

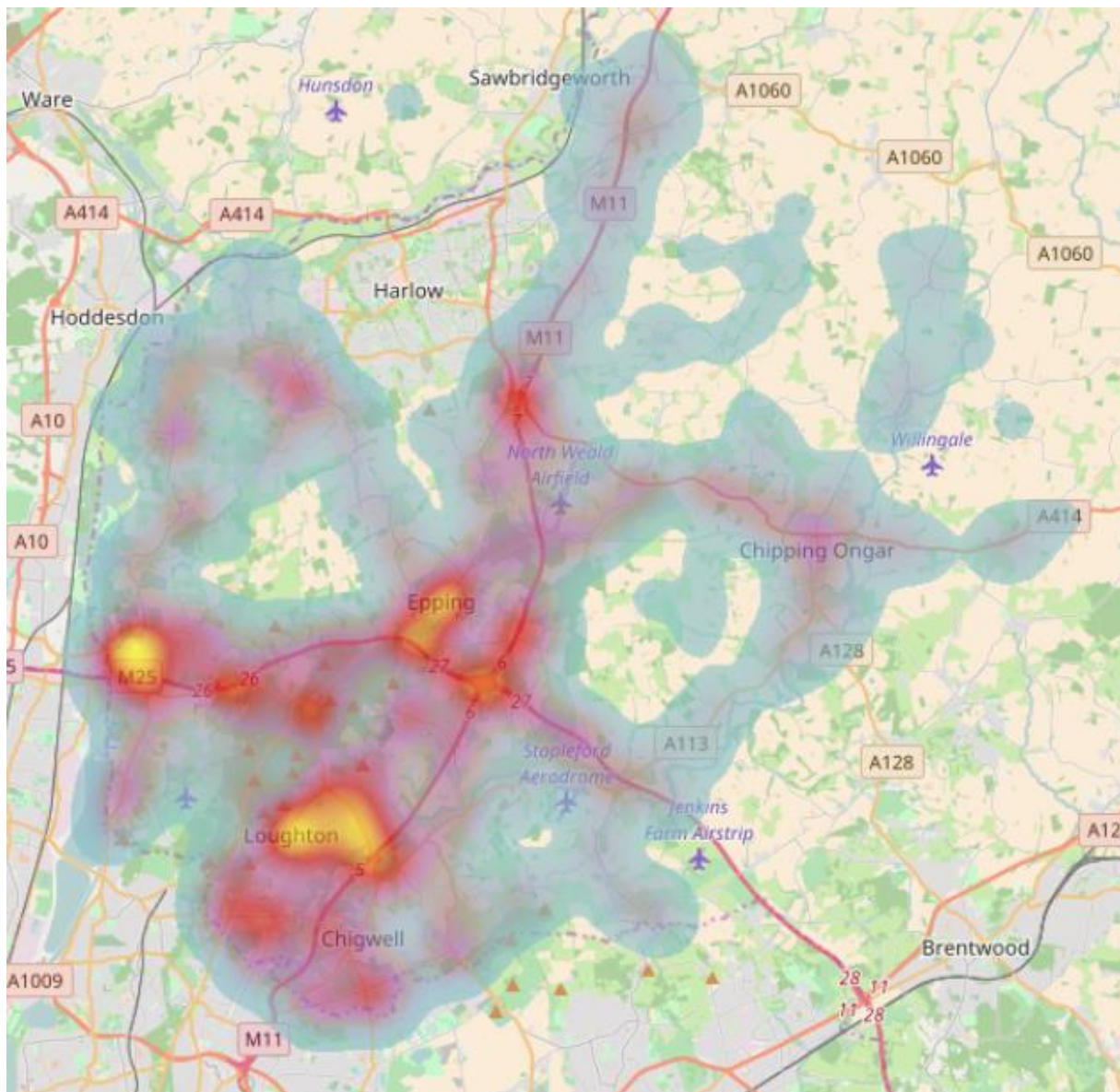
## Epping Forest Local Profile

### Aim

This document summarises STATS19 injury-collision data for Epping Forest District for the 5 year period 2012 - 2016.

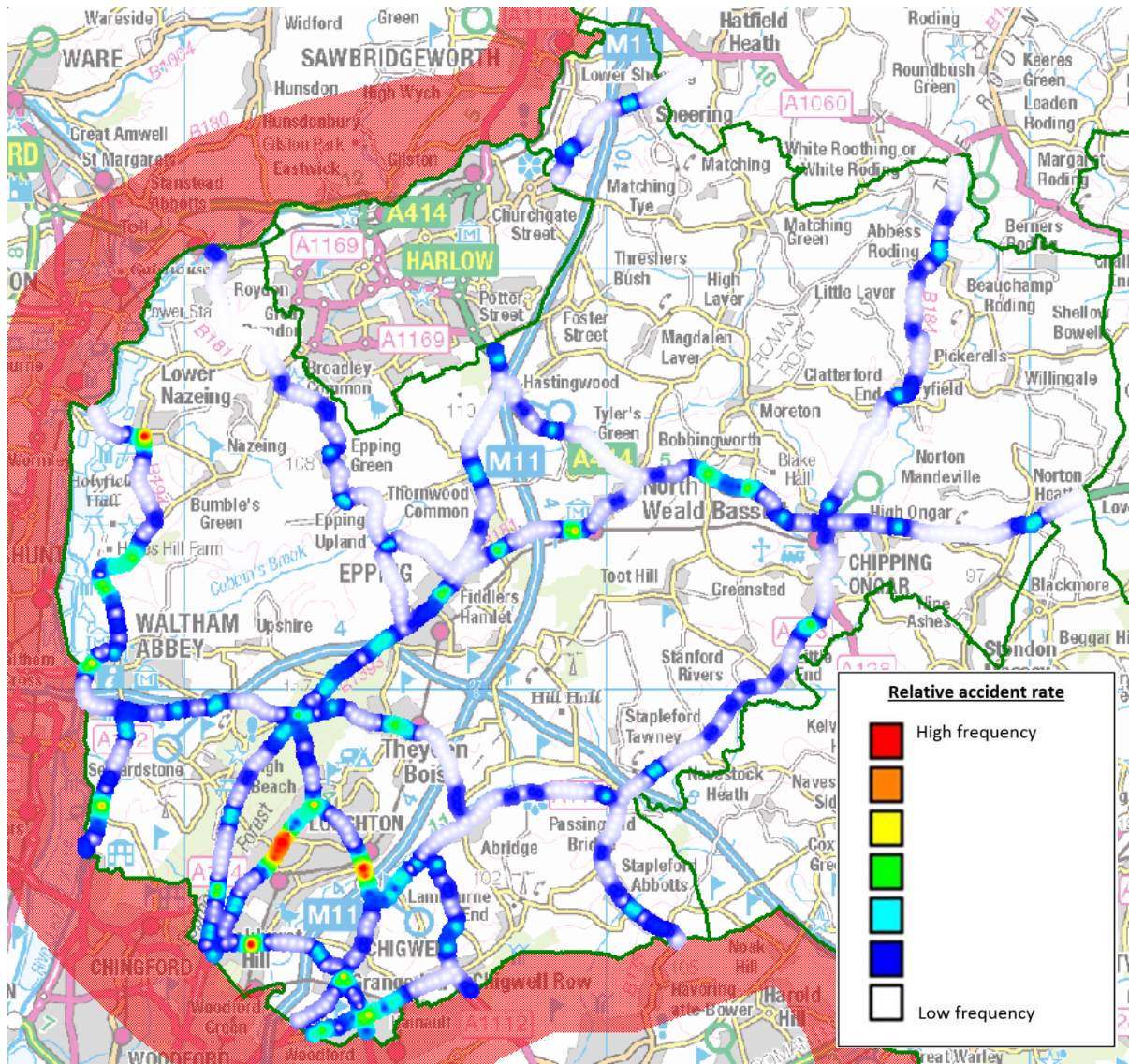
### Geographic Analysis

The map below shows the concentration of locations for all severities (fatal, serious & slight) of injury-collision, on all roads. This includes the Highways England network which, in Epping Forest, comprises the M25 and M11. 'Hotter' colours denote areas with higher concentrations of collisions.



This shows the greatest concentration of collision locations are in urban areas, particularly Loughton, Waltham Abbey and Epping. This fits the usual pattern as the road network and traffic are also most concentrated in urban areas.

The next map give a route analysis for KSI (Killed or Seriously Injured) collisions on A & B roads in the district. This excludes the Highways England network.



This shows the main concentrations are in Loughton, although there is a notable cluster in Lower Nazeing comprising 6 serious collisions in 5 years within 400m of the junction between the B194 and local roads.

There are also notable stretches of road on the A414 between Ongar and North Weald, on the B194 north of Waltham Abbey and on the A112 South of Waltham Abbey.

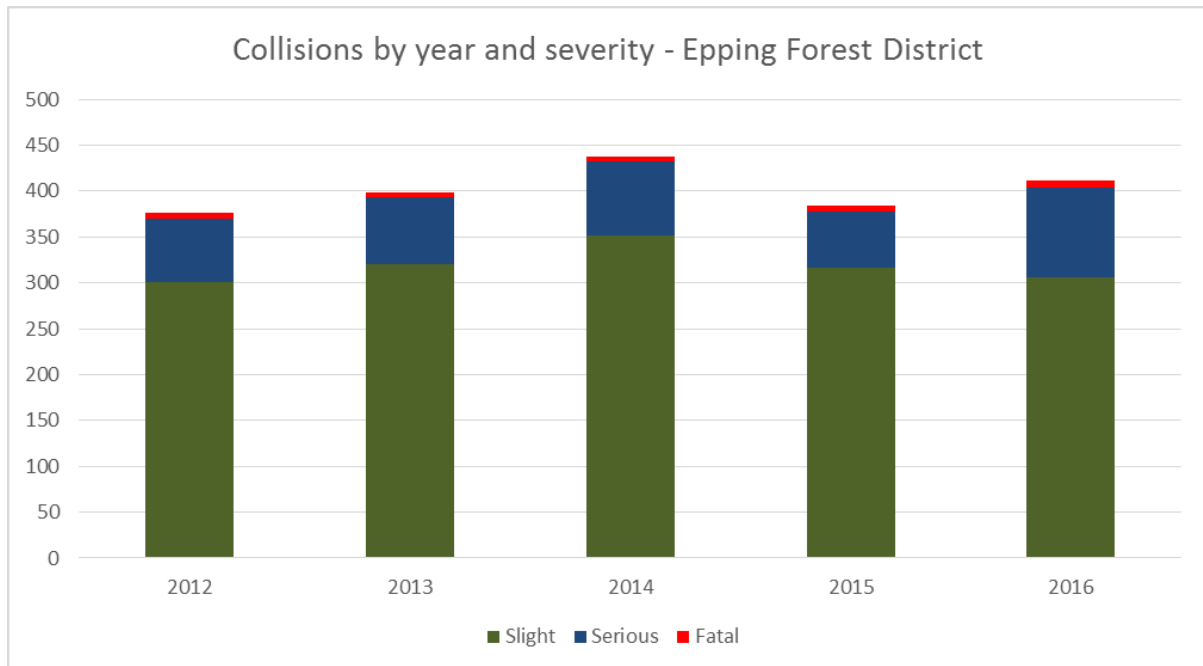
### Temporal Analysis

The chart below shows the percentage of all collisions which occur during each hour of the week, colour coded to show hours with more collisions in 'hotter' colours.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
00:00 - 00:59	0.4%	0.1%	0.2%	0.3%	0.2%	0.0%	0.3%
01:00 - 01:59	0.3%	0.2%	0.1%	0.1%	0.0%	0.3%	0.4%
02:00 - 02:59	0.1%	0.2%	0.0%	0.1%	0.0%	0.3%	0.2%
03:00 - 03:59	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.3%
04:00 - 04:59	0.1%	0.0%	0.1%	0.0%	0.0%	0.3%	0.2%
05:00 - 05:59	0.3%	0.2%	0.2%	0.2%	0.3%	0.2%	0.1%
06:00 - 06:59	0.5%	0.4%	0.8%	0.9%	0.3%	0.3%	0.3%
07:00 - 07:59	0.6%	0.4%	0.6%	1.0%	0.9%	0.5%	0.2%
08:00 - 08:59	1.3%	0.9%	1.2%	1.0%	1.3%	0.7%	0.4%
09:00 - 09:59	0.9%	1.0%	0.9%	0.7%	0.6%	0.9%	0.4%
10:00 - 10:59	0.9%	0.3%	0.7%	0.5%	0.9%	0.8%	1.0%
11:00 - 11:59	0.6%	0.4%	1.1%	0.3%	1.0%	0.7%	0.9%
12:00 - 12:59	0.3%	0.7%	1.0%	0.7%	0.6%	1.0%	1.0%
13:00 - 13:59	0.6%	0.6%	0.9%	0.5%	0.8%	1.2%	1.1%
14:00 - 14:59	0.5%	0.8%	0.8%	1.1%	0.8%	0.5%	0.8%
15:00 - 15:59	0.8%	0.8%	0.6%	0.7%	1.6%	0.9%	0.8%
16:00 - 16:59	0.7%	1.1%	0.9%	1.1%	1.2%	0.7%	0.8%
17:00 - 17:59	1.1%	1.2%	1.3%	1.7%	1.8%	0.9%	0.6%
18:00 - 18:59	0.8%	0.6%	1.5%	1.0%	1.3%	0.7%	0.8%
19:00 - 19:59	0.6%	0.5%	0.6%	0.4%	0.7%	0.5%	0.6%
20:00 - 20:59	0.5%	0.5%	0.4%	0.5%	0.8%	0.4%	0.5%
21:00 - 21:59	0.3%	0.3%	0.3%	0.4%	0.3%	0.5%	0.3%
22:00 - 22:59	0.5%	0.4%	0.3%	0.4%	0.4%	0.6%	0.3%
23:00 - 23:59	0.2%	0.3%	0.3%	0.2%	0.6%	0.3%	0.4%

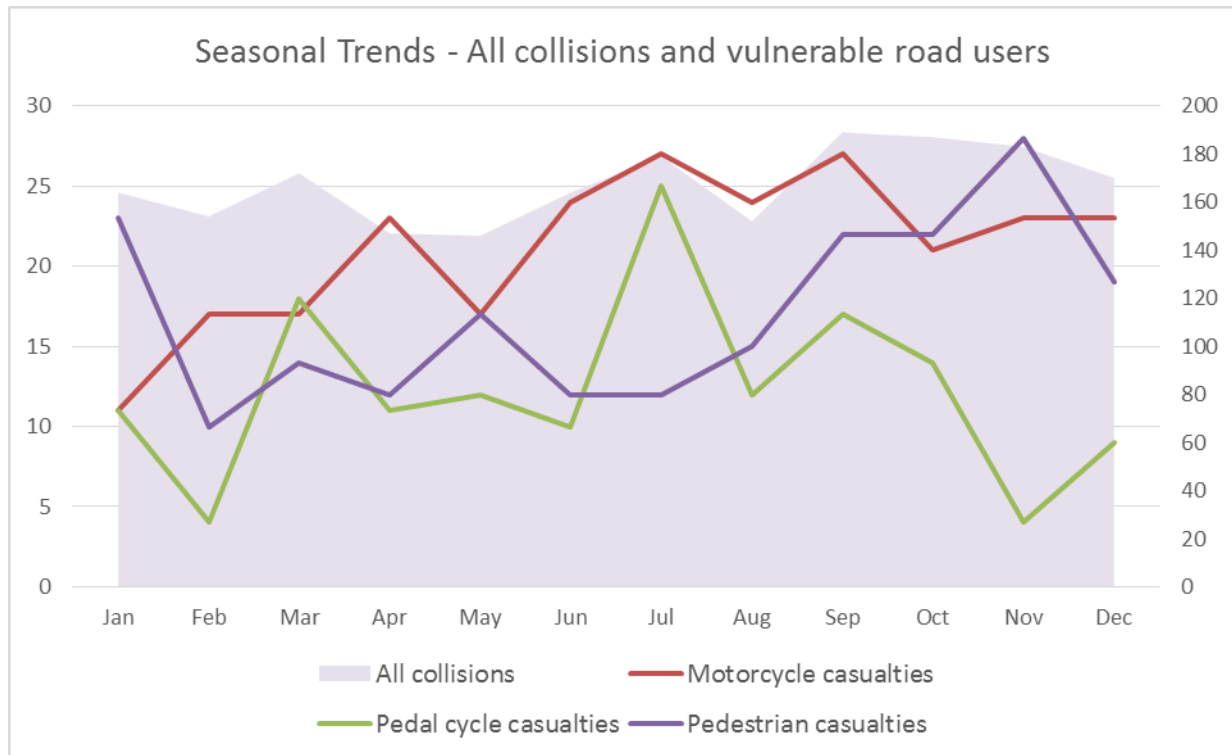
This shows weekday morning and afternoon commuting times, and the middle of the day at weekends have the most collisions. Friday 1500 – 1900 is the busiest period. This is consistent with patterns seen in most other areas and is closely related to weekly patterns in traffic volume.

The graph below shows little change in the total number of collisions per year in Epping Forest.



Each year between 1% and 1.7% of collisions involve at least one fatality and until 2016 the proportion involving one or more serious casualties was consistently between 16% and 19%. The proportion recorded as serious rose to 24% in 2016 because Essex Police adopted a new recording system called CRASH which assigns severity using a more consistent and accurate interpretation of the DfT severity definitions.

The seasonal trends illustrated below show little overall change throughout the year, but with a few more collisions in the last four months of the year.



Pedal cyclist casualties peak in the summer, especially July (the same month as the Tour de France), whereas motorcyclist casualties rise in June and stay high until December. Previous work on motorcyclist casualties indicates the summer peak is due to more leisure riders taking to the roads when the weather is nice. Young riders on low-capacity bikes appear to take to the road for the first time just before the start of the new academic year when they start college, with most riding throughout the year as it is their only means of transport.

Pedestrian casualties are low in summer and peak between September (start of new school year) and January. Previous work on pedestrian casualties indicate the increased number of journeys during hours of darkness that pedestrians have to make in winter are the main reason for this seasonal trend.

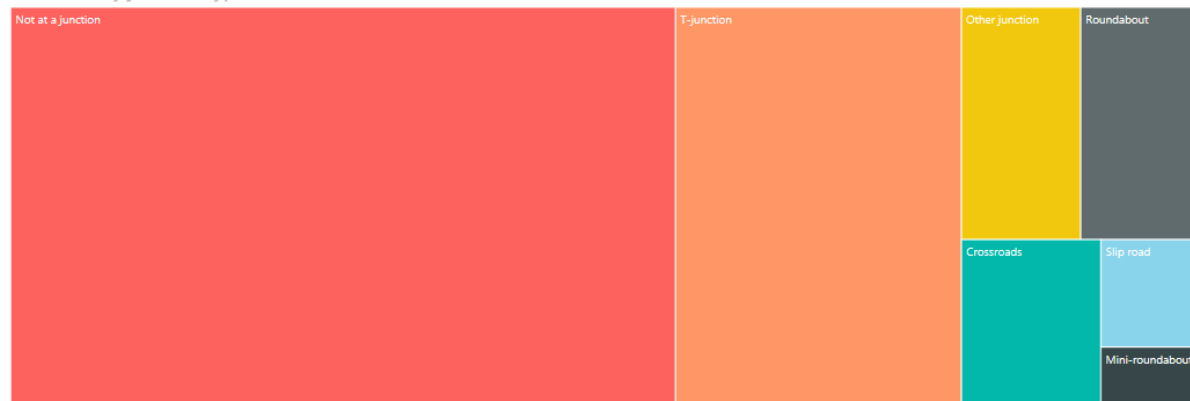
**Road Environment**

The chart below shows which road types and speed limits account for the greatest number of collisions. These rates are *not* adjusted for the prevalence of each road type in the district.

Road type	Speed limit					
	20	30	40	50	60	70
Roundabout	0.0%	3.1%	1.0%	0.0%	0.7%	0.1%
One-way street	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
Dual carriageway	0.0%	0.6%	1.2%	0.8%	0.2%	20.3%
Single carriageway	0.2%	36.1%	12.8%	3.7%	16.8%	0.0%
Slip road	0.0%	0.1%	0.1%	0.0%	0.0%	0.7%
Unknown	0.0%	0.1%	0.1%	0.0%	0.0%	0.2%

The chart above shows over half of the collisions occurred on urban roads (all roads up to and including 40mph). A fifth were on trunk roads (70mph dual carriageways), which in Epping Forest District comprises the Highways England network of the M25 and M11. The remaining 20% of collisions were on rural roads.

Collisions by junction type

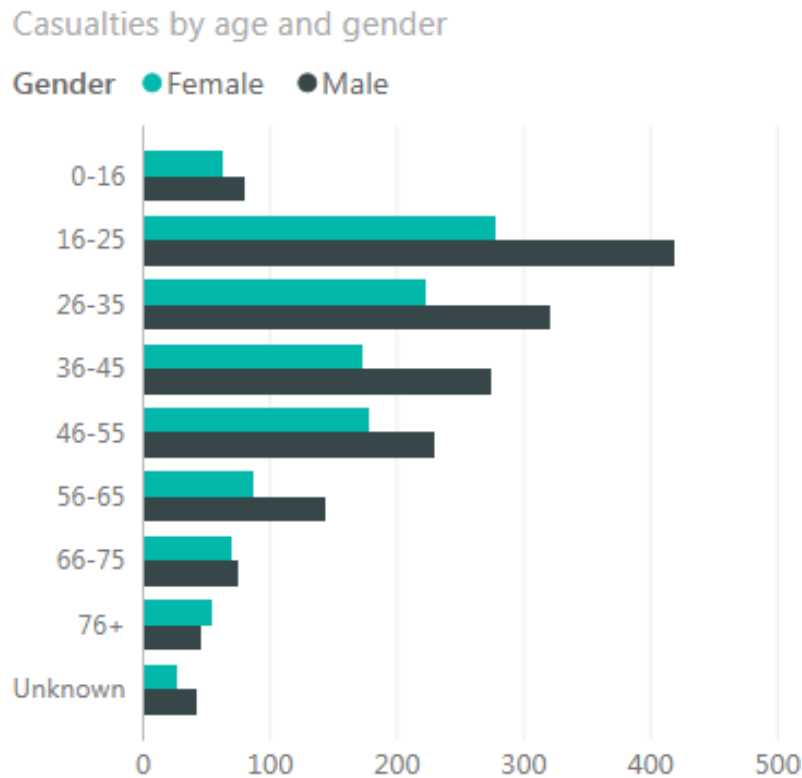


The graphic above shows that over half of the collisions in the district occur away from junctions, and over half of the remainder occur at T-junctions. The two types of junction accounting for the next greatest number of collisions are crossroads and ‘other’ junctions. Many of these other junctions are either private drives or junctions with more than 4 arms (excluding roundabouts). This means that like crossroads, they are often somewhat similar to T-junctions in that there is either a give-way or traffic light control for one road that is perpendicular to another road.

With regards to traffic lights, only 8% of collisions at T-junctions, crossroads or ‘other’ junctions take place where there is a traffic light control, and many of these are nose-to-tail collisions. This indicates that traffic light compliance levels are not a major factor in the number of collisions at these junctions.

## Casualty Profile

The chart below gives a breakdown of casualties by age and gender.



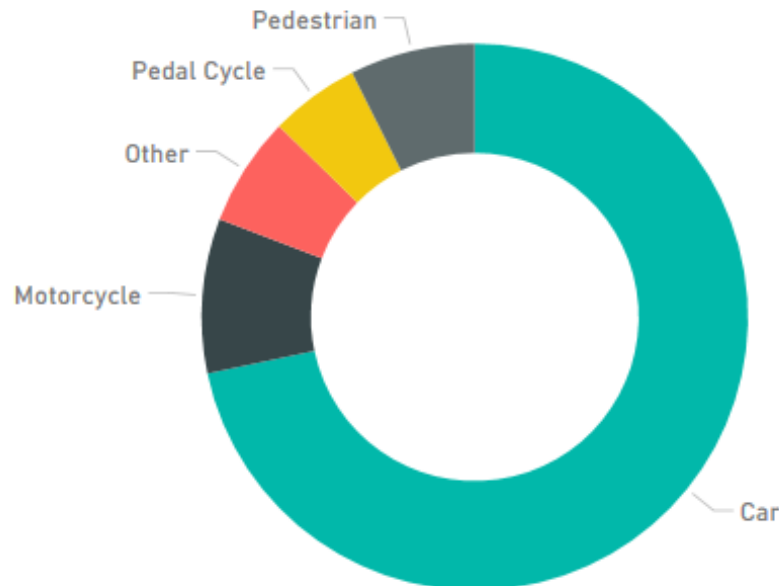
This shows that for almost all age groups, there are more male casualties than females. Children are at low risk as they are usually accompanied on all journeys by a parent. Casualty rates increase drastically once young people start to travel independently, and decrease as people get older and start to benefit from more experience and are less inclined to take risks.

The 76+ age group is low in number but previous analysis shows they are at greater risk than middle aged adults *per person-mile travelled*, although still at lower risk than 16-25 year olds. The 76+ age group represent a relatively small proportion of the population, and they tend to travel less than working aged people. This means their elevated risk is disguised by a much lower exposure rate (i.e. fewer total miles travelled by the group as a whole). People aged 76+ are also the only age group where more females than males are injured, this is likely due to the greater life expectancy in the female population meaning there are more females in the group.

These patterns are consistent with those seen in other areas.

The chart below shows the relative numbers of casualties by the mode of transport they were using at the time of their collision.

### Casualty mode of transport



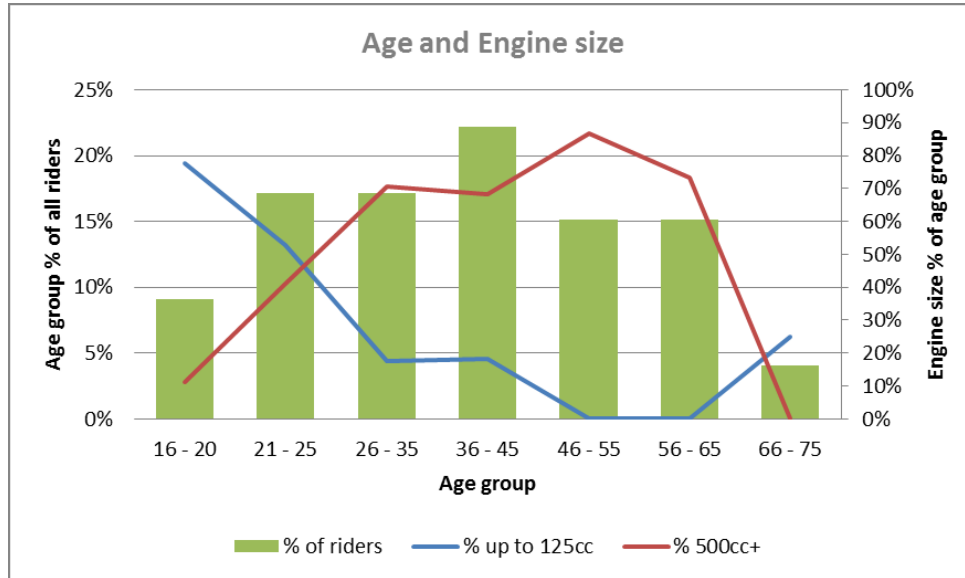
This shows nearly three quarters of those injured were in cars, which is to be expected given that the national travel survey indicates 78% of miles travelled in England are by car. Contrastingly the national travel survey indicates only around 0.5% of miles travelled are by motorcycle, making motorcyclists the road user type at greatest risk of becoming injured. This relative risk is even greater for motorcyclists when looking at serious and fatal injuries.

For 16-25 year old males, who account for more casualties than any other group, there is an even greater proportion who are injured riding motorcycles. This is consistent with wider trends where young males riding low-engine-capacity bikes, usually close to home in urban areas, are the biggest single group within motorcycle casualties.

For 16-25 year old females, the main difference in casualty mode of transport is that a much greater proportion are in cars. These young female casualties are represented both as drivers, and as passengers of drivers who are typically aged within 3 years of the casualty themselves.



In addition to the wider trend involving young males on smaller motorcycles, Epping Forest has a specific local issue with motorcyclist casualties. The rural roads in the area are a popular destination for leisure riders who typically tend to be middle aged males riding 500cc+ motorcycles. There are also a number of cafes in the area catering specifically for this group. These rural roads attract riders from other areas who come to Epping Forest specifically to enjoy riding on the roads around the forest. This issue is illustrated in the casualty profile below:



**Casualty home district**

The table below gives a breakdown for the local authority area for the home address of casualties injured in Epping Forest District, for all modes of transport.

Local Authority	No. casualties
Not in Eastern region	1,331
Epping Forest	669
Harlow	161
Broxbourne	52
Brentwood	41
Chelmsford	31
Uttlesford	30
East Hertfordshire	27
Braintree	20
Thurrock	16
Basildon	11
Castle Point	11
Other Essex	18
Other Eastern	86

Given the fact Epping Forest District borders London, it is believed many of the non-Eastern Region casualties are likely to come from London.