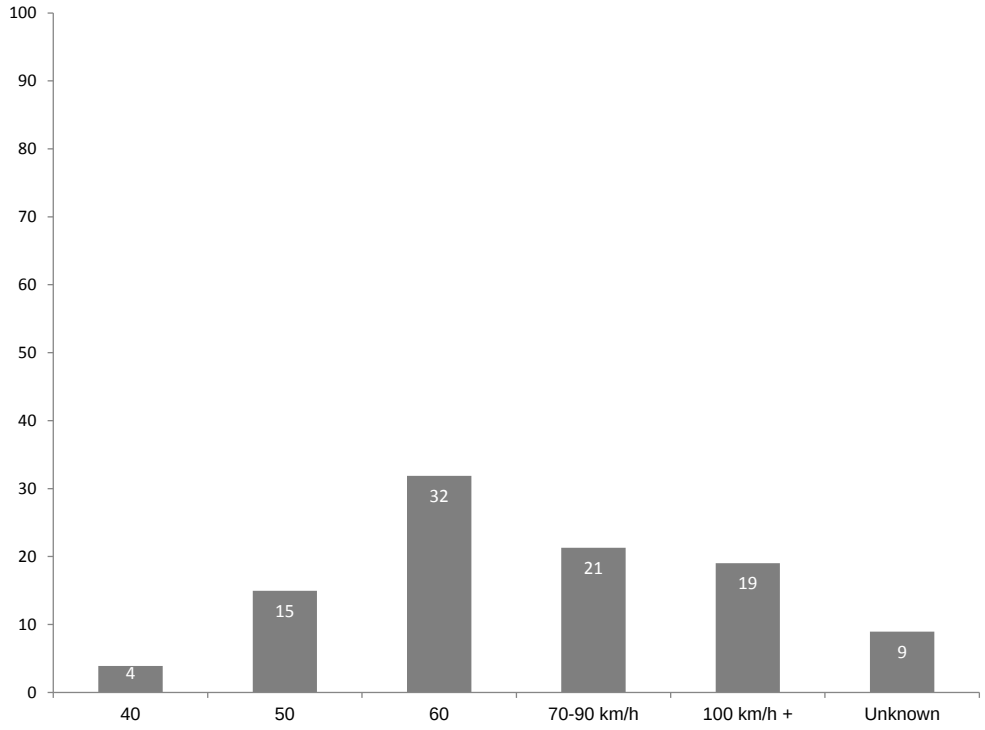
**Note small sample size*

3.3.3 Speed limit at location of crash

Supplementary data for respondents was supplied by the TAC from a number of different sources including VicRoads, VicPolice and the TAC Claims database. The supplementary data provided further insight into some of the areas not covered in the survey, including (but not limited to) injury severity, and road characteristics such as geometry and speed zones etc. The following section covers some of the results relating to injuries incurred at the time of the crash.

Based on supplementary data available through VicRoads on the crashes, half of respondents (51%) had an on-road crash in an area with a 40-60km/h zone. This included 4% in a 40km per hour zone; 15% in a 50km zone and one in three in a 60km zone (32%). One in five (21%) respondents were riding in a 70-90km/h zone and a similar proportion (19%) was riding in areas with speed limits above 100km/h at the time of the crash.

Figure 14. Speed limit during the accident *(on-road crashes only)*



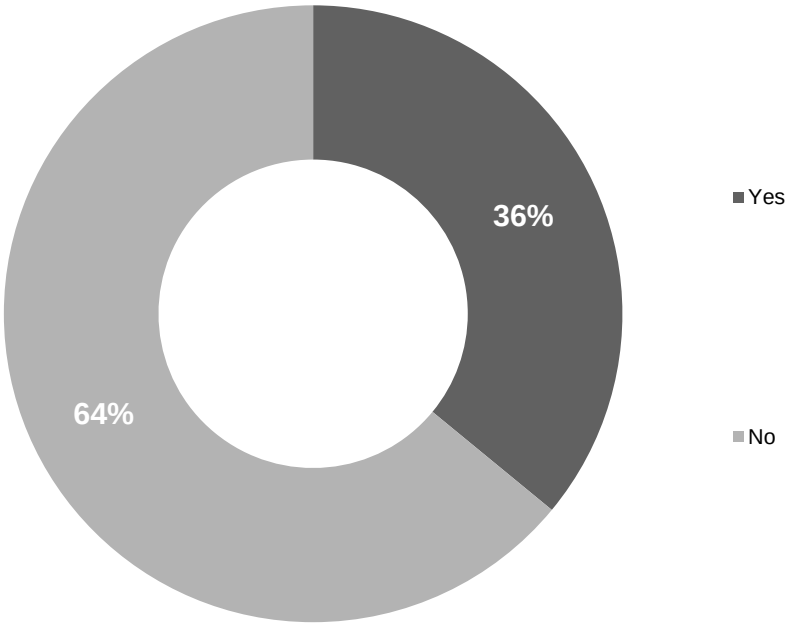
Source: VicRoads RCIS database, Speed zone
Filter: On-road crashes; base n = 615

3.3.4 Crash circumstances

Whether other parties were involved

Approximately two thirds (64%) of respondents reported that no other parties were involved in the crash (See Figure 15).

Figure 15: Whether other parties were involved *(on-road crashes only)*



Q16. Apart from yourself, were there any other parties (that is passengers (pillion riders), other vehicles or pedestrians etc.) involved in the crash?
Filter: On-road crashes; base n = 763

Those from metropolitan Melbourne were significantly more likely to report that other parties had been involved in their crash (39% vs. 28% of rural respondents).

Those aged 40 years and over were more likely to report that no other parties were involved in the crash (67% compared to 56% of those aged up to 25 years).

There were no significant differences by gender (See Table 19).

Table 19: Whether other parties were involved by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Yes	36	30	43	38	32↓	39↑	28↓
No	63	70	56↓	62	67↑	61↓	72↑
Don't know /can't remember	0	0	1	0	0	1	0
Refused	0	0	0	0	0	0	0

Q16. Were there any other parties (that is passengers (pillion riders), other vehicles or pedestrians etc.) involved in the crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents going to or from work/school/uni (49%) or going to or from a friend's place or shops (46%) were more likely to report that another party was involved in the crash – but this is likely to be due to the fact that these activities are more likely to be done in metropolitan settings.

Respondents who had ridden alone were more likely to indicate that another party was involved compared with those who had ridden with others (43% vs. 19%).

Those who were riding for recreational purposes were less likely to say that other parties had been involved in the crash (22%) (See Table 20).

Table 20: Whether other parties were involved by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Yes	22↓	49↑	46↑	0↓	46	43↑	19↓
No	78↑	50↓	54↓	100↑	54	57↓	81↑
Don't know /can't remember	0	1	0	0	0	1	0
Refused	0	0	0	0	0	0	0

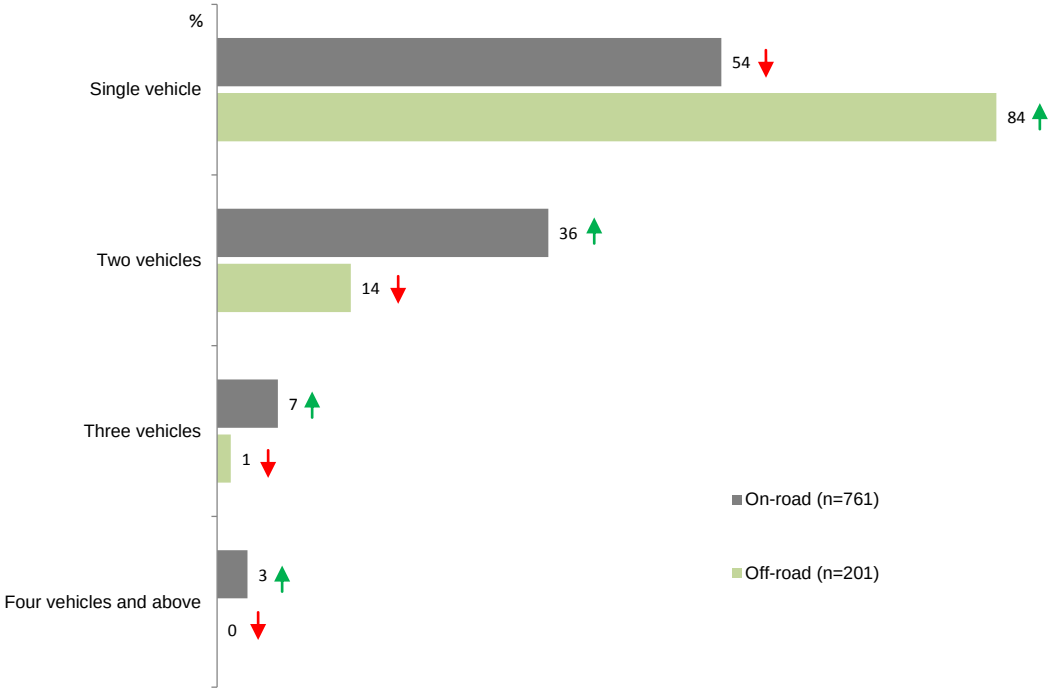
Q16. Apart from yourself, were there any other parties (that is passengers (pillion riders), other vehicles or pedestrians etc.) involved in the crash?
Filter: On-road crashes; base n = from 759 to 761(excludes 'other' responses)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

Number of other vehicles involved in the crash

The TAC Claims database included supplementary data on the number of vehicles involved in respondents' crashes. More than half (54%) of on-road crashes had been classified as single vehicle accidents, and for a further 36% the accidents involved two vehicles.

As seen in Figure 16, those who had an on-road crash were less likely to be classified as a single vehicle incident, according to the VicRoads data (84% vs. 54%).

Figure 16. Number of vehicles involved in an accident *(on-road vs. off-road)*



Source: TAC Claims database, Number of vehicles
Filter: On-road crashes; base n = 761; Off-road crashes, base n=201
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Female respondents were more likely to have their crash classified as a single vehicle accident compared to males (66% vs. 53%). Similarly, older respondents above the age of 40 and those living in rural areas were more likely to be classified as being involved in a single vehicle accident (60% and 69% respectively).

Table 21. Number of vehicles involved in an accident by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*688*	*73*	*140*	*215*	*406*	*549*	*212*
Single vehicle	53↓	66↑	46↓	49	60↑	49↓	69↑
Two vehicles	37↑	23↓	39	40	33↓	40↑	26↓
Three vehicles	7	5	8	10↑	4↓	8↑	3↓
Four vehicles and above	3	5	7	1	3	4	2

Source: TAC Claim database, Number of vehicles
Filter: On-road crashes; base n = 761

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those who were riding an off-road bike during the crash were more likely to be involved in a single vehicle crash (79% vs. 50% on-road bike vs. 45% scooter).

Table 22. Number of vehicles involved in an accident by type of bike ridden at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	On-road bike	Off-road bike	Scooter
n=	*558*	*114*	*74*
Single vehicle	50↓	79↑	45
Two vehicles	38↑	19↓	46
Three vehicles	8↑	1↓	7
Four vehicles and above	4	1	3

Source: TAC Claim database, Number of vehicles
Filter: On-road crashes; base n = 758 (excluding other bikes)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

As can be seen in Table 23, respondents who were riding for recreational purposes were more likely to have crashes that did not include other vehicles (73% vs. 34% for those going to/from work/study). Respondents who indicated they were riding with others were more likely to have a single vehicle accident (77% vs. 45%).

In addition, those who had ridden since their crash were more likely to have been in a single vehicle accident, in comparison to those who have not ridden since their crash (57% vs. 45%).

Table 23. Number of vehicle involved in an accident by purpose of riding (on-road crash only)

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/ uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*327*	*257*	*127*	*11**	*35*	*544*	*215*
Single vehicle	73↑	34↓	46	91↑	49	45↓	77↑
Two vehicles	22↓	51↑	40	9	46	44↑	16↓
Three vehicles	4↓	9↑	10	0	3	7	5
Four vehicles and above	2↓	6↑	3	0	3	4	2

Source: TAC Claims database, Number of vehicles
Filter: On-road crashes; base n = 756
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Involvement of other parties

Of those who said other parties were involved in the crash, the majority (91%) reported a moving vehicle(s) or a vehicle(s) that was stopped in traffic as being involved. A further 4% said a parked vehicle was involved in the

crash. Older respondents aged 40 and over were more likely to report that no other vehicle was involved (10%), as were rural respondents (13%).

As shown in Table 24 below, those riding an off-road bike at the time of the crash were significantly more likely to report that no other vehicles were involved (19% compared to 5% of road bike riders and 7% of scooter riders).

Table 24: What the crash involved by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*223*	*16**	*30**
A moving vehicle(s) or a vehicle(s) that was stopped in traffic	92	75↓	93
A parked vehicle	4	6	3
No other vehicle involved	5	19↑	7
Don't know / Can't remember	0	0	0
Refused	0	0	0

Q19. Did you crash involve?

Filter: On-road crashes; if other parties involved in crash; base n = 273 (excludes 'other bikes')

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

**Note small sample size*

A significantly higher proportion of those who reported going to or from work / school / university (99%) said that their on-road crash involved a moving vehicle(s) or a vehicle(s) that was stopped in traffic, compared to those who were riding for recreational purposes (76%).

This was similar to those riding alone at the time of the crash (94% reported a moving vehicle was involved in the crash vs. 76% of those riding with others).

Those that were riding for recreation were significantly more likely to say that no other vehicle was involved (18% vs. 1% of those riding to/from work or study); as did those riding with others (20% vs. 4% of those riding alone) (See Table 25).

Table 25: What the crash involved by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding				Riding alone or with others	
	For recreation or just going for a ride	Going to/from work /school/ uni	Going to/from friend's place /shops	Other	Riding alone	Riding with others
n=	*71*	*127*	*58*	*16**	*232*	*41*
A moving vehicle(s) or a vehicle(s) that was stopped in traffic	76↓	99↑	95	81	94↑	76↓
A parked vehicle	6	1↓	2	19↑	3	5
No other vehicle involved	18↑	1↓	3	6	4↓	20↑
Don't know / Can't remember	0	0	2	0	0	0
Refused	0	0	0	0	0	0

Q19. Did your crash involve…?

Filter: On-road crashes; if other parties involved in crash; base n = from 273 (excludes 'don't know/can't remember/refused')

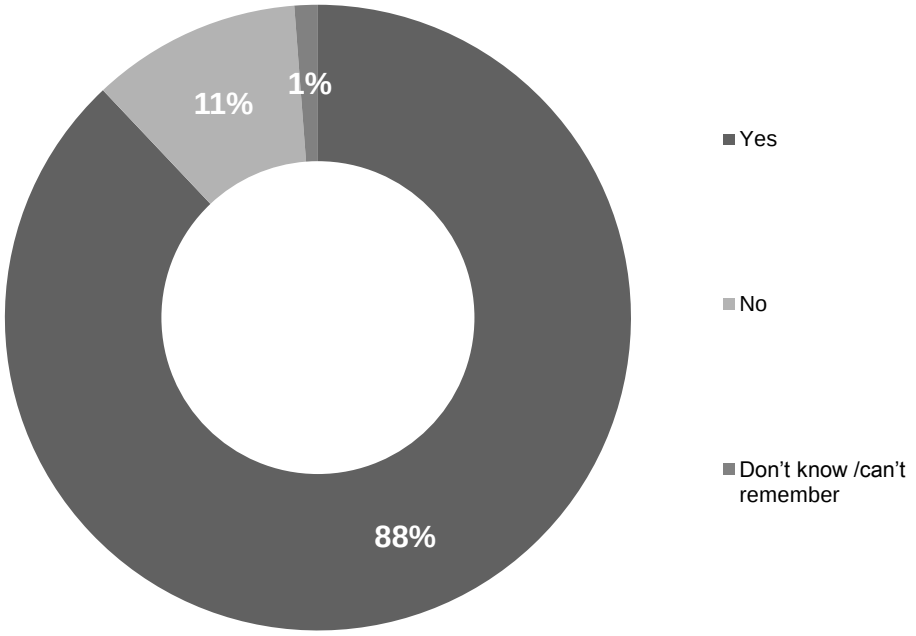
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

**Note small sample size*

Direct contact with other vehicles

Nearly nine in ten respondents (88%) that reported their on-road crash involved a moving vehicle said their motorcycle and the other vehicle made direct contact (See Figure 17).

Figure 17: Whether there was direct contact with the other vehicle *(on-road crashes only)*



Q20. Did you or your motorcycle and the other vehicle make direct contact?
Filter: On-road crashes; involved moving vehicle; base n = 249

The majority (90%) of those riding alone at the time of the crash reported making direct contact with another vehicle. In comparison, 74% of respondents riding with others said they had made contact with the other vehicle.

Those riding for recreation at the time of their crash were significantly more likely to say that they did *not* make direct contact with another vehicle, even though another vehicle had been involved (See Table 26).

Table 26: Whether there was direct contact with the other vehicle by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding				Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/ uni	Going to/from friend's place/shops	Other	Riding alone	Riding with others
n=	*54*	*126*	*55*	*13**	*218*	*31**
Yes	80↓	90	89	100	90↑	74↓
No	20↑	8	11	0	9↓	26↑
Don't know /can't remember	0	2	0	0	1	0
Refused	0	0	0	0	0	0

Q20. Did you or your motorcycle and the other vehicle make direct contact?
Filter: On-road crashes; if crash involved moving vehicle base n = from 248 to 249 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

3.3.5 Types of crashes

Descriptions of on-road crashes in Table 27 were provided to respondents. Just under one third (30%) of respondents said that another vehicle failed to give way at an intersection.

A similar proportion said they had been hit on the side / side swiped due to a lane change, or from being cut off by a vehicle from a different lane (29%).

A further 13% reported that they hit the back of a vehicle in the same lane and one in ten (11%) said they were hit from behind by a vehicle in the same lane.

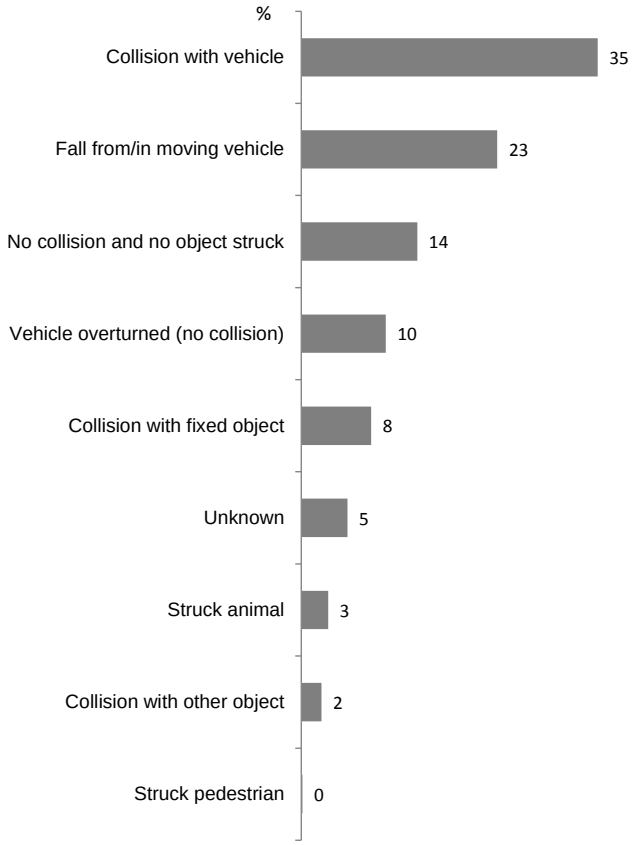
Table 27: Description of crash *(on-road crashes only)*

	%
n=	*219*
Other vehicle failed to give way at an intersection	30
Hit on the side/side swiped/due to lane change or being cut off (by a vehicle from a different lane)	29
Hit the back of a vehicle (in the same lane)	13
Hit from behind by a vehicle (in the same lane)	11
Hit the side of another vehicle e.g. T bone collision	8
It was a head on collision (vehicles were in opposing directions but not in an intersection)	8
Hit by vehicle that was exiting/entering car park or driveway	5
U turning vehicle	3
You failed to give way at an intersection	1
Other	2
Don't know / Can't remember	0
Refused	0

Q21. Which of the following best describes the crash?
Filter: On-road crashes; contact with moving vehicle; base n = 219
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

In comparison, based on the supplementary data from the TAC Claims database, one in three (35%) respondents' crashes had been classified as a collision with a vehicle; one in five (23%) classified as having fallen from/in a moving vehicle; and a further 14% classified as having no collision with an object or vehicle.

Figure 18. Accident type (on-road crashes only)



Source: TAC Claims database: Accident_type
Filter: On-road crashes; base n = 761

For those who lived in Melbourne, crashes were more likely to be classified as a collision with another vehicle (40% vs. 20% for regional respondents) while those living in rural areas were more likely to have had a collision with a fixed object or another object (17% vs. 8%). Those living in rural areas were also more likely to have struck an animal (8% vs. 1% for metropolitan respondents).

Respondents who have not ridden since the crash were more likely to have a collision with another vehicle (42% vs. 33% who have ridden again).

As can be seen in Table 28, respondents who were riding for recreational purposes were less likely to be involved in a collision with another vehicle (17% vs. 53% going to/from school/work and 45% going to/from a friend's place). Those riding alone were more likely to be involved in a collision with another vehicle, in comparison to those riding with others (43% vs. 13%).

Table 28. Accident type by purpose of riding and whether riding alone or with others *(on-road crashes only)*

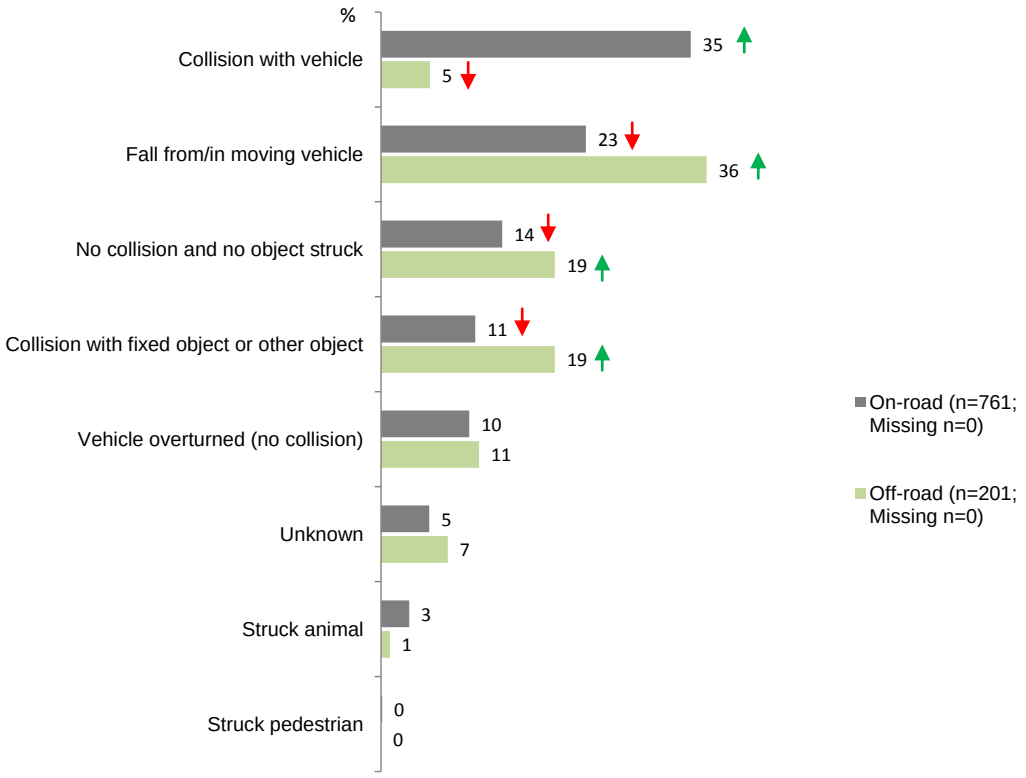
Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/ uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*327*	*257*	*127*	*11**	*35*	*544*	*215*
Collision with vehicle	17↓	53↑	45↑	0↓	40	43↑	13↓
Fall from/in moving vehicle	29↑	17↓	18	36	17	20↓	29↑
No collision and no object struck	17	11	13	0	14	12	17
Vehicle overturned (no collision)	11	8	13	18	6	10	10
Collision with fixed object or other object	17↑	4↓	6	9	11	6↓	21↑
Unknown	6	4	5	36↑	9	5	6
Struck animal	4	4	1	0	3	3	3
Struck pedestrian	0	0	0	0	0	0	0

Source: TAC database (TAC_Claim,: accdnt_type variable)
Filter: On-road crashes; base n = from 757 to 759; total n = 761
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who had an on-road crash were more likely than those who had an off-road crash to have collided with another vehicle (35% vs. 5%).

On the other hand, those who had an off-road crash were more likely to have fallen from/in a moving vehicle (36% vs. 23%); collided with a fixed object or other object (19% vs. 11%); or have no collision with another vehicle or object (19% vs. 4%).

Figure 19. Accident type (on-road vs. off-road)



Source: TAC database (TAC_Claim: ,accdnt_type variable)
Filter: On-road crashes; base n = 761; off-road crashes, base n=201
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

3.3.6 Categorising motorcycle crashes

Overall, more than half of the crashes were ones where there had been no interaction with another vehicle in the first instance (56%). These included loss of control due to surface conditions (22% of all on-road crashes) and avoiding road surfaces (3%). Losing control due to motorcyclist error accounted for close to one in six of all crashes (17%). Nine percent (9%) of crashes were the result of colliding with a physical object and a further 3% were due to avoiding a physical object.

Among the 44% of crashes where there had been an interaction with another vehicle, collisions made up three quarters of these crashes (or 33% of all on-road crashes). These were more likely to be at an intersection or driveway (20%) than midblock (13%). Crashes that arose out of avoiding another vehicle in the first instance accounted for 11% of crashes. Similar to other results, on-road crashes were significantly more likely to involve another vehicle than off-road crashes (44% vs. 7%).

Introduction to categorising crashes

One of the objectives of this research was to better understand motorcycle crashes and determine whether there were any commonalities between respondent crashes. The supplementary crash data from the TAC and VicRoads included details of the Definition for Classifying the Accident (DCA) which is used to categorise crashes in terms of the general direction of vehicles at the time of the crash. While it is not the purpose of the DCA to assign the cause for the crash, it was evident that the codes assigned did not always completely reflect what had happened in the lead up to the crash or was concentrated on the last moments of the crash.

For example, more than half of all crashes (56%) were classified according to the assigned DCA as a vehicle going off-path either on a curve or a straight. However, upon further investigation of the survey information including the respondents' descriptions of the crash, was clear there were a number of different reasons for losing control of their motorcycle. In fact, in one in five of these crashes (19%), respondents recalled that they had crashed as a result of reacting to another vehicle's actions.

An outcome of this initial analysis of the DCA codes was to re-examine the details of each crash through respondents' open-ended descriptions, their survey responses, sketches (where available) and the supplementary data from the VicRoads, TAC and Victoria Police databases and group crashes by the first event in the chain of events that lead to the crash rather as opposed to focussing on the final moment of the crash or where the motorcyclist ended up. For example, respondents commonly described rear-ending another vehicle in traffic after hitting some gravel on the road. In this this situation, for the purposes of this exercise, the crash was categorised as the rider losing control due surface conditions rather than focus on the collision with the other vehicle, deemed as a secondary outcome of losing control over gravel.

The crashes were grouped in categories determined in consultation with the TAC team and were based on the following factors:

- Whether there had been an interaction with another vehicle in the first instance (regardless of if there had been a collision);
- Whether there had been a collision or not with the primary vehicle;
- The location of the crash (i.e. intersection or driveway or midblock crash); and
- The direction the motorcycle was heading in relation to other vehicles.

Further details about the crash were also gathered through this task including:

- Who did not give way;
- Whether the crash occurred on a curve or straight road;
- The type of collision and the direction of the impact from the motorcyclist point of view.

A structure for categorising crashes where there had been an interaction with another vehicle is outlined below:

Figure 20: Structure for categorising crashes with interaction with other vehicles

First point interaction with vehicle)	Collision with vehicle in traffic or object	Crash location intersection or mid-block	Motorcyclist location in relation to other vehicle	Key types of crashes
Interaction with vehicle	Collision	Intersection or driveway	Adjacent direction	Near side
				Far side
				Unknown
			Opposing direction	Far side
				U-turning
			Same direction	Rear end
				Turning
			Roundabout	Near side
		Midblock	Opposing direction	Head on (not overtaking)
				U-turning
				Other
			Same direction	Changing lanes
				Rear end
				U-turning
				Overtaking
				Other
	No collision with primary vehicle - Avoid/miss vehicle	Intersection or driveway	Adjacent direction	Near side
				Unknown
			Opposing direction	Far side
			Same direction	Rear end
			Roundabout	Near side
		Midblock	Opposing direction	Head on (not overtaking)
				U-turning
			Same direction	Changing lanes
				Rear end
				U-turning
				Overtaking
				Other

While some information was gained from the police description of the incident, it should be noted that the information used to categorise the crashes was predominately based on the respondent's feedback and description of the crash. The following section covers the results from categorising the crashes by the factors above.

Summary of on-road crashes

As can be seen in Figure 21, 44% of all participants had an on-road crash where there had been an interaction with another vehicle in the first instance. This included 33% who had directly collided with the other vehicle. The remainder (11%) indicated that they had an interaction with another vehicle but there was no collision. That is, they managed to avoid or miss the other vehicle and then crash or lose control of the motorcycle.

The most common location for crashes where there had been an interaction with another vehicle had been at an intersection or driveway (20% of all on-road crashes). Just over one in ten of crashes with an interaction with another vehicle had occurred mid-block (13%).

Most crashes where there had been an interaction with another vehicle but no collision with that vehicle occurred mid-block (7% of all on-road crashes). Four percent (4%) of all crashes with an interaction but no collision happened at an intersection or driveway.

On-road motorcycle crashes were most likely to have no other parties involved in the first instance. More than half of all participants (56%) had an on-road crash where no other parties were involved in the first instance had been no interaction with other vehicles. The most common crashes with no interaction with other vehicles included losing control due to surface conditions (22%), followed by losing control due to individual error (17%). Close to one in ten had collided with a physical object (9%) and a minority reported they had lost control due to trying to avoiding a physical object (3%) or unfavourable road surface conditions (1%).

On-road vs. off-road crashes

Not surprisingly, compared to off-road crashes, respondents who had an on-road crash were more likely to have an interaction with another vehicle prior to the accident (44% vs. 7% for off-road).

Among crashes where there had been no interaction with another vehicle, respondents who had an on-road crash were also less likely to collide with an object (9% vs. 25%) or say they had lost control due to a handling error on their part (17% vs. 34%) compared to those who crashed off-road.

Figure 21: Types of motorcycle crashes – on road surface crashes vs. off road surface crashes (as % of all on-road crashes)

Crash Categories
Total sample; Unweighted; base n = 964

Overall, the analysis of the respondent point of view of the crash shows that in the majority of cases, the vehicle had not given way to the respondent (79% of crashes where there had been an interaction with another vehicle). However, categories of crashes where the motorcyclist should have given way include midblock crashes where the motorcyclist had tried to avoid another vehicle immediately before the crash (28% of these crashes were identified as situations where motorcyclist should have given way).

Table 29: Crash details - who did <u>not</u> give way (on-road crashes only)

Row %	Vehicle	Motorcyclist	Both	Unknown	*n*=
Subtotal: Interaction with other vehicle	**79**	**19**	**1**	**1**	**0**
Collision with other vehicle	**82**	**16**	**1**	**1**	**0**
- Intersection or driveway collisions	89	11	0	0	0
- Midblock collisions	71	25	2	2	0
Avoid/miss primary vehicle	**69**	**28**	**0**	**4**	**0**
- Intersection or driveway	72	24	0	3	0
- Midblock	67	30	0	4	0

Crash categories
On-road crashes; Unweighted; base n = 763

Looking at the perceived responsibility, the pattern was similar with the majority of situations where the respondent did not feel they were responsible at all for the incident. Again, among the groups of crashes where other where other vehicles were involved, respondents were more likely to claim total responsibility in the midblock crashes (14%). Partial responsibility was most likely attributed to midblock crashes where they were avoiding another vehicle (28%).

Intersection collisions were the type of crash where respondents were most likely to say that the other party had been totally at fault (82%).

Among the crashes where there had been no other vehicle interaction in the first instance, one in three (36%) of respondents claimed total responsibility with a further one in three (31%) accepting partial responsibility. One in four (23%) reported the situation was totally out of their control.

Table 30: Crash categories – perceived responsibility (on-road crashes only)

Row %	Not responsible at all	Partially responsible	Totally responsible	Don't know /can't remember	Refused	n=
Subtotal: Interaction with other vehicle	72	18	7	1	2	335
Collision with other vehicle	**75**	**15**	**8**	**2**	**1**	**252**
- Intersection or driveway collisions	82	13	3	1	1	151
- Midblock collisions	64	19	14	2	1	101
Avoid/miss primary vehicle	63	25	5	1	6	83
- Intersection or driveway	69	21	0	0	10	29
- Midblock	59	28	7	2	4	54
Subtotal: No interaction with vehicle	23	31	36	7	3	428
- Lost control due to surface conditions	21	37	34	5	3	169
- Lost control due to motorcyclist error	9	27	50	10	4	131
- Lost control due to other reason	36	19	28	11	6	36
- Collision with object	42	29	21	6	2	66
- Avoid object	30	25	40	0	5	20

Crash categories and Q17. The next question is about your perception of who was responsible for your accident.
On-road crashes; Unweighted; base n = 763

Differences between interaction and non-interaction crashes

When comparing on-road crashes where there had been an interaction with another vehicle with those with no interaction with another vehicle in the first instance, many of the differences were consistent with those noted between those who commuted or ran errands compared to those who were riding for recreational purposes. The following differences were observed:

- ***Responsibility for crash:*** Respondents who had an interaction with another vehicle in the first instance were more likely to indicate that they were not responsible at all for the accident compared with those who had no interaction with another vehicle (72% vs. 23%). Those who had no interaction with another vehicle were more likely to indicate that they were partially responsible for the accident (31% vs. 18%) or totally responsible for the accident (36% vs. 7%). In addition, respondents who had an interaction with another vehicle were also more likely to agree that there was nothing that they could have done to prevent the crash (70% vs. 54% for those with no interaction with other vehicles).

- ***Contributing factors:*** As the result above would suggest, the majority (84%) of those who had an interaction with another vehicle felt another person's error contributed to the crash (more so than for non-interaction crashes (3%). Those without an interaction were more likely to mention factors such as the road conditions (50% vs. 5%); weather (14% vs. 3%) an animal (10%) mechanical failure (7% vs. 1%) or cornering (7% vs. 2%). One in four mentioned their own error had also contributed (26% vs. 11%).

- ***Type of motorcycle ridden at the time of the crash:*** *Those* who had an interaction with another vehicle were more likely to have ridden a road bike (84% vs. 65%). This included a higher proportion of those who were riding a sports bike at the time of the crash (30% vs. 21%).

These riders were less likely to have been riding an off-road or trail bike at the time (4% vs. 24% no interaction with another vehicle).

- ***Location of crash:*** Those who had an interaction with another vehicle were more likely to have crashed on a sealed road in a built-up area than those who had no interaction (79% vs. 38%). On the other hand, respondents who *did not* have an interaction with another vehicle in the first instance were more likely to have crashed on a sealed road in a rural area (34% vs. 15%), public unsealed road (24% vs 4%) or a sealed road on a private property (2% vs. 0% for those with an interaction). Those who had an interaction with another vehicle were also more likely to agree that they knew the crash area well (89% vs. 63% agreed) compared with those who had no interaction with another vehicle.

- ***Traffic conditions:*** Respondents who had an interaction with another vehicle in the first instance were more likely to describe the traffic conditions as congested, stop-start traffic /or bumper to bumper traffic (13% vs. 2%), heavy traffic / flowing well (16% vs. 5%) or medium traffic (24% vs. 10%) compared with those who had no interaction with another vehicle. On the other hand, those who had no interaction with another vehicle were more likely to indicate that there were low numbers of vehicles (82% vs. 45% had an interaction with another vehicle).

- ***Number of other riders in the group:*** Respondents who had an interaction with another vehicle were more likely to be riding alone compared to those who had no interaction with another vehicle (88% vs. 58%).

- ***Demographic characteristics:*** Males were more common among crashes with an interaction with another vehicle (93% vs. 89% for non-interaction crashes). Respondents aged 40 and over were more likely to have *no interaction* with another vehicle in the first instance during their accident (57% vs. 49% interaction with another vehicle). These respondents were also more likely be from metro Melbourne (81% vs. 65% no interaction with another vehicle).

- ***Exposure of riding before the crash:*** In addition, interaction crashes were more common among, those who rode five or more days a week in the summer or winter months prior to the crash (55% vs. 28%% and 45% vs. 20% for summer and winter respectively); or rode 81% or of the time riding compared to driving (32% vs. 17%).

Differences between crashes with collisions with primary vehicle vs. non-collision crashes

When looking at the crashes where there had been an interaction with another vehicle and a collision vs. those where there had been no collision with the primary vehicle, the following statistical differences were observed:

- ***Responsibility for the crash:*** Respondents who had collided with another vehicle were more likely to indicate that they were not responsible at all for the accident (75% vs. 63%) while those who had no collision with another vehicle were more likely to indicate that they were partially responsible for the accident (25% vs. 15%).

- ***Factors contributing to the crash:*** Based on survey responses on what factors contributed to the crash, respondents who had collided with another vehicle were more likely to indicate that lapse in concentration was one of the reasons that caused their crash (6% vs.0%). On the other hand, respondents who had not collided with another vehicle were more likely to indicate that

road conditions / road surface / tram tracks / slippery roads were among the reasons that they had crashed (14% vs. 2% had a collision with another vehicle).

- ***Getting back on track:*** Consistent with overall findings in the survey, respondents who had a collision with another vehicle were less likely than those who had no collision to score a ten out of ten (50% vs. 70%) as to the extent to which they have been able to 'get their life back on track' (where zero indicates not at all and 10 indicates completely back on track).

Crashes in detail and case study examples

Collisions with other vehicles

As noted, crashes where there had been an interaction with another vehicle (whether there had been a collision or not) accounted for 44% of all respondent crashes.

Among the crashes where there had been an interaction, three quarters (75%) had been a collision with the primary vehicle. Close to half (45%) of these crashes occurred at an intersection or driveway (an equivalent of 20% of all on-road crashes); the remainder (30% of interaction crashes) occurred midblock.

The following sections covers the different types of crashes in further detail including example sketches of the more common crashes within each category.

Intersection collisions with other vehicles

Table 31: Details of collisions with other vehicles - Intersection collisions (on-road crashes only)

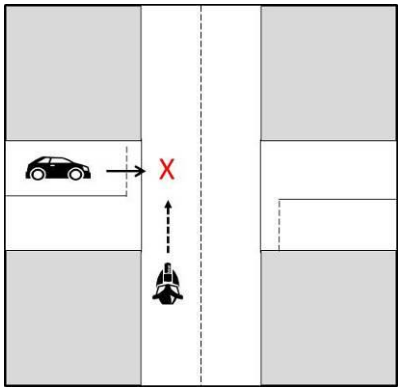
	% of all on-road crashes	% of on-road crashes with interaction with other vehicle	*n*=
Subtotal: Interaction with other vehicle	**44**	**100**	**335**
Collision with other vehicle	**33**	**75**	**252**
- Intersection or driveway collisions	**20**	**45**	**151**
Adjacent	**6**	**13**	**43**
Near side	*5*	10	35
Far side	*1*	1	5
Unknown	*<1%*	1	3
Roundabout (Near side)	**2**	**5**	**16**
Opposing direction	**7**	**17**	**57**
Far side	*7*	17	56
U-turning	*<1%*	*<1%*	1
Same direction	**5**	**10**	**35**
Rear end	*4*	8	27
Turning	*1*	2	8

Crash categories
On-road crashes; Unweighted; base n = 763

Vehicles in adjacent directions

Table 31 shows that intersection crashes where vehicles were in adjacent directions accounted for 6% of all on-road crashes (an equivalent of 13% of crashes where another vehicle was involved).

Figure 22: Sketch of crash at intersection with vehicles from adjacent direction



Vehicle in adjacent direction at intersection did not give way to motorcycle with impact on near side of road (n=24)

The majority (81%) of the adjacent intersection crashes were those where the collision occurred on the near side of the road (see Figure 22). Almost all respondents affected by this type of crash mentioned that the vehicle had failed to give way (91% of adjacent near-side crashes) (See Table 32).

Collisions of vehicles in adjacent directions that occurred on the far side of the road were less common (1% of all crashes).

Table 32: Details of collisions with other vehicles - Intersection collisions – who did not give way (on-road crashes only)

Row %	Vehicle	Motorcyclist	Both	Unknown	*n*=
Subtotal: Interaction with other vehicle	**79**	**19**	**1**	**1**	**335**
Collision with other vehicle	**82**	**16**	**1**	**1**	**252**
- Intersection or driveway collisions	**89**	**11**	**0**	**0**	**151**
Adjacent	**91**	**9**	**0**	**0**	**43**
Near side	91	9	0	0	35
Far side	80	20	0	0	5
Unknown	100	0	0	0	3
Roundabout (Near side)	**100**	**0**	**0**	**0**	**16**
Opposing direction	**93**	**7**	**0**	**0**	**57**
Far side	93	7	0	0	56
U-turning	100	0	0	0	1
Same direction	**77**	**23**	**0**	**0**	**35**
Rear end	70	30	0	0	27
Turning	100	0	0	0	8

Crash categories
On-road crashes; Unweighted; base n = 763

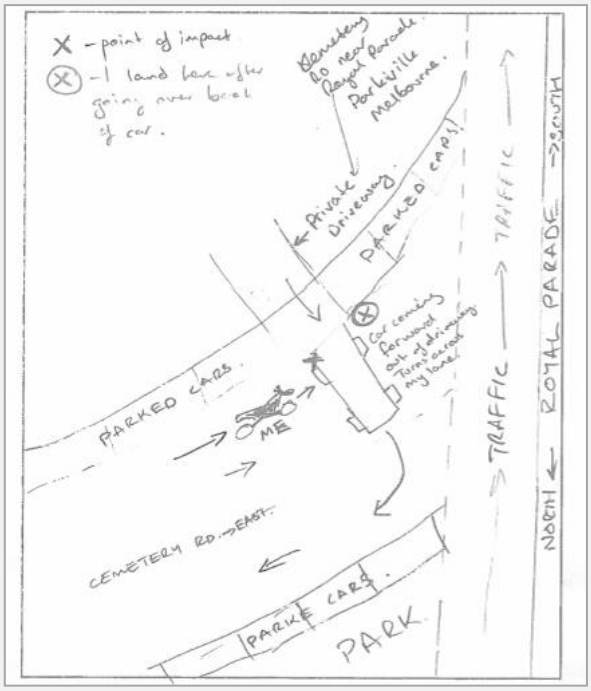
Case study 1: Intersection crash – near side collision

This is an example of a collision at an intersection or driveway at a bend in the road where the other driver had pulled out onto the main road and had failed to give way to the respondent, causing a side impact on the rear passenger side of the vehicle. Overall 5% of all on-road crashes had occurred in similar circumstances.

The respondent's description of what happened was as follows:

"Cemetery Rd is bendy, shaped like a crescent. There are also parked cars along the entire length. This makes it very difficult for anyone to see oncoming traffic when pulling out. Unfortunately really. Had I been a car I might have been big enough to see! I also got the impression that when the driver saw me (once he had pulled out) he braked as an instinctive reaction. Had he committed to the manoeuvre he might have given me room to slip around the back".

The respondent selected "blind corner in the road (not being able to see around a corner" and "other driver/other person's error" as the two factors that contributed to the crash during the survey. Unsurprisingly, the respondent also said they were "not responsible at all for the accident" when asked. The respondent had agreed strongly that *if they were riding more slowly, they could have done something to avoid the crash* and had disagreed strongly *that there was nothing he could have done to prevent the crash*.



At the time of the crash, the respondent indicated that it was a clear day with no cloud or light cloud cover; with medium traffic. The respondent also said that he was wearing five items of protective gear at the time of the crash. According to the supplementary data from the VicRoads and from the TAC, the accident was classified as a minor injury accident where the respondent was not admitted to the hospital during the first seven days after the accident. The respondent indicated the he was currently working at the time of the survey and had scored a ten out of ten (completely back on track) when asked to rate the extent to which the respondent has been able to get your life back on track.

Vehicles at a roundabout

In addition to crashes where the vehicles were in adjacent directions, roundabout collisions made up 5% of crashes where another vehicle was involved (or 2% of all crashes). All respondents involved in a roundabout crash reported that it had been the other vehicle that did not give way (100%).

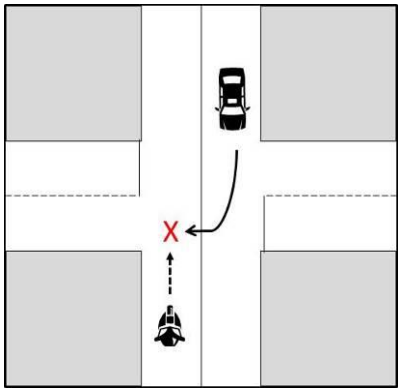
Vehicles in opposing directions

As seen in Table 31, the most common type of intersection crashes were where the vehicles were in opposing directions (17% of crashes where there had been an interaction with another vehicle or 7% of all crashes).

From respondents' point of view, the majority of crashes with vehicles in opposing direction at an intersection were due to the other vehicle not giving way when turning across the path of the motorcycle (86% of this opposing direction intersection crashes). Figure 23 is an example of the most common type of crash among the intersection crashes with vehicles from opposing directions.

Nine in ten (93%) of opposing direction crashes were where another vehicle did not give way.

Figure 23: Sketch of crash at intersection with vehicles from opposing direction



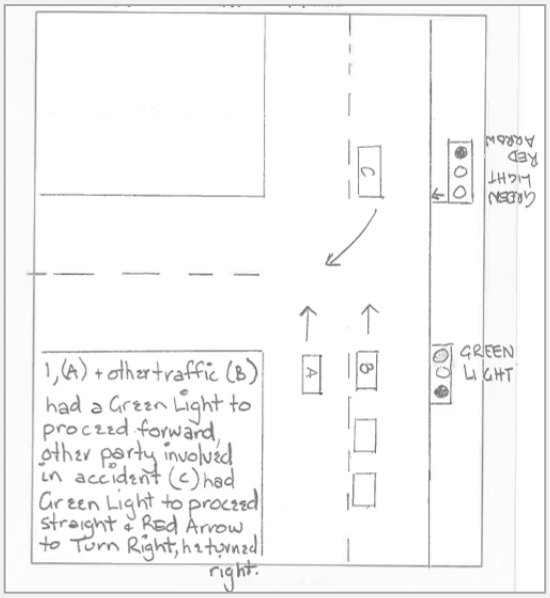
Vehicle in opposing direction at intersection turning across path of motorcycle did not give way to motorcycle (n=49)

Case study 2: Intersection crash – far side collision

This is an example of a collision at an intersection where another driver from the opposite direction had driven past a red light and turned across the respondent's path. Far side collisions at intersections made up 7% of all on-road crashes.

The respondent's description of the crash was as follows:

"Coming up 200 yards to a set of lights. The lights were red. There were three or four cars already waiting at the lights. The road broke into two lanes at the lights. I approached in the left hand lane and slowed down to a walking pace knowing that the lights were going to change from red to green soon as they were red for a while. When I was about 5m away from coming to a complete stop at the line the lights had then change to green I accelerated to go through the lights. A car waiting on the other side of the lights to turn right across our traffic, turned in front of me. He obviously thought that he could beat everyone across the line before they started moving. I diverted to go around him but hit his back rear panel. Knocked me to the ground. Cut my knee to the bone was the main injury. Another car pulled up straight away and said it was the other guys fault."



The respondent indicated that he did not feel he was at all responsible for the accident and that it was other driver/ other person's error. The respondent also indicated that it was a clear day with no cloud or light cloud cover and that there were low numbers of vehicles during the accident. The respondent was wearing a full face motorcycle helmet, motorcycle riding gloves, and boots at the time of the crash.

The supplementary from the VicRoads and TAC had classified this accident to be of serious injury accident and where the respondent's main injury had been sprains / strains due to the accident and was admitted in the hospital for one day following the accident.

The respondent took up to a month after the accident before starting to ride again. The respondent indicated the he was currently working at the time of the survey and had scored a ten out of ten (completely back on track) when asked to rate the extent to which the respondent has been able to get your life back on track.

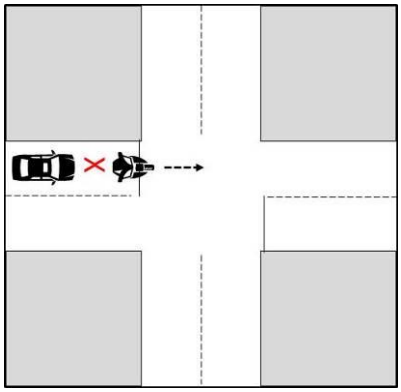
Vehicles in the same direction

Five percent (5%) of all crashes were at intersections where both vehicles were in the same direction (equivalent of 10% of interaction crashes).

More than three quarters (77%) of these crashes were rear-end incidents with the majority of cases where the other vehicle did not give way to the motorcyclist (70%). (See Figure 24 for example sketch for this type of crash).

The remaining intersection crashes where the vehicles were in the same direction were when both vehicles were turning (22% of same direction crashes).

Figure 24: Sketch of crash at intersection with vehicles in the same direction



Vehicle in same direction at intersection rear-ended motorcycle Midblock collisions with other vehicles

Table 33 shows that 13% of all on-road crashes involved collisions with another vehicle that occurred midblock. This is equal to 30% of crashes where another vehicle was involved.

Table 33: Details of collisions with other vehicles - Midblock collisions (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with interaction with other vehicle	*n*=
Subtotal: Interaction with other vehicle	**44**	**100**	**335**
Collision with other vehicle	**33**	**75**	**252**
- Midblock collisions	**13**	**30**	**101**
Opposing direction	**2**	**4**	**15**
Head on (not overtaking)	*1*	3	9
U-turning	*1*	1	5
Other	*<1%*	*<1%*	1
Same direction	**11**	**26**	**86**
Changing lanes	*5*	12	41
Rear end	*3*	6	21
U-turning	*2*	5	17
Overtaking	*1*	1	5
Other	*<1%*	1	2

Crash categories
On-road crashes; Unweighted; base n = 763

Table 34: Details of collisions with other vehicles - Midblock collisions – which party did <u>not</u> give way (on-road crashes only)

Row %	Vehicle	Motorcyclist	Both	Unknown	*n*=
Subtotal: Interaction with other vehicle	**79**	**19**	**1**	**1**	**335**
Collision with other vehicle	**82**	**16**	**1**	**1**	**252**
- Midblock collisions	**71**	**25**	**2**	**2**	**101**
Opposing direction	**67**	**20**	**13**	**0**	**15**
Head on (not overtaking)	44	33	22	0	9
U-turning	100	0	0	0	5
Other	100	0	0	0	1
Same direction	72	26	0	2	**86**
Changing lanes	85	15	0	0	41
Rear end	29	71	0	0	21
U-turning	100	0	0	0	17
Overtaking	94	6	0	0	5
Other	0	0	0	100	2

Crash categories
On-road crashes; Unweighted; base n = 763

Midblock collision with vehicles in the opposing directions

These types of crashes accounted for just 2% of all crashes (or 4% of crashes where other vehicles were involved). Three quarters of the crashes (n=9) were head-on collisions. The other vehicle was slightly more likely to be on the wrong side of the road (n=4) compared to cases where the

motorcyclist was in error (n=3). The remainder of cases involved narrow streets where neither vehicle gave way.

A U-turning vehicle that did not give way to the motorcyclist made up a third of these opposing direction cases (n=5).

Midblock collision with vehicles in the same direction

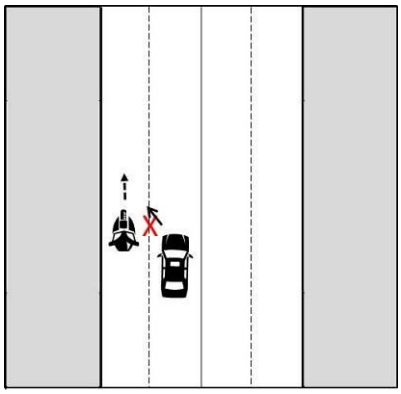
The most common scenario among these crashes were crashes between vehicles in the same direction (11% of all crashes or 26% of crashes with other vehicles involved).

Respondents affected by these crashes were most likely to mention that this was due to changing lanes (5% of all crashes) (See Figure 25: Sketch of crash midblock with vehicles in the same direction, followed by incidents where there were rear-end collisions (3% of all crashes).

For four out of five respondents (85%) affected by these same direction crashes, the other vehicle did not give way (See Table 34). However, for the majority (71%) of the rear-end cases, the crashes were ones where the motorcyclists rear-ended the other vehicle. This was the most common type of crash where the motorcyclist should have given way (accounting for 2% of all crashes).

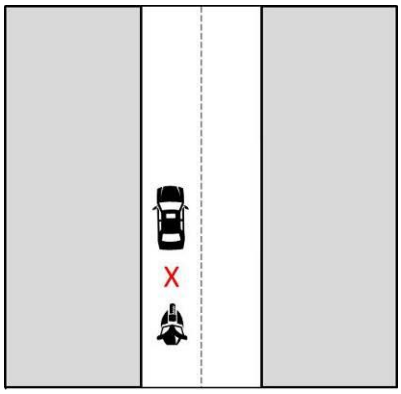
Nineteen percent (19%) of all same direction midblock collisions were due to vehicles undertaking a U-turn without giving way to the motorcyclist (2% of all crashes).

Figure 25: Sketch of crash midblock with vehicles in the same direction (changing lanes)



Vehicle in same direction changing lanes and side-swipe motorcyclist (n=35)

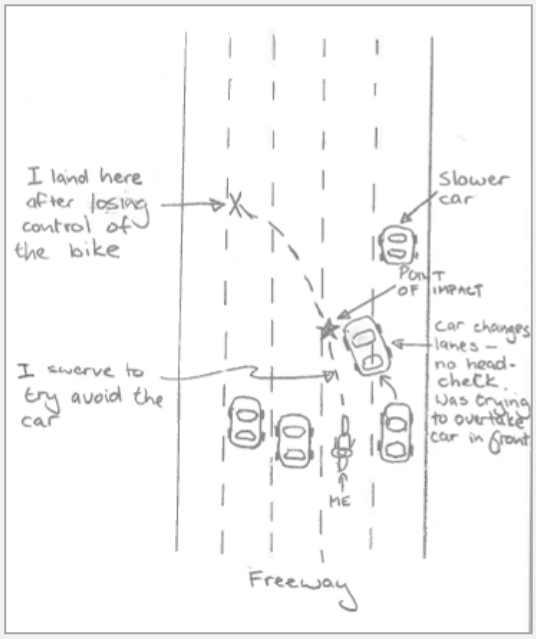
Figure 26: Sketch of crash midblock with vehicles in the same direction (rear-end)



Motorcyclist in same direction rear end into vehicle (n=15)

Case study 3: Midblock crash – same direction changing lanes

This is an example of a collision that occurred mid-block where the other driver was travelling in the same direction as the rider. The other vehicle had collided with the respondent on the side after changing lanes without giving way.



The following is the respondent's description of what happened during the accident:

"Traffic had been fairly congested and had just begun to free up. The car in front of the rider did not accelerate quickly enough so he tried going around (undertake) without doing a head check. Traffic was in the lane to the left of me, so I couldn't change lanes but had to try to avoid him – unsuccessfully".

During the survey, the respondent also mentioned that they were in the other driver's blind spot causing them to clip the driver's front left panel. Following the collision, the respondent had lost control and fell off their bike.

When asked what factors caused the crash, the respondent indicated that they was partially responsible for the accident and also indicated that it was the other driver's error.

At the time of the crash, the traffic was heavy but flowing well and it was a clear day with no cloud or light cloud cover during the accident.

During the crash, the respondent was wearing a full face motorcycle helmet, motorcycle riding gloves, motorcycle riding boots, motorcycle riding jacket and motorcycle riding pants. The respondent had taken up to six months before riding again since the crash.

Supplementary data had classified this accident as a serious injury accident where the respondent had sustained fractured limb(s) and had stayed in the hospital for more than a day but less than a week following the accident.

The respondent was working at the time of the survey and had scored a nine out of ten when asked to rate the extent to which they were able to get their life back on track. The respondent added that they had scored a nine because they were 100% physically back on track compared to before the crash.

Differences between intersection or driveway crashes vs. mid-block crashes among those who had a collision with the primary vehicle

When looking at collision crashes, the following differences between intersection or driveway crashes and mid-block crashes were observed:

- ***Responsibility for the crash:*** Respondents who had an intersection or driveway collision were more likely to indicate that they were *not at all* responsible for the crash compared with those who had a mid-block collision (82% vs. 64%). Similarly, those who had a mid-block collision were more likely to indicate that they were *totally* responsible for the accident (14% vs. 3%).
- In addition, respondents who had a *mid-block* collision were more likely to agree that if they were riding more slowly, they could have done something to avoid the crash (37% vs. 22% intersection or driveway collision).
- ***Location of the crash:*** Those who had an intersection or driveway collision were more likely to have crashed in a sealed road in a built up area compared with those who had a mid-block collision (85% vs. 73%).
- ***Number of other riders in the group:*** Those who had an intersection or driveway collision were more likely to have been riding alone (93% vs. 83%).

Crashes with no collision with primary vehicle but another vehicle had been involved

As mentioned, the preliminary investigation into the best way to group the crashes showed that there were cases where another vehicle had been involved but the motorcyclist had managed to avoid or miss the primary vehicle but then lost control of the bike.

Overall, close to one in ten (11%) of all the on-road crashes reviewed had been the result of the motorcyclist avoiding or missing another vehicle before hitting the ground or another object or vehicle. This is equivalent to one in four crashes where another vehicle was involved (25%) (See Table 35).

Table 35 shows the summary of crashes where another vehicle was involved but the motorcyclist had no impact with the primary vehicle.

Intersection crashes

“Near misses” at intersections accounted for 4% of all crashes or 9% of all crashes where another vehicle had been involved. In close to three out of four respondents (72%) of the ‘near miss’ intersection crashes, the other vehicle had not given way to the motorcyclist (See Table 36).

Crashes with vehicles in adjacent direction that occurred on the near side of the road were the most common type of crash in this category (2% of all crashes). There was a handful of crashes where the motorcyclist had to avoid another vehicle that did not give way from an opposing direction at an intersection (n=5).

Roundabout crashes where there had been an interaction with another vehicle but no collision accounted for less than 1% of all crashes.

Again, the majority rear-end ‘near misses’ were cases where the motorcyclist was avoiding rear ending another vehicle, however, the motorcyclist did not have the right of way (80%). (See Table 36).

Table 35: Details of crashes where other vehicles involved but the motorcyclist did not collide with primary vehicle - Intersection crashes (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with interaction with other vehicle	*n*=
Subtotal: Interaction with other vehicle	**44**	**100**	**335**
Avoid/miss primary vehicle	**11**	**25**	**83**
- Intersection or driveway	**4**	**9**	**29**
Adjacent direction	**2**	**5**	**16**
Near side	*2*	4	12
Unknown	*1*	1	4
Roundabout (Near side)	***<1%***	**1**	**3**
Opposing direction (Far side)	**1**	**1**	**5**
Same direction	**1**	**1**	**5**
Rear end	*1*	1	4
Turning	*<1%*	*<1%*	1

Crash categories
On-road crashes; Unweighted; base n = 763

Table 36: Details of crashes where other vehicles involved but the motorcyclist did not collide with primary vehicle - Intersection crashes – which party did not give way (on-road crashes only)

Row %	Vehicle	Motorcyclist	Both	Unknown	*n*=
Subtotal: Interaction with other vehicle	**79**	**19**	**1**	**1**	**335**
Avoid/miss primary vehicle	**69**	**28**	**0**	**4**	**83**
- Intersection or driveway	**72**	**24**	**0**	**3**	**29**
Adjacent direction	**81**	**19**	**0**	**0**	**16**
Near side	75	25	0	0	12
Unknown	100	0	0	0	4
Roundabout (Near side)	**100**	**0**	**0**	**0**	**3**
Opposing direction (Far side)	**100**	**0**	**0**	**0**	**5**
Same direction	**0**	**80**	**0**	**20**	**5**
Rear end	0	100	0	0	4
Turning	0	0	0	100	1

Crash categories
On-road crashes; Unweighted; base n = 763

Midblock crashes

Midblock “near misses” where the motorcyclist did not collide with the ‘first’ vehicle accounted for 7% of all crashes.

Table 37: Details of crashes where other vehicles involved but the motorcyclist did not collide with primary vehicle - Midblock crashes (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with interaction with other vehicle	*n*=
Subtotal: Interaction with other vehicle	**44**	**100**	**335**
Avoid/miss primary vehicle	**11**	**25**	**83**
- Midblock	**7**	**16**	**54**
Opposing direction	**2**	**4**	**12**
Head on (not overtaking)	*1*	3	10
U-turning	*<1%*	1	2
Same direction	**6**	**13**	**42**
Changing lanes	*3*	6	21
Rear end	*2*	4	14
U-turning	*1*	1	4
Overtaking	*<1%*	1	2
Other	*<1%*	*<1%*	1

Crash categories
On-road crashes; Unweighted; base n = 763

Table 38: Details of crashes where other vehicles involved but the motorcyclist did not collide with primary vehicle - Midblock crashes – who did not give way (on-road crashes only)

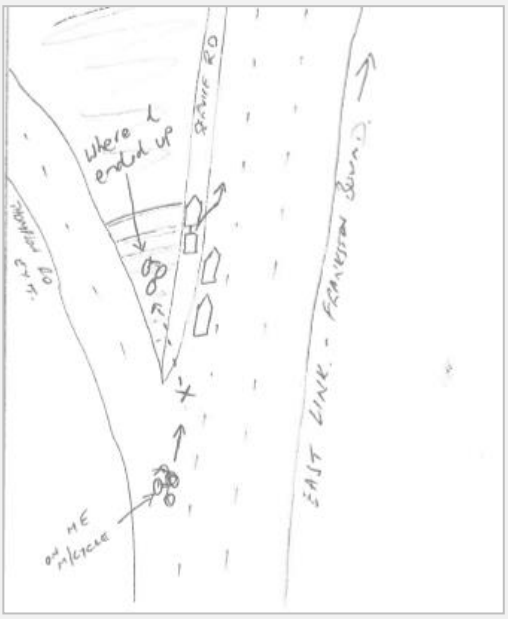
Row %	Vehicle	Motorcyclist	Both	Unknown	*n*=
Subtotal: Interaction with other vehicle	**79**	**19**	**1**	**1**	**335**
Avoid/miss primary vehicle	**69**	**28**	**0**	**4**	**83**
- Midblock	67	30	0	4	**54**
Opposing direction	92	8	0	0	**12**
Head on (not overtaking)	90	10	0	0	10
U-turning	100	0	0	0	2
Same direction	60	36	0	5	**42**
Changing lanes	100	0	0	0	21
Rear end	0	93	0	7	14
U-turning	100	0	0	0	4
Overtaking	0	100	0	0	2
Other	0	0	0	100	1

Crash categories
On-road crashes; Unweighted; base n = 763

Crashes where the vehicles were travelling in the same direction were the most common type of crash in this category (78% of midblock ‘near miss’ crashes or 6% of all crashes). Among these, respondents were most likely to say that the other vehicle had been changing lanes and did not give

way to the motorcyclist (3% of all crashes). The next most common group of crashes involved the motorcyclist trying to avoid rear ending the vehicle in front of them (2% of all crashes or 4% of interaction crashes).

Case study 4: Midblock crash – Avoiding rear ending other vehicle in the same direction



In this example, the respondent had lost control trying to avoid rear ending a vehicle in front that had braked suddenly due to another vehicle in front changing lanes. This type of crash accounted for 2% of all on-road.

The following is the respondent's description of what happened during the accident:

"Frankston bound on freeway. Car towing boat pulled out of service road causing cars in front of me to brake suddenly.

No choice but to brake severely and laid bike down. Skidded across road and ended up in between Thompson Road Exit and Freeway."

The respondent indicated that they were not responsible at all for the accident although the circumstances would suggest that the motorcycle should have to give way.

The respondent had somewhat agreed that they *knew the crash area well* and they felt they were *familiar with the motorcycle they were riding at the time of the crash*. In addition, the respondent somewhat disagreed that if they were *riding more slowly, they could have done something to avoid the crash.* They also somewhat disagreed that *there was nothing they could have done to prevent the crash*.

The respondent noted it had been a clear day with no cloud or light cloud cover. The traffic had been heavy but was flowing well. They were wearing five items of protective gear at the time of the accident.

The supplementary data about the crash had classified this as a minor injury accident and that the respondent was not admitted to the hospital due to the accident.

The respondent had also rated a ten out of ten when asked to rate the extent to which he has been able to get his life back on track. Whilst the injuries obtained from the crash were minimal, the respondent had not ridden again since the crash and the reasons for not riding again were because they no longer owned a bike, their partner would prefer if they did not ride and they were no longer interested in riding.

Crashes with no interaction with other vehicles in first instance

More than half (56%) of all on-road crash respondents described crashes where there was no interaction with another vehicle in the first instance (although they may have crashed into another vehicle after losing control of their motorcycle).

Reasons why respondents seemed to have lost control included:

- Losing control of the motorcycle due to hitting unfavourable surface conditions;
- Losing control of the motorcycle due to motorcyclist error;
- Losing control of the motorcycle due to other reasons such as medical issues or mechanical failure;
- Colliding with a physical object or animal;
- Losing control of the motorcycle after trying to avoid hitting an object or animal; or
- Losing control of the motorcycle after to avoid unfavourable surface conditions.

While there were no other vehicles involved in the first instance, in a handful of cases (3% of 'non-interaction crashes); respondents mentioned that their motorcycle had collided with the primary vehicle in the crash (2%) or with a secondary vehicle (1%). As seen in Table 30, one in three (36%) respondents accepted they were at fault in these situations; a further one in three (31%) reported they were partially at fault and 23% felt they were not responsible at all.

Some of the statistical differences observed between these types of crashes included:

- Those who had collided with an object (65%) or those who lost control due to other reasons such as medical, or mechanical issues (81%) were more likely to say there was nothing they could do to avoid the crash. Those who had lost control due to a handling error on their part were less likely to agree to this sentiment compared to those who had experienced other crash types where there were no other vehicles involved (44%).
- Those who had lost control due to surface conditions such as gravel, pot holes, rocks debris or tram tracks or road paint were more likely to be from metropolitan Melbourne (74%). Collisions with physical objects were less likely to have occurred in metro Melbourne (47%).

Each of the categories of crashes where there was no interaction with another vehicle is covered in the sections below.

Table 39: Crashes where no vehicles were involved (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with no interaction with other vehicles	n=
Subtotal: No interaction with vehicle	**56**	**100**	**428**
- Lost control due to surface conditions	22	39	169
- Avoid surface conditions	1	1	6
- Lost control due to motorcyclist error	17	31	131
- Collision with object	9	15	66
- Avoid object	3	5	20
- Lost control due to other reason	5	8	36

Coding crashes
On-road crashes; Unweighted; base n = 763

Loss of control due to hitting or avoiding surface conditions

The most common reason for crashing had been due to losing control after hitting 'abnormal' road conditions (22% of all crashes). This is equal to 39% of all crashes where no other vehicles were involved in the first moments of the crash. A further 1% of crashes were the result of trying to avoiding poor road conditions.

Loose debris such as gravel, sand, dirt or rocks were the most common hazard for motorcyclists that had lost control (9% of all road crashes). An equivalent of 15% of crashes where there was no vehicle interaction were affected by road surface conditions in the first instance.

The next most common surface hazard for on-road crashes was slippery road affected by moisture, mud, ice or oil (7% of all crashes). Three percent (3%) of all respondents had hit a potholes or rut in the first instance followed by those who had hit tram or train tracks or wet paint (2%). A similar proportion had hit uneven ground or a bump in the road causing them to lose control (2%).

Table 40: Crashes where no vehicles were involved – Surface condition crashes (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with no interaction with other vehicles	n=
Subtotal: No interaction with vehicle	**56**	**100**	**428**
- Lost control due to surface conditions	**22**	**39**	**169**
Gravel / Sand / Dirt / Rocks / Debris	*9*	15	65
Wet ground / mud / ice / oil on ground	*7*	12	50
Pothole / rut	*3*	5	22
Tram / train tracks / paint	*2*	4	19
Uneven ground / bump / mound	*2*	3	13
- Avoid surface conditions	**1**	**1**	**6**
Gravel / Sand / Dirt / Rocks / Debris	*<1%*	1	3
Tram / train tracks / paint	*<1%*	<1%	1
Uneven ground / bump / mound	*<1%*	<1%	1
Wet ground / mud / ice / oil on ground	*<1%*	<1%	1

Coding crashes
On-road crashes; Unweighted; base n = 763

Loss of control due to motorcyclist error

More one in six of all respondent on-road crashes were deemed to be the result of the motorcyclist making an error in the first instance (17%).

The most common error by far was losing control of the motorcycle at a corner or a bend in the road (9% of all crashes or 15% of crashes with no other vehicles involved). Braking suddenly or too much accelerator were some of the handling errors made by a minority of respondents (1% each respectively).

Table 41: Crashes where no vehicles were involved (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with no interaction with other vehicles	n=
Subtotal: No interaction with vehicle	**56**	**100**	**428**
- Lost control due to motorcyclist error	**17**	31	131
At corner or bend in road	*9*	15	65
While braking	*1*	2	8
Speed	*1*	2	7
While manoeuvring	*1*	2	10
While accelerating	*1*	1	4
Performing stunt / tricks	*<1%*	0	1
Other motorcyclist error	*5*	8	36

Coding crashes
On-road crashes; Unweighted; base n = 763

Collision with or avoiding a physical object

Collisions with physical objects made up close to one in ten of the on-crashes (9%). These were predominately collisions with animals (4%) or with a fallen log or branch (2% of all crashes). Three percent (3%) of all crashes were instigated by avoiding an object with animals the most common culprits.

Table 42: Crashes where no vehicles were involved (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with no interaction with other vehicles	n=
Subtotal: No interaction with vehicle	**56**	**100**	**428**
- Collision with object	**9**	**15**	**66**
Animal	*4*	7	30
Fallen Log / Tree / Stump / Branch	*2*	4	15
Road infrastructure (e.g. gutter, roundabout)	*1*	1	4
Rock	*1*	1	4
Parked car	*<1%*	*<1%*	2
Other object	*1*	3	11
- Avoid object	**3**	**5**	**20**
Animal	*2*	3	14
Fallen Log / Tree / Stump / Branch	*<1%*	1	3
Pedestrian	*<1%*	*<1%*	2
Other object	*<1%*	*<1%*	1

Coding crashes

On-road crashes; Unweighted; base n = 763

Loss of control due to other factors including mechanical, medical etc.

Five percent (5%) of all crashes were due to other factors including 3% which were mechanical related.

Table 43: Crashes where no vehicles were involved (on-road crashes only)

	% of all on-road crashes	% of on-road crashes with no interaction with other vehicles	n=
Subtotal: No interaction with vehicle	**56**	**100**	**428**
- Lost control due to other reason	**5**	**8**	**36**
Mechanical issue	*3*	6	24
Atmospheric conditions	*1*	1	5
Medical condition	*<1%*	*<1%*	2
Vehicle opened door onto Motorcyclist	*<1%*	*<1%*	1
Unknown	*1*	1	4

Coding crashes
On-road crashes; Unweighted; base n = 763

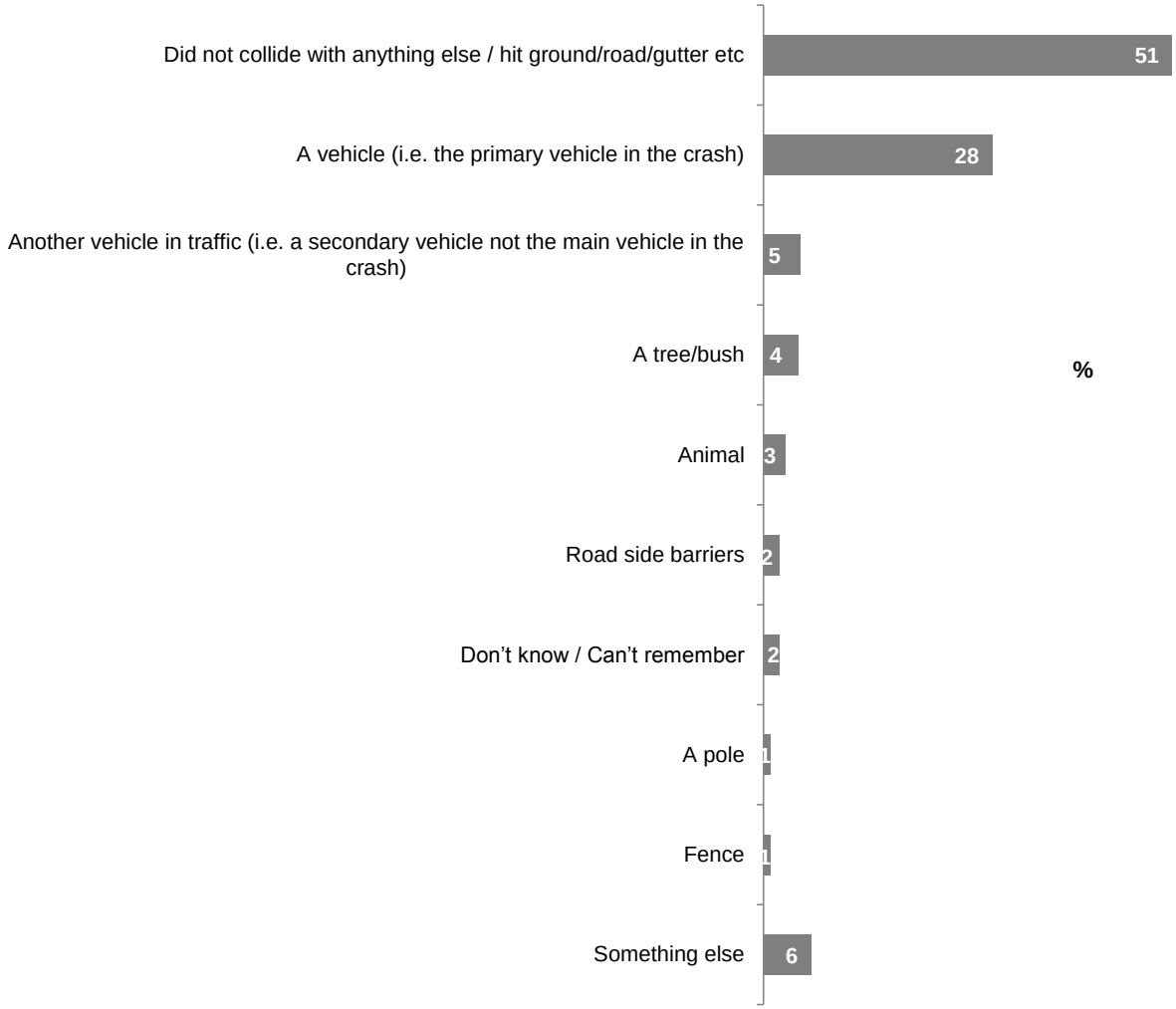
3.3.7 Details of motorcycle and rider collisions

What the motorcycle collided with

Those involved in on-road crashes were asked what, if anything, did their *motorcycle* collide with at the time of the crash. Over a quarter (28%) of respondents said their motorcycle had collided with the other vehicle mainly involved in the crash. An additional 5% reported it had hit another secondary vehicle.

Over half (51%) said that their motorcycle had hit the ground / gutter and did not collide with anything else after the crash (See Figure 27).

Figure 27: What the motorcycle collided with *(on-road crashes only)*



Q22. What did your motorcycle collide with at the time of the crash?
Filter: On-road crashes; base n = 763

A small sample of 15 respondents (2%) reported that their bike had collided with roadside barriers. Four of these respondents (27%) said it hit a steel rail; three respondents (20%) reported hitting a concrete barrier; and two respondents (13%) said their bike hit a metal traffic barrier (for example, W-beam / W-barrier / Armco barrier). Five respondents (33%) said it hit something else.

Females were significantly more likely than males to say their motorcycle did not collide with anything, and had just hit the ground (62% vs. 49%), as were those aged 26 and over (53% compared to 39% of those aged 25 and under).

Those from Melbourne were significantly more likely to see their bike collide with a vehicle (32% compared to 19% of those in rural areas). However, rural respondents were significantly more likely to collide with a tree / bush (9% vs. 2%) or an animal (6% vs 2%) (See Table 44).

Table 44: What the motorcycle collided with by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Did not collide with anything else / hit ground/road/gutter etc.	49↓	62↑	39↓	51	54↑	50	52
A vehicle (i.e. the primary vehicle in the crash)	29	19	34	31	25↓	32↑	19↓
Another vehicle in traffic (i.e. a secondary vehicle not the main vehicle in the crash)	5	4	6	4	4	5	3
A tree/bush	4	4	5	3	5	2↓	9↑
Animal	3	1	1	2	4	2↓	6↑
Road side barriers	2	1	3	1	2	1	3
Don't know / Can't remember	2	1	4	0	2	2	1
A pole	1	0	2	0	1	1	0
Fence	1	0	1	1	1	1	2
Something else	6	7	9	7	4	6	6
Refused	0	0	0	0	0	0	0

Q22. What did your motorcycle collide with at the time of the crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding road bikes at the time of their crash were significantly more likely to report their bike colliding with a vehicle (32% vs. 7% of off-road bike riders) or another vehicle in traffic (6% vs. 2% of off-road bike riders).

Those riding off-road bikes were significantly more likely to report not colliding with anything (61% vs. 48% of road bike riders). Those riding off-road bikes at the time were also more likely to say their bike had hit an animal (15% vs. 3% of road bike riders) (See Table 45).

Table 45: What the motorcycle collided with by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Did not collide with anything else / hit ground/road/gutter etc.	48↓	61↑	57
A vehicle (i.e. the primary vehicle in the crash)	32↑	7↓	32
Another vehicle in traffic (i.e. a secondary vehicle not the main vehicle in the crash)	6↑	2	3
A tree/bush	3↓	15↑	0
Animal	3	4	0
Road side barriers	3	0	1
Don't know / Can't remember	2	4	1
A pole	1	0	0
Fence	1	0	0
Something else	5	7	8
Refused	0	0	0

Q22. What did your motorcycle collide with at the time of the crash?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding for recreational purposes (61%) and those riding with others (56%) were more likely to say their bike did not collide with anything at the time of the crash.

Those riding in more metropolitan settings were more likely to say it had collided with a vehicle – e.g. those going to or from work / school / uni (44%) and those going to or from a friend's place / shops (42%). Given this, those riding alone at the time of the crash were also more likely to say they had collided with a car (36%).

Colliding with a tree or a bush was significantly more likely among those riding for recreation (9%) and those riding with others (13%) (See Table 46).

Those riders riding for recreation or with other people were significantly more likely to collide with a tree or bush (9% and 13% respectively – See Table 46).

Table 46: What the motorcycle collided with by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Did not collide with anything else / hit ground/road/gutter etc.	61↑	42↓	43	64	34↓	48↓	56↑
A vehicle (i.e. the primary vehicle in the crash)	12↓	44↑	42↑	0↓	31	36↑	10↓
Another vehicle in traffic (i.e. a secondary vehicle not the main vehicle in the crash)	5	4	5	0	9	5	3
A tree/bush	9↑	0↓	1↓	0	6	1↓	13↑
Animal	3	4	1	0	3	3	3
Road side barriers	2	1	1	27↑	6	2	3
Don't know / Can't remember	2	2	2	0	6	1	3
A pole	1	0	2	0	3	1	1
Fence	2	0	2	0	0	0↓	3↑
Something else	6	5	8	9	6	6	7
Refused	0	0	0	0	0	0	0

Q22. What did your motorcycle collide with at the time of the crash?

Filter: On-road crashes; base n = from 759 to 761 (excludes 'other responses')

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

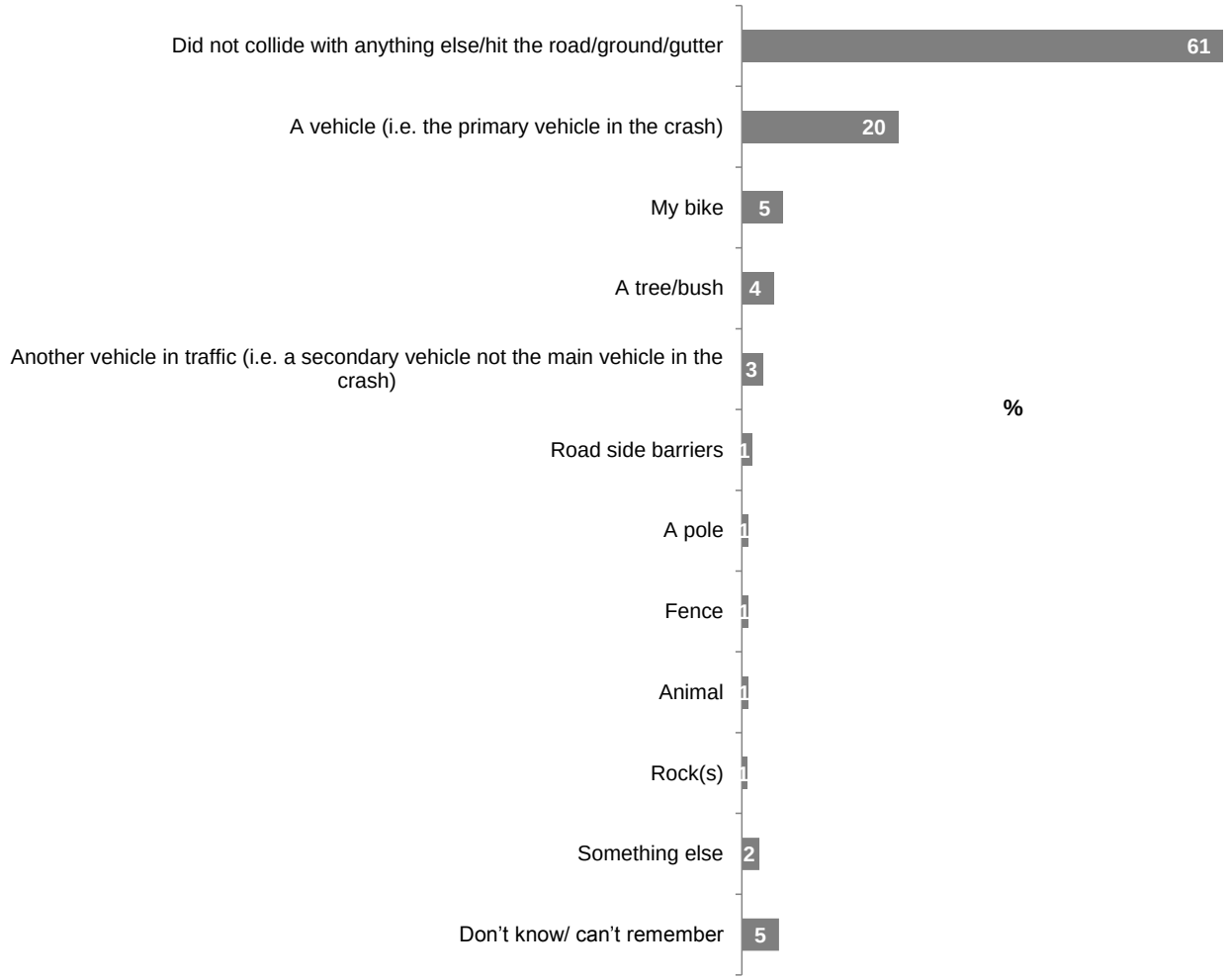
**Note small sample size*

What the rider's body collided with

As shown in Figure 28, over six in ten (61%) of respondents involved in on-road crashes reported that their body did not collide with anything else before hitting the ground.

One in five respondents (20%) said that their body had collided with a vehicle. An additional 5% said their body had collided with their own bike.

Figure 28: Body collision *(on-road crashes only)*



Q24. Did your body collide with anything at the time of the crash?
Filter: On-road crashes; base n = from 763

Ten respondents (1%) reported that their body collided with a road barrier. Three of these respondents (38%) said this was a concrete barrier and two respondents (25%) reported their body collided with a steel rail.

Similar results were found by the type of bikes the respondents were riding at the time of the crash, with 62% of both on-road and off-road bike riders and 61% of scooter riders reporting their body did not collide with anything.

Colliding with a tree / bush was significantly higher for those riding off-road bikes (17% compared to 2% of road bike riders and 0% of scooter riders).

As seen in Table 47, 66% of respondents who had been riding for recreational purposes at the time of the crash reported that their body did not collide with anything.

In contrast, those going to or from work / school / uni (30%) and going to or from a friend's place or shops (28%) were significantly more likely to have hit a vehicle.

Those riding alone at the time of the crash were also more likely to say their body had hit another vehicle (24% compared to 10% of those riding with others).

Those riding for recreational purposes were more likely to report their body colliding with a tree (8%) as were those riding with others (11% vs. 1% of those riding alone).

Table 47: Whether body collided with anything by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Overall	Purpose of riding					Riding alone or with others	
		For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*763*	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Did not collide with anything else/hit the road/ground/gutter	61	66↑	55↓	57	82	60	61	61
A vehicle (i.e. the primary vehicle in the crash)	20	10↓	30↑	28↑	9	17	24↑	10↓
My bike	5	6	5	4	9	6	5	6
A tree/bush	4	8↑	0↓	2	0	6	1↓	11↑
Another vehicle in traffic (i.e. a secondary vehicle not the main vehicle in the crash)	3	1↓	4	3	0	9↑	3	1
Road side barriers	1	1	2	0	0	6↑	1	1
A pole	1	0	1	2	0	0	1	1
Fence	1	1	0	1	0	0	0↓	2↑
Animal	1	1	1	1	0	0	1	1
Rock(s)	1	2↑	0	0	0	0	0↓	2↑
Something else	2	2	2	2	9	3	2	3
Don't know/ can't remember	5	4	5	6	0	3	5	5
Refused	0	0	0	0	0	0	0	0

Q24. Did your body collide with anything at the time of the crash?

Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

**Note small sample size*

3.3.8 Factors contributing to the crash

The following section covers respondents' views of what they believed may have contributed to the crash. Respondents were asked separately who they felt was responsible for the crash, as well as to provide their view of factors that may have contributed to the crash.

In regards to perceived responsibility, respondents were most likely to say that they did not think they were at all responsible for the crash (44%) with an additional 25% of respondents saying they had been partially responsible for the crash. Just over one in five (23%) believed they had been completely at fault. Where a respondent felt they were partially or not at all at fault, 61% believed another *person* had been responsible.

When asked about what they thought had caused the crash, a third (30%) of respondents mentioned road conditions and one in ten (9%) said the crash resulted from bad weather conditions. Almost two in five (38%) said another driver/person's error was a factor, and one in five (20%) said their own mistake had been part of the equation.

Few said they were not familiar with the bike they were riding (5%) but one in four (23%) agreed they did not know the crash area well. One in three respondents (33%) agreed that if they had been riding more slowly, they could have done something to avoid the crash. A minority of those involved in on-road crashes agreed that they were stressed (10%) or tired (9%) on the day of the crash.

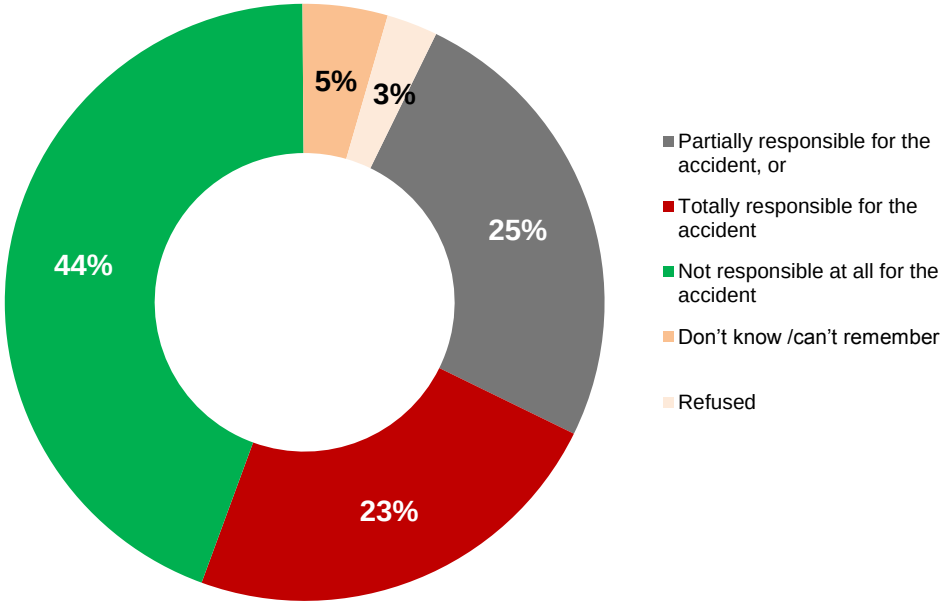
One in ten (11%) of those who had been involved in an on-road crash said they had been distracted by something before the crash. This was most commonly traffic or road conditions (51%).

Three percent (3%) of respondents indicated they had been drinking in the three hours before the crash.

Perceived responsibility of crash

Respondents were asked who they believed had been responsible for the crash. Forty-four percent (44%) who had crashed on-road felt that they were not at all responsible for the crash. One in four (25%) reported that they had been partially responsible for the crash, and 23% said they were totally responsible for the crash (See Figure 29).

Figure 29: Perceived responsibility of crash *(on-road crashes only)*



Q17. The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were?
Filter: On-road crashes; base n = 763

Males were significantly more likely than females to report that they had not been at all responsible for the crash (46% vs. 33% of females). However, females were more likely to say that they had been totally responsible (37% vs. 22% of males).

Those living in rural Victoria were significantly more likely to say they were totally responsible (30% compared to 21% of those living in Melbourne) (See Table 48).

Table 48: Perceived responsibility of the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Not responsible at all for the accident	46↑	33↓	41	49	43	48↑	35↓
Partially responsible for the accident, or	25	23	27	20↓	27	24	28
Totally responsible for the accident	22↓	37↑	24	23	23	21↓	30↑
Don't know /can't remember	5	4	6	4	5	5	4
Refused	3	3	1	5↑	2	3	3

Q17. The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were?

Filter: On-road crashes; base n = 763

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding road bikes at the time of the crash were significantly more likely to say they were not responsible at all for the accident (48% compared to 21% of those riding off-road bikes). However, those riding an off-road bike were significantly more likely to say they were totally responsible for the crash (35% compared to 21% of road bike riders) (See Table 49).

Table 49: Perceived responsibility of the crash by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Not responsible at all for the accident	48↑	21↓	51
Partially responsible for the accident	25	32	18
Totally responsible for the accident	21↓	35↑	24
Don't know /can't remember	4	9↑	5
Refused	3	4	1

Q17. The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were?

Filter: On-road crashes; base n = 760 (excludes 'other bikes')

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who commuted (50%) or rode recreationally on-road before the crash were more likely to say they were not at all responsible for the crash, compared to those riding recreationally off-road (46% vs. 32%).

Respondents who had started riding again after a break were more likely to say they were totally responsible for the crash (29% vs. 21%) (See Table 50).

Table 50: Perceived responsibility of the crash by riding prior to crash *(on-road crashes only)*

Column %	Whether had a break prior to crash		Riding purpose in year before the crash		
	Never had a break since learning	Started riding again after a break	Commuting	Recreation on-road	Recreation off-road
n=	*567*	*195*	*513*	*599*	*200*
Not responsible at all for the accident	46	38	50↑	46↑	32↓
Partially responsible for the accident	26	23	23	24	30
Totally responsible for the accident	21↓	29↑	21↓	23	30↑
Don't know /can't remember	4	7	4	4↓	7
Refused	3	3	2	3	2

Q17. The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were?

Filter: On-road crashes; base n = from 747 to 762 (excludes 'other' responses)

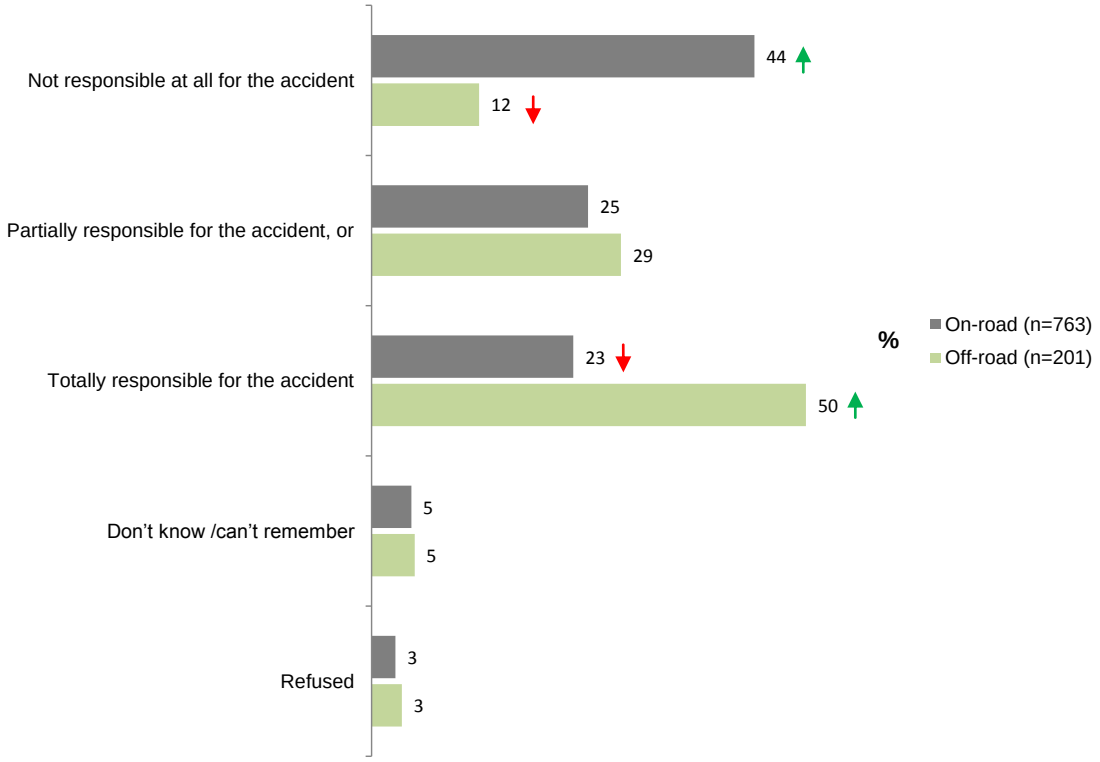
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Respondents involved in on-road crashes were significantly more likely to report that they were not at all responsible for the crash (44% compared to 12% of off-road crashes).

In contrast, those involved in off-road crashes were significantly more likely to say that they were totally responsible for the accident (50% compared to 23% of on-road crashes) (See Figure 30).

Figure 30: Perceived responsibility of crash by crash location *(on-road vs. off-road)*



Q17. The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were?

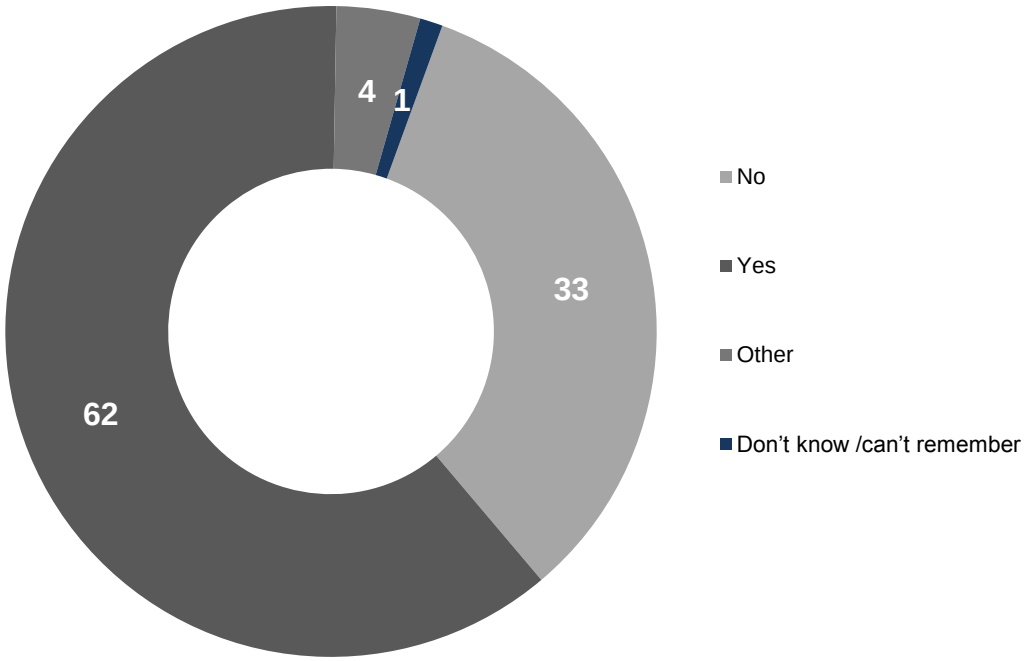
Total sample; base n = 964

↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Whether another *person* was responsible for the crash

Of the respondents who said they were either partially at fault or not at all at fault, 61% reported that another *person* was responsible for the crash (See Figure 31).

Figure 31: Another person responsible for accident *(on-road crashes only)*



Q18. Was another person responsible for the accident?
Filter: On-road crashes; If partially or not at fault; base n = 529

Over three quarters (76%) of respondents who said they were not at all responsible for their on-road accident felt that another person was responsible. This was 35% for those who said they had been partially responsible for the crash (See Table 51).

Table 51: Another person responsible for the accident by perceived responsibility of the crash *(on-road crashes only)*

Column %	Not responsible at all for the accident	Partially responsible for the accident
n=	*338*	*191*
Yes	76↑	35↓
No	19↓	59↑
Other	4	5
Don't know /can't remember	1	2
Refused	0	0

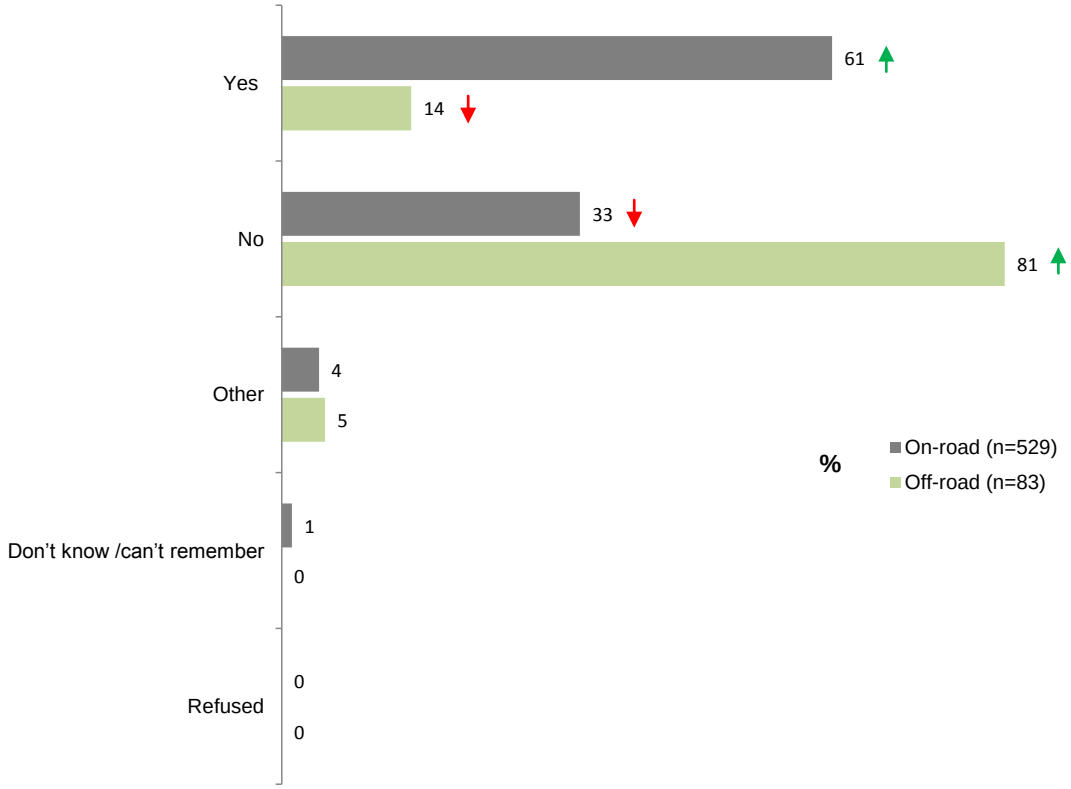
Q18. Was another person responsible for the accident?
Q17. The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were?
Filter: On-road crashes; If partially or not at fault; base n = 529
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs off-road crashes

Those involved in on-road crashes where they were partially or not at all at fault were significantly more likely to think that another *person* was responsible for the accident (61% compared to 14% of off-road crashes).

Eighty-one percent (81%) of off-road crashes said that even though they had not been at all, or only partially, at fault, another person was *not* responsible for the crash (See Figure 32).

Figure 32: Another person responsible for accident by crash location *(on-road vs. off-road)*

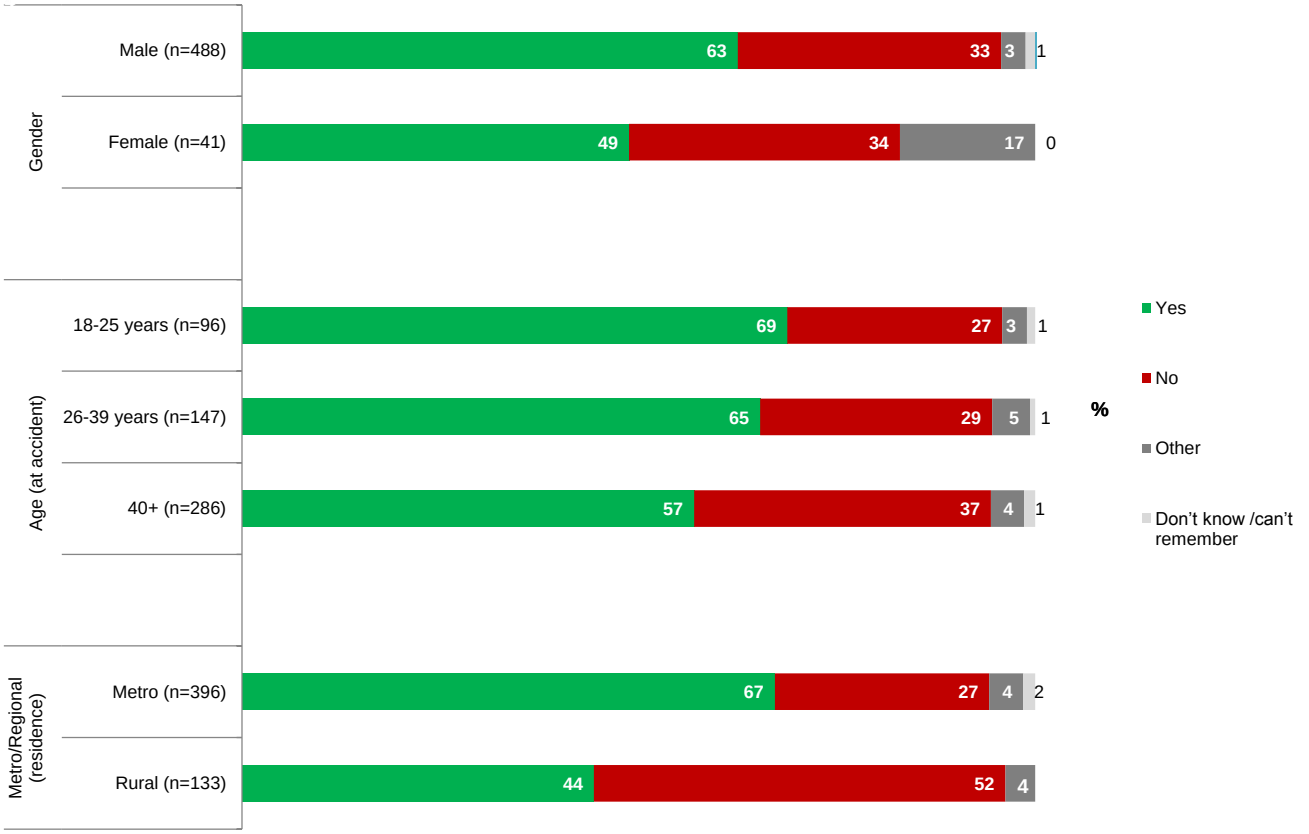


Q18. Was another person responsible for the accident?
If partially or not at fault; base n = 612
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents living in Melbourne who felt that they were partially or not at all at fault in their on-road accident were significantly more likely to think someone else was at fault (67% compared to 44% of rural respondents).

Older respondents aged 40 and over were significantly less likely to think that someone else was at fault – 57% as compared to 65% of those aged between 26-39 years (See Figure 33).

Figure 33: Another person responsible for accident by demographics *(on-road crashes only)*



Q18. Was another person responsible for the accident?
Filter: On-road crashes; If partially or not at fault; base n = 529

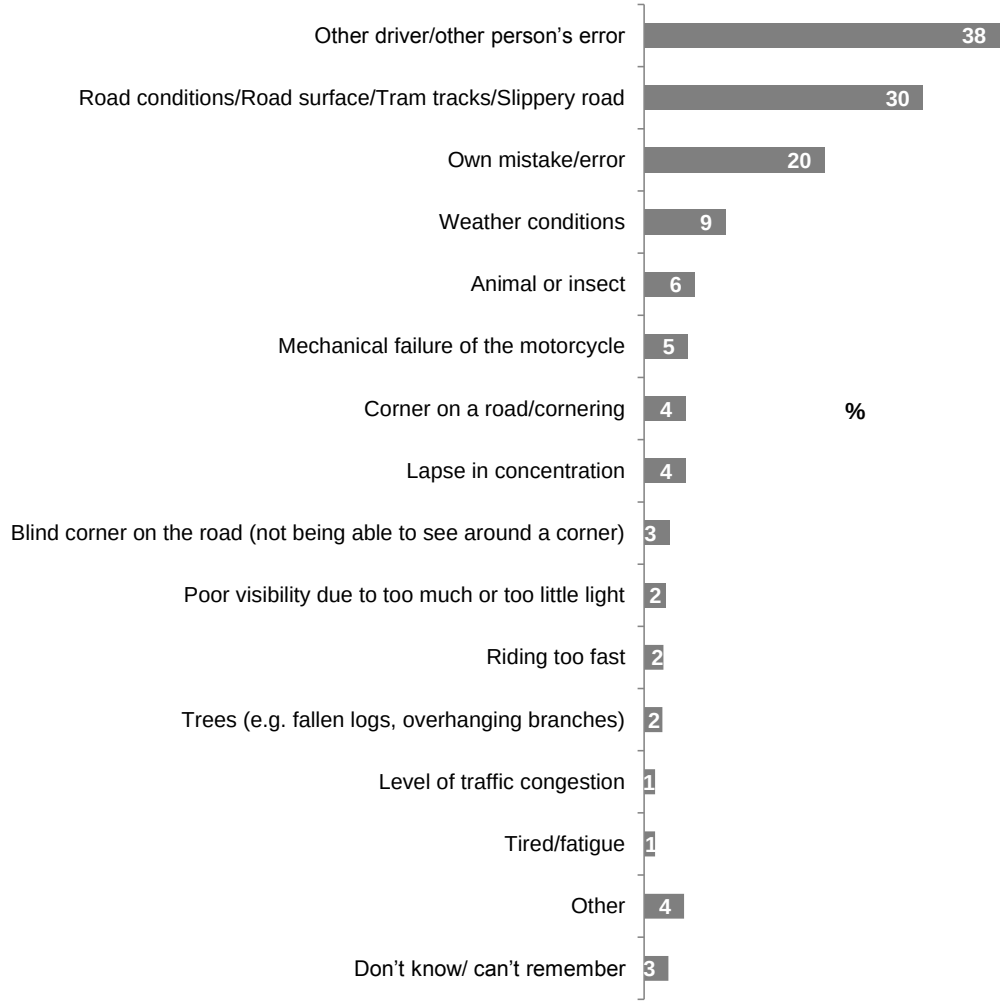
Main reasons for the crash

Respondents were asked what they thought were the main reasons for their crash, and were allowed to provide multiple reasons if relevant.

The most common reason for their crash, according to respondents, was another driver / another person's error (38%).

A further three in ten (30%) reported that the road conditions were a key contributing factor to their crash and 20% said that their own mistake had been one of the reasons they had crashed (See Figure 34).

Figure 34: Main reasons for crash *(on-road crashes only)*



Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Filter: On-road crashes; base n = 763

The majority (79%) of those who reported other parties had been involved said that a contributing factor in their crash had been an error on the part of another driver. Those that reported that no other parties had been involved were significantly more likely to say the road conditions (43%); their own mistake (24%); or weather conditions (11%) were factors in the crash (See Table 52).

Table 52: Main reasons for crash by whether any other parties were involved in the crash *(on-road crashes only)*

Column %	Yes	No
n=	*273*	*486*
Other driver/other person's error	79↑	16↓
Road conditions/Road surface/Tram tracks/Slippery road	8↓	43↑
Own mistake/error	12↓	24↑
Weather conditions	5↓	11↑
Animal or insect	1↓	8↑
Mechanical failure of the motorcycle	2↓	6↑
Corner on a road/cornering	3	6
Lapse in concentration	5	4
Blind corner on the road (not being able to see around a corner)	3	2
Poor visibility due to too much or too little light	1	3
Riding too fast	0↓	3↑
Trees (e.g. fallen logs, overhanging branches)	0↓	3↑
Level of traffic congestion	2	1
Tired/fatigue	1	1
Steep road	0	0
Doing stunts/tricks	0	0
Other	4	4
Don't know/ can't remember	2	3
Refused	0	0

Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Q16.Were there any other parties (that is passengers (pillion riders), other vehicles or pedestrians etc.) involved in the crash?
Filter: On-road crashes; base n = 759
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

In examining respondents' perceptions of who had been responsible for the crash, those that reported they were not responsible *at all* for the crash were significantly more likely to say that another driver's error was a contributing factors (70%).

Those who felt partially responsible for the accident were more likely to say that road conditions were the cause of the accident (50%), with an additional 25% reporting that another person/driver's error was a key factor.

Those who felt totally responsible for the crash were significantly more likely to report their own mistake as the main cause of the crash (49%). A further 13% of this group said weather conditions contributed to the crash and 11% said the crash was due to a lapse in concentration (See Table 53).

Table 53: Main reasons for crash by responsibility for the crash *(on-road crashes only)*

Column %	Not responsible at all for the accident	Partially responsible for the accident, or	Totally responsible for the accident	Don't know /can't remember	Refused
n=	*338*	*191*	*178*	*35**	*21**
Other driver/other person's error	70↑	25↓	2↓	3↓	14↓
Road conditions/Road surface/Tram tracks/Slippery road	17↓	50↑	33	29	38
Own mistake/error	3↓	22	49↑	17	14
Weather conditions	5↓	12	13↑	14	0
Animal or insect	7	6	3	3	5
Mechanical failure of the motorcycle	3↓	6	6	6	10
Corner on a road/cornering	3↓	4	8↑	3	5
Lapse in concentration	1↓	6	11↑	6	0
Blind corner on the road (not being able to see around a corner)	3	4	2	3	0
Poor visibility due to too much or too little light	2	3	2	6	5
Riding too fast	0↓	3	6↑	0	0
Trees (e.g. fallen logs, overhanging branches)	1	3	2	6	5
Level of traffic congestion	1	2	1	0	5
Tired/fatigue	0↓	1	3↑	3	0
Steep road	0	1	1	0	0
Doing stunts/tricks	0	0	1↑	0	0
Other	4	5	5	3	5
Don't know/ can't remember	1↓	1↓	2	23↑	14↑
Refused	0	0	0	0	5↑

Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Q17.The next question is about your perception of who was responsible for your accident. Would you say you were…?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Male riders were significantly more likely to report that another driver was one of the causes of their crash (40% compared to 25% of females), as were those living in metropolitan Melbourne (44% compared to 25% of rural respondents).

Older respondents aged 40 and over were significantly more likely to report road conditions as one of the causes of their crash (33%). Females were significantly more likely to report weather conditions as a cause (19% vs. 8% of males), as were those living in Melbourne (10% vs. 5% of rural respondents).

Rural respondents were significantly more likely to list animals or insects (11% vs. 3%); blind corners (6% vs. 2%); riding too fast and trees (4% vs. 1% for both) as a cause of their accident, compared to metropolitan Melbourne residents (See Table 54).

Table 54: Main reasons for crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Other driver/other person's error	40↑	25↓	41	42	36	44↑	25↓
Road conditions/Road surface/Tram tracks/Slippery road	30	34	26	27	33↑	28	34
Own mistake/error	19	27	21	21	18	19	20
Weather conditions	8↓	19↑	9	12↑	7↓	10↑	5↓
Animal or insect	6	4	2	5	7	3↓	11↑
Mechanical failure of the motorcycle	4	7	6	3	5	4	6
Corner on a road/cornering	4	5	4	4	5	4	6
Lapse in concentration	5	3	5	2	5	4	7
Blind corner on the road (not being able to see around a corner)	3	3	5	2	2	2↓	6↑
Poor visibility due to too much or too little light	2	3	2	4	2	3	2
Riding too fast	2	4	3	2	2	1↓	4↑
Trees (e.g. fallen logs, overhanging branches)	2	1	2	1	2	1↓	4↑
Level of traffic congestion	1	0	2	1	1	1	0
Tired/fatigue	1	3	1	1	1	1	2
Steep road	0	0	0	0	1	0	1
Doing stunts/tricks	0	0	0	1↑	0	0	0
Other	4	5	2	5	5	4	5
Don't know/ can't remember	3	1	1	2	3	3	2
Refused	0	0	0	0	0	0	0

Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Frequent riders (riding 5+ days a week) were significantly more likely to report that another driver was the main cause of their accident (54% in spring/summer months and 56% in autumn/winter months). Infrequent riders (riding once a fortnight or less) were significantly more likely to say that road conditions were the main cause of their crash (45% in spring/summer months and 39% in autumn/winter months) (See Table 55).

Table 55: Main reasons for crash by riding seasons prior to crash *(on-road crashes only)*

Column %	Riding in spring/summer months before crash			Riding in autumn/winter months before crash		
	5+ days a week	1-4 times a week	Once a fortnight or less	5+ days a week	1-4 times a week	Once a fortnight or less
n=	*301*	*308*	*148*	*234*	*277*	*236*
Other driver/other person's error	54↑	32↓	21↓	56↑	36	25↓
Road conditions/Road surface/Tram tracks/Slippery road	20↓	33	45↑	19↓	32	39↑
Own mistake/error	18	19	22	17	18	23
Weather conditions	9	9	7	11	9	6↓
Animal or insect	5	7	3	5	6	6
Mechanical failure of the motorcycle	5	5	4	5	4	5
Corner on a road/cornering	3	6	5	3	5	6
Lapse in concentration	3	6	4	3	5	5
Blind corner on the road (not being able to see around a corner)	2	3	3	3	3	3
Poor visibility due to too much or too little light	4	1↓	3	4	2	1
Riding too fast	1↓	3	3	1	3	2
Trees (e.g. fallen logs, overhanging branches)	1↓	3	3	1	3	3
Level of traffic congestion	2	1	0	2	1	1
Tired/fatigue	1	1	2	1	1	2
Steep road	0	0	1↑	0	0	1
Doing stunts/tricks	1	0	0	1	0	0
Other	4	5	3	4	4	5
Don't know/ can't remember	3	2	3	3	2	3
Refused	0	0	0	0	0	0

Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

Those going to or from work / study (59%), or riding alone (47%) at the time of the crash, were more likely to report another driver / person's error as one of the causes of the crash.

Road conditions were significantly more likely to be reported as a cause by those who were riding for recreational purposes (41%). Those riding with others were also more likely to mention road conditions as a cause (42%).

Those riding for recreational purposes were significantly more likely to report their own mistake as a cause (24%), and although the sample was small, this was also the case among those learning to ride (82%) (See Table 56).

Table 56: Main reasons for crash by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Other driver/other person's error	21↓	59↑	45	0↓	43	47↑	17↓
Road conditions/Road surface/Tram tracks/Slippery road	41↑	21↓	24	18	23	25↓	42↑
Own mistake/error	24↑	12↓	20	82↑	11	18	23
Weather conditions	5↓	11	10	18	17	10	6
Animal or insect	7	5	5	0	3	5	6
Mechanical failure of the motorcycle	5	5	5	9	3	5	5
Corner on a road/cornering	7↑	2↓	4	0	0	3↓	8↑
Lapse in concentration	5	4	4	0	3	3↓	7↑
Blind corner on the road (not being able to see around a corner)	5↑	1	1	0	0	2↓	5↑
Poor visibility due to too much or too little light	1↓	3	5	0	0	3	1
Riding too fast	4↑	0↓	2	9	0	1↓	4↑
Trees (e.g. fallen logs, overhanging branches)	4↑	0↓	1	0	0	1↓	5↑
Level of traffic congestion	0↓	2↑	2	0	3	2	0
Tired/fatigue	2	0	0	0	6↑	1	2
Steep road	1	0	0	0	0	0	0
Doing stunts/tricks	0	0	2↑	0	0	0	0
Other	3	3	9↑	0	3	5	4
Don't know/ can't remember	3	2	2	0	9↑	3	2
Refused	0	0	0	0	0	0	0

Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents* ***not*** *in that category*
**Note small sample size*

The top three reasons given by on-road riders included another driver/another person's error (43%); road conditions (26%); and their own mistake/error (19%). In contrast, for off-road bike riders who had crashed on-road, road conditions were more likely to be mentioned as a contributing factor (48%). An additional 11% specifically mentioned trees or fallen logs. One in five (21%) who had been riding an off-road bike reported they had made an error or mistake. Eleven percent (11%) felt that another person's mistake contributed to the crash. For scooter riders, the most common reasons were another person's error (45%); road conditions (38%); and weather conditions (27%).

Table 57: Main reasons for crash by bike type *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	On-road bike	Off-road bike	Scooter
n=	560	114	74
Other driver/other person's error	43↑	11↓	45
Road conditions/Road surface/Tram tracks/Slippery road	26↓	48↑	38
Own mistake/error	19	21	18
Weather conditions	7↓	6	27↑
Animal or insect	6	6	1
Mechanical failure of the motorcycle	6	2	3
Corner on a road/cornering	5	4	0
Lapse in concentration	4	7	3
Poor visibility due to too much or too little light	3	1	1
Blind corner on the road (not being able to see around a corner)	3	6↑	0
Riding too fast	2	4	0
Level of traffic congestion	2	0	0
Tired/fatigue	1	2	0
Trees (e.g. fallen logs, overhanging branches)	0↓	11↑	0
Doing stunts/tricks	0	0	0
Steep road	0	2↑	0
Other	5	3	1
Don't know/ can't remember	2	3	4
Refused	0	0	0

Q26. What were the main reasons you crashed your motorcycle or what would you say caused your crash? (Multiple response)
Filter: On-road crashes; base n = from 8 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Rider opinions of crash factors

Those involved in on-road crashes were asked a number of statements about the possible factors involved in the crash, and the extent to which they agreed with the statements.

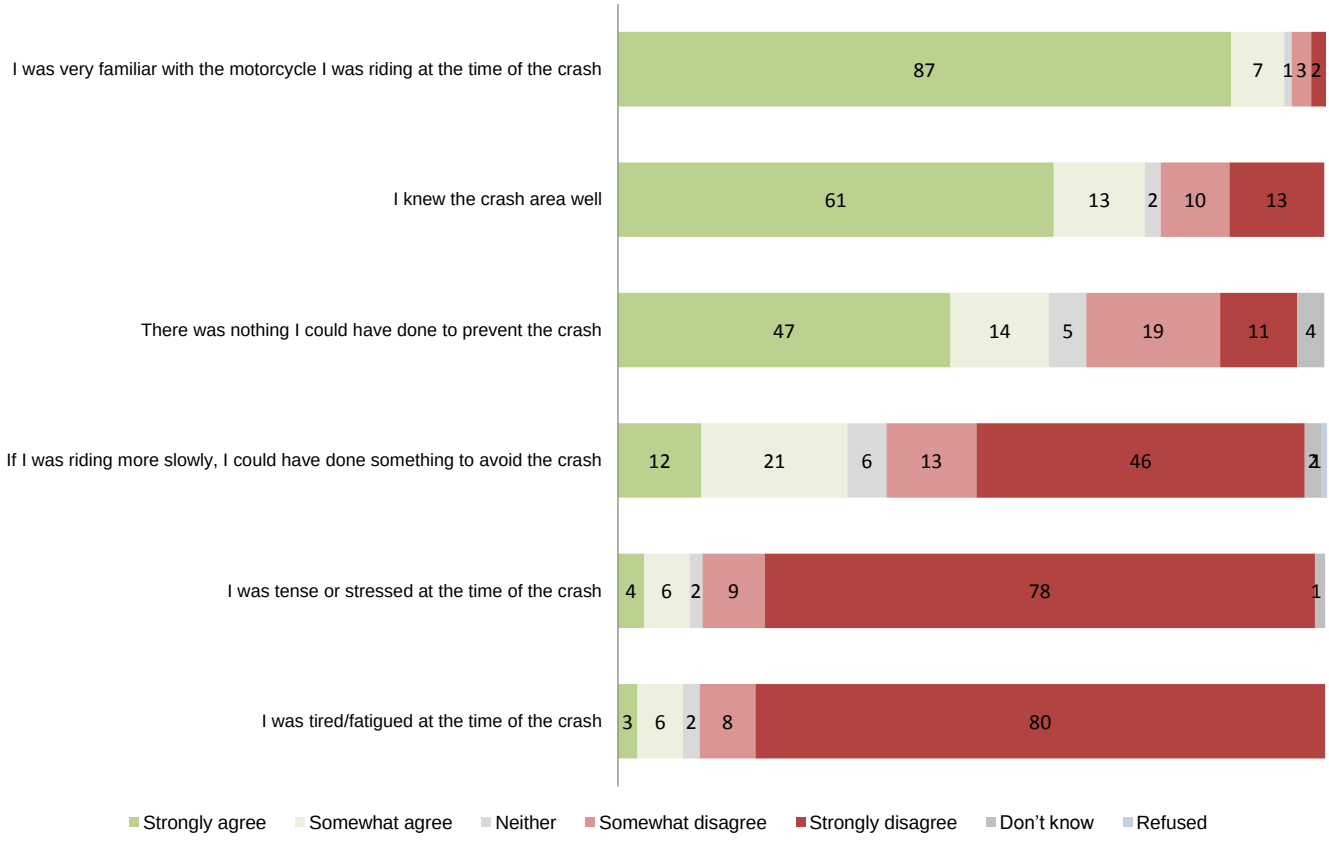
Respondents were significantly more likely to strongly agree that they were familiar with the motorcycle they had been riding at the time (87%); that they were familiar with the crash site (61%); and that there was nothing they could do to prevent the crash (47%).

On the other hand, eight in ten (80%) strongly disagreed with the statements related to being tired, or stressed (78%) at the time of the crash.

A minority of those involved in on-road crashes agreed they had been stressed (10%) or fatigued (9%) on the day of the crash. One in four (23%) agreed they were not familiar with the area in which they crashed.

One in three (33%) agreed that if they had been riding more slowly, they could have done something to avoid the crash – although 46% of respondents strongly disagreed that this was the case (See Figure 35).

Figure 35: Agree/disagree statements on crash factors *(on-road crashes only)*



Q32. To what extent do you agree or disagree with the following statements?
Filter: On-road crashes; base n = 763

Males were significantly more likely to agree that they were familiar with the motorcycle they were riding at the time of the crash (95% compared to 86% of females). Younger respondents, aged 25 or less were significantly more likely to agree that they could have avoided the crash by riding more slowly (44% compared to 30% of those aged 26 and over) as well as rural respondents (39% vs. 30%). However, older respondents (aged 40+ years) were more likely to say that there was nothing they could have done to prevent the crash (66% vs. 54% of younger respondents) (See Table 58).

Table 58: Agree/disagree statements on crash factors - strongly agree / somewhat agree by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
I knew the crash area well	74	74	74	79	72	75	72
I was very familiar with the motorcycle I was riding at the time of the crash	95↑	86↓	88↓	94	96↑	94	94
If I was riding more slowly, I could have done something to avoid the crash	33	25	44↑	31	29↓	30↓	39↑
I was tired/fatigued at the time of the crash	9	14	10	11	8	10	8
There was nothing I could have done to prevent the crash	61	63	54	54↓	66↑	61	60
I was tense or stressed at the time of the crash	9	16	14	12	8↓	11	7

Q32. To what extent do you agree or disagree with the following statements?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Frequent riders (those riding five or more days a week) were more likely to agree that they knew the crash area well (81% of frequent riders in spring/summer months and 83% of frequent riders in autumn/winter months). Those who rode for commuting purposes (78%) and rode between 21-80% of the time were also significantly more likely to agree that they knew the crash area well.

Infrequent riders (those riding once a fortnight or less) were significantly more likely to agree that they could have avoided the crash if they'd been riding more slowly (42% of infrequent riders in spring/summer months and 40% of infrequent riders in autumn/winter months), as well as 39% of those who rode 20% of the time or less.

Riders who reported riding 81% of the time or more before the crash (vs. driving) were more likely to agree with statements regarding them being tired/fatigued (14%) and tense/stressed (15%) at the time of the crash (See Table 59).

Table 59: Agree/disagree statements on crash factors - strongly agree / somewhat agree by riding prior to crash *(on-road crashes only)*

Column %	Riding in spring/summer months before crash			Riding in autumn/winter months before crash			Whether had a break prior to crash		Riding purpose			Riding vs. Driving before the crash		
	5+ days a week	1-4 times a week	Once a fortnight or less	5+ days a week	1-4 times a week	Once a fortnight or less	Never had a break since learning	Started riding again after a break	Commuting	Recreation on-road	Recreation off-road	Rode <= 20% of the time	Rode 21-80% of the time	Rode 81%+ of the time
n=	*301*	*308*	*148*	*234*	*277*	*236*	*567*	*195*	*513*	*599*	*200*	*299*	*282*	*176*
I knew the crash area well	81↑	73	64↓	83↑	76	65↓	75	73	78↑	74	67↓	67↓	79↑	80
I was very familiar with the motorcycle I was riding at the time of the crash	96	95	88↓	97↑	95	92↓	94	95	95	95	95	92	96	94
If I was riding more slowly, I could have done something to avoid the crash	28	31	42↑	28	29	40↑	31	35	31	30↓	38	39↑	26↓	31
I was tired/fatigued at the time of the crash	8	11	8	9	10	8	9	10	10	9	10	7↓	9	14↑
There was nothing I could have done to prevent the crash	64	60	55	62	62	57	61	62	60	61	63	56↓	68↑	57
I was tense or stressed at the time of the crash	9	9	14	10	9	12	9	12	10	9	6↓	11	6↓	15↑

Q32. To what extent do you agree or disagree with the following statements?
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other' responses)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who reported riding alone at the time of the crash were significantly more likely to somewhat/strongly agree that they knew the crash area well (83% compared to 52% of those riding with others) and were very familiar with the motorcycle they were riding at the time of the crash (95% vs. 91%) – these respondents were more likely to be commuters who rode more frequently.

Those riding with others were significantly more likely to agree that riding more slowly could have avoided the crash (39% compared to 30% of those riding alone).

Respondents going to or from work, school or university were significantly more likely to agree that they knew the crash area well (92%) and that they were very familiar with the motorcycle they were riding (97%).

Those riding for recreation or just out for a ride were more likely to agree that they could have done something to avoid the crash if they were going more slowly (39%).

Those going to or from a friend's place or the shops (16%), or learning to ride (36%), were significantly more likely to agree that they were tense or stressed at the time of the crash.

Agreement with being tense or stressed at the time of the crash was significantly higher for those that had *not* ridden again since the crash (15% compared to 9% of those who had ridden again), and those who now ride less than once a month / only seasonally since the crash (14% compared to 5% of those who ride most days / 1-2 days a week) (See Table 60).

Table 60: Agree/disagree statements on crash factors – strongly / somewhat agree by riding after the crash *(on-road crashes only)*

Column %	Ridden since crash		Riding after the crash				Riding compared to before crash		
	Yes	No	Every day	Most days/1-2 days a week	At least once a month	Less than once a month/seasonally	Less often	About the same	More often
n=	*610*	*153*	*94*	*227*	*119*	*100*	*270*	*49*	*610*
I knew the crash area well	75	73	79	76	71	71	77	74	73
I was very familiar with the motorcycle I was riding at the time of the crash	94	93	95	95	96	93	94	95	90
If I was riding more slowly, I could have done something to avoid the crash	32	33	33	30	39	34	31	32	39
I was tired/fatigued at the time of the crash	8	12	13	7	6	8	9	7	14
There was nothing I could have done to prevent the crash	61	61	54	63	61	64	62	60	61
I was tense or stressed at the time of the crash	9↓	15↑	10	5↓	8	14↑	10	7	10

Q32. To what extent do you agree or disagree with the following statements?
Filter: On-road crashes; base n = 604 to 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Those who had an off-road crash were more likely to disagree that they were tense or stressed at the time of the crash (93% vs. 86% on-road crashes).

Whether distracted by anything immediately before the crash

One in ten (11%) of those who had been involved in an on-road crash said they had been distracted by something before the crash.

The most common distractions related to traffic or road conditions (51% of all mentions), including specific mentions of other vehicles changing lanes or the rider overtaking another vehicle (19%) or being distracted by the vehicle in front of them (11%).

Thirteen percent (13%) said they had been distracted by either being stressed or nervous (12%), or they had been running late (1%).

Seven percent (7%) had been distracted by the other riders with them.

Table 61: Distractions immediately before the crash *(on-road crashes only)*

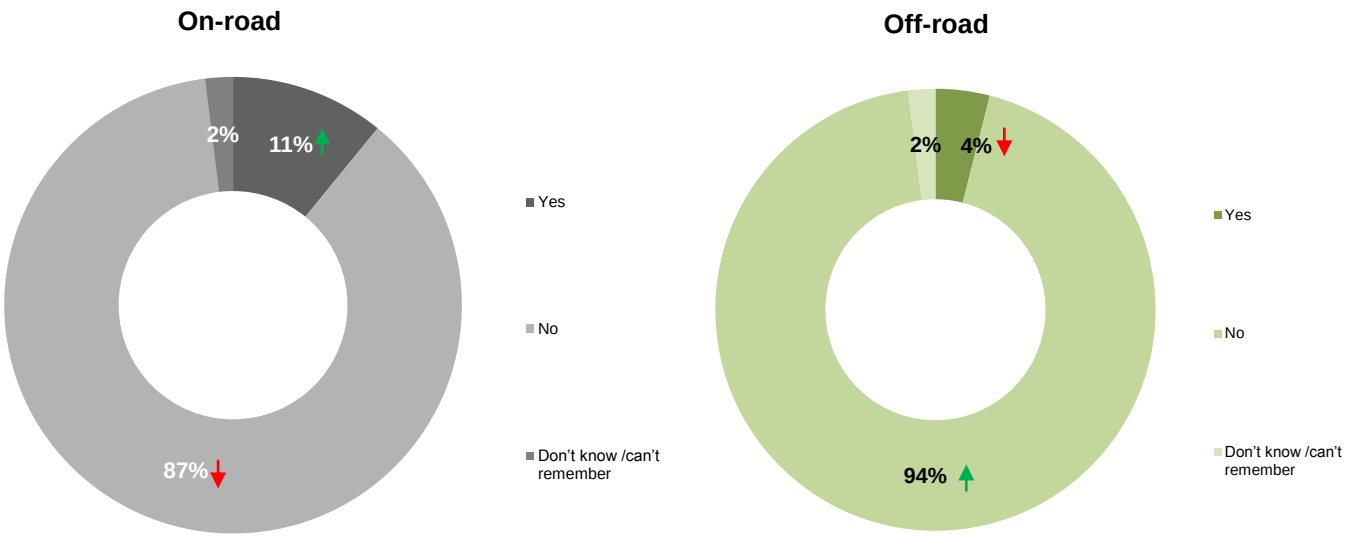
	%
n=	*763*
Yes	11
No	87
Don't know / can't remember	*2*
Refused	0

Q44. Would you say you were distracted by anything immediately before your crash?
Filter: On road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Respondents involved in on-road crashes were significantly more likely than those involved in off-road crashes to report being distracted by something immediately before their crash (11% vs. 4%) (See Figure 36).

Figure 36: Whether distracted by anything immediately before the crash by crash location *(on-road vs. off-road)*



Q44. Would you say you were distracted by anything immediately before your crash?
Total sample; On-road base n = 964

Alcohol consumption prior to the crash

The majority (97%) of those involved in on-road crashes said they did not have a drink before their crash (See Table 62).

Table 62: Alcohol consumption prior to the crash by how many standard drinks *(on-road crashes only)*

	%
n=	*763*
Subtotal: Did not drink beforehand	97
Subtotal: Had drink beforehand	3
-1 standard drink beforehand	*1*
-2 or more standard drinks beforehand	*1*
Don't know/refused to say how many	1
Refused to say whether had a drink beforehand	0

Q46. Had you been drinking alcohol in the three hours prior to the crash? If you prefer to say, just let me know.
Q47. Roughly how many standard drinks did you have over the 3 hours prior to your crash? If you prefer not to say, just let me know.
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

3.3.9 Road and weather conditions

Most reported that there had not been many vehicles around at the time they crashed (66%). One in ten (10%) reported that there was 'heavy traffic, but it was flowing well' with 7% reporting that the traffic was congested.

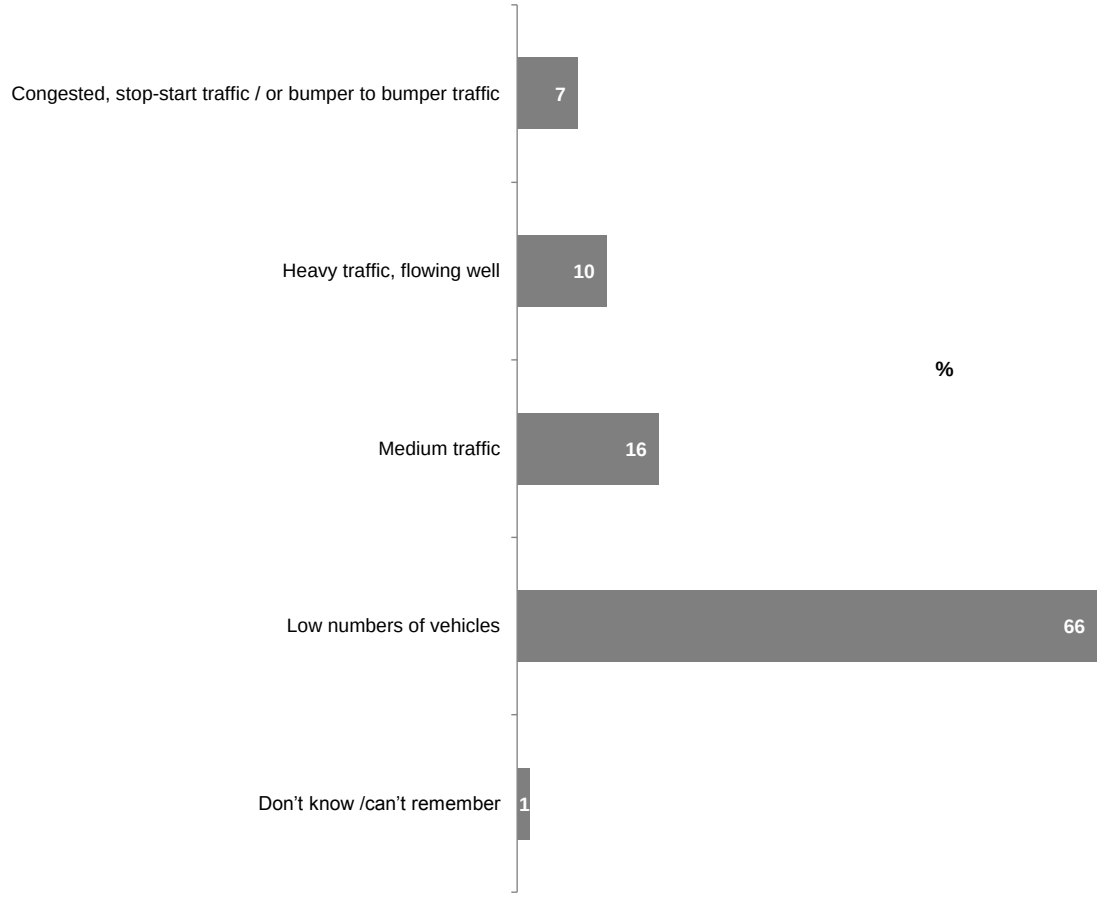
In terms of light conditions, over half (53%) of all respondents said their on-road crash occurred on a clear day. Night-time crashes accounted for 11% of responses. As to weather conditions on the day, over three quarters (77%) of on-road crashes occurred during a clear day.

Traffic conditions

Respondents were asked about the traffic conditions at the time of the crash. Most reported that there were few vehicles on the road at the time with two thirds (66%) of the respondents describing the traffic conditions consisting of low number of vehicles. A further 16% reported that there was a medium level of traffic at the time.

One in ten (10%) reported that there was 'heavy traffic, but it was flowing well', with 7% reporting that the traffic was congested (See Figure 37).

Figure 37: Traffic conditions at the time of the crash *(on-road crashes only)*



Q33. How would you describe the traffic conditions at the time you had your crash?
Filter: On-road crashes; base n = 763

As expected, metropolitan Melbourne residents were significantly more likely to report that there was congested (9% vs. 1%); heavy (13% vs. 3%) and medium (19% vs. 7%) traffic at the time of the crash. Rural residents were significantly more likely to report that there were low numbers of vehicles at the time of the crash (87% vs. 57%) (See Table 63).

Table 63: Traffic conditions at the time of crash by residence *(on-road crashes only)*

Column %	Metro/Regional (residence)	
	Metro	Rural
n=	*551*	*212*
Congested, stop-start traffic / or bumper to bumper traffic	9↑	1↓
Heavy traffic, flowing well	13↑	3↓
Medium traffic	19↑	7↓
Low numbers of vehicles	57↓	87↑
Don't know /can't remember	1	1
Refused	0	0

Q33. How would you describe the traffic conditions at the time you had your crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding a scooter were significantly more likely to report that the traffic was congested at the time of the crash (14% compared to 8% of those riding road bikes and 0% of off-road bike riders).

Not surprisingly, those riding off-road bikes were significantly more likely to report there being a low number of vehicles at the time of the crash (92% compared to 63% of those riding road bikes and 47% of those who were riding a scooter) (See Table 64).

Table 64: Traffic conditions at the time of the crash by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Congested, stop-start traffic / or bumper to bumper traffic	8	0↓	14↑
Heavy traffic, flowing well	11	2↓	15
Medium traffic	17	4↓	23
Low numbers of vehicles	63↓	92↑	47↓
Don't know /can't remember	1	3	1
Refused	0	0	0

Q33. How would you describe the traffic conditions at the time you had your crash?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

As expected, those going to or from work / school / university at the time of the crash were significantly more likely to say that the traffic was congested (14%), heavy (19%) or medium (23%) at the time of the crash. The same was found for those riding alone, with 9% saying the traffic was congested (compared to 1% of those riding with others), 13% reporting heavy traffic (vs. 2%) and 19% reporting medium traffic (vs. 8%).

A low number of vehicles were significantly more likely to be reported by those riding for recreational purposes (84%) and those riding with others (88%) (See Table 65).

Table 65: Traffic conditions at the time of the crash by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*355*	*545*	*216*
Congested, stop-start traffic / or bumper to bumper traffic	1↓	14↑	7	0	6	9↑	1↓
Heavy traffic, flowing well	4↓	19↑	9	0	9	13↑	2↓
Medium traffic	10↓	23↑	18	9	14	19↑	8↓
Low numbers of vehicles	84↑	43↓	61	91	71	57↓	88↑
Don't know /can't remember	1	0	5↑	0	0	1	2
Refused	0	0	0	0	0	0	0

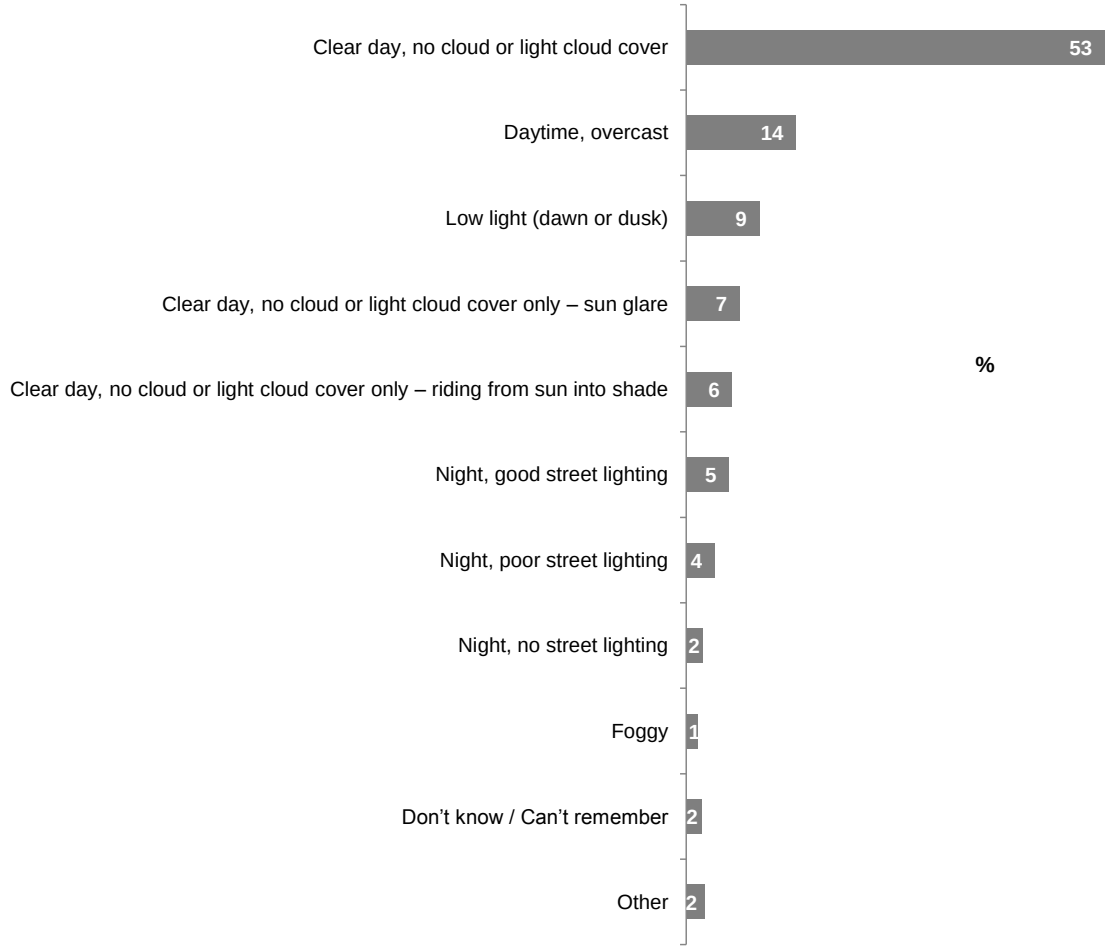
Q33. How would you describe the traffic conditions at the time you had your crash?
Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

Visibility and light conditions at the time of the crash

Over half (53%) of respondents said their on-road crash occurred on a clear day.

Fourteen percent (14%) of crashes occurred during daytime, when it was overcast. Just under one in ten (9%) occurred in low light (See Figure 38).

Figure 38: Visibility and light conditions at the time of the crash *(on-road crashes only)*



Q38. How would you describe the visibility or light conditions at the time of your crash?
Filter: On-road crashes; base n = from 763

Older respondents aged 40 and over were significantly more likely to report that the crash occurred on a clear day with no cloud or only light cloud cover (59% compared to 46% of those aged 39 and under).

Younger respondents aged 25 years or younger were significantly more likely to have crashed at night with good street lighting (11% compared to 3% of those aged 40 and over), as were those living in Melbourne (7% compared to 2% of rural respondents). Those aged under 25 were also significantly more likely to report that their crash happened at night in poor street light (8% compared to 2% of those aged over 40).

Off-road bike riders were significantly more likely to report that their crash occurred on a clear day where they were riding from sun into shade (11% vs. 5% of road bike riders and 1% of scooters). Those riding scooters were significantly more likely to have been riding at night with good street lighting (14% vs. 6% of road bike riders) and road bike riders were significantly more likely to be riding in foggy conditions at the time of their crash (2%).

Those riding for recreational purposes at the time of their crash were significantly more likely to have been riding on a clear day – 9% on a day with sun glare and 10% riding from sun into shade – as compared to those commuting or running errands. Respondents going to or from work / school / university were significantly more likely to have their accident during low light (15%) and at night with good street lighting (8%) than those riding for other purposes.

Those going to or from a friend's place or shops were significantly more likely to have crashed at night with no street lighting (5%).

Those riding alone at the time of their crash were significantly more likely to report that their accident occurred in low light (11% vs. 4% those riding with others); at night with good street lighting (8% vs. 0%); at night with poor street lighting (5% vs. 1%) and at night with no street lighting (3% vs. 0%) (See Table 66).

Table 66: Visibility and light conditions by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Clear day, no cloud or light cloud cover	56	47↓	54	45	54	50↓	59↑
Daytime, overcast	14	14	10	18	20	14	13
Low light (dawn or dusk)	5↓	15↑	10	0	9	11↑	4↓
Clear day, no cloud or light cloud cover only – sun glare	9↑	5	5	0	9	6↓	10↑
Clear day, no cloud or light cloud cover only – riding from sun into shade	10↑	2↓	3	9	0	4↓	11↑
Night, good street lighting	2↓	8↑	7	0	11	8↑	0↓
Night, poor street lighting	2↓	5	6	9	0	5↑	1↓
Night, no street lighting	1↓	3	5↑	0	0	3↑	0↓
Other	2	3	3	0	0	2	2
Don't know / Can't remember	2	2	1	18↑	0	2	1
Foggy	2	2	2	0	0	1	1

Q38. How would you describe the visibility or light conditions at the time of your crash?
Filter: On-road crashes; base n = from 759 to 761 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

On-road vs. off-road crashes

Both on-road and off-road crashes were most likely to occur on a clear day, with no cloud or light cloud cover (53% and 60% respectively)

On-road crashes were significantly more likely to occur in low light (9% compared to 3% of off-road crashes); at night with good street lighting (5% vs. 0%) or at night with poor street lighting (4% vs. 0%). Off-road crashes were significantly more likely to occur on a clear day when riding from sun into shade (16% vs. 6%) (See Table 67).

Table 67: Visibility and light conditions by crash location *(on-road vs. off-road)*

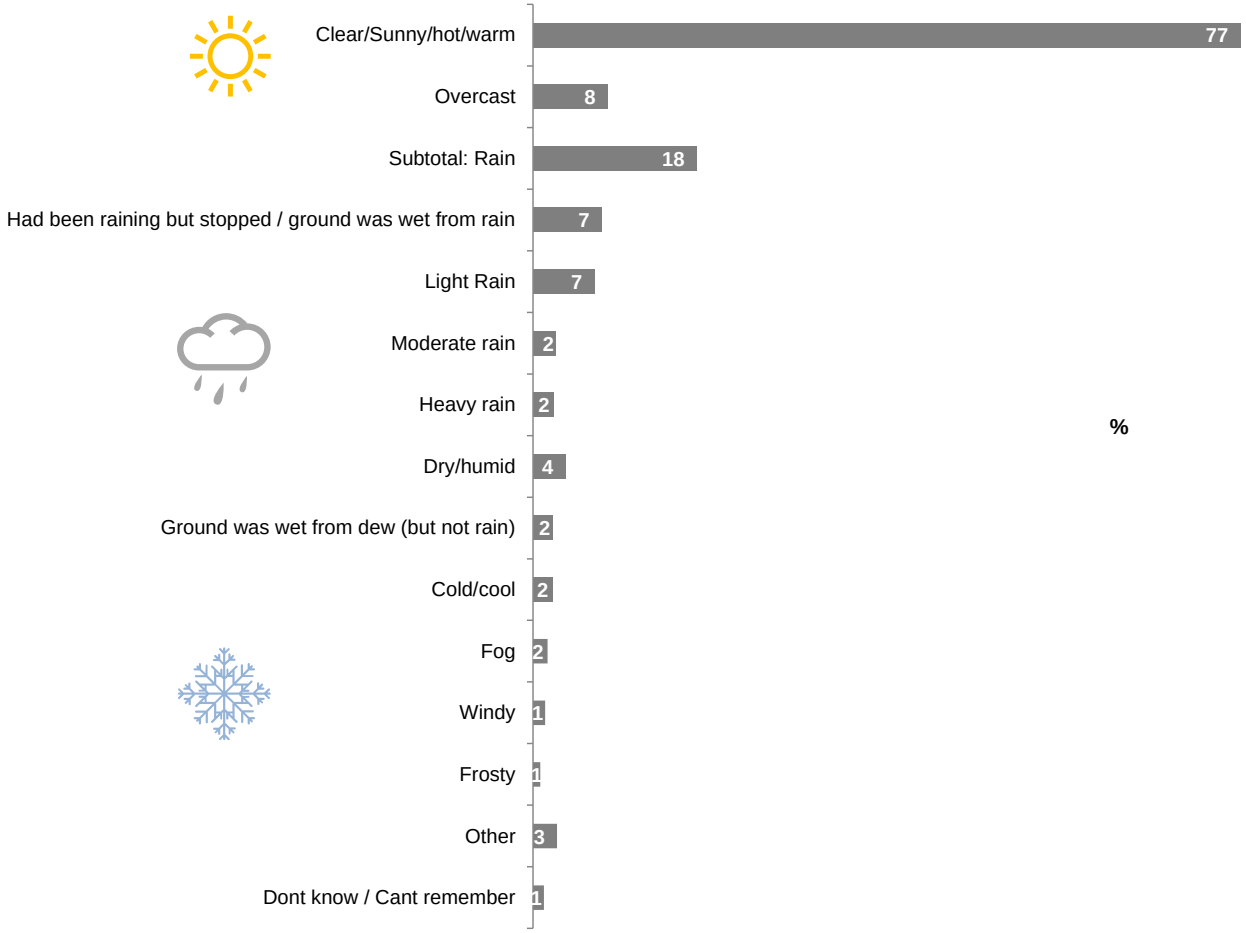
Column %	On-road	Off-road
n=	*763*	*201*
Clear day, no cloud or light cloud cover	53	60
Daytime, overcast	14	11
Low light (dawn or dusk)	9↑	3↓
Clear day, no cloud or light cloud cover only – sun glare	7	8
Clear day, no cloud or light cloud cover only – riding from sun into shade	6↓	16↑
Night, good street lighting	5↑	0↓
Night, poor street lighting	4↑	0↓
Night, no street lighting	2	0
Other	2	2
Don't know / Can't remember	2	0
Foggy	1	0

Q38. How would you describe the visibility or light conditions at the time of your crash?
Total sample; base n = 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Weather conditions at the time of the crash

Over three quarters (77%) of on-road crashes occurred during a clear day. One in five (18%) occurred during different levels of rain (See Figure 39).

Figure 39: Weather conditions at the time of the crash *(on-road crashes only)*



Q39. How would you describe the weather conditions at the time of your crash?
Filter: On-road crashes; base n = 763

Those riding road bikes at the time of their crash were significantly more likely to report that the weather was clear at the time (79% compared to 78% of off-road bike riders and 59% of scooter riders); dry/humid (4% compared to 1% for both off-road bike and scooter riders); or foggy (2% compared to 0% for both off-road and scooter riders).

Off-road bike riders (12%) and scooter riders (16%) were significantly more likely to say that it had been raining but had stopped at the time of their crash, in comparison to on-road bike riders (5%).

Those riding a scooter at the time of their crash were significantly more likely to say that there was rain at the time (42% compared to 15% of road bike riders and 17% of off-road bike riders) (See Table 68).

Table 68: Weather conditions by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Clear/Sunny/hot/warm	79↑	78	59↓
Overcast	8	9	7
Had been raining but stopped / ground was wet from rain	5↓	12↑	16↑
Subtotal: Rain	15↓	17	42↑
-Light Rain	*5↓*	*5*	*20↑*
-Moderate rain	*3*	*0*	*7*
-Heavy rain	*2*	*0*	*4*
Dry/humid	4↑	1	1
Ground was wet from dew (but not rain)	2	3	3
Cold/cool	2	1	1
Fog	2↑	0	0
Windy	1	0	4
Frosty	1	0	0
Other	2	4	4
Don't know / Can't remember	0↓	4↑	3
Refused	0	0	0

Q39. How would you describe the weather conditions at the time of your crash?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those who were riding for recreational purposes at the time of their on-road crash were significantly more likely to report that it was a clear day (82%), as were those riding with others at the time of their crash (83% vs. 75%).

Those going to or from work / school / university were significantly more likely to have crashed when it was raining (23%), as were the riders who were riding alone at the time (20% vs. 13% riding with others).

Those involved in an off-road crash were significantly more likely to report that their crash happened in clear weather (88% compared to 77% of on-road crashes).

3.3.10 Protective gear

Almost all respondents involved in an on-road crash were wearing a helmet at the time (99%). Nine in ten reported they were wearing motorcycle specific or other types of boots (88%); riding gloves (93%); or a motorcycle jacket (86%). Younger riders tended to wear three or more items of protective gear compared to older riders. Scooter riders were least likely to wear three or more items of protective wear.

Boots of any kind and riding pants were more likely to be worn by those doing recreational riding than commuting. Jackets were more likely to be worn by those commuting or running errands at the time of the crash.

Seven in ten (71%) respondents involved in on-road crashes said they wore a jacket with in-built impact protection.

Close to half (48%) of those in on-road crashes said they had been wearing either something hi-vis (19%) or reflective (35 %) at the time of their crash.

Protective gear worn at the time of the crash

Almost all respondents involved in an on-road crash were wearing a helmet at the time (99%). Nine in ten reported they were wearing motorcycle specific or other types of boots (88%); riding gloves (93%); or a motorcycle jacket (86%). In comparison, those involved in on-road crashes were less likely to say they wore riding pants (69%) (See Figure 40).

Overall, 94% of respondents reported wearing three or more of the items listed in the survey (i.e. helmet, jacket, pants, boots, or gloves). Younger riders were more likely to say they wore three or more items of protective gear (90% of those aged 25 and under vs. 95%). Scooter riders were less likely to wear three or more items (88% vs. 96% of road bike riders).

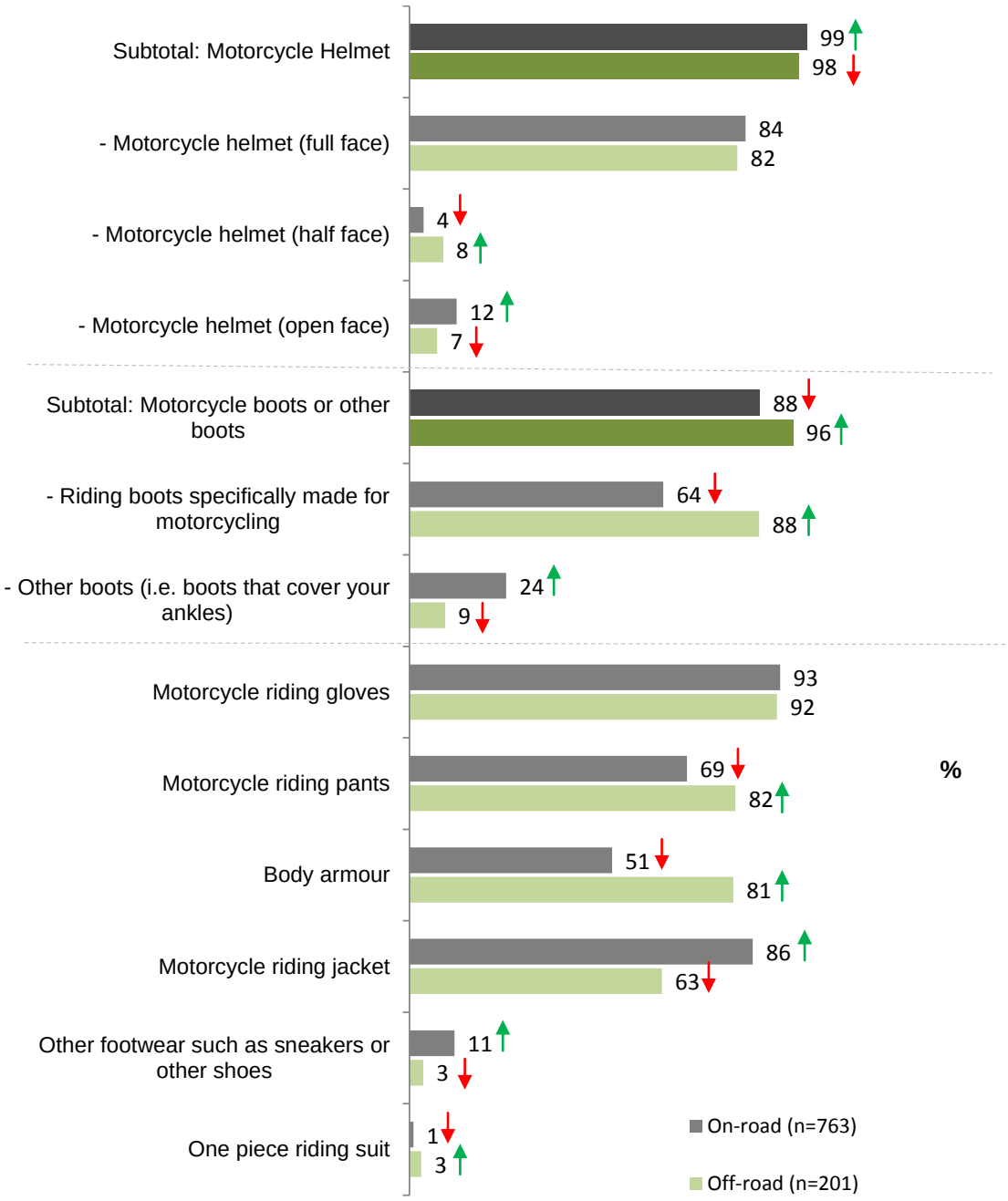
On-road vs. off road crashes

Those involved in off-road crashes were significantly more likely to be wearing motorcycle or other boots at the time of the crash (96% vs. 88% of on-road crashes), driven by those who wore boots specifically made for riding (88% vs. 64% for on-road crashes).

Motorcycle riding jackets were significantly more likely to have been worn by those who had an on-road crash (86% vs. 63%).

Those involved in off-road crashes were significantly more likely to wear motorcycle riding pants (82% vs. 69% for on-road) and body armour (81% vs. 51%) (See Figure 40).

Figure 40: Protective gear worn at the time of the crash by crash location *(on-road vs. off-road)*



Q40. Were you wearing any of the following items at the time of your crash? Say any that apply.
Note: 0% for don't know and refused not reported
Total sample; base n = 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those involved in an on-road accident and aged 39 years or younger were significantly more likely to have been wearing a full-face motorcycle helmet (90% compared to 79% of those aged 40+ years), as were those living in Melbourne (86% vs. 80% for rural respondents). Older respondents were more likely to wear an open-face motorcycle helmet (16% compared to 4% of those aged 25 or less).

Motorcycle riding gloves were also more likely to be worn by those aged 40 and over (95% vs. 90%), and Melbourne residents (94% vs. 89% of rural respondents). Melbourne residents were also more likely to wear a motorcycle riding jacket (88% vs. 81% of rural respondents) (See Table 69).

Table 69: Protective gear worn at the time of the crash if any by demographics *(on-road crashes only)*

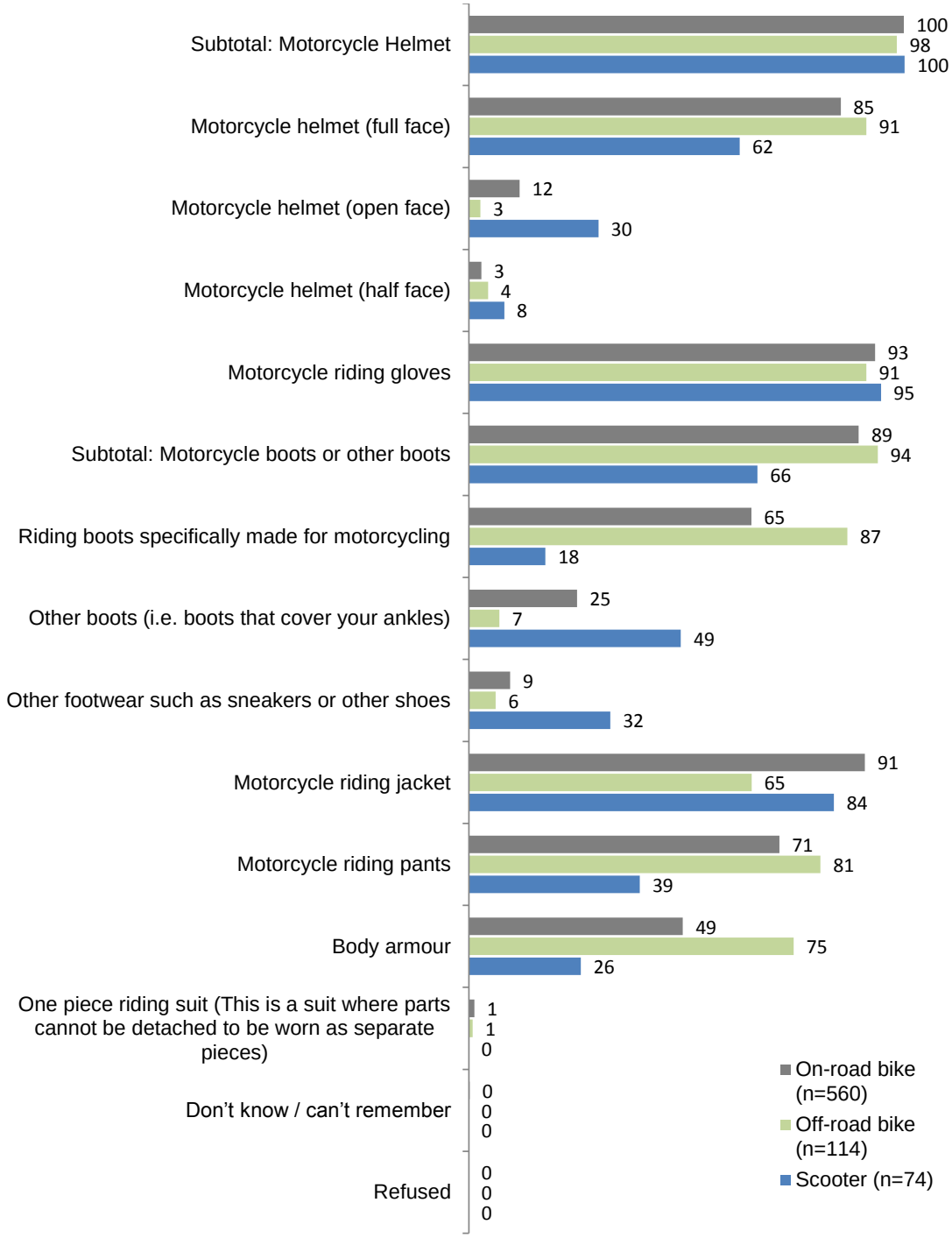
Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Subtotal: Motorcycle Helmet	99	100	99	99	100	99	100
-Motorcycle helmet (full face)	*85*	*78*	*93↑*	*88*	*79↓*	*86↑*	*80↓*
-Motorcycle helmet (open face)	*11*	*15*	*4↓*	*8*	*16↑*	*11*	*14*
-Motorcycle helmet (half face)	*3*	*7*	*3*	*3*	*4*	*2↓*	*7↑*
Motorcycle riding gloves	93	93	89↓	91	95↑	94↑	89↓
Subtotal: Motorcycle boots or other boots	88	89	78↓	86	92↑	86	91
-Riding boots specifically made for motorcycling	*64*	*55*	*55↓*	*66*	*65*	*62*	*67*
-Other boots (i.e. boots that cover your ankles)	*23↓*	*34↑*	*23*	*20*	*27*	*24*	*25*
Other footwear such as sneakers or other shoes	11	11	21↑	13	7↓	12	8
Motorcycle riding jacket	85	93	83	84	88	88↑	81↓
Motorcycle riding pants	69	75	66	72	69	70	69
Body armour	50	53	44	51	53	53	46
One piece riding suit (This is a suit where parts cannot be detached to be worn as separate pieces)	1	1	0	2	1	1	1

Q40. Were you wearing any of the following items at the time of your crash? Say any that apply.
Filter: On-road crashes; base n = 763
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

As shown in Figure 41, those riding a road bike at the time of their on-road crash were significantly more likely to be wearing motorcycle boots or other boots, as compared to scooter riders (89% vs. 66%), and more likely to be wearing a motorcycle riding jacket compared to off-road bike riders (91% vs. 65%).

Off-road bike riders were significantly more likely to have been wearing motorcycle boots or other boots (94%), motorcycle riding pants (81%) and body armour (75%) at the time of their crash (See Figure 41).

Figure 41: Protective gear worn at the time of the crash by type of bike ridden at the time of crash *(on-road crashes only)*



Q40. Were you wearing any of the following items at the time of your crash? Say any that apply.
Filter: On-road crashes; base n = 760 (excludes 'other bikes')

Those who rode for recreational purposes were significantly more likely to be wearing motorcycle boots or other boots at the time of the crash (89% riding recreationally on-road and 92% riding recreationally off-road vs. 86% for those who commuted at some point in the year before the crash). Respondents who rode for commuting and recreational purposes on-road were significantly more likely to report wearing motorcycle riding jackets at the time of the crash (89% commuting and 88% recreational on-road).

Motorcycle riding pants were more likely to have been worn by infrequent riders who rode once a fortnight or less in both warmer and colder months - 81% of those riding once a fortnight or less in spring/summer months and 78% of those who rode once a fortnight or less in autumn/winter months. The same was found for those wearing body armour – 62% of those that rode less than once a month in spring/summer months and 59% of those that rode once a fortnight or less in autumn/winter months.

Those who rode their bike 20% of the time or less (as compared to driving) were also significantly more likely to report wearing motorcycle riding pants (77%) and body armour (58%) at the time of the crash.

Respondents riding for recreational purposes off-road prior to the crash were significantly more likely to report wearing motorcycle riding pants (78%) and body armour (61%) at the time of the crash (See Table 70).

Table 70: Protective gear worn at the time of the crash if any by riding prior to the crash *(on-road crashes only)*

Column %	Riding in spring/summer months before crash			Riding in autumn/winter months before crash			Riding purpose			Riding vs. Driving before the crash		
	5+ days a week	1-4 times a week	Once a fortnight or less	5+ days a week	1-4 times a week	Once a fortnight or less	Commuting	Recreation on-road	Recreation off-road	Rode <= 20% of the time	Rode 21-80% of the time	Rode 81%+ of the time
n=	*301*	*308*	*148*	*234*	*277*	*236*	*513*	*599*	*200*	*299*	*282*	*176*
Subtotal: Motorcycle Helmet	100	100	99	100	100	99	100	100	99	99	100	99
-Motorcycle helmet (full face)	*85*	*81↓*	*91↑*	*85*	*83*	*84*	*86*	*85*	*91↑*	*82*	*84*	*89↑*
-Motorcycle helmet (open face)	*11*	*16↑*	*5↓*	*12*	*13*	*11*	*11*	*12*	*4↓*	*13*	*12*	*9*
-Motorcycle helmet (half face)	*4*	*4*	*3*	*3*	*4*	*3*	*3*	*3↓*	*5*	*4*	*4*	*2*
Motorcycle riding gloves	93	93	93	94	94	92	93	92	90↓	93	92	94
Subtotal: Motorcycle boots or other boots	*85↓*	*90*	*90*	*84↓*	*90*	*90*	*86↓*	*89↑*	*92↑*	*91*	*88*	*84↓*
-Riding boots specifically made for motorcycling	*57↓*	*66*	*74↑*	*56↓*	*66*	*71*	*58↓*	*65*	*76↑*	*71↑*	*60*	*57*
-Other boots (i.e. boots that cover your ankles)	*28*	*24*	*16↓*	*28*	*24*	*19*	*28↑*	*25*	*16↓*	*20↓*	*28*	*26*
Other footwear such as sneakers or other shoes	14↑	9	9	15	9	9	13↑	10↓	8	8↓	12	16↑
Motorcycle riding jacket	88	86	80↓	90	86	83	89↑	88↑	74↓	83	87	88
Motorcycle riding pants	66	68	81↑	65	68	78↑	65↓	71	78↑	77↑	66	63↓
Body armour	45↓	51	62↑	47	48	59↑	47↓	51	61↑	58↑	46	47
One piece riding suit (This is a suit where parts cannot be detached to be worn as separate pieces)	0	2	1	0	1	1	1	1	2	2	0	1

Q40. Were you wearing any of the following items at the time of your crash? Say any that apply.
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other responses')
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Riders going to or from work / school / university were significantly more likely to be wearing a full-face helmet at the time of the crash (88%). They were also more likely to be wearing riding gloves (96%) and a motorcycle riding jacket (93%).

Those riding for recreational purposes at the time of the crash were significantly more likely to be wearing motorcycle or other boots (95%), riding pants (79%), body armour (64%) and a one-piece riding suit (2%).

Those riding with others at the time of the crash were significantly more likely to wear a range of protective gear in comparison to those riding alone. They were more likely to wear motorcycle riding gloves (96% vs. 92%); motorcycle riding or other boots (96% vs. 84%); riding pants (88% vs. 62%); and body armour (72% vs. 42%). Motorcycle riding jackets, however, were more likely to be worn by those riding alone (88% vs. 62%) (See Table 71).

Table 71: Protective gear worn at the time of the crash if any by purpose of riding and whether riding alone or with others *(on-road crashes only)*

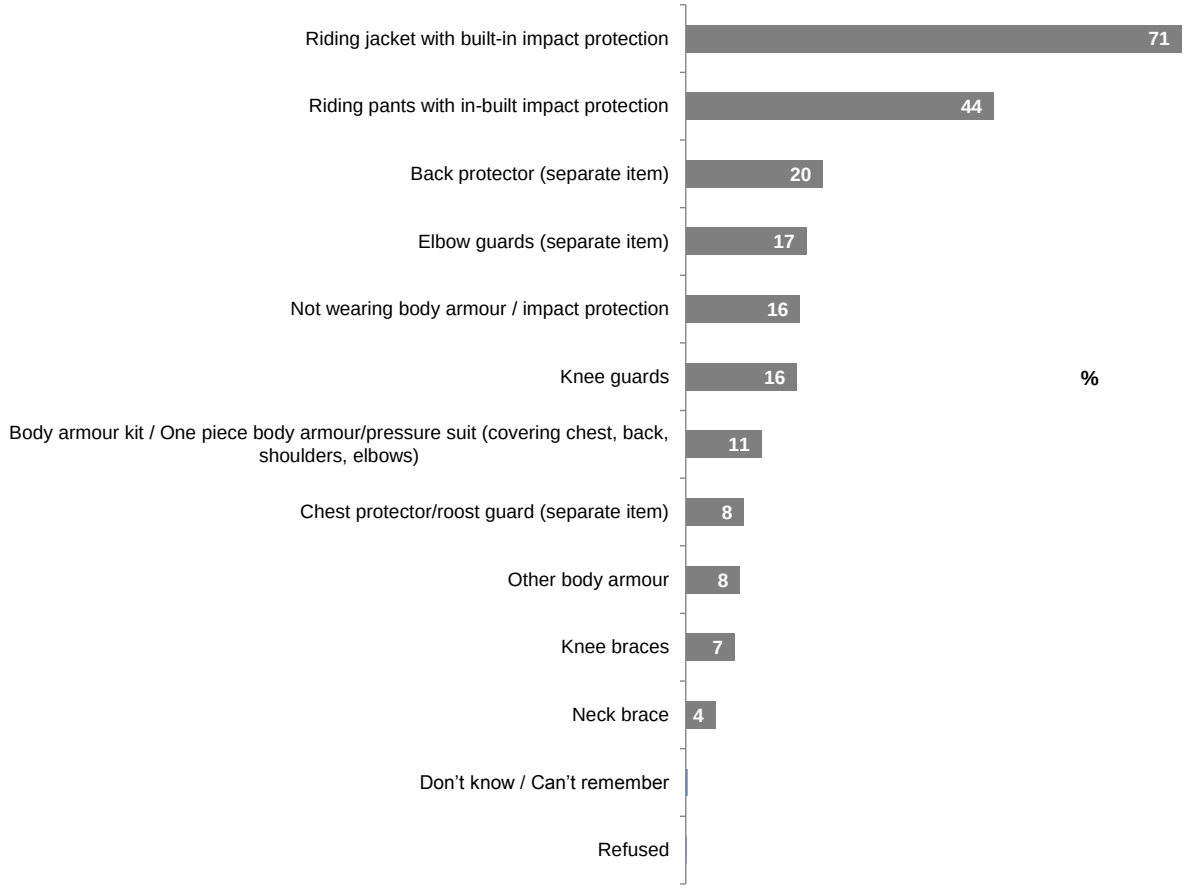
Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Subtotal: Motorcycle Helmet	99	100	99	100	100	99	100
-Motorcycle helmet (full face)	*84*	*88↑*	*78↓*	*73*	*83*	*83*	*86*
-Motorcycle helmet (open face)	*11*	*9*	*17↑*	*18*	*17*	*12*	*10*
-Motorcycle helmet (half face)	*4*	*3*	*4*	*9*	*0*	*3*	*4*
Motorcycle riding gloves	93	96↑	86↓	91	97	92↓	96↑
Subtotal: Motorcycle boots or other boots	95↑	86	76↓	73	77↓	84↓	96↑
-Riding boots specifically made for motorcycling	*79↑*	*57↓*	*43↓*	*27↓*	*60*	*55↓*	*86↑*
-Other boots (i.e. boots that cover your ankles)	*16↓*	*30↑*	*34↑*	*45*	*17*	*30↑*	*10↓*
Other footwear such as sneakers or other shoes	4↓	12	23↑	27	20	14↑	4↓
Motorcycle riding jacket	82↓	93↑	83	82	89	88↑	82↓
Motorcycle riding pants	79↑	65↓	57↓	64	66	62↓	88↑
Body armour	64↑	43↓	38↓	45	37	42↓	72↑
One piece riding suit (This is a suit where parts cannot be detached to be worn as separate pieces)	2↑	0↓	0	0	0	1	2

Q40. Were you wearing any of the following items at the time of your crash? Say any that apply.
Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

Impact protection / body armour worn at the time of the crash

Seven in ten (71%) of respondents involved in on-road crashes said they wore a jacket with in-built impact protection. Forty-four percent (44%) reported they had worn riding pants with in-built impact protection.

Figure 42: Impact protection / body armour worn at the time of the crash by crash location *(on-road crashes only)*



Q41. Were you wearing any of the following items of impact protection/body armour at the time of your crash? This includes body armour that forms part of other gear i.e. inside a jacket etc. Please say yes to any that apply.
Total sample; base n = 763

Of those involved in an on-road crash, older respondents aged 40 and over were more likely to wear riding pants with built-in impact protection (49% compared to 35% for those aged 25 and under).

Melbourne residents were significantly more likely to wear a riding jacket with built-in impact protection (76% compared to 56% of rural residents). Rural residents were more likely to not wear any impact protection (23% vs. 14% of Melbourne residents). However, among the rural residents who did own items with impact protection, they were significantly more likely to wear a body armour kit / one-piece body armour (15% vs. 9%), knee braces (11% vs. 5%) and neck braces (7% vs. 3%) compared to metropolitan residents.

Off-road bike riders were significantly more likely than those riding road bikes and scooters to wear impact protection / body armour at the time of their on-road crash. However, road bike riders were more likely to wear a riding jacket with built-in impact protection (79% compared to 35% of off-road bike riders and 65% of scooter riders).

Those riding scooters at the time of their crash were significantly more likely to not have been wearing any body armour or impact protection gear (35%) (See Table 72).

Table 72: Impact protection / body armour worn at the time of the crash if any by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Riding jacket with built-in impact protection	79↑	35↓	65
Riding pants with in-built impact protection	46	49	22↓
Back protector (separate item)	18↓	35↑	9↓
Elbow guards (separate item)	16	26↑	11
Knee guards	10↓	53↑	1↓
Body armour kit / One piece body armour/pressure suit (covering chest, back, shoulders, elbows)	3↓	56↑	1↓
Chest protector/roost guard (separate item)	5↓	31↑	0↓
Knee braces	3↓	32↑	0↓
Neck brace	2↓	19↑	1
Other body armour	9	9	0↓
Not wearing body armour / impact protection	15	11	35↑
Don't know / Can't remember	0	0	0
Refused	0	0	0

Q41. Were you wearing any of the following items of impact protection/body armour at the time of your crash? This includes body armour that forms part of other gear i.e. inside a jacket etc. Please say yes to any that apply.
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents* ***not*** *in that category*

As shown in Table 73, those riding for recreational purposes were significantly more likely to wear a range of impact protection / body armour gear. Those going to or from a friend's place or shops were significantly more likely to not be wearing any body armour or impact protection (27%).

Those riding with others at the time of their crash were also more likely to wear a range of impact protection / body armour – however, those riding alone were significantly more likely to wear a riding jacket with built-in impact protection (74% vs. 63%).

Table 73: Impact protection / body armour worn at the time of the crash if any by purpose of riding and whether riding alone or with others *(on-road crashes only)*

Column %	Purpose of riding				Riding alone or with others		
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Riding jacket with built-in impact protection	65↓	81↑	66	64	74	74↑	63↓
Riding pants with in-built impact protection	52↑	41	33↓	36	34	38↓	58↑
Back protector (separate item)	27↑	16	10↓	18	11	17↓	26↑
Elbow guards (separate item)	22↑	16	9↓	27	9	16	21
Knee guards	27↑	10↓	2↓	9	6	9↓	34↑
Body armour kit / One piece body armour/pressure suit (covering chest, back, shoulders, elbows)	22↑	2↓	0↓	0	9	4↓	28↑
Chest protector/roost guard (separate item)	15↑	3↓	2↓	0	6	6↓	13↑
Knee braces	14↑	2↓	1↓	0	3	2↓	18↑
Neck brace	8↑	2↓	0↓	0	0	2↓	10↑
Other body armour	8	8	8	0	3	8	7
Not wearing body armour / impact protection	12↓	16	27↑	27	20	19↑	9↓
Don't know / Can't remember	0	0	2↑	0	0	0	0
Refused	0	0	0	0	0	0	0

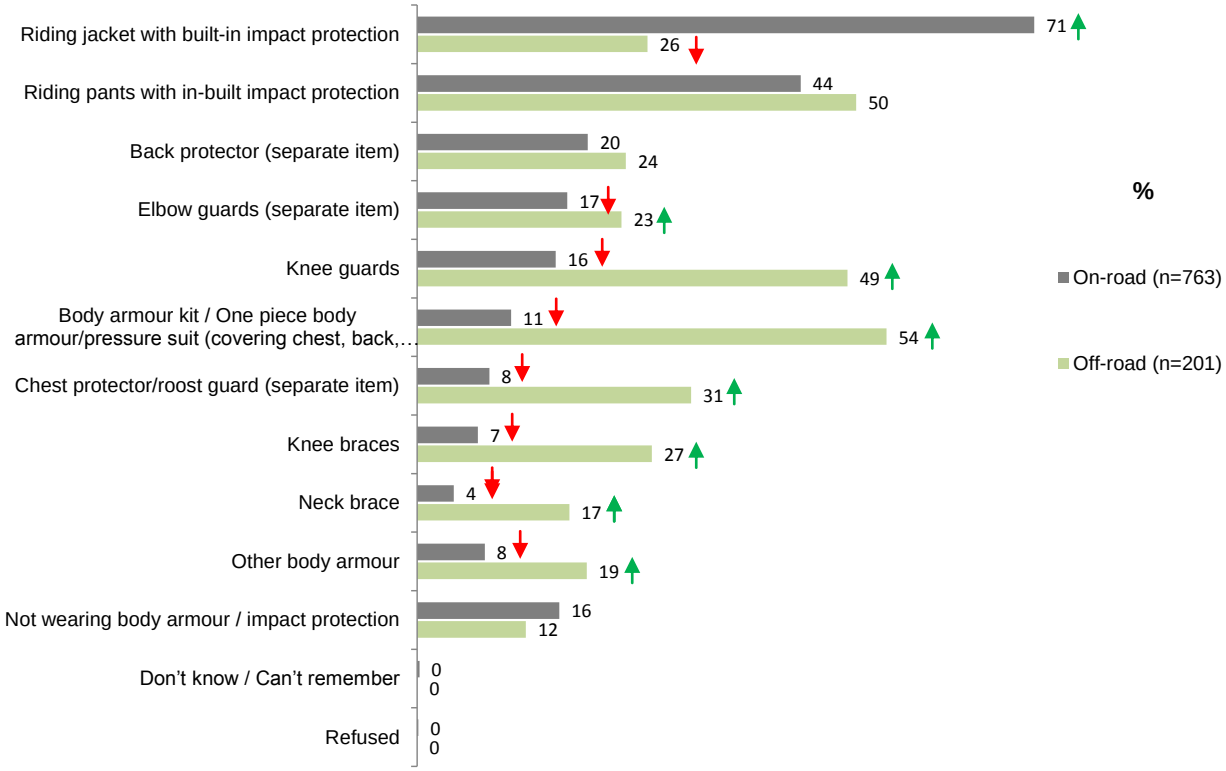
Q41. Were you wearing any of the following items of impact protection/body armour at the time of your crash? This includes body armour that forms part of other gear i.e. inside a jacket etc. Please say yes to any that apply.
Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

On-road vs. off-road crashes

Riders involved in off-road crashes tended to wear more pieces of impact protection and body armour than those involved in on-road crashes, including elbow guards (23% vs. 17%), knee guards (49% vs. 16%), body armour kit / one piece body armour (54% vs. 11%) and chest protectors (31% vs. 8%).

However, those involved in an on-road crash were more likely to wear a riding jacket with in-built impact protection (71% vs. 26%) (See Figure 43).

Figure 43: Impact protection / body armour worn at the time of the crash by crash location *(on-road vs. off-road)*



Q41. Were you wearing any of the following items of impact protection/body armour at the time of your crash? This includes body armour that forms part of other gear i.e. inside a jacket etc. Please say yes to any that apply.
Total sample; base n = 964
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Reflective or high-vis gear worn at the time of the crash

Close to half (48%) of those in on-road crashes said they had been wearing either something hi-vis (19%) or reflective (35%) at the time of their crash.

Those riding a road bike at the time of their on-road crash were significantly more likely to be wearing high vis or reflective gear compared to off-road bike riders (51% vs. 34% of off-road bike riders) (See Table 74).

Table 74: Whether wearing anything reflective or high-vis by type of bike ridden at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Yes, High vis	18	21	18
Yes, something reflective	39↑	15↓	35
Subtotal: High Vis or Reflective	51↑	34↓	47
Wore neither high vis or reflective items	46↓	63↑	49
Don't know/Can't remember	2	3	4
Refused	0	0	0

Q42. Were you wearing anything reflective or "high-vis" at the time of your crash?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Frequent riders (those who rode five or more days in a week all through the year) were significantly more likely to have been wearing reflective or high visibility gear at the time of the crash (53% who rode five or more days a week during the spring/summer months and 55% of those who rode five or more days a week during the autumn/winter months) (See Table 75).

Table 75: Whether wearing anything reflective or high-vis by riding seasons prior to crash *(on-road crashes only)*

Column %	Riding in spring/summer months before crash			Riding in autumn/winter months before crash		
	5+ days a week	1-4 times a week	Once a fortnight or less	5+ days a week	1-4 times a week	Once a fortnight or less
n=	*301*	*308*	*148*	*234*	*277*	*236*
Yes, High vis	20	16	22	20	17	19
Yes, something reflective	41↑	33	26↓	41↑	36	27↓
Subtotal: High Vis or Reflective	53↑	45	45	55↑	48	42↓
Wore neither high vis or reflective items	43↓	52	53	43↓	48	55↑
Don't know/Can't remember	3	3	2	2	3	2
Refused	1	0	1	0	0	0

Q42. Were you wearing anything reflective or "high-vis" at the time of your crash?
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those going to or from work / school / university at the time of the crash were significantly more likely to have been wearing reflective or high visibility gear (57%), as were those riding alone at the time of the crash (51% vs. 41% of those riding with others) (See Table 76).

Table 76: Whether wearing anything reflective or high-vis by purpose of riding and whether riding alone or with friends *(on-road crashes only)*

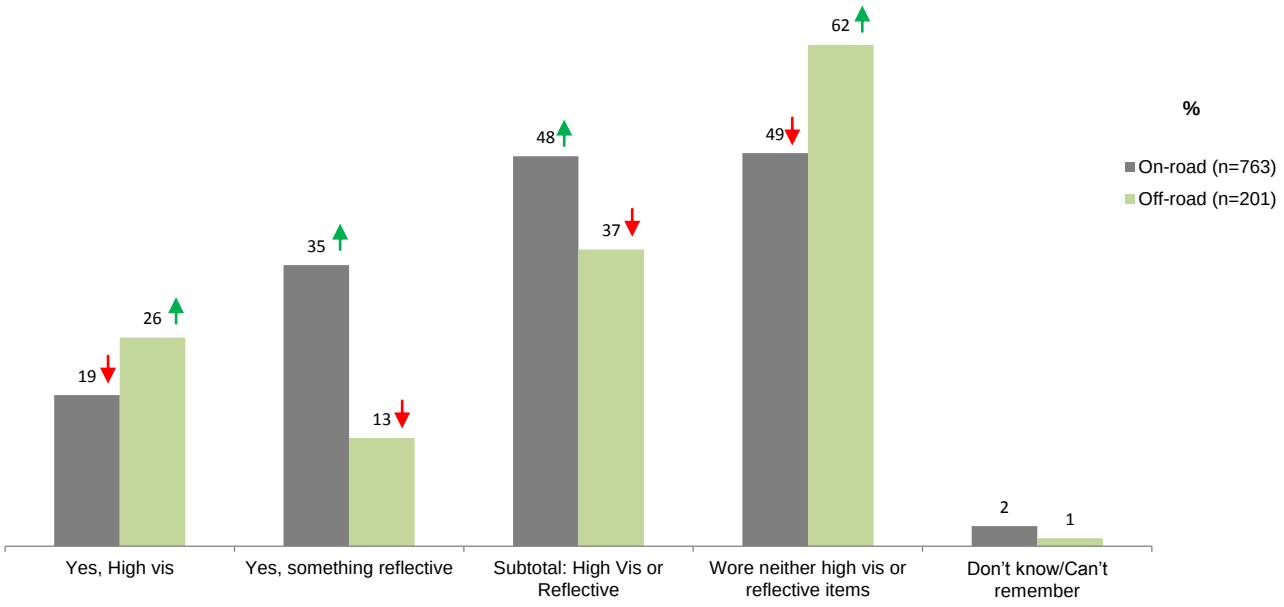
Column %	Purpose of riding					Riding alone or with others	
	For recreation or just going for a ride	Going to/from work/school/ uni	Going to/from friend's place/shops	Learning to ride	Other	Riding alone	Riding with others
n=	*328*	*258*	*127*	*11**	*35**	*545*	*216*
Yes, High vis	17	19	20	27	23	21↑	14↓
Yes, something reflective	29↓	43↑	33	18	43	37↑	29↓
Subtotal: High Vis or Reflective	43↓	57↑	45	45	54	51↑	41↓
Wore neither high vis or reflective items	54↑	40↓	53	55	43	46↓	56↑
Don't know/Can't remember	2	3	2	0	3	2	3
Refused	0	0	0	0	0	0	0

Q42. Were you wearing anything reflective or "high-vis" at the time of your crash?
Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

On-road vs. off-road crashes

High visibility or reflective gear was significantly more likely to be worn by those involved in an on-road crash (48% vs. 37% of those involved in an off-road crash) (See Figure 44).

Figure 44: Reflective or high-vis gear worn during crash by crash location *(on-road vs. off-road)*



Q42. Were you wearing anything reflective or "high-vis" at the time of your crash?
Total sample; base n = 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Technological gadgets carried at the time of the crash

Almost all respondents in an on-road crash were carrying a mobile phone at the time (93%). One in five (19%) said they had a GPS unit. Only 4% reported they had been carrying a personal location beacon or an Emergency Position Indicating Radio Beacon (EPIRB). Those who rode once a fortnight or less were more likely to be carrying a GPS unit (21% for those who rode less than every day in the spring/summer months vs. 16% who rode more frequently). It should be noted that those who rode more frequently or commuted were more likely to say they knew the area of the crash well (See Table 59).

As shown below in Table 77, those who were riding with others at the time of the crash were significantly more likely to be carrying a range of technological gadgets when the crash occurred.

Table 77: Whether carrying any technological gadget at the time of the crash by whether riding alone or with others *(on-road crashes only)*

Column %	Riding alone or with others		Total
	Riding alone	Riding with others	
n=	*545*	*216*	*763*
Mobile phone	93	95	93
GPS	12↓	38↑	19
Personal locator beacon (or EPIRB)(Emergency Position-Indicating Radio Beacon)	2↓	8↑	4
Don't know/Can't remember	3	3	3
UHF radio	1↓	8↑	3
Satellite messaging device	1↓	6↑	2
Satellite phone	1↓	5↑	2
VHF radio	1↓	2↑	1
Other communication devices	1↓	3↑	2
None	4	2	4

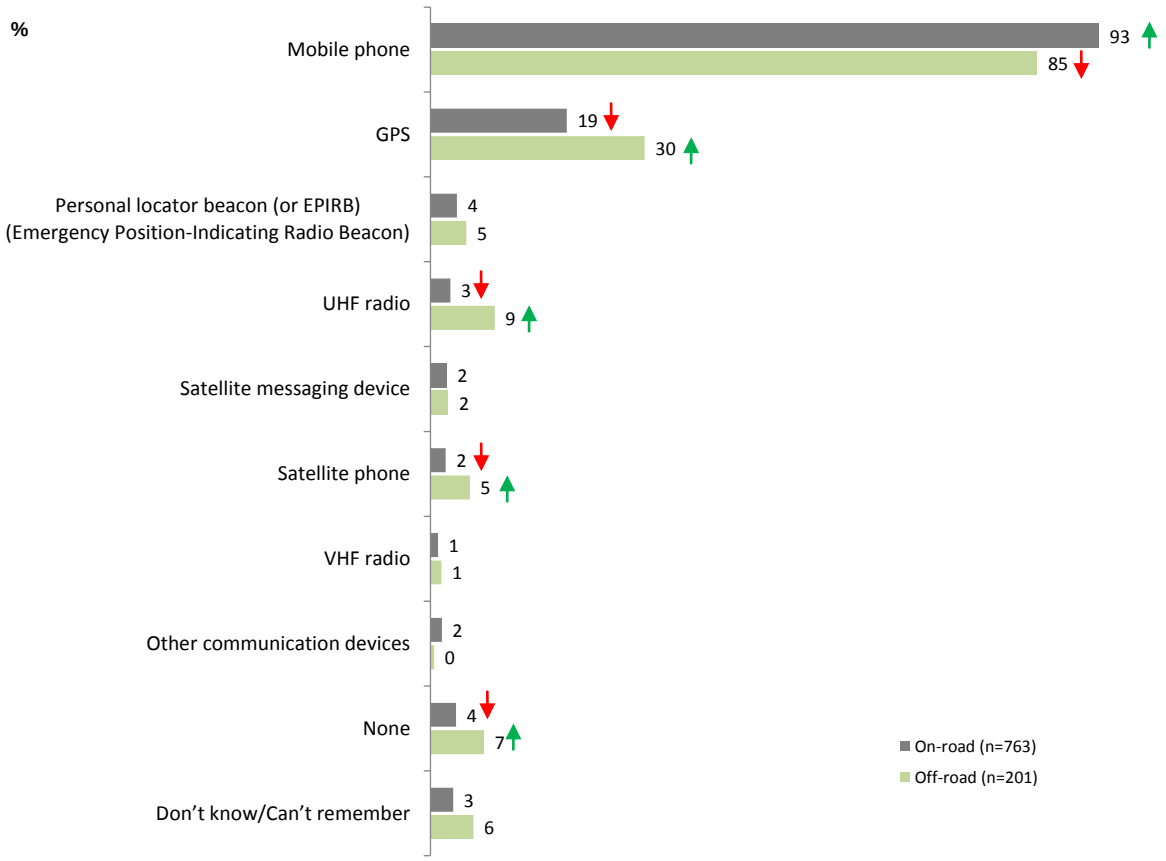
Q43. Were you or another ride in your group carrying any of the following items at the time of your crash? Please say yes to any that apply.
Filter: On-road crashes; base n = from 759 to 761(excludes 'other responses')
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Mobile phones were significantly more likely to be carried by those involved in an on-road crash (93% vs. 85% of off-road crashes).

On the other hand, a GPS was more likely to be carried by those involved in an off-road crash (30% vs. 19%) (See Figure 45).

Figure 45: Technological gadgets carried at the time of the crash by crash location *(on-road vs. off-road)*



Q43. Were you or another rider in your group carrying any of the following items at the time of your crash? Please say yes to any that apply.
Total sample; base n = 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

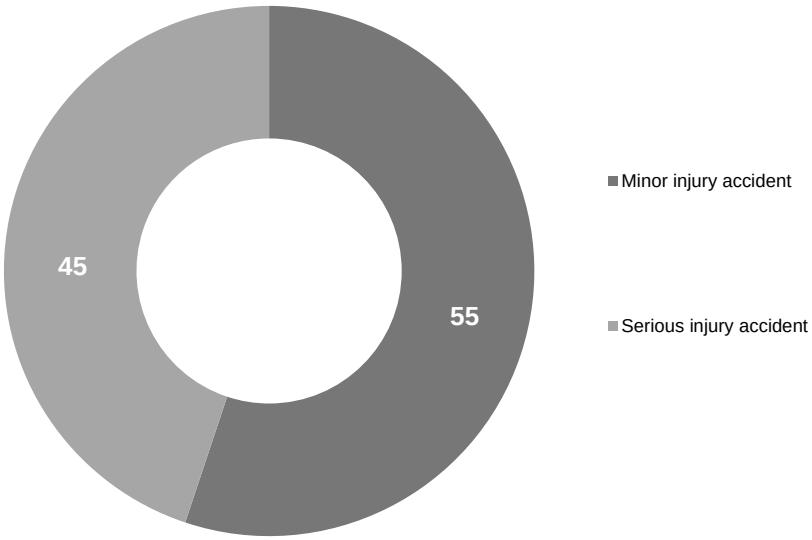
3.3.11 Injuries from the crash

According to VicRoads' supplementary data, just over half (55%) of accidents were classified as causing *minor injuries*. Those riding an off-road motorcycle at the time of an on-road crash were more likely to have been classified as *serious injury* crashes (57%) than on-road bike riders (44%) and scooter riders (38%). The most common type of injury sustained from an on-road crash was fractured limbs (31%) although contusions and abrasions accounted for 15% of respondents' primary injuries. Based on the information from the TAC Claims database, more than half of respondents (59%) had not been admitted to hospital in the first seven days after the accident.

Severity of crashes

The VicRoads Road Crash Information System database categorises the severity of crashes as causing either minor injury or serious injury. According to supplementary VicRoads data about the crashes, over half of the on-road crashes were classified as minor injury accidents (55%). Forty-five percent (45%) of the crashes were categorised as a serious injury accident (See Figure 46).

Figure 46. Accident severity (on-road crashes only)



Source: VicRoads RCIS database, Accident severity
Filter: On-road crashes; base n = 615 (where data was available)

As seen in Table 78, those riding an off-road bike at the time of the on-road crash were more likely to have sustained a serious injury (57% vs. 44% on-road bike, 38% scooter).

Table 78. Accident severity by type of bike (on-road crashes only)

Column %	Type of bike (riding at time of crash)		
	On-road bike	Off-road bike	Scooter
n=	*467*	*67*	*69*
Minor injury accident	56	43↓	62
Serious injury accident	44	57↑	38

Source: VicRoads RCIS database, Accident severity
Filter: On-road crashes; base n = 615 (where data was available)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Crashes that occurred on sealed roads in built-up areas were more likely to incur minor injuries (59%) compared to other on-road surfaces (49%). This is consistent with riding purpose – where those who were commuting to or from work/study (62%) were also more likely to be classified as minor injury accidents, compared to those riding for other reasons (51%) (See Table 79).

Table 79. Accident severity by riding purpose (on-road crashes only)

Column %	Purpose of riding				
	For recreation or just going for a ride	Going to/from work/school/uni	Going to/from friend's place/shops	Learning to ride	Other
n=	*292*	*221*	*108*	*6*	*30*
Minor injury accident	51	62↑	51	67	47
Serious injury accident	49	38↓	49	33	53
Missing n	4	4	4	4	4

Source: VicRoads RCIS database, Accident severity
Filter: On-road crashes; base n = 615 (where data was available)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who were travelling in a 100km/h zone during the accident were more likely to sustain serious injury (56% vs. 40% for 40-60 km/h zones).

Table 80. Accident severity by location speed zone (on-road crashes only)

	Speed Zone			
Column %	**40-60 km/h**	**70-90 km/h**	**100 km/h +**	**Speed limit unknown**
n=	*312*	*131*	*117*	*55*
Minor injury accident	60↑	54	44↓	53
Serious injury accident	40↓	46	56↑	47

Source: VicRoads RCIS database, Accident severity
Filter: On-road crashes; base n = 615 (where data was available)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who were involved in a minor injury crash were more likely to agree that they could have prevented the crash if they were riding more slowly (34% vs. 26% of serious injury accidents). On the other hand, those who had incurred serious injuries from the accident were more likely to agree that they were tired / fatigued at the time of the crash (14% vs. 6% of those in a minor injury accident).

As to accident type, respondents who had been hit on the side/side swiped due to a lane change or being cut off were *more* likely to sustain a minor injury than serious injury (66% resulted in a minor injury accident and 34% in serious injury accident). On the other hand, while the sample size was small (n=17), those who hit the side of another vehicle (T-bone collision), were more likely to be classified as a major injury crash (71% serious injury accident and 29% in a minor injury accident).

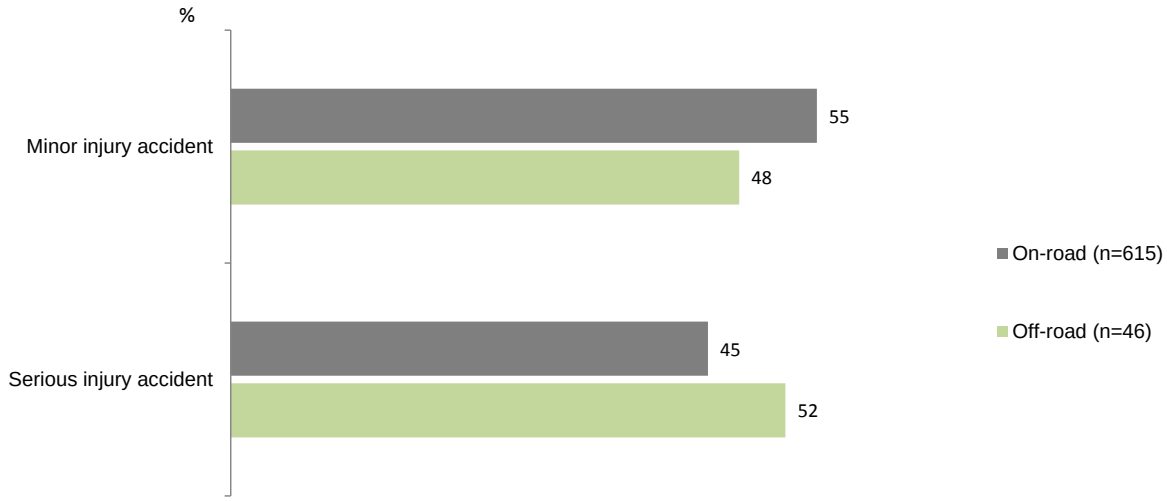
In terms of the number of items worn or whether high visibility or reflective items were worn at the time, there were no significant differences observed in terms of accident severity.

While the majority (80%) of respondents had ridden again since the crash, as could be expected, those who had serious injuries were less likely to say they had ridden again (73% vs. 84% of minor injury accidents). Similarly, those who sustained a serious injury and had ridden since the crash were riding less often compared to before the crash (53% vs. 42% of those in a minor injury accident).

On-road vs. off-road crashes

Accident severity was only available for n=46 of the off-road respondents, therefore when comparing on-road and off-road crashes, no significant differences were observed. However, the seriousness of injury was marginally higher among those who had an off-road crash compared to those who had an on-road crash (See Figure 47).

Figure 47. Accident severity (*on-road vs. off-road)*

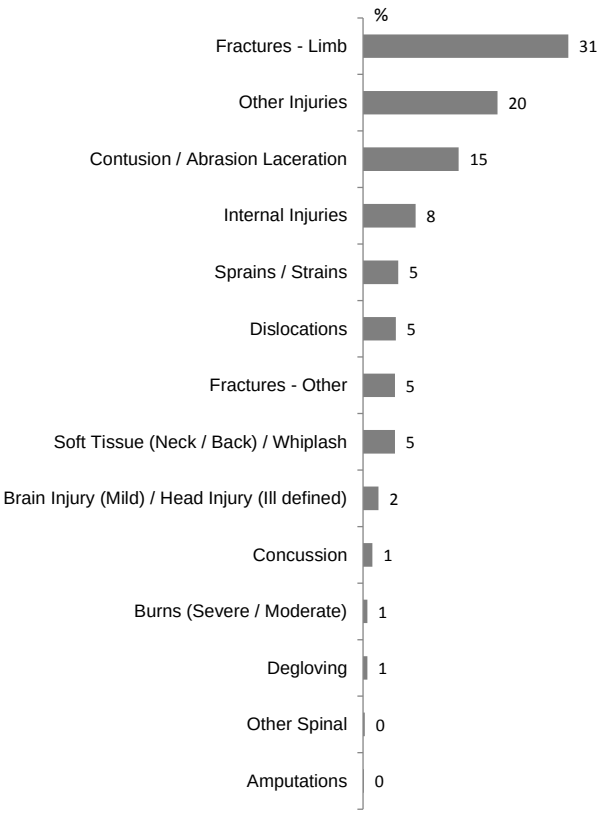


Source: VicRoads RCIS database, Accident severity
Filter: On-road crashes; base n = 615; off-road crashes, base n=46 (where data was available)

Injury types

Based on supplementary data from the TAC Claims database about the crashes, the most common type of injury sustained from an on-road crash were fractured limbs (31%), followed by contusions/abrasions/lacerations (15%) and internal injuries (8%). One in five (20%) respondents reported having other types of injuries incurred from their crash (See Figure 48). Note: According to the database, only one type of injury (generally the most severe) has been classified for each respondent. Respondents may have received other injuries in the collision.

Figure 48. Injury types (on-road crashes only)



Source: TAC Claim database, Injury detail
Filter: On-road crashes; base n = 761 (where data was available)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those who were aged up to 25 years old were more likely to have incurred internal injuries (12%) compared to those aged older than 25 (7%). In addition, those aged 40+ were more likely to incur other types of fractures as their 'main' injury (6% vs. 3%).

Notably, respondents who had been riding an off-road bike at the time were more likely to have fractured limbs (39% for off-road bikes vs. 29% for road bikes). Off-road bike riders were also more likely to have sustained a dislocation of some sort (14% vs. 4% on-road and <1% scooter). Road bike riders were more likely to have sustained strains or sprains as a result of the crash (7% vs. 1% for other types of bikes). Close to one in four (23%) of those riding a scooter at the time of the crash obtained contusions, abrasions or lacerations (vs. 14% who rode other types of bikes).

Table 81: Injury types by type of bike ridden (on-road crashes only)

Column %	Type of bike (riding at time of crash)		
	On-road bike	Off-road bike	Scooter
n=	*558*	*114*	*74*
Fractures - Limb	29↓	39↑	34
Other Injuries	21	18	22
Internal Injuries	9	5	3
Dislocations	4↓	14↑	0↓
Contusion / Abrasion Laceration	15	10	23↑
Sprains / Strains	7↑	1↓	3
Fractures - Other	5	4	4
Brain Injury (Mild) / Head Injury (Ill defined)	3	2	1
Degloving	1	1	0
Soft Tissue (Neck / Back) / Whiplash	5	3	9
Concussion	2	2	0
Burns (Severe / Moderate)	1	0	1
Other Spinal	0	1	0
Amputations	0	0	0

Source: TAC Claim database, Injury detail
Filter: On-road crashes; base n = 761 (where data was available)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those who had been riding for recreation or just out for a ride were more likely to report internal injuries (10%) or dislocations (9%), compared to those riding for other purposes. In total, 41% of those riding for recreational purposes incurred a fracture of some sort (vs. 29% who were riding for commuting purposes). Those riding to or from work/study were more likely to report contusions/abrasions/lacerations as a result of their crash (18%).

Column %	Purpose of riding				
	For recreation or just going for a ride	Going to/from work/school/ uni	Going to/from friend's place/shops	Learning to ride	Other
n=	327	257	127	11	35
Fractures - Limb	34	27	32	27	34
Other Injuries	19	25↑	17	27	14
Internal Injuries	10↑	7	4	0	9
Dislocations	9↑	3↓	2	0	3
Contusion / Abrasion Laceration	9↓	18↑	20	27	11
Sprains / Strains	3↓	6	9	18	6
Fractures - Other	7↑	2↓	6	0	9
Brain Injury (Mild) / Head Injury (Ill defined)	2	2	6↑	0	0
Degloving	1	1	1	0	0
Soft Tissue (Neck / Back) / Whiplash	3	7	2	0	11
Concussion	1	2	2	0	3
Burns (Severe / Moderate)	1	1	0	0	0
Other Spinal	1	0	0	0	0
Amputations	0	0	0	0	0

Source: TAC Claim database, Injury detail
Filter: On-road crashes; base n = 761 (where data was available)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

There were some differences in injury type among those who had ridden since the crash and those who had not. Respondents who had not ridden again since the crash were more likely to have had internal injuries (15% vs. 6% of those who had ridden again); while those who had ridden again were more likely to have sustained contusions, abrasions or lacerations as their main injury from the crash (16% vs. 9% for those who had not ridden again).

Respondents who wore motorcycle riding pants were less likely to have obtained contusions, abrasions or lacerations as their main injury compared to those who did not wear motorcycle riding pants (13% vs. 19%). However, they were more likely to have suffered dislocations as a result of the crash (7% vs. 1% of those who did not wear motorcycle riding pants).

Similarly, respondents who wore riding boots specifically made for motorcycling were also less likely to have obtained contusions, abrasions or lacerations as their main injury (11% vs. 18% of those who did not wear riding boots). However, they were more likely to have suffered dislocations as their main injury as a result of the crash (7% vs. 3% who did not wear riding boots).

Respondents who wore motorcycle riding gloves during the accident were less likely to have contusions, abrasions or lacerations as their most serious injury, compared to those who did not wear gloves (14% vs. 24%). On the other hand, respondents who wore other footwear such as sneakers or other shoes were more likely to have obtained contusions, abrasions or lacerations than those who did not (26% vs. 13%).

As to the number of items worn, those who wore 4 or more of the items listed were less likely to incur contusions, abrasions or lacerations as their most serious injury (13% vs. 22%). Those who wore fewer items were more likely to incur amputations as their most serious injury (1% vs. 0%).

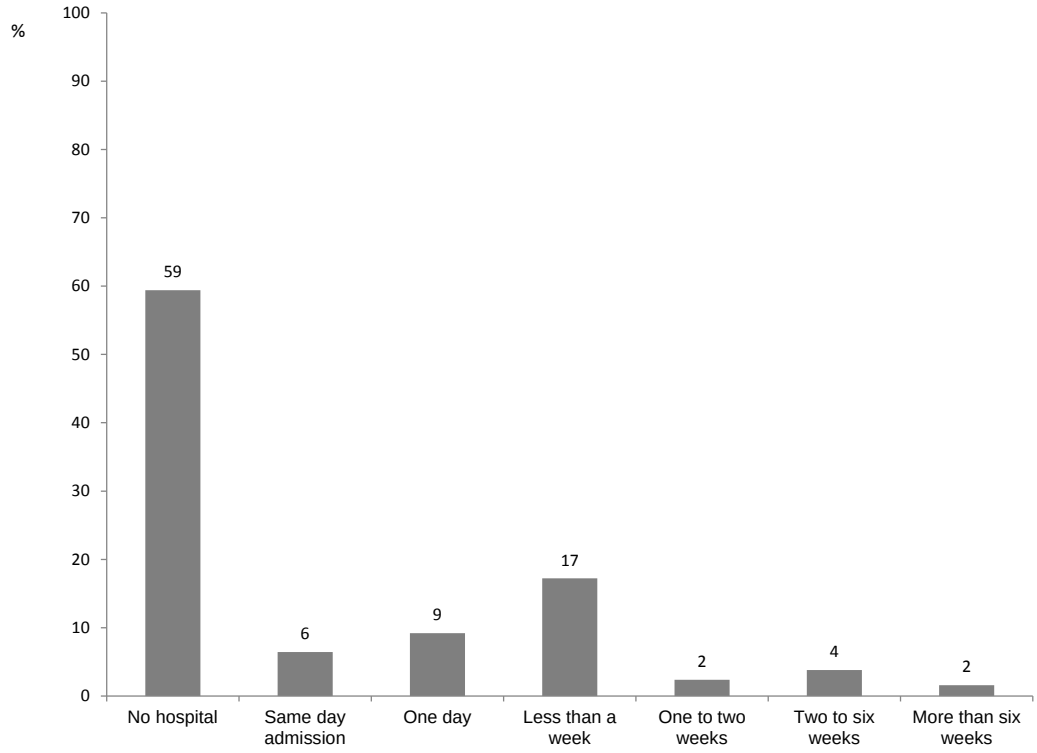
On-road vs. off-road crashes

There were no differences between on-road and off-road crashes in terms of fractured limbs (34% and 31% respectively). However, those who had an on-road crash were more likely to have obtained contusions, abrasions or lacerations as their most serious injury (15% vs. 7%); and also more likely to sustain soft tissue (neck/back) injuries or whiplash in comparison to those who had an off-road crash (5% vs. 0% respectively).

Number of days in hospital for first admission within seven days of the accident

Based on the information from the TAC Claims database, more than half of respondents (59%) had not been admitted to hospital in the first seven days after the accident. A further 6% had a same-day admission, 9% had a one-day admission, and 17% stayed in hospital for more than a day but less than a week (See Figure 49).

Figure 49. Number of days in hospital for first admission within seven days of the accident (on-road crashes only)



Source: TAC Claims database, Days in hospital for first admission with seven days of the accident
Filter: On-road crashes; base n = 615

As expected, respondents who reported riding since the crash and those who currently rode more often now than before the crash were more likely to have not been admitted to a hospital in the seven days after their crash (64% of those who had ridden again did not have a hospital stay vs. 42% of those who had not ridden again; and 69% of those who ride the same or more often did not get admitted to hospital vs. 57% for those who now ride less often than before the crash).

Those aged 26 or over were less likely to have been admitted to hospital compared to their younger counterparts (51% vs. 61%) and significantly less likely to have a one-day hospital admission compared to younger respondents (14% vs. 8%).

In terms of protective gear worn at the time of the crash, respondents who wore a full-face motorcycle helmet during the accident were less likely to have stayed in hospital for more than six weeks as a result of

the accident (1% vs. 5% who did not wear a full-face motorcycle helmet). On the other hand, respondents who wore an open-face motorcycle helmet were more likely to have stayed in the hospital for more than six weeks after the accident (6% vs. 1% who did not wear an open-face motorcycle helmet).

Respondents who wore motorcycle riding pants during the accident were more likely to have no hospital admission or same-day hospital admission as a result of the accident, compared to those who did not wear motorcycle riding pants (68% vs. 60%). Similarly, those who had not worn motorcycle riding pants were more likely to have stayed in the hospital for a day or more (40% vs. 32% who wore motorcycle riding pants).

Respondents who wore riding boots specifically made for motorcycling during the accident were more likely to have no hospital admission or same-day hospital admission in the first seven days after the crash (69% vs. 59% did not wear riding boots). Similarly, respondents who wore other boots (that covered their ankles) during the accident were less likely to have no hospital admission or same-day admission than those who didn't wear boots at all (59% vs. 68%).

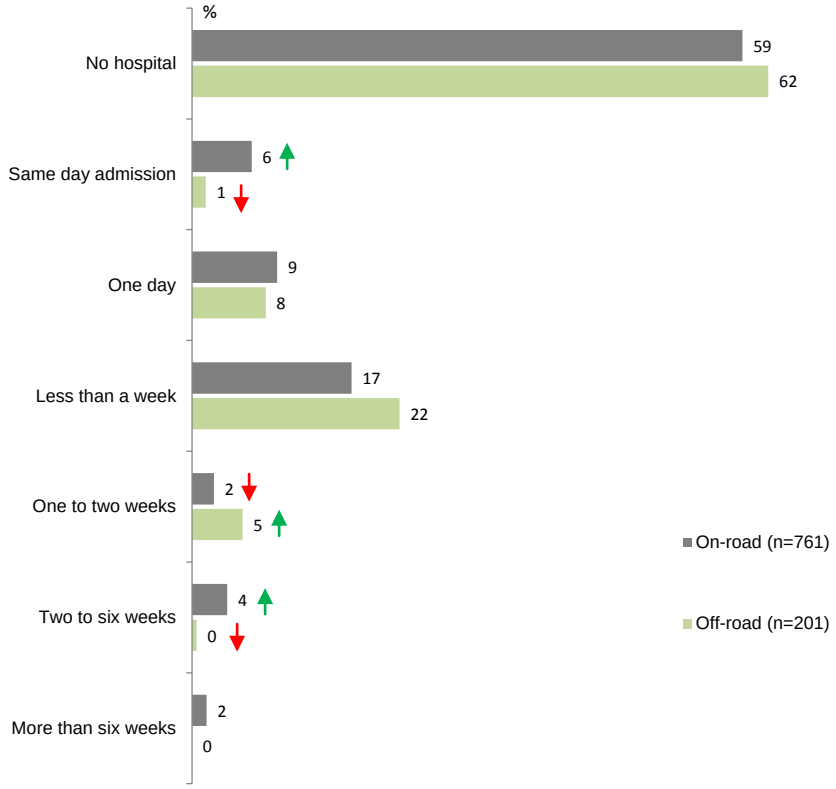
As to the number of items of protective gear worn at the time of the crash, those who wore fewer items (up to three) were more likely to have had to stay at least overnight in hospital or up to six weeks (33% vs. 24% for those who wore four or more items).

Those riders who wore fewer items of protective clothing (three or less) were more likely to have stayed in hospital at least overnight compared to those who wore four or more items of protective clothing (33% vs. 24% respectively).

On-road vs. off-road crashes

As can be seen in Figure 50, the majority of both on-road and off-road respondents were not admitted to hospital within the first seven days after the incident. However, among those who were admitted to hospital, off-road crash respondents were more likely to have been admitted for one to two weeks (5% vs. 2%). Those who had an on-road crash were more likely to have had same-day hospital admission (6% vs. 1% of off-road crashes) or a two to six week stay in hospital (4% vs. <1%).

Figure 50. Number of days in hospital for first admission within seven days of the accident (on-road vs off-road)



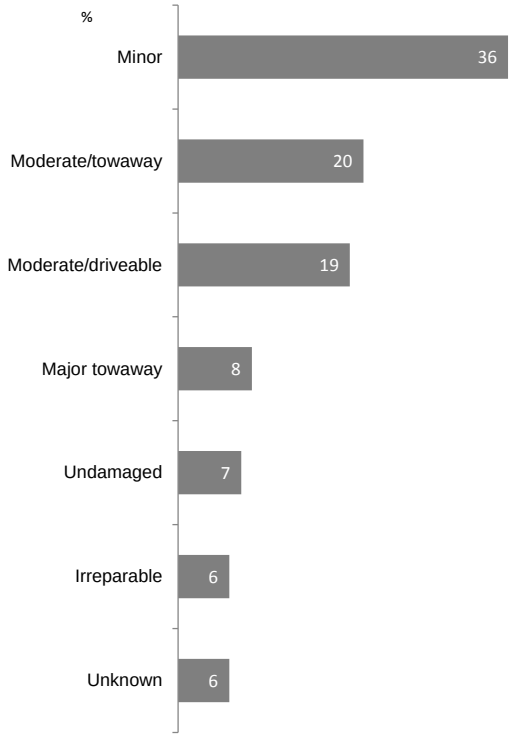
Source: TAC Claims database, Days in hospital for first admission with seven days of the accident
Filter: On-road crashes; base n = 615; off-road crashes, base n=201

↓↑ *indicates statistically significant difference compared to respondents not in that category*

Level of vehicle damage

According to supplementary data available from VicRoads about the crashes, slightly more than one in three (36%) incurred minor vehicle damage from the crash, followed by one in five (20%) who had their vehicle moderately damaged but towed away. A similar proportion (19%) incurred moderate damage but reported their vehicle was still 'driveable'.

Figure 51. Level of vehicle damage (on-road crashes only)



Source: VicRoads RCIS database, Level of vehicle damage.
Filter: On-road crashes; base n = 615

In regards to perceived responsibility of the crash, in general, those who said that they were not responsible at all for the crash were more likely to have incurred more severe vehicle damage in comparison to those who said they were totally or partially responsible for the crash (12% major damage and towed away vs. 5% for those partially responsible and 4% totally responsible for the crash). Those who said they were totally responsible were more likely to have reported only minor damage, or no damage from the crash (41% among those totally responsible vs. 28% for those who were not at all responsible) (See Figure 52).

Figure 52. Level of vehicle damage by perceived responsibility of crash *(on-road crashes only)*

Column %	Partially responsible for the accident, or	Totally responsible for the accident	Not responsible at all for the accident
n=	*150*	*135*	*281*
Irreparable	5	4	7
Major tow away	5	4	12↑
Minor	41↑	41	28↓
Moderate/driveable	23	16	19
Moderate/tow away	11↓	19	25↑
Undamaged	7	11↑	5
Unknown	7	4	5

Source: VicRoads RCIS database, Level of vehicle damage.
Filter: On-road crashes; base n = 615
*↓↑ indicates statistically significant difference compared to respondents **not** in that category (i.e. Totally responsible vs.)partially and not at all responsible combined)*

Respondents who had not ridden since the crash were more likely to have had an irreparable vehicle (12% vs. 4% for those who have ridden again) or a moderately damaged vehicle that was towed away (29% vs. 17%). Those who had ridden since the crash were more likely to have incurred minor vehicle damage (38% vs. 27%).

On-road vs. off-road crashes

In regards to crash location, respondents involved in an off-road crash were more likely to have had an undamaged vehicle as a result of the crash (28% vs. 7% for on-road crashes), although data from the VicRoads database was only available for n=46 off-road crashes.

Those who had an on-road crash were more likely to have had their motorcycle moderately damaged and towed away (20% vs. 7% for those in an off-road crash).

3.4 After the crash

The majority of respondents involved in an on-road crash had ridden again (80%). Around half (48%) of those who had not ridden again said there was a high likelihood they would ride again in the future. Among those who had not ridden again, most said their partner or family preferred they did not ride (62%); with others stating that they no longer owned a bike (56%), or were still affected by the injuries (55%). The most common thing that would need to happen for those involved in an on-road crash to ride again was they needed to get a new bike (29%).

Over two-thirds (68%) of the respondents involved in an on-road crash who had ridden again after their crash took up riding again within six months of the crash.

Around half (47%) were riding at the same frequency, although a similar proportion was riding less than they had before the crash (44%). Those who had already been riding very frequently were more likely to say they rode around the same amount after the crash as they had before.

The majority of respondents said they drove with about the same level of caution after their motorcycle crash (72%).

More than half (58%) of those in an on-road crash gave a rating of 10 out of 10 when asked the extent to which they have been able to get their life 'back on track'. The most common reasons for this included the injuries being minor; that they were healing well; or the respondent had been able to go back to work. While in the minority (4%), for those who gave the lowest ratings in terms of getting back on track, this was mainly due to not being fully recovered, being in pain or having permanent injuries.

3.4.1 Riding again after the crash

The vast majority of respondents said they had ridden a motorcycle again since their crash. Similar proportions of riders who were involved in on-road and off-road crashes reported riding again after their crash (80% and 83% respectively) (See Table 82). Of note, fewer respondents whose crash occurred in 2013/2014 had returned to riding (71% vs. 87% of those whose crash occurred in 2012 or earlier). However, as will be discussed in a subsequent section, almost all respondents (94%) reported they had returned to riding within a year of the crash – and for those who had crashed in 2013/2014 this milestone may not have passed yet at the time of the survey.

Table 82: Whether ridden again after the crash by crash location *(on-road vs. off-road)*

Column %	On-road	Off-road
n=	*763*	*201*
Yes	80	83
No	20	17

Q48. Have you ridden a motorcycle again following your crash?
Total sample; base n = from 964
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

For riders who had an on-road crash, no significant differences were found between age and gender in regards to riding again after the crash. However, those who lived in rural Victoria were significantly more likely to ride their motorcycle again after the crash (86% vs. 77% of Melbourne residents) (See Table 83).

Table 83: Whether ridden again after the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*690*	*73*	*140*	*215*	*408*	*551*	*212*
Yes	80	77	77	78	82	77↓	86↑
No	20	23	23	22	18	23↑	14↓
Refused	0	0	0	0	0	0	0

Q48. Have you ridden a motorcycle again following your crash?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Off-road bike riders were significantly more likely to return to riding after their on-road crash (90% compared to 79% of road bike riders and 74% of scooter riders) (See Table 84).

Table 84: Whether ridden again after the crash by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*560*	*114*	*74*
Yes	79	90↑	74
No	21	10↓	26
Refused	0	0	0

Q48. Have you ridden a motorcycle again following your crash?
Filter: On-road crashes; base n = 760 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who mainly rode for recreational purposes prior to the crash were significantly more likely to return to riding compared to those who mainly rode for commuting purposes (See Table 85).

Table 85: Whether ridden again after the crash by riding purpose prior to crash *(on-road crashes only)*

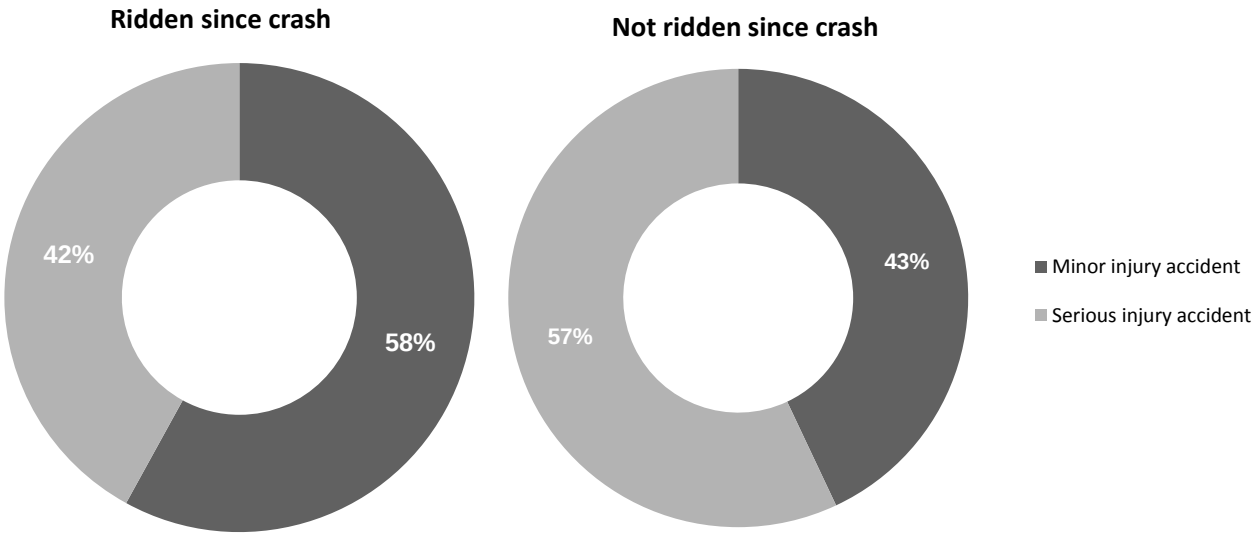
Column %	Riding purpose		
	Commuting	Recreation on-road	Recreation off-road
n=	*299*	*282*	*176*
Yes	79	82↑	86↑
No	21	18↓	15↓
Refused	0	0	0

Q48. Have you ridden a motorcycle again following your crash?
Filter: On-road crashes; base n = from 747 to 762 (excludes 'other responses')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

According to supplementary data available from the VicRoads database, more than half of respondents who had ridden since the crash were classified as having a minor injury accident (58%), while only about two in five (42%) had had a serious injury accident.

On the other hand, among those who had not ridden since the crash, less than half of respondents (43%) were classified as a minor injury accident, while nearly three in five (57%) of respondents were classified as having had a serious injury accident (See Figure 53). This supports the finding that there are more reasons than the severity of injury that prevent people from riding again after a crash. Reasons for not riding again since the crash are covered in further detail below.

Figure 53. Whether ridden again after the crash by accident severity (on-road crashes only)



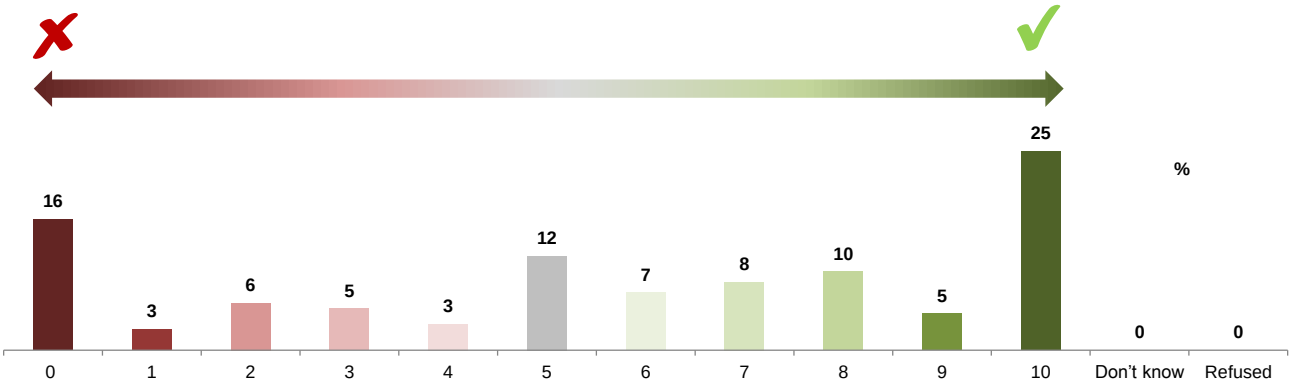
Source: VicRoads RCIS database, Accident Severity
Filter: On-road crashes; base n = 615 (where data was available)

Likelihood of riding again in the future

Nearly half (48%) of all respondents who were involved in an on-road crash but had not ridden again since the accident said there was a high likelihood that they would ride again in the future (providing ratings of between 7–10 out of 10 on a 0–10 point scale). This included one in four (25%) who said it was extremely likely they would return to riding.

One in three (30%) said that there was a low likelihood of them riding again (See Figure 54).

Figure 54: Likelihood to ride again in the future *(on-road crashes only)*



Q50. What is the likelihood that you will ride again in the future? Please use a 0-10 scale where 0 is extremely unlikely and 10 in extremely likely.
Filter: On-road crashes; Not ridden again following accident; base n = 153

Males were significantly more likely than females to say that there was a high chance of them riding again (51% compared to 24% of females). Those aged 40 and over were significantly more likely to say that there was a relatively low likelihood of them riding again in the future (See Table 86).

Table 86: Likelihood to ride again in the future by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*136*	*17**	*32**	*47*	*74*	*124*	*29**
0-3 out of 10	28	47	13↓	28	39↑	30	31
4-6 out of 10	21	29	31	28	15↓	23	17
7-10 out of 10	51↑	24↓	56	45	46	47	52
Don't know	0	0	0	0	0	0	0
Refused	0	0	0	0	0	0	0

Q50. What is the likelihood that you will ride again in the future? Please use a 0-10 scale where 0 is extremely unlikely and 10 in extremely likely.
Filter: On-road crashes; Not ridden again following accident; base n = 153
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
** Note: small sample sizes*

While the sample sizes were small (n=11), the likelihood of riding again was high for off-road bike riders who had crashed on-road (73%), and for those who were riding road bikes at the time of the crash (50%). Scooter riders were significantly less likely to indicate a high likelihood of returning to riding (See Table 87).

Table 87: Likelihood to ride again in the future by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*118*	*11**	*19**
0-3 out of 10	28	9	47
4-6 out of 10	22	18	26
7-10 out of 10	50	73	26↓
Don't know	0	0	0
Refused	0	0	0

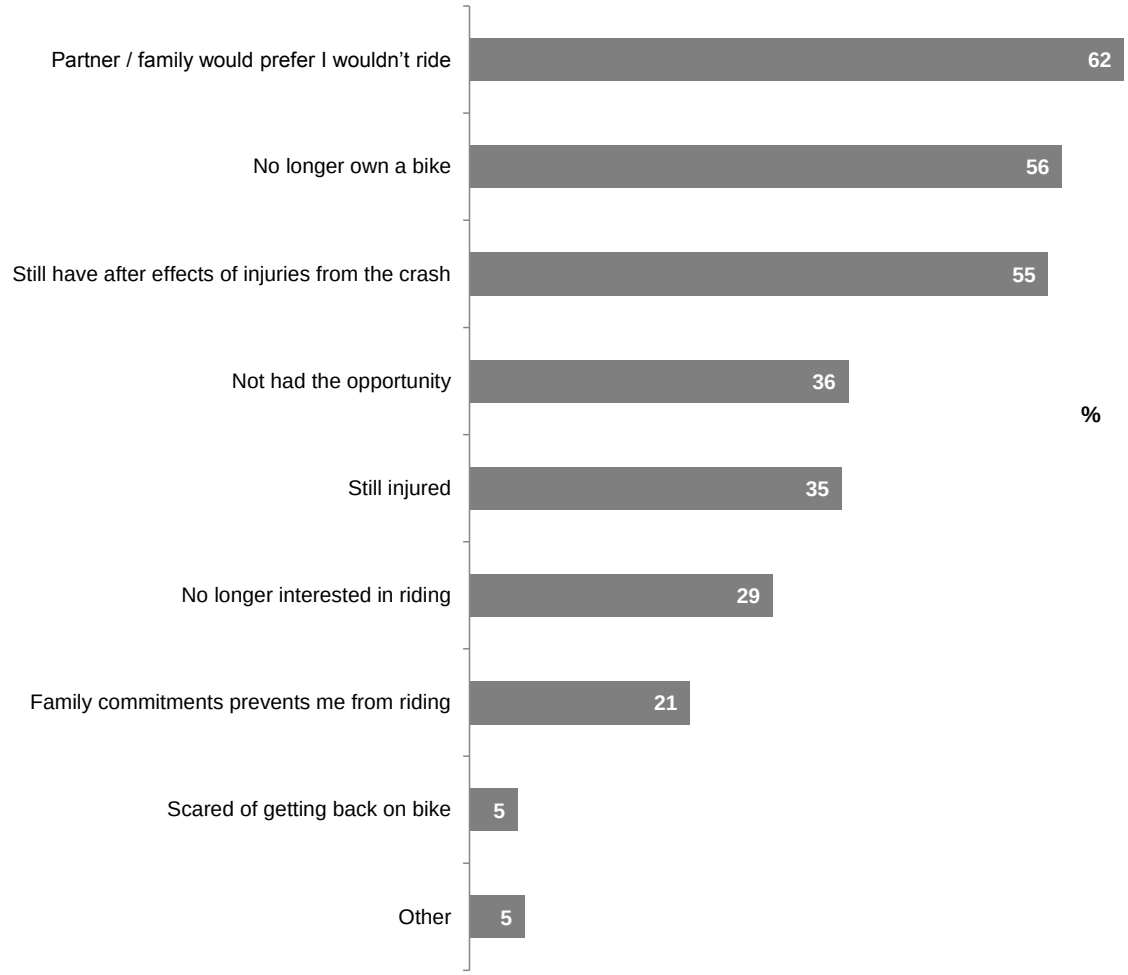
Q50. What is the likelihood that you will ride again in the future? Please use a 0-10 scale where 0 is extremely unlikely and 10 in extremely likely.
Filter: On-road crashes; Not ridden again following accident; base n = 151 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
** Note: small sample sizes*

Riders who rode 20% of the time or less prior to their crash were significantly more likely to give a lower score (0–3 out of 10) on their likelihood of riding again in the future, than those who rode more (42% vs. 19% for those who rode 81% or more of the time).

Reasons for not riding again after their crash

Respondents who were involved in an on-road crash and did not ride again following the accident gave a variety of reasons for not riding again. Sixty-two percent (62%) said that their partner and/or family preferred that they did not ride. Over half (56%) said that they no longer owned a bike. Over half of respondents were still affected by the injuries from the crash (55%) (See Figure 55).

Figure 55: Main reasons for not riding again after the crash *(on-road crashes only)*



Q49. What are the main reasons for this? Please say yes to any that apply.
Filter: On-road crashes; Not ridden again following accident; base n = 153

Those aged 26-39 years involved in an on-road crash were significantly more likely to say that their partner / family not wanting them to ride was one of the main reasons they had not ridden again (74% compared to 53% of those aged 40+ years) and family commitments prevented them from riding (40% compared to 15% of those aged 40+ years or 6% of those younger than 26).

Younger respondents (aged up to 25 years) were significantly more likely to say that they did not own a bike anymore (72% vs. 52% of those aged 26+).

Older respondents aged over 40 were significantly more likely to report that they still had the after effects of injuries from the crash (64% vs. 41% for those aged up to 25) (See Table 88).

Table 88: Main reasons for not riding again by age at accident *(on-road crashes only)*

Column %	Age (at accident)		
	Up to 25 years	26-39 years	40+ years
n=	*32**	*47*	*74*
Partner / family would prefer I wouldn't ride	66	74↑	53↓
No longer own a bike	72↑	55	50
Still have after effects of injuries from the crash	41	51	64↑
Not had the opportunity	47	38	30
Still injured	28	34	39
No longer interested in riding	22	32	30
Family commitments prevents me from riding	6↓	40↑	15
Scared of getting back on bike	0	6	5
Other	9	9	1↓
Don't know	0	0	0

Q49. What are the main reasons for this? Please say yes to any that apply.
Filter: On-road crashes; Not ridden again following accident; base n = 153
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

While the sample sizes were small (n=11), those who were riding an off-road bike at the time of the crash were significantly more likely to say that they did not ride again because they were still injured (73%). Scooter riders (n=19) were significantly more likely to say that their partner / family did not want them to ride (84%).

Less frequent riders (that is those who rode 20% of the time or less) before the crash were significantly more likely to list that their partner / family preferred them not to ride (73%); not being interested in riding anymore (44%); and family commitments (31%) as the main reasons for not riding again after their on-road crash.

On-road vs. off-road crashes

Respondents who had not ridden after their on-road crash were significantly more likely to say that no longer owning a bike was one of the main reasons for not riding again (56% vs. 29% of off-road crashes).

Things that need to happen to ride again

Getting a motorcycle was the most common thing that respondents who had crashed on-road said would need to happen for them to return to riding (29%).

Respondents who had an on-road crash were more likely to say that they would need to get a new motorcycle, compared to those who had been in an off-road crash (29% vs. 3% of off-road crashes). On the other hand, those who had an off-road crash were significantly more likely to say that they would need to gain more confidence (29% vs. 9%); not do trail riding (6% vs. 1%); or get some protective gear (6% vs. 1%) (See Table 89).

Table 89: What needs to happen to ride again by crash location *(on-road vs. off-road)*

Column %	On-road	Off-road
n=	*153*	*35**
Get a motorcycle/new motorbike/buy a new bike	29↑	3↓
Get better/no injuries/full recovery	21	34
Convince my wife to let me/my family to be OK with it/family commitments etc.	14	11
Money/get some money/money for a bike/finances etc.	12	6
Confidence/gain confidence/overcome my fear/improve psychologically etc.	9↓	29↑
Have a reason to ride/If someone asks me to go for a ride/If my friends are riding etc.	7	11
I will not ride again/I don't want to ride again	7	9
Nice weather/dry weather/summer time/good conditions/during the day etc.	5	9
Time/free time/have more time	5	6
Get more training/lessons/improve skills	5	0
In an emergency/no other transport available	4	6
Repair the bike/fix my motorcycle/get the bike roadworthy	4	0
Get a motorcycle license/get my motorcycle registered	3	3
Have a less powerful bike/get a slower bike	3	0
I have a car/prefer driving a car/having a car/deciding if it's a better alternative than a car etc.	3	0
Get bad drivers off the road e.g. Taxi drivers, not indicating, not checking blind spot, tailgating etc.	3	0
Don't know/can't remember/not answered	3	0
Live in a different area/move to the country	2	0
Injury will prevent me from riding again	1	0
Safer off-road environment/recreational area to ride	1	0
I will not do trail riding/off-road riding I will only ride on the road	1↓	6↑
Get some protective gear/new protective gear	1↓	6↑
I prefer riding in the country/I don't want to ride in the city	1	3
Other	3	3
None	1	0

Q51. What would need to happen for you to ride again?
Filter: Not ridden again following accident; base n = 188
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

Female riders were more likely than males to say that they would need to get more training (18% vs. 3%); get a motorcycle licence / registration (12% vs. 1%); have a less powerful bike (12% vs. 1%); and get some protective gear (6% vs. 0%).

Younger respondents (aged 25 years or less) were significantly more likely to say that they would need to get a new bike (56%); that they have a car (9%); and would need to live in a different area (6%).

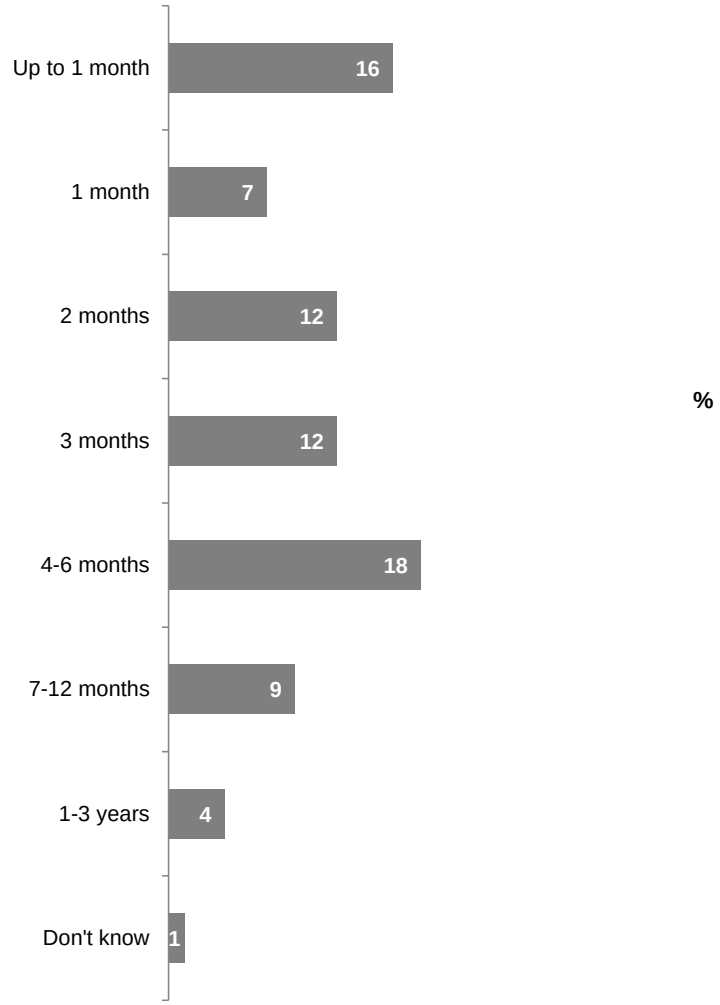
Those aged between 26-39 years were significantly more likely to say that they would have to convince their family before they could ride again (28%).

Average time between crash and riding after the crash

Overall, eight in ten (80%) respondents said they had ridden again since their crash. This included 66% who had ridden again within six months of the crash (See Figure 56). This increased to 75% of all respondents who had returned to riding within 12 months.

There were a few differences between the years in which the crashes occurred. Fewer respondents whose crash was in 2012 reported returning to riding within the first six months (75% vs. 86% for 2010/2011 crashes and 91% for 2013/2014 crashes).

Figure 56: How long after crash riding again *(on-road crashes only)*



Q52. How long after your crash did you begin to ride a motorcycle again?
Filter: On-road crashes; Ridden again following accident; base n = 610

Those involved in an on-road crash were significantly more likely to take up riding again within six months of the crash (66% vs. 57% of off-road crashes). Off-road riders were more likely to take 7-12 months before returning (17% vs. 9%) (See Table 90).

Table 90: How long after crash riding again by crash location *(on-road vs. off-road)*

Column %	On-road	Off-road
n=	*610*	*166*
Up to 6 months	66↑	57↓
7-12 months	9↓	17↑
1-3 years	4↓	7↑
Not ridden again since crash	20	17
Don't know	1	1
Refused	0	0

Q52. How long after your crash did you begin to ride a motorcycle again?
Filter: Ridden again following accident; base n = 776
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

As mentioned, those in rural Victoria were as likely to have returned to riding as those in metropolitan Melbourne (83% vs. 80% for rural Victorians). However, while there was no significant difference in how many took up riding again after six months (66% metropolitan vs. 69% for rural), rural Victorian respondents were significantly more likely to take up to a year before riding again after their crash (81% compared to 73% of Melbourne residents).

Frequency of riding after the crash

More than half (52%) of those who were involved in an on-road crash and who had started riding again rode up to two times a week. One in five (20%) reported riding at least once a fortnight or once a month since the crash.

Those who were riding road bikes at the time of the crash were significantly more likely to ride up to 1-2 times a week compared to those riding other bikes (56% compared to 31% of off-road bike riders) (See Table 91).

Table 91: Frequency of riding after the crash by type of bike riding at the time of crash *(on-road crashes only)*

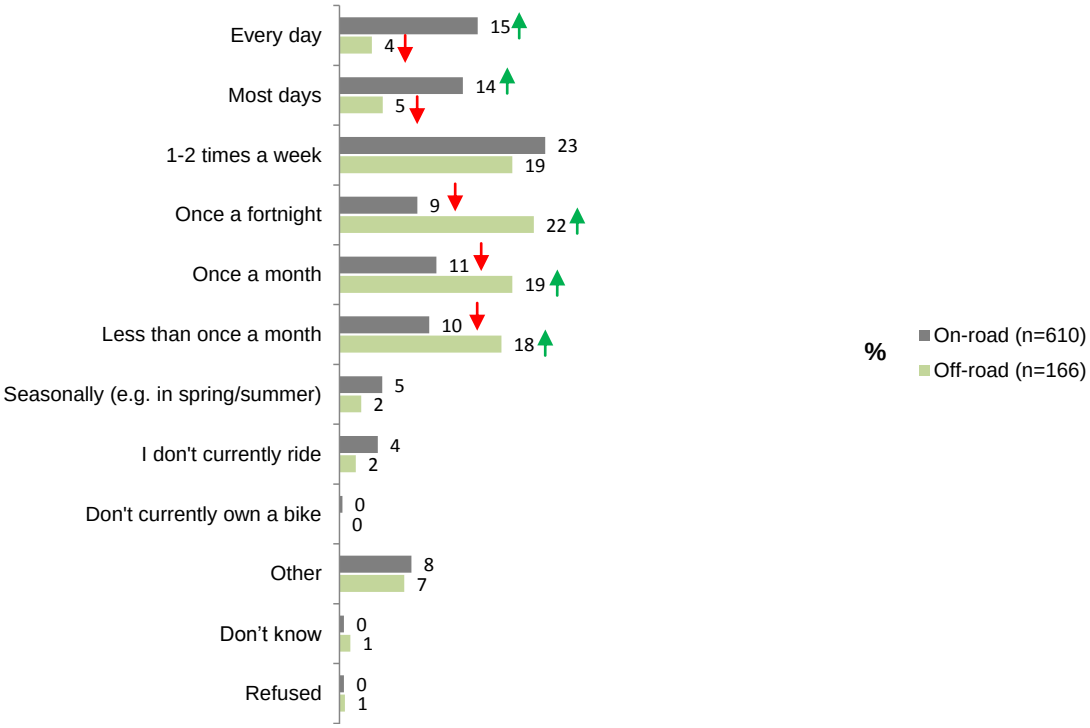
Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*442*	*103*	*55*
Every day	17	9↓	20
Most days	17↑	2↓	11
1-2 times a week	23	20	31
Once a fortnight	8	17↑	0↓
Once a month	9↓	20↑	5
Less than once a month	8↓	20↑	11
Seasonally (e.g. in spring/summer)	6	3	2
I don't currently ride	4	4	5
Don't currently own a bike	0	0	0
Other	8	5	15
Don’t know	1	0	0
Refused	1	0	0

Q55. How often would you say you ride a motorcycle now?
Filter: On-road crashes; Ridden again following accident; base n = 609 (excludes ‘other bikes’)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Those who were involved in an on-road crash and who had started riding again after the crash were significantly more likely to ride more frequently after their crash than those involved in an off-road crash, with 52% riding up to 1-2 times a week (compared with 28% of off-road crashes) (See Figure 57).

Figure 57: Frequency of riding after the crash by crash location *(on-road vs. off-road)*

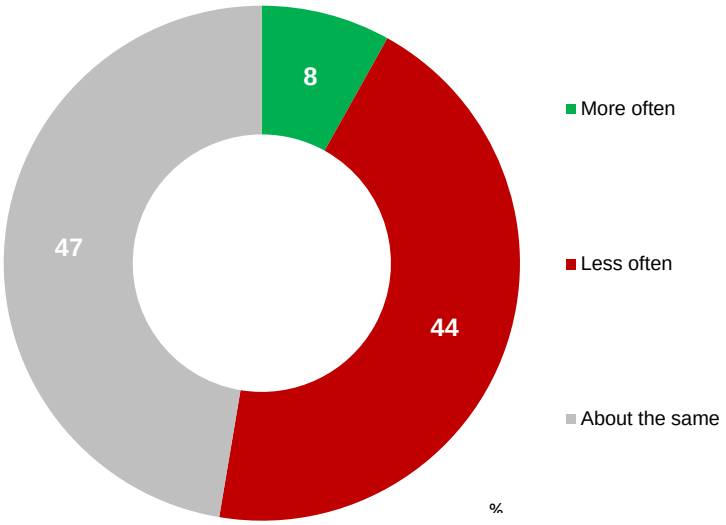


Q55. How often would you say you ride a motorcycle now?
Filter: Ridden again following accident; base n = 776
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Frequency of riding before vs. after the crash

Nearly half (47%) of riders involved in an on-road crash reported riding about the same frequency as before the crash. A similar proportion (44%) reported riding less often now than before the crash (See Figure 58).

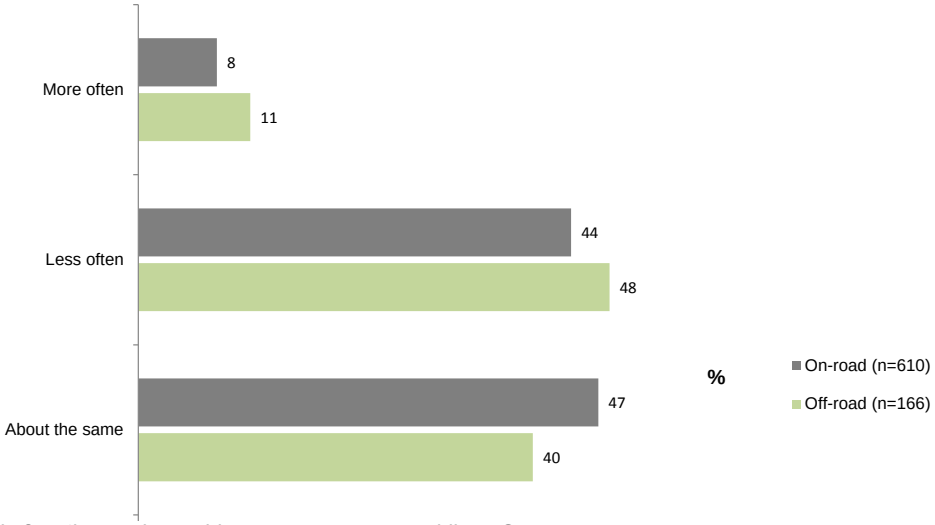
Figure 58: Riding more, less or the same after crash *(on-road crashes only)*



Q53. Compared to before the crash would you say you are now riding…?
Filter: On-road crashes; Ridden again following accident; base n = 610

There were no significant differences observed between riders who crashed on-road or off-road (See Figure 59).

Figure 59: Riding more, less or the same after crash by crash location *(on-road vs. off-road)*

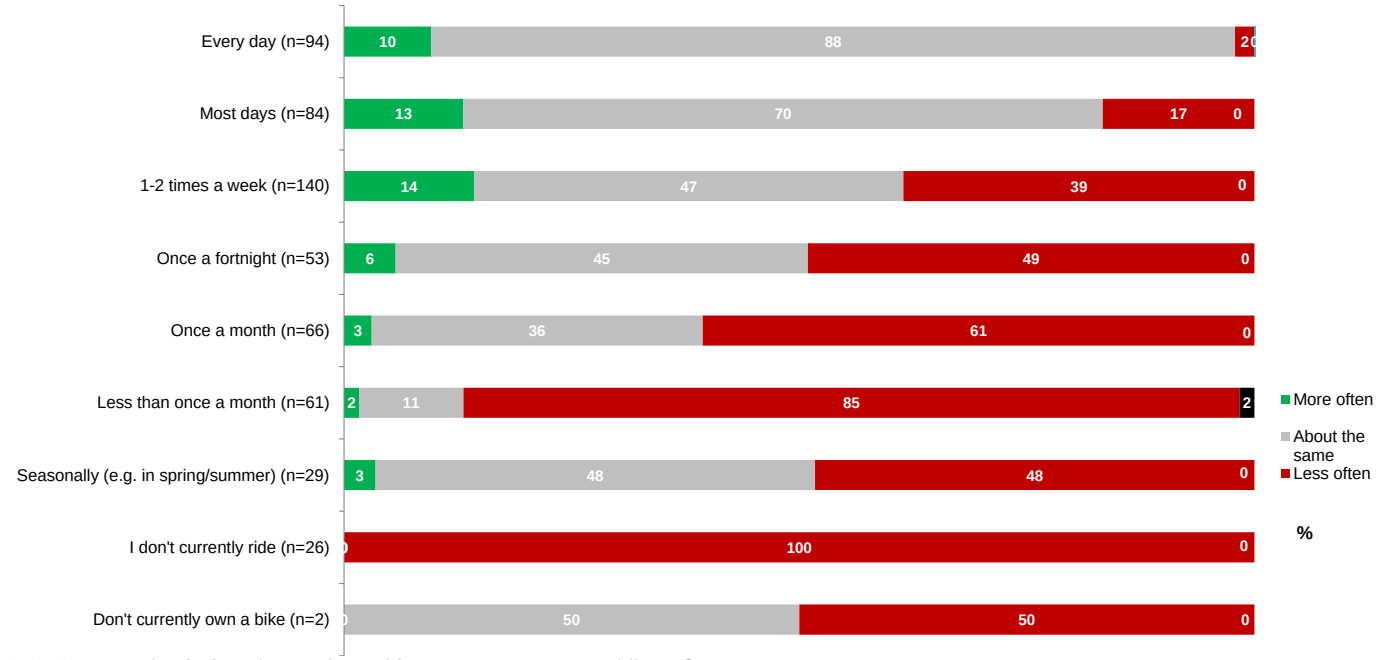


Q53. Compared to before the crash, would you say you are now riding…?
Filter: Ridden again following accident; base n = 776

Those riding most or every day after the crash were most likely to say that this was about the same frequency they were riding before the crash. For example, 88% of those who said they ride every day said this was about the same amount as before the crash.

Those riding less frequently now were more likely to say this was less than what they had been riding before the crash. For example, 61% of those who ride once a month said this was less than what they used to ride before the crash (See Figure 60).

Figure 60: Riding more, less or the same after crash by frequency of riding after the crash *(on-road crashes only)*



Q53. Compared to before the crash would you say you are now riding…?
Q55. How often would you say you ride a motorcycle now?
Filter: On-road crashes; Ridden again following accident; base n = 610

Females were significantly more likely to say that they currently don't ride (13% vs. 3% of males) and don't currently own a bike (2% vs. <1%%).

Those living in Melbourne were significantly more likely to ride every day compared to rural residents (18% vs. 9%) (See Table 92).

Table 92: Frequency of riding after the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*554*	*56*	*108*	*168*	*334*	*427*	*183*
Every day	16	9	16	15	15	18↑	9↓
Most days	14	13	19	11	13	15	12
1-2 times a week	24	16	18	23	25	22	25
Once a fortnight	9	7	8	10	8	7	12
Once a month	11	7	10	9	12	8↓	17↑
Less than once a month	10	14	9	12	9	11	8
Seasonally (e.g. in spring/summer)	5	5	4	4	6	5	4
I don't currently ride	3↓	13↑	5	6	3	4	4
Don't currently own a bike	0↓	2↑	0	1↑	0	0	1
Other	7	14	11	7	7	9	7
Don't know	1	0	1	1	0	1	0
Refused	1	0	0	1	0	0	1

Q55. How often would you say you ride a motorcycle now?
Filter: On-road crashes; Ridden again following accident; base n = 610
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who reported riding up to 1-2 times a week in the autumn or winter months before their crash were significantly more likely to say that they rode at least 1-2 times a week after their crash (54%). Riders who reported riding every day prior to their crash were also significantly more likely to say that they rode every day after their crash (37%).

Riding more or less cautiously after the crash

Around half (48%) of those involved in on-road crashes said they were riding more cautiously now than before their crash. A similar proportion reported they were riding with the same level of caution (49%).

Males were less likely to say they were riding with more caution (47% vs. 64% of females). Those aged 40+ years were more likely to say their cautiousness level had not changed (53% vs. 44% for those aged under 40).

Table 93: Whether riding more or less cautiously after the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)		Total
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural	
n=	*554*	*56*	*108*	*168*	*334*	*427*	*183*	*610*
Less cautiously	0	0	1	1	0	0	0	0
About the same	50↑	36↓	44	45	53↑	47	53	49
More cautiously	47↓	64↑	55	51	45	50	45	48
Don't know	2	0	1	3	1	2	1	2
Refused	1	0	0	1	1	1	1	1

Q54. And compared to before the crash, would you say you are now riding…?
Filter: On-road crashes; Ridden again following accident; base n = 610
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Respondents who were riding a scooter in the on-road crash were significantly more likely to ride more cautiously after their crash (64% compared to 49% for road bike riders and 40% for off-road bike riders who had crashed on-road) (See Table 94).

Table 94: Whether riding more or less cautiously after the crash by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*442*	*103*	*55*
Less cautiously	0	0	0
About the same	49	56	35↓
More cautiously	49	40	64↑
Don't know	1	4↑	0
Refused	1	0	2

Q54. And compared to before the crash, would you say you are now riding…?
Filter: On-road crashes; Ridden again following accident; base n = 609 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding alone at the time of their crash were more likely to report riding more cautiously after their crash than those who had been riding with others (52% vs. 39%) (See Table 95).

Table 95: Whether riding more or less cautiously after the crash by whether riding alone or with others *(on-road crashes only)*

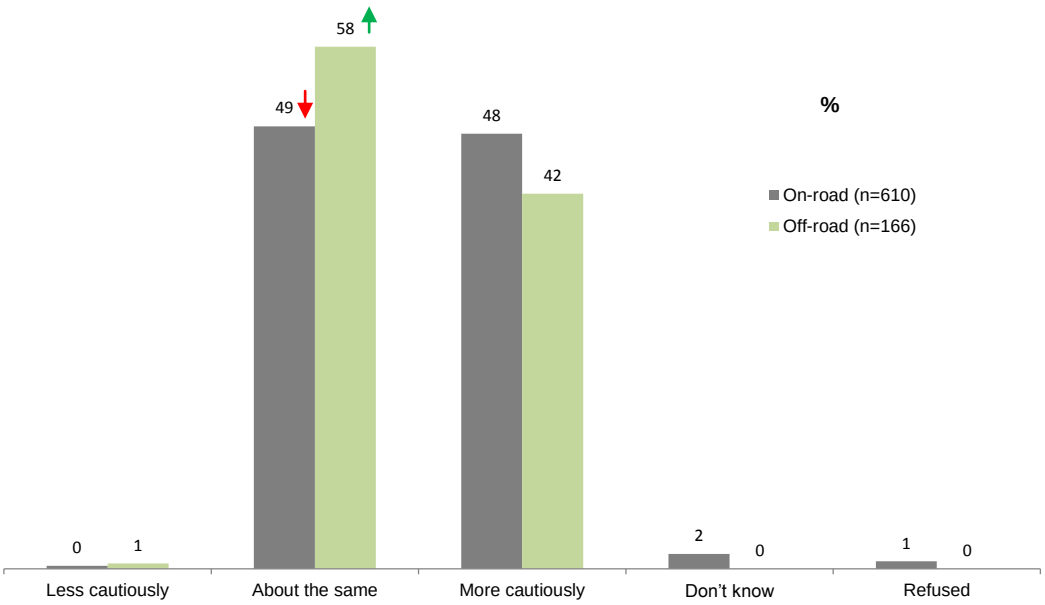
Column %	Riding alone or with others	
	Riding alone	Riding with others
n=	*428*	*181*
Less cautiously	0	0
About the same	45↓	59↑
More cautiously	52↑	39↓
Don't know	2	2
Refused	1	1

Q54. And compared to before the crash, would you say you are now riding…?
Filter: On-road crashes; Ridden again following accident; base n = from 607 to 609
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Those involved in off-road crashes were significantly more likely to say that they rode with about the same level of cautiousness as prior to the crash (58% compared to 49% of those involved in an on-road crash), with few riding more cautiously afterwards (42% vs. 48% for on-road) (See Figure 61).

Figure 61: Riding more or less cautiously after the crash by crash location *(on-road vs. off-road)*



Q54. And compared to before the crash, would you say you are now riding…?
Filter: Ridden again following accident; base n = 776

Driving more or less cautiously after the crash

Respondents were asked whether they felt their motorcycle crash had affected how they drove since the crash. Most respondents said they drove with about the same level of caution after their motorcycle crash (72%). Just over one in four (27%) reported they drove more carefully since the crash.

Respondents aged over 40 who were involved in an on-road crash were significantly more likely to say that they drove with 'about the same' amount of caution after their motorcycle crash (76% compared to 63% of those aged 25 and under).

Younger respondents aged 25 or under were significantly more likely to drive more cautiously after the crash (36% compared to 23% of those aged 40 and over) (See Table 96).

Table 96: Whether driving more or less cautiously after the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*602*	*58*	*95*	*181*	*384*	*468*	*192*
Less cautiously	0	0	0	1	0	0	0
About the same	72	74	63↓	67	76↑	70	77
More cautiously	28	26	36↑	31	23↓	29	22
I don't drive	1	0	1	1	1	0	1

Q57. And compared to before the crash has the motorcycle crash affected the way you drive any other vehicles? If you don't drive, just let me know.
Filter: On-road crashes; Time spent driving a car > 0%; base n = 660
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Off-road bike riders who had an on-road crash were significantly more likely to say that they drove with 'about the same' amount of caution after the crash (82% compared to 58% scooter riders and 71% road bike riders).

However, scooter riders were significantly more likely to say they drove more cautiously after the crash (42% compared to 18% of off-road bike riders and 28% of road bike riders) (See Table 97).

Table 97: Whether driving more or less cautiously after the crash by type of bike ridden at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*481*	*108*	*57*
Less cautiously	0	0	0
About the same	71	82↑	58↓
More cautiously	28	18↓	42↑
I don't drive	1	0	0

Q57. And compared to before the crash has the motorcycle crash affected the way you drive any other vehicles? If you don't drive, just let me know.
Filter: On-road crashes; Time spent driving a car > 0%; base n = 657 (excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those riding alone at the time of their crash were significantly more likely to say they drove more cautiously after their crash (30% compared to 22% of those who were riding with others) (See Table 98).

Table 98: Whether driving more or less cautiously after the crash by whether riding alone or with others *(on-road crashes only)*

Column %	Riding alone or with others	
	Riding alone	Riding with others
n=	*455*	*203*
Less cautiously	0	0
About the same	70	77
More cautiously	30↑	22↓
I don't drive	1	0

Q57. And compared to before the crash has the motorcycle crash affected the way you drive any other vehicles? If you don't drive, just let me know.
Filter: On-road crashes; Time spent driving a car > 0%; base n = 656 to 658
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those who had ridden since the motorcycle crash were significantly more likely to say that they drove with 'about the same' amount of caution after the crash (74% compared to 61% of those who did not ride again). Those who did not ride again after their crash were significantly more likely to say they drove more cautiously since the crash (38% compared to 25%) (See Table 99).

Table 99: Whether driving more or less cautiously after the crash by whether ridden since crash *(on-road crashes only)*

Column %	Ridden since crash	
	Yes	No
n=	*535*	*125*
Less cautiously	0	0
About the same	74↑	61↓
More cautiously	25↓	38↑
I don't drive	0	2

Q57. And compared to before the crash has the motorcycle crash affected the way you drive any other vehicles? If you don't drive, just let me know.
Filter: On-road crashes; Time spent driving a car > 0%; base n = 530 to 660
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

On-road vs. off-road crashes

Those involved in an on-road crash were more likely to drive more cautiously after the crash (27% vs. 10%).

Respondents who had an off-road crash were significantly more likely to say that they drove with 'about the same' amount of caution after the crash (90% compared to 72% of those who had an on-road crash) (See Table 100).

Table 100: Whether driving more or less cautiously after the crash by crash location *(on-road vs. off-road)*

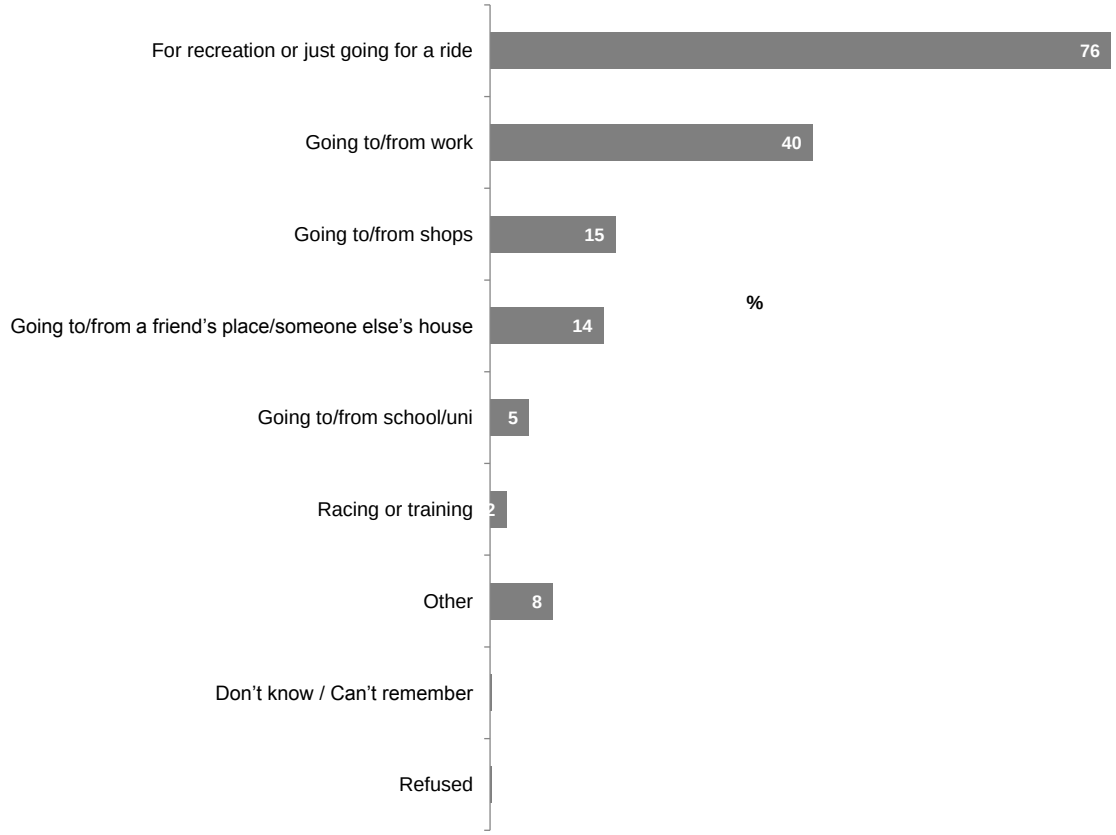
Column %	On-road	Off-road
n=	*660*	*195*
Less cautiously	0	1
About the same	72↓	90↑
More cautiously	27↑	10↓
I don't drive	1	0

Q57. And compared to before the crash has the motorcycle crash affected the way you drive any other vehicles? If you don't drive, just let me know.
Filter: Time spent driving a car > 0%; base n = 885
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Reasons for riding after the crash

Around three quarters (76%) of riders who rode again after their on-road crash reported they rode for recreational purposes. Forty percent (40%) said they were commuting by motorcycle again (See Figure 62).

Figure 62: Reasons for riding again after the crash *(on-road crashes only)*



Q56. For what reasons have you ridden?
Filter: On-road crashes; Ridden again following accident; base n = 610

Male riders were significantly more likely to have gone back to riding for recreational purposes (78% vs. 64% of females).

Those aged under 25 were more likely to list going to and from the shops (25%), going to and from a friend's house (21%) and going to and from school or university (15%) as their main riding purposes since their crash.

Rural respondents were more likely than those living in Melbourne to say that they returned to riding for recreational purposes (See Table 101).

Table 101: Reasons for riding after the crash by demographics *(on-road crashes only)*

Column %	Gender		Age (at accident)			Metro/Regional (residence)	
	Male	Female	Up to 25 years	26-39 years	40+ years	Metro	Rural
n=	*554*	*56*	*108*	*168*	*334*	*427*	*183*
For recreation or just going for a ride	78↑	64↓	80	74	76	72↓	86↑
Going to/from work	39	45	45	45	35↓	46↑	25↓
Going to/from shops	15	20	25↑	15	12↓	18↑	10↓
Going to/from a friend's place/someone else's house	14	14	21↑	15	11↓	16↑	9↓
Going to/from school/uni	5	7	15↑	6	1↓	6	2
Racing or training	2	4	4	2	1	2	3
Other	7	11	6	8	8	7	8

Q56. For what reasons have you ridden?
Filter: On-road crashes; Ridden again following accident; base n = 610
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Those who rode road bikes and off-road bikes at the time of their crash were significantly more likely to say that they rode again for recreational purposes (80% and 88% respectively, compared to 33% of scooters riders).

Road bike riders and scooter riders were significantly more likely to say that they had ridden to/from work since the crash (43% and 55% respectively, compared to 17% of off-road bike riders) (See Table 102).

Table 102: Reasons for riding after the crash by type of bike riding at the time of crash *(on-road crashes only)*

Column %	Type of bike (riding at time of crash)		
	Road bike	Off-road bike	Scooter
n=	*442*	*103*	*55*
For recreation or just going for a ride	80↑	88↑	33↓
Going to/from work	43↑	17↓	55↑
Going to/from shops	17	4↓	27↑
Going to/from a friend's place/someone else's house	15	6↓	20
Going to/from school/uni	5	2	7
Racing or training	2	5↑	0
Other	7	6	15↑
Don't know / Can't remember	0	0	2↑
Refused	0	0	0

Q56. For what reasons have you ridden?
Filter: On-road crashes; Ridden again following accident; base n = 609(excludes 'other bikes')
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

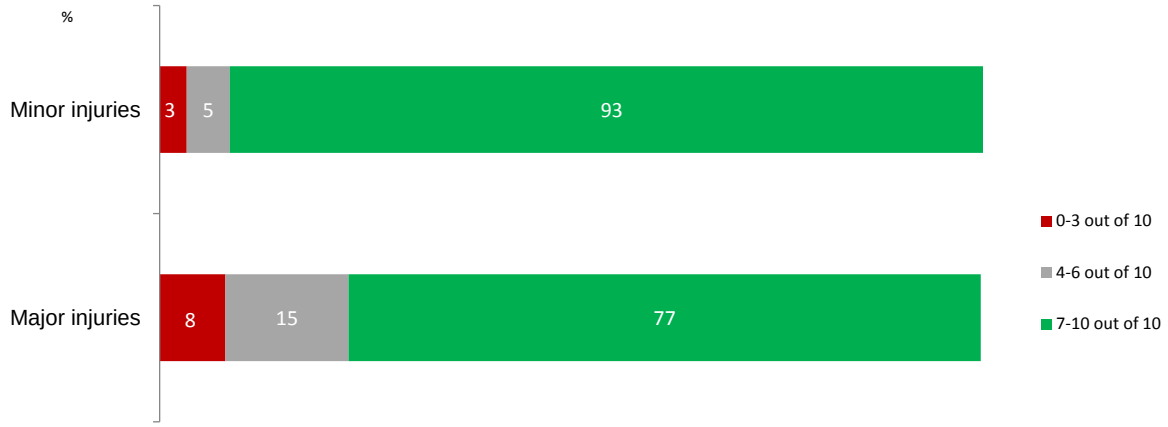
3.4.2 Getting life back on track

More than half (58%) of those who had been in an on-road crash gave a rating of 10 out of 10 as to the extent to which they have been able to 'get their life back on track' (where 0 = not at all, and 10 = completely back on track). In total, 86% reported a rating of 7–10 out of 10 in terms of getting their life back on track (See Figure 64).

Those who rode a road bike at the time of their on-road crash were significantly more likely to give a lower rating (0-3 out of 10) on their ability to 'get their life back on track' (5% compared to 1% of both off-road bike riders and scooters).

As expected, respondents who had a minor injury were more likely to report that they would be likely to get their life back on track (rating of 7-10 out of 10) compared to those who had a major injury (93% vs. 77%).

Figure 63. Ratings on getting life back on track by injury type

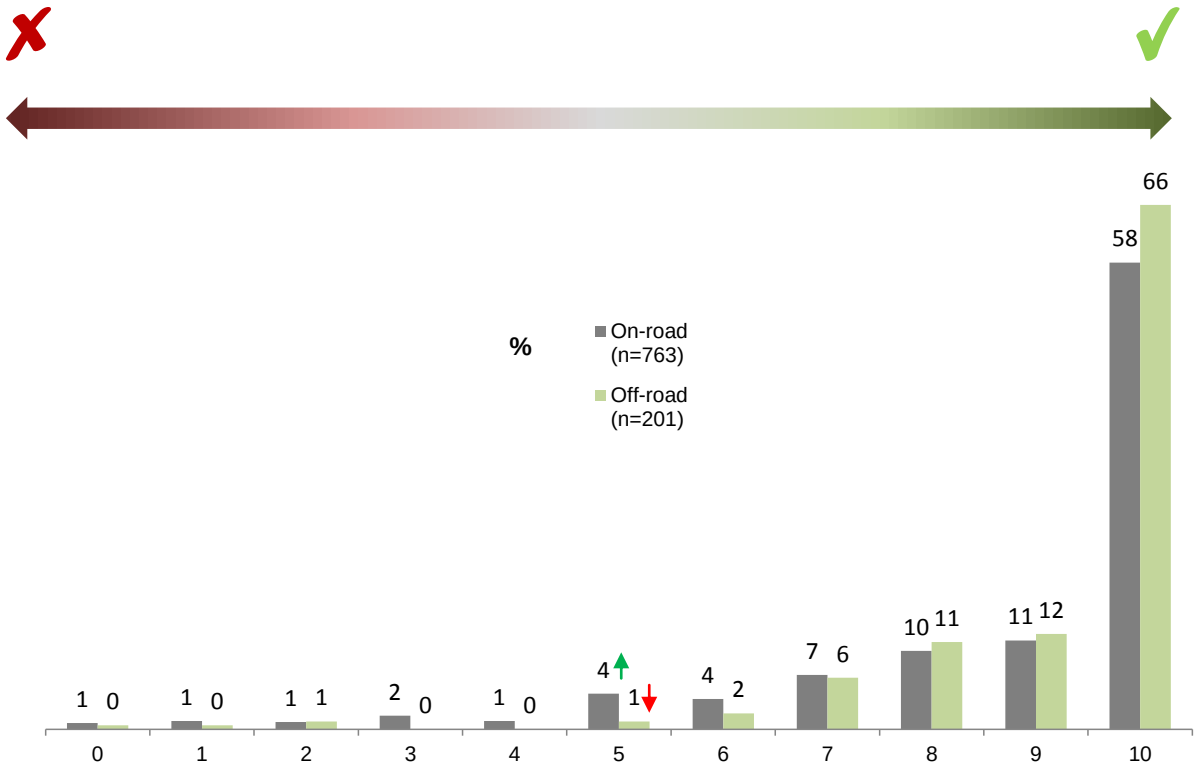


Source: VicRoads RCIS database
Filter: On-road crashes; base n = 615

On-road vs. off-road crashes

Those involved in an off-road crash were significantly more likely to give a higher rating (between 7-10 out of 10) on their ability to 'get their life back on track' following their crash (95% compared to 86% of on-road crashes) (See Figure 64).

Figure 64: Ratings on ability to 'get their life back on track' *(on-road vs. off-road)*



Q69. In other research, TAC clients often talk about trying to 'get their life back on track' following a transport crash. This can mean different things to different people. Thinking about your circumstances right now (today), how would you rate the extent to which you have been able to 'get your life back on track', on a scale from 0 to 10, where 0 means not at all, and 10 means completely back on track?
Total sample; base n = 964
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Riders who had ridden since the crash were significantly more likely to give a higher score (7-10 out of 10) on their ability to 'get their life back on track' compared to those who had not ridden since their crash (90% vs. 69%).

Those who rode at about the same frequency or more often compared to before their crash were also significantly more likely to give a higher score (93% vs. 87% of those who rode less often) (See Table 103).

Table 103: Ratings on ability to 'get their life back on track' by ridden since crash and whether riding more or less since crash *(on-road crashes only)*

Column %	Ridden since crash		Riding compared to before crash		
	Yes	No	Less often	About the same	More often
n=	*610*	*153*	*270*	*287*	*49*
0-3 out of 10	3↓	10↑	5↑	1↓	2
4-6 out of 10	7↓	20↑	8	6	4
7-10 out of 10	90↑	69↓	87↓	93↑	94

Q69. In other research, TAC clients often talk about trying to 'get their life back on track' following a transport crash. This can mean different things to different people. Thinking about your circumstances right now (today), how would you rate the extent to which you have been able to 'get your life back on track', on a scale from 0 to 10, where 0 means not at all, and 10 means completely back on track?
Filter: On-road crashes; base n = from 604 to 763
*↓↑ indicates statistically significant difference compared to respondents **not** in that category*

Reasons for the rating

Respondents were asked to give reasons for their rating regarding their ability to get their life back on track. A list of these reasons is provided in Table 104.

Those who believed they were 'on track' (86%, providing ratings of 7-10 out of 10) were most likely to say it was because their injuries had been minor or they managed to walk away (22%); that they were healing or had fully recovered (21%), or were back at work / the crash had not disrupted their work too much (15%).

Thirteen percent (13%) of those who reported being back on track said that the crash was not a major one and that it had little impact on their life. A further 13% reported they had recovered emotionally. As to the respondents who were not back on track in their opinion (5%, who provided a rating 0-3 out of 10), the most common reason was that they were not fully healed; were in pain; or had permanent injuries because of the crash (64%). A further 30% said that it had affected their work life and 21% reported that there was financial pressure as a result of the crash.

One in three (30%) said they had not recovered their confidence or recovered emotionally after the crash and 15% reported that life was not the same.

Table 104: Reasons for the rating by ratings on ability to 'get their life back on track' *(on-road crashes only)*

Column %	0-3 out of 10	4-6 out of 10	7-10 out of 10
n=	*33**	*71*	*655*
Subtotal – positive reasons	**6↓**	**10↓**	**73↑**
Minor injury/no major injuries/no permanent injuries/I survived/I walked away from it	0↓	0↓	22↑
I'm healing/I've had surgery/I'm good physically/I've gotten over the injuries/I've fully recovered	0↓	1↓	21↑
I can work/I'm back at work/it didn't disrupt work too much/work was supportive	0↓	1↓	15↑
It wasn't a major crash/the accident wasn't that bad/the crash didn't affect me/had no impact on my life	0↓	0↓	13↑
I'm fine/good/life is good/recovered emotionally	0↓	1↓	13↑
Life goes on/just get on with it/get on with life/accidents happen/move on/don't let it get you down	0	3	8↑
Everything is back to normal/have gone back to what I normally do/life is back no normal	0	0	5↑
I'm riding again/I got my bike fixed/I got a new bike/I can still ride my motorcycle	0	0	5↑
I was never off track/my life wasn't off track/my life is back on track	0	1	5
My attitude/positive attitude/my will to get back up/pick myself up/will learn from this	3	0	5
Positive comments towards TAC e.g. They were good, supportive, helped me financially etc.	3	1	4
Good medical treatment/doctor/physiotherapy/rehabilitation etc.	3	0	4
I can do what I want to do/I can play sport/I can do physical activity etc.	0	0	3
I have had support/help from/motivated by friends/partner/family	0	0	3
I was covered/I had insurance/financially good	0	0	2
No issues/no issues after crash	0	0	1
Subtotal – negative reasons	**97↑**	**93↑**	**37↓**
I'm not fully recovered/I'm in pain/I have not healed/need surgery/I have permanent injuries	64↑	56↑	24↓
It's affected work/had to take time off work/I can't go back to work/I can't work	30↑	32↑	5↓
Mentally I'm bad/I have not recovered emotionally/confidence is poor/I'm now more cautious	30↑	20↑	5↓
Financial pressure/loss of income/cost of medical expenses/no insurance/no pay out etc.	21↑	13↑	2↓
Life is not the same/It's effected my life/impairs on day to day life	15↑	6↑	0↓
I can't do basic tasks/there are things I can't do e.g. Basic movement, mobility, walking, lifting, cleaning, gardening etc.	15↑	7	4↓
It has affected my family/relationship	12↑	3	1↓
It's affected my social life/lifestyle	9↑	1	0↓
I can't do as much physical activity/play sport/run/pursue my hobbies etc.	6	11↑	4↓
It's affected my riding/I'm not riding/I can't ride/I don't have a bike/I don't want to ride	3	7	4

Column %	0-3 out of 10	4-6 out of 10	7-10 out of 10
n=	*33**	*71*	*655*
Poor medical treatment/doctor/ongoing physiotherapy/rehabilitation etc.	6	0	2
Negative comments towards TAC e.g. They didn't help me, poor service, no coverage etc.	6	6↑	1↓
I can't get back on track/I can't get my life back on track	0	0	0
Subtotal – neutral reasons	**3**	**3**	**9↑**
Nothing has changed/everything is the same/nothing has changed in my life/nothing is different etc.	3	0↓	9↑
Injury (no further information)	0	3↑	0↓
Other	0	3	2
Don't know/can't remember/not answered	3↑	1	0↓

Q70. And what are the main reasons for that rating?
Q69. In other research, TAC clients often talk about trying to 'get their life back on track' following a transport crash. This can mean different things to different people. Thinking about your circumstances right now (today), how would you rate the extent to which you have been able to 'get your life back on track', on a scale from 0 to 10, where 0 means not at all, and 10 means completely back on track?
Filter: On-road crashes; base n = 759 (excludes 'don't know/refused' responses)
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*
**Note small sample size*

3.4.3 Employment before and after the crash

Employment status

The majority (99%) of all respondents were currently employed (self-employed/full-time/part-time or casual).

Eighty percent (80%) of those who had been in an on-road crash reported their employment status had not changed since the crash (See Table 105).

Younger respondents aged under 25 were significantly more likely to have a changed employment status (36% compared to 14% of those aged 40 and over).

On-road vs. off-road crashes

Those involved in an on-road crash were significantly more likely to have a changed employment status since their crash compared to those in off-road crashes (20% compared to 12%).

Table 105: Whether employment status is the same as prior to crash by crash location *(on-road vs. off-road)*

Column %	On-road	Off-road
n=	*632*	*187*
Yes	80↓	88↑
No	20↑	12↓
Don't know	0	0
Refused	0	0

Q66. Is this the same as before your crash?
Filter: Excludes 'don't know' and 'refused' employment statuses; base n = 819
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Main paid occupation

Four in five (80%) of respondents in paid employment said their job was the same as it was prior to the crash.

Older respondents aged 40 years or older were significantly more likely to have the same job before and after the crash (85% compared to 69% of those aged 25 years or younger).

On-road vs. off-road crashes

Riders involved in off-road crashes were significantly more likely to have the same main paid occupation as before their crash (88% compared to 80% of on-road crashes) (See Table 106).

Table 106: Whether main paid occupation is the same as prior to crash by crash location *(on-road vs. off-road)*

Column %	On-road	Off-road
n=	*629*	*187*
Yes	80↓	88↑
No	19↑	12↓
Don't know	0	0
Refused	0	0

Q68. Is this the same as before your crash?
Filter: Excludes 'don't know' and 'refused' employment descriptions; Total sample; base n = 816
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Non-working respondents

Seventeen percent (17%) of those involved in on-road crashes were not currently working.

Of those who were not currently working, just over a quarter (26%) reported that they were temporarily unable to work due to the accident. Nearly two thirds (65%) said they were not working for 'some other reason' (See Table 107).

Table 107: Non-employed status *(on-road crashes only)*

	%
n=	*130*
Permanently unable to work due to the accident	8
Temporarily unable to work due to the accident	26
Not working for some other reason	65
Don't know	1
Refused	0

Q62. Just to confirm, which one of the following best describes your current position?
Filter: On-road crashes; Not currently working; base n = 130
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Based on the supplementary data related to the crashes from the VicRoads database, respondents who reported that they were temporarily unable to work due to the crash were more likely to have been involved in a serious injury accident, compared to those who said they were not working for some other reason (73% vs. 40%).

Reasons for not working

Over half (51%) of the respondents involved in an on-road crash said they were not currently working due to retirement. A further 13% were students (See Table 108).

Table 108: Reasons for not working *(on-road crashes only)*

	%
n=	*84*
Retired	51
Student	13
Home duties/caring for children	6
Doing voluntary or community work or	4
A carer for another person	2
Not needing to work	2
Something else	20
Refused	1
Don't know	0

Q64. And you would currently regard yourself as…?
Filter: On-road crashes; Not currently working for some other reason; base n = 84
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Plans to return to work

Nearly three in five (58%) respondents who were not currently working said that they had plans to return to work or seek employment at some stage.

While the sample sizes were small, females were more likely to say they were planning on going back to work (91% vs. 54% of males); as were those aged up to 39 (97% vs. 44% of those aged 40+ years).

3.5 Client suggestions for improving motorcycle rider safety

Respondents involved in an on-road crash were asked to give suggestions for the improvement of motorcycle rider safety at the location of the crash. Improving road conditions and signage at the location were the most common suggestions.

On-road crash respondents were most likely to suggest improving driver awareness of motorcycles and educating them about motorcycles. Improving rider training in general, and at the learner level, were also mentioned as suggestions for improving motorcycle safety overall.

Improving motorcycle rider safety at crash location

Improving road conditions at the site of the crash (16%) was the most common suggestion on how rider safety could be improved at the specific location of the crash.

Improving the signage (7%) or installing traffic lights (2%) were also common themes.

Lighting conditions were mentioned by 6% of all those who had crashed on-road. Four percent (4%) reported that the speed limit in the area should be reduced (See Table 109).

Table 109: Suggestions for motorcycle rider safety improvement at the location of crash *(on-road crashes only)*

	%
n=	*763*
Suggestions for improvement on location of crash (subtotal)	**39**
Improve road conditions/surface (e.g. grading, widening)	16
Improve signage/road signage/more signage/better signage	7
Improve lighting/more lighting/better street lighting/Improve visibility/better visibility	6
Reduce speed/slow down/more speed bumps/reduce speed limit	4
Improve road design/widen the road/address blind corners etc.	4
Install traffic lights/change the traffic lights/traffic light instead of give way sign	2
It's a bad intersection/the intersection needs to be redone/the intersection has a lot of crashes	2
Cut back trees from the road/clear bushes/keep the debris clear of the road	2
Tram tracks are dangerous/remove tram tracks/tram line maintenance could be improved	2
Remove barriers/fences/rails etc.	1
Prevent animals going on the road e.g. Fences, culling etc.	1
Not have cars parked on the side of the road	1
More barriers/fences/rails etc.	1
Dedicated motorcycle lane/filter lane/allow lane splitting	1
General suggestions not relevant to location of crash (subtotal)	**7**
Wearing the right gear/wearing protective gear/wearing high vision gear etc.	1
More training/education for drivers and riders	2
Obeying the road rules/police presence/better road patrolling/enforce speeding etc.	1
More awareness from car drivers/drivers need to be aware of riders	1
Keep your distance/keep more distance between vehicles	1
Be careful/concentrate/pay more attention/do the right thing	3
Awareness/awareness in that area/be aware of the conditions	1
More advertising/awareness campaigns	0

Table 109 cont…: Suggestions for motorcycle rider safety improvement at the location of crash *(on-road crashes only)*

	%
Non suggestions responses (subtotal)	**21**
It was my fault/rider error/riders poor riding	2
It was their fault/it was the drivers error/drivers poor driving	3
It was an accident/bad luck/human error/weather that caused it etc.	3
It was a mechanical failure/problem with the bike	1
They were an idiot/you can't account for idiots	1
Concerns about older drivers/riders e.g. Need retesting	0
Other	3
Don't know/can't remember/not answered	1
Not at this location/no problems at this location/it's safe at this location/nothing you can do/action has been taken at this location etc.	12
None	34

Q58. Do you have any suggestions on how motorcycle rider safety at the location of your crash can be improved?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

Improving motorcycle rider safety generally

Respondents involved in an on-road crash were asked to give suggestions for the improvement of motorcycle rider safety in general. The most common themes included generally promoting driver awareness of motorcycles (17%) or educating motorists about motorcycle riders, for example making them do a motorcycle test or learn to ride a motorcycle (12%). General awareness of motorcycles in the community was mentioned by 6% of respondents.

More training for riders in general (11%) and better training for learners specifically (10%) was also mentioned by those who had crashed on-road.

Fourteen percent (14%) mentioned protective gear, including suggestions to make it compulsory, or to subsidise gear as a way to improve motorcycle rider safety. An additional 7% mentioned that high visibility gear should be worn by motorcyclists.

Table 110: Suggestions for motorcycle rider safety improvement generally *(on-road crashes only)*

	%
n=	*763*
Driver awareness/more awareness from drivers/car drivers need to look out for motorcycles	17
Wear protective gear/subsidise safety gear/compulsory protective gear when riding	14
Education for car drivers/better education for motorists regarding bikes (e.g. make drivers do a motorcycle test/learn to ride)	12
Training/ courses / education for motorcyclists/riders	11
Education for learners/more training for learners/a more difficult learners test	10
Riders being more cautious/ride sensibly/keep alert/watch the road/concentrate/be cautious	9
Visibility of motorcyclists/wear high vis gear/make high vis gear mandatory/don't wear dark clothing	7
Awareness/everyone on the road needs to be more aware/awareness of motorcyclists on the roads for everyone	6
More campaigns/advertising about motorcycle rider safety	5
Improve road surfaces/better roads/repair pot holes etc.	3
Rider awareness/increased awareness from riders	2
Training/ courses for drivers	3
General training/courses	2
People need to head check/check their mirrors/check blind spots	2
Education/more education/education on the responsibilities of the road	1
Not putting in wired rope barriers/removing wired rope barriers	1
Lane splitting was made legal/legalise lane filtering	3
Improved features on motorcycles (e.g. blind spot mirrors, ABS brakes, better tyres, indicators)	3
Loud bikes/loud exhausts permitted (make it easier to hear bikes coming/take notice of them)	3
Police/more policing/enforce the law/stop people using mobile phones while driving etc.	3
Gain experience/ride with experienced people if you're learning	2
Separate motorcycle lane/bike lane	2
Improved safety features on cars e.g. Blind spot sensors, cameras etc.	1
Limitations on high powered motorcycles/New riders to have low powered bikes	1
Turn headlights on/bikes should have their headlights on all the time	1
Signage/more signs	0
Non suggestions responses (subtotal)	5
Don't speed/slow down	3
Positive comments towards TAC e.g. They do a good job, provide information, education etc.	1
Keep the idiots off the road	1
It is unsafe/It will always be unsafe	0
It's up to the individual/the person riding	2
None	17
Other	5
Don't know/can't remember/not answered	2

Q59. And do you have any suggestions on how motorcycle rider safety could be improved generally?
Filter: On-road crashes; base n = 763
↓↑ *indicates statistically significant difference compared to respondents **not** in that category*

3.6 Profile of on-road crash respondents

For on-road crashes, there were no participants under the age of 18. Eighteen percent (18%) were aged 18-25 years at the time of the crash. This compares to only 6% of those with a motorcycle licence or registration falling in this age group in 2014[2]. Just over a quarter (28%) were aged 26-39 years old and more than half (53%) were aged 40 years old and above.

On par with VicRoads licence and registration data, nine in ten respondents who had an on-road crash were male (90% vs. 88% in the population).

Seventy-two percent (72%) of respondents lived in metropolitan Melbourne. In comparison, 62% of all motorcycle licence and registration holders in 2014 lived in metropolitan Melbourne.

Table 111: Demographics (on-road crashes only)

Age at time of accident	
Below 18 years old	<1%
18-25 years old	18%
26-39 years old	28%
40 years old and above	53%
Gender	
Male	90%
Female	10%
Location (sample)	
Metro	72%
Rural	28%

Filter: On-road crashes; base n = 763

[2] *Based on VicRoads 2014 statistics for motorcycle licence and registration holders*

Most of those who had crashed on-road had been riding a road bike (73%) including 25% who were riding a sports bike, and 23% who were riding a tourer/cruiser motorcycle. Fifteen percent (15%) said they had been riding an off-road bike at the time and a further 10% had been riding a scooter. This matched closely to the type of bike they usually rode prior to the crash. In total, 81% of respondents were riding the same category of motorcycle at the time of the crash as they did prior to the crash.

The frequency of riding compared to driving prior to the crash was varied – 39% rode up to 20% of the time, whereas 23% reported they mainly rode their motorcycle 80% of the time or more compared to driving.

More than three quarters (79%) of those who had an on-road crash said they rode recreationally on-road, followed by two-thirds (68%) who said they rode for commuting purposes. One in four (26%) said they rode recreationally off-road in the 12 months prior to the crash.

Table 112: Ownership and usage *(on-road crashes only)*

Type of motorcycle ridden at the time of the crash	
Off-road bike/trail bike	15%
Subtotal Road bikes (exc. Scooters)	73%
- Sports bike	25%
- Sports tourer	15%
- Dual sport	4%
- Tourer/cruiser	23%
- Other type of road bike	2%
Scooter	10%
Other type of bike	2%
Time spent riding vs. driving prior to the crash	
Up to 20% of the time	39%
Between 20% to 80% of the time	37%
More than 80% of the time	23%
Time spent riding for commuting vs. recreation prior to the crash	
Commuting purposes (going to work, study, shops)	68%
Recreation on-road (public roads, highways, freeways)	79%
Recreation off-road (tracks in state forests, parks or on private property)	26%
Don't know/refused	1%

Filter: On-road crashes; base n = 763

Four in ten (43%) of the respondents' crashes were in 2013 or 2014, which is a function of prioritising the more recent crashes during data collection.

On-road crashes were most likely to occur in the autumn months (September to November, 32%), closely followed by summer (December to February, 28%). Only 18% of crashes occurred in winter (June to August).

Table 113: Accident date *(on-road crashes only)*

Accident year	
2010	7%
2011	24%
2012	26%
2013	36%
2014	8%
Accident month	
January	9%
February	9%
March	10%
April	11%
May	11%
June	6%
July	5%
August	6%
September	6%
October	8%
November	9%
December	10%

Filter: On-road crashes; base n = 763

Appendices

Questionnaire

MOTORCYCLE CLIENT RESEARCH 2014

Job Name	Motorcycle Client Research
Client	Transport Accident Commission
Date	19 August 2014
Authors	Julie Young, Winnie Wong

SECTION A: SCREENER QUESTIONS

HQ1 [GENDER – FROM SAMPLE - DO NOT ASK]
{SINGLE RESPONSE}

Male	1
Female	2

SQ1 Could you please tell me your age?
{SINGLE RESPONSE}
[READ OUT ONLY IF NECESSARY 1-8]
[NOTE IF PREFER NOT TO SAY – CAN I CONFIRM YOU ARE 18 OR OVER?]

13 years and under [GO TO TEXT BELOW]	1
14-17 years [MUST SPEAK TO PARENT OR GUARDIAN FOR CONSENT FIRST]	2
18-24 years	3
25-34 years	4
35-44 years	5
45-54 years	6
55-64 years	7
65+ years	8
[DNRO] I'd prefer not to say (but over 18)	99

[IF SQ1 = 1: THANK YOU FOR AGREEING TO TAKE PART. UNFORTUNATELY WE ARE LOOKING TO SPEAK TO PEOPLE AGED OVER 14]

[IF SQ1 = 2: THANK YOU FOR AGREEING TO TAKE PART. BEFORE WE GO ANY FURTHER, COULD I PLEASE SPEAK TO YOUR PARENT OR GUARDIAN?
- GO TO UNDER 18 INTRO TO PARENT / GUARDIAN]

CONFIRMING DETAILS OF CRASH

Throughout this survey, we will be asking you about your crash but if there is anything you do not feel comfortable talking about or do not remember, that is okay, just let me know.

SQ2 Based on the information we have, you were involved in a motorcycle related crash in [INSERT <MONTH OF CRASH> AND <YEAR OF CRASH> FROM SAMPLE FILE]. Is this right?

[PROBE IF DATE INCORRECT OR WHETHER NOT IN ACCIDENT AT ALL]

[DNRO]

Yes, been in a motorcycle crash AND date is correct	1
Involved in a motorcycle crash BUT INCORRECT DATE	2
Not involved in a crash involving a motorcycle at all [THANK YOU AND TERMINATE]	97

[IF SQ2= 97: THANK YOU FOR AGREEING TO TAKE PART. UNFORTUNATELY WE ARE LOOKING TO SPEAK TO PEOPLE WHO HAVE BEEN IN A MOTORCYCLE CRASH]

[IFSQ2 = 2 (INVOLVED IN CRASH BUT INCORRECT DATE)]

[PROBE FOR ONLY MONTH OR YEAR IF THEY CAN ONLY REMEMBER ONE OF IT]

SQ3 Can you tell me what month and year the motorcycle crash happened?

DROP DOWN MONTH	1
DROP DOWN YEAR	2
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

SQ4 Were you riding the motorcycle during the crash?

[DO NOT READ OUT]

Yes	1
No, I was the pillion passenger during the crash [THANK YOU AND TERMINATE]	2

[IF SQ4 = 2: THANK YOU FOR AGREEING TO TAKE PART. UNFORTUNATELY WE ARE LOOKING TO SPEAK TO PEOPLE WHO WERE RIDING THE MOTORCYCLE DURING THE CRASH]

[ASK ALL]

[if no location of crash from sample file, skip to Q2]

Q1 BASED ON THE INFORMATION WE HAVE, THE LOCATION OF THE CRASH WAS AT [INSERT <LOCATION OF CRASH> FROM SAMPLE FILE]. IS THIS RIGHT?

Yes	1
No	2

[IF Q1 = 2 (LOCATION INCORRECT), OR LCTY FROM SAMPLE = BLANK (NO LOCATION)]

Q2 Can you please tell me where the crash occurred? This does not have to be specific; your best description the suburb or area of where it happened is okay

[INTERVIEWER NOTE: WE ARE LOOKING FOR A LOCATION, NOT NECESSARILY AN EXACT STREET ADDRESS]

LOCATION OF CRASH (OPEN-ENDED)	1

PRE-CRASH RIDING CHARACTERISTICS

[ALL]

Before we talk about the crash itself, we have a few questions to understand what type of rider you were before the crash:

[ASK ALL]

Q3 What type of motorcycle did you ride most often before the crash?

[READ OUT]

INTERVIEWER NOTE: A POSTIE BIKE IS A ROAD BIKE OTHER

{SINGLE RESPONSE}

Off road bike/trail bike	1
Sports bike	2
Sports tourer	3
Dual sport	4
Tourer/cruiser	5
Scooter	6
Other type of **road** bike [SPECIFY]	96
Other type of bike [SPECIFY]	97
Don't know/ can't remember [DO NOT READ OUT]	98
Refused [DNRO]	99

Q4 Thinking about your time spent riding and driving in the **12 months before the crash**, approximately what percentage of the time would you say you rode a motorcycle (on or off-road) compared to driving a car? *Please answer in percentages*

[INTERVIEWER NOTE: RIDE A MOTORCYCLE MUST BE MORE THAN 0%; DRIVING CAN BE 0%]
[PROGRAMMING INSTRUCTION –[USE TALLY TO SHOW WHEN TOTAL EQUALS 100%; RIDING A MOTORCYCLE MUST BE >0% BUT DRIVING >=0%)

1	Drive a car	INSERT NUMBER
2	Ride a motorcycle	INSERT NUMBER
	TOTAL	3
	Don't know/can't remember [DNRO]	98
	Refused [DNRO]	99

Q5 Which of the following best describes your motorcycle riding history before the crash?

[READ OUT]

{SINGLE}

Before the crash, I had never had a break from riding since learning to ride	01
Before the crash, I had been on a break and had started riding again	02
Refused [DNRO]	99

[IF Q5 =2 HAD A BREAK FROM RIDING]

Q6 How long was the break? Please answer in months **or** years

[DNRO]

{INTEGER} – TO INCLUDE DECIMALS IF NEEDED EG. 2.5 MONTHS

Months	INSERT

OR

Years	INSERT

OR

Don't know/can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q5 =2 HAD A BREAK FROM RIDING]

Q7 Can you tell me what month and year you started riding again?

DROP DOWN MONTH	1
DROP DOWN YEAR	2

Don't know/can't remember [DNRO]	98
Refused [DNRO]	99

[ASK ALL]

Q8 How often would you say you rode a motorcycle in the spring or summer months before your crash?

[DO NOT READ OUT – PROMPT IF NECESSARY]

{SINGLE}

Every day (5+ days a week)	1
Most days (3-4 times a week)	2
1-2 times a week	3
Once a fortnight	4
Once a month	5
Less than once a month	6
I did not ride in the spring or summer months before the crash	7
Don't know/can't remember [DNRO]	98
Refused [DNRO]	99

Q9 How often would you say you rode a motorcycle in the autumn or winter months before your crash?

[DO NOT READ OUT – PROMPT IF NECESSARY]

{SINGLE}

Every day (5+ days a week)	1
Most days (3-4 times a week)	2
1-2 times a week	3
Once a fortnight	4
Once a month	5
Less than once a month	6
I did not ride in the autumn or winter months before the crash	7
Don't know/can't remember [DNRO]	98
Refused [DNRO]	99

Q10 In the last 12 months before your crash, approximately what percentage of the time did you ride in the following categories? **Please exclude any riding you might do for work purposes**

Please provide your answers in percentages. We have three broad categories…

[IF NECESSARY, PROVIDE THE SUBTOTAL]
[PLEASE ENSURE THAT PERCENTAGE OF TIME IF ASKED]

1	Commuting purposes (going to work, study, shops)	%
2	Recreation on-road (public roads, highways, freeways)	%
3	Recreation off-road (tracks in state forests, parks or on private property)	%
	Total [PROVIDE TALLY FOR INTERVIEWERS]	100 %

Don't know /can't remember [DNRO]	98
Refused [DNRO]	99

CRASH CIRCUMSTANCES

Now, we are moving on to talking about the crash and the circumstances around it, but if there is anything you do not feel comfortable talking about or do not remember, that is okay, just let me know.

Q11 Firstly, what type of motorcycle were you riding at the time of the crash?

[READ OUT – SINGLE RESPONSE]
INTERVIEWER NOTE: A POSTIE BIKE IS AN OTHER TYPE OF ROAD BIKE

Off road bike/trail bike	1
Sports bike	2
Sports tourer	3
Dual sport	4
Tourer/cruiser	5
Scooter	6
Other type of road bike [SPECIFY]	96
Other type of bike [SPECIFY]	97
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

Q12 Which of the following best describes the reason you were riding at the time of your crash?

[READ OUT – SINGLE RESPONSE]

Going to/from work	1
Going to/from school/uni	2
Going to/from shops	3
Going to/from friend's place/someone else's house	4
Learning to ride	5
For recreation or just going for a ride	6
Other [SPECIFY]	96
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

Q13 At the time of your crash, were you riding alone or with other riders?
[DO NOT READ OUT – SINGLE RESPONSE]
[INTERVIEWER NOTE: PROBE FOR HOW MANY OTHERS IF NOT RIDING ALONE]

Riding alone	1
Riding with 1 other rider (2 riders in total)	2
Riding with 2-3 other riders (3-4 riders in total)	3
Riding with 4-6 other riders (5-7 riders in total)	4
Riding with 7 or more riders (8 or more riders in total)	5
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

Q14 Where did the crash occur?
[READ OUT – SINGLE RESPONSE]
[IF OTHER – PROBE IF IT WAS ON-ROAD OR AN OFF ROAD AREA/SURFACE]

Sealed road in a built-up area	1
Sealed road in a rural area	2
Sealed road on a private property	3
Public unsealed road	4
Track in state park, forest etc.	5
Private property	6
Public land in residential areas (e.g. park, reserve, track)	7
Other on-road surface/area [SPECIFY] [DNRO]	96
Other off-road surface/area [SPECIFY] [DNRO]	97

Q15 Can you briefly describe to me what happened?

OPEN-ENDED

[READ OUT]
Now, we have a few questions about some of the details of the crash. Some of these you might have already mentioned in your description but we just need to make sure we've covered some of the specific details of the crash.

Q16 Apart from yourself, were there any other parties (that is passengers (pillion riders), other vehicles or pedestrians etc.) involved in the crash?
[DNRO]
[SINGLE RESPONSE]

Yes	1
No	2
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

Q17 The next question is about your perception of who was responsible for your accident. If you do not wish to answer this question I can move on. Would you say you were….?
(READ OUT)
[SINGLE RESPONSE]

Not responsible at all for the accident	1
Partially responsible for the accident, or	2
Totally responsible for the accident	3
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

[ASK IF Q17 = 1 OR 2]

Q18 Was another **person** [IF Q17 =2 DISPLAY: partially] responsible for the accident?

(DO NOT READ OUT)

[SINGLE RESPONSE]

Yes	1
No	2
Other (SPECIFY)	96
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

ON ROAD CRASH CIRCUMSTANCES

[IF Q14 = 1-4 OR 96 (ON ROAD CRASH) AND Q16 = 1 (OTHER PARTIES INVOLVED)]

Q19 Did your crash involve…

[READ OUT]

{MULTIPLE RESPONSE}

A moving vehicle(s) or a vehicle(s) that was stopped in traffic	1
A parked vehicle	2
No other vehicle involved	97
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

[ASK IF Q19=1 – INVOLVED MOVING VEHICLE]

Q20 Did you or your motorcycle and the other vehicle make direct contact?

[DNRO]

{SINGLE RESPONSE}

Yes	1
No	2
Don't know/ Can't remember [DNRO]	98
Refused [DNRO]	99

[ASK IF Q20=1 – CONTACT WITH MOVING VEHICLE]

Q21 And which of the following best describes the crash?

[READ OUT – MULTIPLE RESPONSE]

[INTERVIEWER NOTE: INTERSECTIONS ALSO INCLUDE T INTERSECTIONS]

Hit from behind by a vehicle (in the same lane)	1
Hit the back of a vehicle (in the same lane)	2
Hit on the side/side-swiped/due to lane change or being cut-off (by a vehicle from a different lane)	3
Hit by vehicle that was exiting/entering car park or driveway	4
Other vehicle failed to give way at an **intersection**	5
You failed to give way at **an intersection**	6
It was a head on collision (vehicles were in opposing directions but not in an intersection)	7
Other (SPECIFY)	96
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q14 = 1-4 OR 96 (ON ROAD CRASH)]

Q22 What did your **motorcycle** collide with at the time of the crash?
(PROMPT IF NECESSARY)
[DO NOT READ OUT]
[MULTIPLE RESPONSE]

A tree/bush	1
A pole	2
Road side barriers	3
Fence	4
A vehicle (i.e. the primary vehicle in the crash)	5
Another vehicle in traffic (i.e. a secondary vehicle not the main vehicle in the crash)	6
Something else [SPECIFY]	96
Did not collide with anything else	97
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q22=3 COLLIDED WITH BARRIERS]

Q23 And what type of barrier was it?
[DO NOT READ OUT]
[MULTIPLE RESPONSE]

Wire rope barrier / Wire cable barrier	1
Concrete barrier	2
Metal traffic barrier / W-beam / W-barrier / Armco barrier	3
Steel rail	4
Something else [SPECIFY]	96
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

Q24 Did your **body** collide with anything at the time of the crash?
(PROMPT IF NECESSARY)
[DO NOT READ OUT]
[MULTIPLE RESPONSE]

A tree/bush	1
A pole	2
Road side barriers	3
Fence	4
A vehicle (i.e. the primary vehicle in the crash)	5
Another vehicle in traffic (i.e. a secondary vehicle not the main vehicle in the crash)	6
Something else [SPECIFY]	96
Did not collide with anything else	97
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q24=3 (HIT ROAD SIDE BARRIER)]

Q25 And what type of barrier is that?

[DO NOT READ OUT]

[MULTIPLE RESPONSE]

Wire rope barrier / Wire cable barrier	1
Concrete barrier	2
Metal traffic barrier / W-beam / W-barrier / Armco barrier/	3
Steel rail	4
Something else [SPECIFY]	96
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q14 = 1-4 OR 96 (ON ROAD CRASH)]

Q26 What were the main reasons you crashed your motorcycle or what would you say caused your crash?

[DO READ OUT – MULTIPLE RESPONSE PROMPT IF NECESSARY]

Animal or insect	1
Blind corner on the road (not being able to see around a corner)	2
Corner on a road/cornering	3
Doing stunts/tricks	4
Lapse in concentration	5
Level of traffic congestion	6
Mechanical failure of the motorcycle	7
Other driver/other person's error	8
Own mistake/error	9
Poor visibility due to too much or too little light	10
Poor visibility due to weather conditions	11
Riding too fast	12
Road conditions	13
Steep road	14
Trees (e.g. fallen logs, overhanging branches)	15
Weather conditions	16
Tired/fatigue	17
Other [SPECIFY]	97
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

OFF ROAD CRASH CIRCUMSTANCES

[IF Q14 = 5-7 OR 97 (OFF ROAD CRASH) AND Q16 = 1 – (OTHER PARTIES INVOLVED)]

Q27 And did your crash involve...

[READ OUT – MULTIPLE RESPONSE]

Another motorcycle going in the same direction as you	1
Another motorcycle going in the opposite direction as you (i.e. coming towards you)	2
Another vehicle going in the same direction as you	3
Another vehicle going in the opposite direction as you (i.e. coming towards you)	4
Pedestrian/cyclist	5
Something else [SPECIFY]	96
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q14 = 5-7 OR 97 (OFF-ROAD CRASH)]

Q28 What were the main reasons you crashed your motorcycle or what would you say caused your crash?

[DO READ OUT – MULTIPLE RESPONSE; PROMPT IF NECESSARY]

Animal or insects	1
Blind corner on the track (not being able to see around a corner on the track)	2
Corner on the track/cornering	3
Doing stunts/tricks	4
Lapse in concentration	5
Mechanical failure of the motorcycle	7
Other driver/other rider's error	8
Own mistake/Rider error	9
Poor visibility due to the weather conditions	10
Poor visibility due to too much or too little light	11
Riding too fast	12
Steep track	13
Track/trail conditions	14
Trees (e.g. overhanging branches)	15
Weather conditions	16
Tired/fatigue	17
Other [SPECIFY]	96
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q14= 14 (TRACK / TRAIL CONDITIONS CAUSED THE CRASH)]

Q29 What was it about the track or trail conditions that caused your crash?

[DNRO]

[MULTIPLE RESPONSE]

Narrow track	1
Muddy	2
Gravel / sandy	3
Rocks	4
Tree roots, fallen branch/ log	5
Water on the track / Water bar	6
Other [SPECIFY]	96
Don't know/ can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q14 = 5-7 OR 97 (OFF ROAD CRASH)]

Q30 Did your motorcycle collide with any of the following at the time of the crash? Please answer Yes for any that apply

[READ OUT MULTIPLE RESPONSE]

[RANDOMISE]

[CODE 4 TO BE MUTUALLY EXCLUSIVE]

A tree/bush	1
Fence	2
Rocks	3
Just hit the ground/did not collide with anything [ANCHOR]	4
Something else [SPECIFY] [ANCHOR]	96

[IF Q14 = 5-7 OR 97 (OFF ROAD CRASH)]

Q31 Did your body collide with any of the following at the time of the crash? Please answer Yes for any that apply

[READ OUT MULTIPLE RESPONSE]

[RANDOMISE]

[CODE 4 TO BE MUTUALLY EXCLUSIVE]

A tree/bush	1
Fence	2
Rocks	3
Just hit the ground/did not collide with anything [ANCHOR]	4
Something else [SPECIFY] [ANCHOR]	96

[ASK ALL]

Q32 To what extent do you agree or disagree with the following statements?

[RANDOMISE STATEMENTS]

		Strongly disagree	Somewhat disagree	Neither	Somewhat agree	Strongly agree	Don't know [DNRO]	Refused [DNRO]
1	I knew the crash area well	01	02	03	04	05	98	99
2	I was very familiar with the motorcycle I was riding at the time of the crash	01	02	03	04	05	98	99
3	If I was riding more slowly, I could have done something to avoid the crash	01	02	03	04	05	98	99
4	I was tired/fatigued at the time of the crash	01	02	03	04	05	98	99
5	There was nothing I could have done to prevent the crash	01	02	03	04	05	98	99
6	I was tense or stressed at the time of the crash	01	02	03	04	05	98	99

ROAD AND WEATHER CONDITIONS

[IF Q14 = 1-4 OR 96 (ON ROAD CRASH)]

Q33 How would you describe the traffic conditions at the time you had your crash?

[READ OUT]

[SINGLE RESPONSE]

Congested, stop-start traffic / or bumper to bumper traffic	1
Heavy traffic, flowing well	2
Medium traffic	3
Low numbers of vehicles	4
Don't know / can't remember [DNRO]	97
Refused [DNRO]	99

[IFQ14 = 5-7 OR 97 OFF-ROAD ACCIDENT]

Q34 Were there other four wheel or off-road riders or pedestrians where in the area where you were riding?

[MULTIPLE RESPONSE]

Yes, off-road motorcycles apart from myself/ my group	1
Yes, other four-wheel drive vehicles	2
Yes, other pedestrians where I was riding	3
No other people/vehicles where I was riding	4
Any other users of the area where you were riding [SPECIFY]	96
Don't know / can't remember [DNRO]	98

[IFQ34 = 1 OTHER OFF ROAD RIDERS]

Q35 Were there...

Five or more other off-road riders apart from yourself/ your group, or	1
Four or less other off-road riders apart from yourself/ your group	2
Don't know / can't remember [DNRO]	98

[IFQ34 = 2 (OTHER FOUR WHEEL VEHICLES)]

Q36 Were there...

[READ OUT – RANDOMISE]

Five or more four-wheel drive vehicles in the area you were riding or	1
Four or less four-wheel drive vehicles	2
Don't know / can't remember [DNRO]	98

[IFQ14 = 5-7 OR 97 OFF-ROAD ACCIDENT]

Q37 How would you describe the track/terrain where you were riding? For example was it a hilly course with lots of turns?

[DO NOT READ OUT - MULTIPLE RESPONSE]

Hilly	1
Steep inclines	2
Gravel / sandy	3
Muddy	5
Grassy/ fields	6
Water on the track/ shallow water	7
Trees bushes around	8
Lots of turns/corners	9
Dry dirt track	10
Other characteristics of the track/terrain [SPECIFY]	96
Don't know/can't remember [DNRO]	99

[ASK ALL]

Q38 How would you describe the visibility or light conditions at the time of your crash?

[READ OUT – MULTIPLE RESPONSE]
[CAN ONLY SELECT CODE 1 OR 2 OR 3 – MUTUALLY EXCLUSIVE]
[CAN ONLY SELECT CODE 6 OR 7 OR 8 – MUTUALLY EXCLUSIVE]

Clear day, no cloud or light cloud cover only – sun glare	1
Clear day, no cloud or light cloud cover only – riding from sun into shade	2
Clear day, no cloud or light cloud cover	3
Daytime, overcast	4
Low light (dawn or dusk)	5
Night, no street lighting	6
Night, poor street lighting	7
Night, good street lighting	8
Foggy	9
Other [SPECIFY]	10
Don't know / Can't remember [DNRO]	97

[ASK ALL]

Q39 How would you describe the weather conditions at the time of your crash?

(INTERVIEWER NOTE: IF RESPONSE IS 'RAIN', TRY TO DETERMINE HOW HEAVY BY READING OUT CODES 6-8.)
[DNRO - MULTIPLE RESPONSE]
[CAN ONY SELECT CODE 6 OR 7 OR 8]

Clear	1
Overcast	2
Fog	3
Windy	4
Frosty	5
Light Rain	6
Moderate rain	7
Heavy rain	8
Had been raining but stopped / ground was wet from rain	9
Ground was wet from dew (but not rain)	10
Other (SPECIFY)	96
Don't know / Can't remember [DNRO]	98
Refused [DNRO]	99

PROTECTIVE GEAR DURING CRASH

[ASK ALL]

Q40 Were you wearing any of the following items at the time of your crash? Say yes to any that apply

[READ OUT]

[PLEASE DO NOT READ CODE 7 (ONE PIECE RIDING SUIT) IF CODE 4 (MOTORCYCLE RIDING JACKET) OR CODE 5 (MOTORCYCLE RIDING PANTS IS ANSWERED)]

[MULTIPLE RESPONSE]
[PROGRAMMING CAN ONLY BE CODE 1 OR 2 OR 11 NOT BOTH]
[PROGRAMMING CAN ONLY BE CODE 4 OR 7 NOT BOTH]
[PROGRAMMING CAN ONLY BE CODE 5 OR 7 NOT BOTH]

Motorcycle helmet (full face)	1
Motorcycle helmet (open face)	2
Motorcycle helmet (half face)	11
Motorcycle riding gloves	3
Motorcycle riding jacket	4
Motorcycle riding pants	5
Body armour	6
One piece riding suit (This is a suit where parts cannot be detached to be worn as separate pieces)	7
Riding boots specifically made for motorcycling	8
Other boots (i.e. boots that cover your ankles)	9
Other footwear such as sneakers or other shoes	10
Don't know/Can't remember [DNRO]	98
Refused [DNRO]	99

[ASK ALL]

Q41 Were you wearing any of the following items of impact protection / body armour at the time of your crash? This includes body armour that forms part of other gear i.e. inside a jacket etc. Please say yes to any that apply.

[READ OUT]

[MULTIPLE RESPONSE]

Riding jacket with built-in impact protection	1
Riding pants with in-built impact protection	2
Chest protector/roost guard (separate item)	3
Back protector (separate item)	4
Elbow guards (separate item)	5
Body armour kit / One piece body armour/pressure suit (covering chest, back, shoulders, elbows)	6
Neck brace	7
Knee braces	8
Knee guards	9
Other body armour [PLEASE SPECIFY]	96
Not wearing body armour / impact protection [DNRO]	97
Don't know/Can't remember [DNRO]	98
Refused [DNRO]	99

Q42 Were you wearing anything reflective or "high vis" at the time of your crash?
[DNRO – MULTIPLE RESPONSE]

Yes, High vis	1
Yes, something reflective	2
None of the above	3
Don't know/Can't remember [DNRO]	98
Refused [DNRO]	99

Q43 Were you or another rider in your group carrying any of the following items at the time of your crash? Please say yes to any that apply
[READ OUT; MULTIPLE RESPONSE]

Personal locator beacon (or EPIRB) (Emergency Position-Indicating Radio Beacon)	1
Satellite messaging device	2
Satellite phone	3
VHF radio	4
UHF radio	5
Mobile phone	6
GPS	7
Other communication devices (Specify)	96
Don't know/Can't remember [DNRO]	99

OTHER CONTRIBUTING FACTORS

I am going to ask you about some other factors that may have contributed to your crash – but again, if there is anything you do not feel comfortable talking about or do not remember, that is okay, just let me know.

Q44 Would you say you were distracted by anything immediately before your crash?
[DNRO– SINGLE RESPONSE]

Yes	1
No	2
Don't know/Can't remember [DNRO]	98
Refused [DNRO]	99

[IF Q44=1 – DISTRACTED BY SOMETHING]

Q45 Briefly, can you tell me what were you distracted by?
(INTERVIEWER NOTE: Open ended response. Do not prompt. Brief response ONLY 1-5 words)

OPEN ENDED

Q46 Had you been drinking alcohol in the three hours prior to your crash? If you prefer not to say, just let me know
[DNRO– SINGLE RESPONSE]

Yes	1
No	2
Don't know/Can't remember [DNRO]	98
Prefer not to say [DNRO]	99

[IF Q46=1 – IF HAD ALCOHOL]

Q47 Roughly how many standard drinks did you have over the 3 hours prior to your crash? If you prefer not to say, just let me know
(INTERVIEWER NOTE: If required explain that 1 standard drink would be approximately 1 pot/half-pint of beer, 1 small glass of wine, 1 shot glass of spirits)

ENTER NUMBER (SPECIFY)	96
Don't know/Can't remember [DNRO]	98
Prefer not to say [DNRO]	99

POST CRASH

Now I am going to ask you some questions about riding following your crash.

We do not know your personal situation or anything about your injuries from the crash and we understand the following questions may be sensitive. If the questions don't apply to your situation, you do not have to answer any of these questions if you wish. Just let me know.

[ASK ALL]

Q48 Have you ridden a motorcycle again following your crash?

[DNRO– SINGLE RESPONSE]

Yes	1
No	2
Refused [DNRO]	99

[IF Q48=2 – NOT RIDDEN AGAIN FOLLOWING ACCIDENT]

Q49 What are the main reasons for this? Please say yes to any that apply

[READ OUT – MULTIPLE RESPONSE]

Still injured	1
Still have after effects of injuries from the crash	2
No longer interested in riding	3
No longer own a bike	4
Not had the opportunity	5
Family commitments prevents me from riding	6
Partner / family would prefer I wouldn't ride	7
Other (SPECIFY)	96
Don't know [DNRO]	99

[If Q48=2 – NOT RIDDEN AGAIN FOLLOWING ACCIDENT]

Q50 What is the likelihood that you will ride again in the future? Please use a 0-10 scale where 0 is extremely unlikely and 10 is extremely likely.

Extremely unlikely										**Extremely likely**	**Don't know**	**Refused**
0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**98**	**99**

[IF Q48=2 – NOT RIDDEN AGAIN FOLLOWING ACCIDENT]

Q51 What would need to happen for you to ride again?

[PROBE FULLY]

[OPEN ENDED]

[IF Q48=1 –RIDDEN AGAIN FOLLOWING ACCIDENT]

Q52 How long after your crash did you begin to ride a motorcycle again?

Days (SPECIFY)	1

OR

Months (SPECIFY)	2

OR

Years (SPECIFY)	3

Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q48=1 –RIDDEN AGAIN FOLLOWING ACCIDENT]

Q53 Compared to before the crash would you say you are now riding…?

[READ OUT– SINGLE RESPONSE]

More often	1
Less often	2
About the same	3
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q48=1 –RIDDEN AGAIN FOLLOWING ACCIDENT]

Q54 And compared to before the crash, would you say you are now riding. ?

[READ OUT– SINGLE RESPONSE]

More cautiously	1
Less cautiously	2
About the same	3
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q48=1 –RIDDEN AGAIN FOLLOWING ACCIDENT]

Q55 How often would you say you ride a motorcycle now?

[DO READ OUT– SINGLE RESPONSE – PROMPT IF NECESSARY]

Every day	1
Most days	2
1-2 times a week	3
Once a fortnight	4
Once a month	5
Less than once a month	6
Seasonally (e.g. in spring/summer)	7
Other [SPECIFY]	96
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q48=1 –RIDDEN AGAIN FOLLOWING ACCIDENT]

Q56 For what reasons have you ridden?

[DO NOT READ OUT– MULTIPLE RESPONSE]

Going to/from work	1
Going to/from school/uni	2
Going to/from shops	3
Going to/from a friend's place/someone else's house	4
Racing or training	5
For recreation or just going for a ride	6
Other [SPECIFY]	96
Don't know / Can't remember [DNRO]	97
Refused [DNRO]	99

~~[IF Q4_2<100% (RIDE MOTORCYCLE LESS THAN 100% OF THE TIME)]~~

[IF Q4_1>0% (TIME SPENT DRIVING A CAR > 0%)]

Q57 And compared to before the crash has the motorcycle crash affected the way you drive any other vehicles? If you don't drive, just let me know.
Would you say since the crash you drive…?

[READ OUT– SINGLE RESPONSE]

More cautiously	1
Less cautiously	2
About the same	3
I don't drive [DO NOT READ OUT]	4
Don't know [DO NOT READ OUT]	98
Refused [DO NOT READ OUT]	99

SUGGESTIONS FOR IMPROVEMENTS

[IF Q14 = 1-4 OR 96 (ON ROAD CRASH)]

Q58 Do you have any suggestions on how motorcycle rider safety at the location of your crash can be improved?

[OPEN ENDED]

[IF Q14 = 1-4 OR 96 (ON ROAD CRASH)]

Q59 And do you have any suggestions on how motorcycle rider safety could be improved generally?

[OPEN ENDED]

[IFQ14 = 5-7 OR 97 OFF-ROAD CRASH]

Q60 What, if anything, do you believe should be changed or introduced to make motorcycling off-road safer?

[OPEN ENDED]

DEMOGRAPHICS

We are nearly finished with the survey. We just have a few questions to help us with the analysis:

[ASK ALL]

Q61 Are you currently working? By that I mean do you do any paid work in a job, business or farm?

[INTERVIEWER NOTE: WORKING STILL INCLUDES THOSE ON MATERNITY LEAVE/LONG SERVICE LEAVE]

Yes	01
No	02
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q61 = 2 (NOT CURRENTLY WORKING), ASK]

Q62 Just to confirm, which one of the following best describes your current situation?

[SINGLE RESPONSE]

(READ OUT)

Permanently unable to work due to the accident	01
Temporarily unable to work due to the accident, or	02
Not working for some other reason	03
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q62 = 2 OR 3 NOT CURRENTLY WORKING, NOT PERMANENTLY UNABLE TO WORK DUE TO ACCIDENT]

Q63 Do you plan to return to work / seek employment at some stage?

[SINGLE RESPONSE]

[DNRO]

Yes	01
No	02
Don't know [DNRO]	98
Refused [DNRO]	99

[IF 62 = 3 (NOT CURRENTLY WORKING FOR SOME OTHER REASON), ASK]

Q64 And would you currently regard yourself as…

(READ OUT)

[SINGLE RESPONSE]

Retired	01
Home duties/caring for children	02
A carer for another person	03
Student	04
Not needing to work	05
Doing voluntary or community work or	06
SOMETHING ELSE (PLEASE SPECIFY)	96
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q61 = 1 (CURRENTLY WORKING), ASK]

Q65 How would you describe your employment status? Say yes to any that apply

[READ OUT– MULTIPLE RESPONSE]

Employed full-time	01
Employed part-time or casual	02
Self-employed	03

Retired	04
Home duties/caring for children	05
A carer for another person	06
Student	07
Doing voluntary or community work or	08
SOMETHING ELSE (PLEASE SPECIFY)	96
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q65 = 1-96]

Q66 Is this the same as before your crash?

[SINGLE RESPONSE]

[DNRO]

Yes	01
No	02
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q61 = 1 (CURRENTLY WORKING), ASK]

Q67 How would you describe your main paid occupation?

[DO NOT READ OUT– SINGLE RESPONSE – PROBE AND CLARIFY IF NECESSARY]

Managers and administrators *For example: Hospitality, retail and service managers, Specialist managers, Farmers and farm managers, Chief executives, General managers and legislators*	1
Professionals & Associate professionals *For example: Legal, social and welfare professionals, ICT professionals, Health professionals, Education professionals, Design, engineering, science and transport professionals, Business, human resource and marketing professionals, Arts and media professionals*	2
Technicians and trade workers *For example: Other technicians and trades workers, Skilled animal and horticultural workers, Food trades workers, Electro-technology and telecommunications trades workers, Construction trades workers, Automotive and engineering trades workers, Engineering, ICT and science technicians*	3
Clerical and administrative workers *For example: Other clerical and administrative workers, Clerical and office support workers, Numerical clerks, Inquiry clerks and receptionists, General clerical workers, Personal assistants and secretaries, Office managers and program administrators*	4
Community and personal service workers *For example: Sports and personal service workers, Protective service workers, Hospitality workers, Carers and aides, Health and welfare support workers*	5
Sales workers *For example: Sales support workers, Sales assistants and salespersons, Sales representatives and agents*	6
Machinery operators and drivers *For example: Store person, Road and rail drivers, Mobile plant operators, Machine and stationary plant operators*	7
Labourers and related workers *For example: Food preparation assistants, Farm, forestry and garden workers, Factory process workers, Construction and mining labourers, Cleaners and laundry workers*	8
Other (PLEASE SPECIFY)	96
Don't know [DNRO]	98
Refused [DNRO]	99

[IF Q67 = 1-96]

Q68 Is this the same as before your crash?

[DO NOT READ OUT]

Yes	01
No	02
Refused [DNRO]	99

[ASK ALL]

Q69 In other research, TAC clients often talk about trying to *'GET THEIR LIFE BACK ON TRACK'* following a transport crash.

This can mean different things to different people. Thinking about your circumstances right now (today), how would you rate the extent to which you have been able to 'get your life back on track', on a scale from 1 to 10, where 1 means not at all, and 10 means completely back on track?

INSERT NUMBER 1-10	

Don't know [DNRO]	98
Refused [DNRO]	99

[ASK ALL]

Q70 And what are the main reasons for that rating?

(PROBE: ANYTHING ELSE?)

[OPEN ENDED]	01
Don't know [DNRO]	98
Refused [DNRO]	99

SKETCHING THE CRASH (ALL CLIENTS TO BE INFORMED):

Lastly, it is important for this research that the TAC has a reasonable level of detail of your crash circumstances and what happened.

While we have covered a lot of information about the crash in the survey with you, we would also like to ask if you could provide a detailed sketch of your crash.

We will be sending everyone who takes part, a letter, with some stationary and a reply paid envelope with instructions of what should be included in the sketch of the crash, such as the roads, the point of impact, the directions people were travelling, any footpaths, parked cars, and so on.

This is voluntary but we'd appreciate it if you could take the time to sketch details of the crash as this would help us with getting your point of view of what happened and add value to the findings.

If you would not like us to send the sketch letter and stationary pack to you, please just let me know.

Q71 Can you please confirm your postal address for me so we can send this material to you?

Is your address? [READ OUT]

STREET 1 [FROM SAMPLE]
STREET 2 [FROM SAMPLE]
SUBURB [FROM SAMPLE]
STATE [FROM SAMPLE]
POSTCODE [FROM SAMPLE]

Are these details correct?

Yes	1
No	2
Don't want to take part in sketch [DNRO]	99

Q72 [IF Q71=2] Could you tell me the right details for us to send the material to you?

TYPE - STREET 1
TYPE - STREET 2
TYPE - SUBURB
TYPE - STATE
TYPE - POSTCODE

Refused [DO NOT READ OUT]	99

[SQ1 = 3-99 – AGED OVER 18]

Q73 Thank you <INSERT FIRST NAME>.

Your story and experiences are important to the TAC and we were wondering if you would be willing to be recontacted about other research that the TAC may be undertaking?

[IF NECESSARY: SOMETIMES THE TAC CONDUCTS OTHER RESEARCH OVER THE TELEPHONE, ONLINE AND SOMETIMES IN PERSON OR IN A FOCUS GROUP.]

Yes	01
No	02
Not this year	03
Other (SPECIFY)	96
Refused	99

IF Q73= 1 IF YES]:

Q74 In that case, I will pass your name, number and email address to the TAC. What will happen is that your name will be kept on a list and a couple of times a year a sample of people on the list are contacted about participating in surveys, focus groups or face-to-face interviews.
So can I get the..

Best number to contact you on:	[OPEN ENDED]
Your email address [SPECIFY]	96
No email address	98
Refused	99

[PROGRAMMING NOTE: 96 AND 98 EXCLUSIVE]

THANK YOU AND CLOSE