

ACTIVITY 2

The article “**Wednesday Morning peak worst for Canberra cyclists**” from “The Canberra Times” dated Aug-15 2015 shows the statistical analysis of the Bike crashes dataset by the ACT government. It focuses on the following:

- Morning 8am to 9am records the highest bike accidents
- Wednesdays record the highest accidents among all days

These are concluded using the data set of past 3 years with **726** accident report.

In my opinion, more than the morning peak (8am to 9am), Wednesdays are dangerous. Comparing in numbers, accidents count of Wednesdays (**150**) is less than accident counts of morning peak (**160**). But the probability that an accident may occur on a Wednesday in future is

Total no of wed. (3 years) = 156

Total no of accidents on wed. = 150

Probability of an accident may occur on Wednesday = ~96%

Whereas, **Probability of an accident may occur on morning peak (8am – 9am) = ~15%**

The above is a hypothesis, assuming total accidents are split up as average between the duration to compare both the cases.

Incase if an accident happens on Wednesday and the **probability that it will happen on morning peak (8am – 9am) = ~31%**

So it's definitely wise to be more careful on Wednesday and also during morning peak hours.

Another interesting data is that among all accidents, intersection accidents (**265**) and side swipes (**111**) are the most frequent accidents occurred together which contribute around **51%** of the accidents.

So, next time if you are travelling in Canberra pay attention to the intersection roads especially on Wednesdays and morning peak hours!

FUN FACT:

The total no. of accidents = **726**, out of which **331** crashes caused injuries, **2** crashes caused deaths, **393** normal crashes.

$$\begin{aligned} 726 &= (331) + (2) + (393) \\ &= (3+3+1) \mid (2) \mid (3+9+3) \\ &= \mathbf{7 \mid 2 \mid 6} \end{aligned}$$