



# Motor Vehicle Accidents in Victoria

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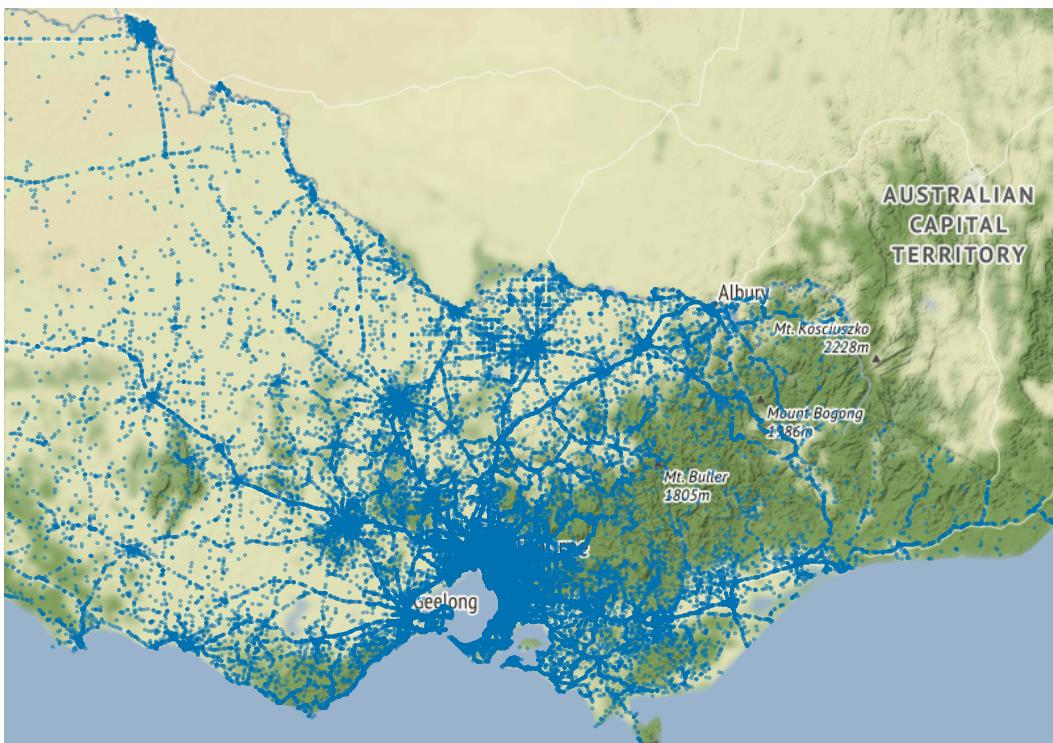
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## Accidents by Locations, Gender and Road User Type

### Accidents Map



**Figure 1:** Map of accident locations in Victoria

As shown in figure 1, accidents are most highly concentrated around metropolitan Melbourne, and gradually reduce in volume the further we move from Melbourne, with pockets of concentrations in the regional cities such as Bendigo, Ballarat and Geelong. This is due to the population being most present in metropolitan Melbourne, resulting in more accidents, and the population declining as we drift away, resulting in less accidents.

### Roads with Most Accidents and Highest Death Rates

According to table 1, **Princes Highway**, **High Street** and **Nepean Highway** are the three most accident prone roads in Victoria with 3581, 3096, 2376 accidents, respectively. It is important to note that roads with the name “High Street” are quite common and are present in various suburbs in Victoria, therefore the “High Street” displayed in the table is likely a combination of all the accidents that occurred in all the High Streets. When examining the deadliest roads from table 2, it is immediately apparent that **Highways** are the deadliest type of road in Victoria, this is likely a result of highways

**Table 1:** Accidents by road

Road	Accidents
PRINCES HIGHWAY	3581
HIGH STREET	3096
NEPEAN HIGHWAY	2376
SPRINGVALE ROAD	1663
SOUTH GIPPSLAND HIGHWAY	1538
SYDNEY ROAD	1538
MONASH FREEWAY	1533
MAROONDAH HIGHWAY	1335

**Table 2:** Deadliest roads

Road	Accidents	Deaths	Deaths_per_accident
GLENELG HIGHWAY	231	28	0.1212121
GOULBURN VALLEY HIGHWAY	344	39	0.1133721
WIMMERA HIGHWAY	156	17	0.1089744
MURRAY VALLEY HIGHWAY	727	76	0.1045392
STRZELECKI HIGHWAY	106	11	0.1037736
HAMILTON HIGHWAY	223	21	0.0941704
MELBA HIGHWAY	211	18	0.0853081
NORTHERN HIGHWAY	300	25	0.0833333

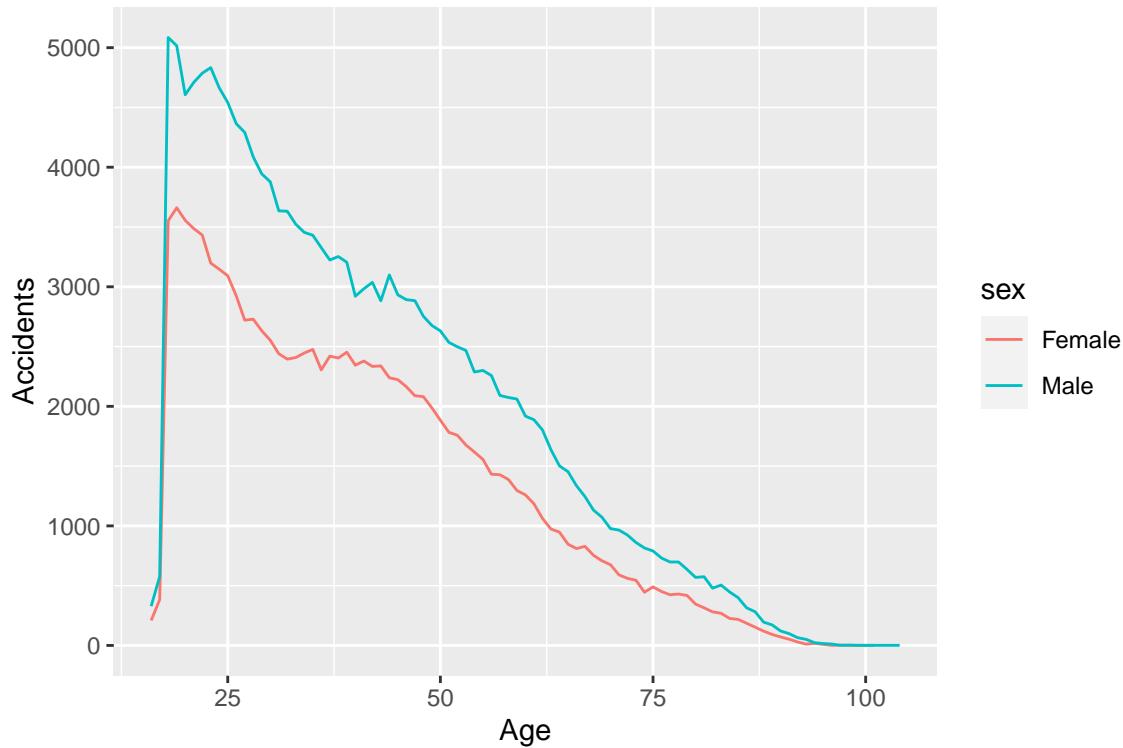
being locations of higher speed zones, which as we have seen from the previous section, lead to higher death rates.

### Accidents by Gender

Table 3 shows that there are more accidents committed by males (171,043) than by females (118,307). Figure 2 extends that differential by showing that males commit more accidents than females at all age groups. This could be a result of larger male presence on the roads than females, for example the majority of truck drivers and taxi/uber drivers are male, therefore representing higher numbers and longer times spent on the road. What is common between both genders, however, is that the accident numbers are highest for young and inexperienced drivers before steadily declining as age and experience increase. This is consistent with the findings from Gislason et al. (1997).

**Table 3:** Number of accidents by gender

Sex	Accidents
Male	171043
Female	118307
Unknown	8831



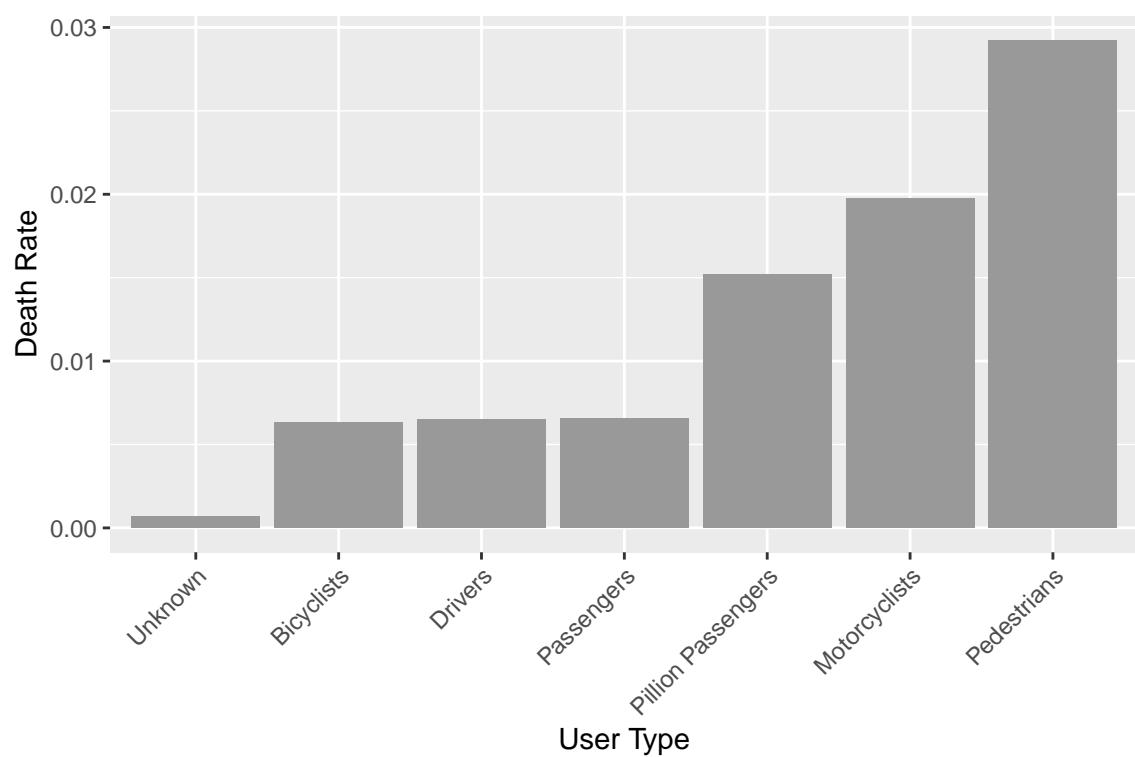
**Figure 2:** Number of accidents by gender and age

### User Type Death Rates

As per figure 3, **pedestrians** are at the most risk of death per accident, this is expected as pedestrians have no protection at all. **Motorcyclists** and **pillion passengers** (motorcycle passengers) occupy the second and third highest death rate per accident. It is surprising, however, that **bicyclists**'s death rate is similar to that of car drivers and passengers, as one would expect that bicyclists would have a death rate similar to that of pedestrians or motorcyclists, due to the lack of protection besides a helmet.

### References

Gislason, T, K Tomasson, H Reynisdottir, J Björnsson, and H Kristbjarnarson (1997). Medical risk factors amongst drivers in single-car accidents. *Journal of internal medicine* **241**(3), 217–223.



**Figure 3:** Death rate by road user type