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*An Analysis of Road Collisions and Casualties in  
the District of Epping Forest*

*January 2006 to December 2008*

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Essex County Council

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## **Background**

As a result of continued high levels of road casualties in Epping Forest, the Battleplan meeting in February 2008 commissioned an analysis of casualties and collisions in this district. This report presents the findings of this analysis, along with recommendations for reducing casualties/collisions.

## **Approach**

An extensive analysis was undertaken of all casualty and collision records dating from January 2006 to December 2008, with all data downloaded directly from the Accsmap database. The analysis aimed to identify:

- Road users most at risk;
- Seasonal/temporal trends;
- Prime causes of collisions; and
- Collision hot-spots.

An analysis of casualty and vehicle driver/rider postcode records was also undertaken to identify any trends with respect to residency and to determine the areas where intervention measures should focus.

The causes of collisions were determined by extracting all contributory factors recorded as either CF1 or CF2 (the two primary causes of a collision) and tagged as either 'very likely' or 'possible'. This was to ensure that enough data was brought together to enable meaningful conclusions to be drawn.

## **Summary and recommendations**

To reduce collisions resulting in road user injury, including KSI injury, a two-pronged approach is recommended with interventions focussed on both motorways and non-motorway roads in Epping Forest. Interventions should concentrate on car and goods vehicle users on the former and car and motorcycle users on the latter.

### **Car and goods vehicle users: Motorways**

One-quarter of Epping Forest's road user casualties occurred on motorways (the M25 and M11). Car users comprised the biggest portion of motorway casualties (82%), with both car drivers and goods vehicle drivers being the prime parties deemed at fault for collisions resulting in this type of road injury.

### **The prime area of focus should be:**

**Enforcement on the M25 and M11, especially in August and with special attention given to wet weather conditions, young male car drivers and goods vehicle drivers;**

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Most casualties and car drivers involved in collisions on motorways were not from Essex. This creates difficulties with respect to local road safety education and publicity campaigns and implies that enforcement on the motorways could be the most effective way of bringing casualties down.

- Collisions peaked in August, with two smaller peaks in October and December.
- Collisions were most frequent between 5 and 7pm on weekdays and between 2 and 3pm at the weekend.
- Male car drivers under the age of 26 and male goods vehicle drivers in their 30s to 50s were most often deemed at fault for a collision. As previously stated, the vast majority of these drivers were not Essex residents.
  - Failing to judge another car's speed, being careless, reckless or in a hurry and loss of control were the factors recorded most often for car driver 'fault'. The latter, most commonly recorded for serious collisions, was usually related to speed and/or slippery road conditions (wet weather).
  - Failing to look properly and the goods vehicle blind spot were common causes of goods vehicle driver 'fault'. The goods vehicle driver changing lanes (badly) and/or failing to judge a car's speed were also frequently recorded causation factors.
  - Young car drivers and their passengers were over-represented as fatalities. Lone car loss of control was the reason for 3 collisions with a further 2 incidents resulting from goods vehicles colliding with cars situated on the hard shoulder (the drivers and passengers remaining in the cars).

#### **Car users: Non-motorway roads**

Car users comprised over two-thirds of all road user injury on non-motorway roads in Epping Forest. This group also comprised the largest portion of KSI (60%), with 21 fatalities in the 3 year period to December 2008.

Around half of car user casualties as well as car drivers who were 'deemed at fault' came from Epping Forest, with the rest residing in the London or Greater London areas, as well as in other areas in Essex. For this reason it is advisable to combine intervention activity in Epping Forest with that undertaken by the neighbouring districts of Harlow and Uttlesford as well as that carried out by the authorities in the London/Greater London area.

#### **The prime areas of focus should be:**

**Young car drivers; and  
Speeding car drivers and drivers under the influence of alcohol.**

- Young people aged 20 and under were over-represented as casualties, with the majority of casualties, young or old, coming from either the Epping Forest or London/Greater London areas; Men were more likely to be killed or seriously injured than women, regardless of whether they were the driver or a passenger in the car;

- Collisions occurred on both urban roads (especially unclassified roads) and rural roads (all classes). Serious collisions and lone car collisions were most frequent on the latter;
- There were no seasonal trends with respect to urban roads but collisions on rural roads were most frequent in July.
- Collisions on both urban and rural roads peaked on weekdays, during the morning between 8 and 9am and later in the day from 3pm onwards.
- Young drivers aged 25 and under (primarily but not exclusively males) had a disproportionate number of lone-car and 'loss of control' collisions. Plots of collision sites are given in the main body of the report and show that 5 fatal collisions on rural roads in Epping Forest were attributed to young car drivers;
- Loss of control, often on bends (and often related to wet-weather conditions), was a prime factor for serious collisions on both urban and rural roads, along with speed and the driver being impaired by alcohol. Male drivers aged 30 and under were responsible for a disproportionate number of serious collisions;
- Half of drivers deemed at fault came from the Epping Forest area but consideration should also be given to widening intervention measures to include London/Greater London, Harlow and Uttlesford as drivers 'at fault', especially those responsible for rural collisions, were also resident in these areas.

#### **Motorcycle users: Non-motorway roads**

Motorcycle users comprised over two-fifths of all road user KSI in Epping Forest, with 3 fatalities in the 3 year period to December 2008.

Around one-third of all motorcycle user casualties came from Epping Forest, with the rest residing in the London or Greater London areas, as well as in other areas in Essex. For this reason it is advisable to combine intervention activity in Epping Forest with that undertaken by the neighbouring districts of Harlow and Chelmsford and that carried out by the authorities in the London/Greater London area.

#### **The prime areas of focus should be:**

**Inexperienced moped-riders from Epping Forest;  
Male motorcyclists (especially but not exclusively young riders) from Epping Forest,  
London, Chelmsford and Harlow;  
Car drivers in Epping Forest;  
The months of June and July (weekends); and  
Collisions involving motorcyclists and no other vehicle.**

- Moped riders from Epping Forest (16 to 20 year-old males, but especially 16-year-olds) comprised around 15% of all casualties. Causes of collisions related to rider inexperience and, to a lesser extent, car drivers not looking properly and colliding with the moped-rider.

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- Male motorcycle riders (especially those aged 17 to 30 and 41 to 55) were over-represented as casualties. Although more than one-third were Epping Forest residents, most came from London/Greater London or other areas in Essex (Chelmsford and Harlow in particular).
    - Collisions peaked in June and July (especially Saturday and Sunday afternoons), with serious collisions most common in June. During other months, collisions were most frequent at weekday rush hours, between 7 and 8am and between 4 and 7pm.
    - Collisions occurred on both urban roads (all road classes) and rural roads (A-roads in particular), with serious collisions more prevalent on the latter.
    - Motorcyclists were more likely to be deemed 'at fault' for a collision than the other party (usually a car driver):
      - Male motorcyclists aged from 17 to 20 were most likely to have causation factors recorded against them. Poor over-taking, failing to judge another road-user's speed and loss of control were the most common, with speed and failing to negotiate bends factors for collisions on rural roads;
      - Where a car driver was at fault, most had failed to see the motorcyclist at a junction and pulled out in front of them. Most car drivers at fault came from the Epping Forest area.
    - Lone motorcycle collisions carried the highest risk of KSI and warrant special focus. Older male riders aged 40 and above were over-represented as casualties and these riders should be made aware of the increased risk of losing control of their bikes, especially on bends on rural roads.



## Analysis

Between January 2006 and December 2008 Epping Forest recorded 2102 road casualties of which 387 were killed or seriously injured (43 fatalities and 344 serious injuries). The graphs below show that although casualties, including serious casualties (rolling year to date totals), have reduced in Epping Forest, fatalities have not followed suit having increased during the latter half of 2006 and again in the first half of 2008.

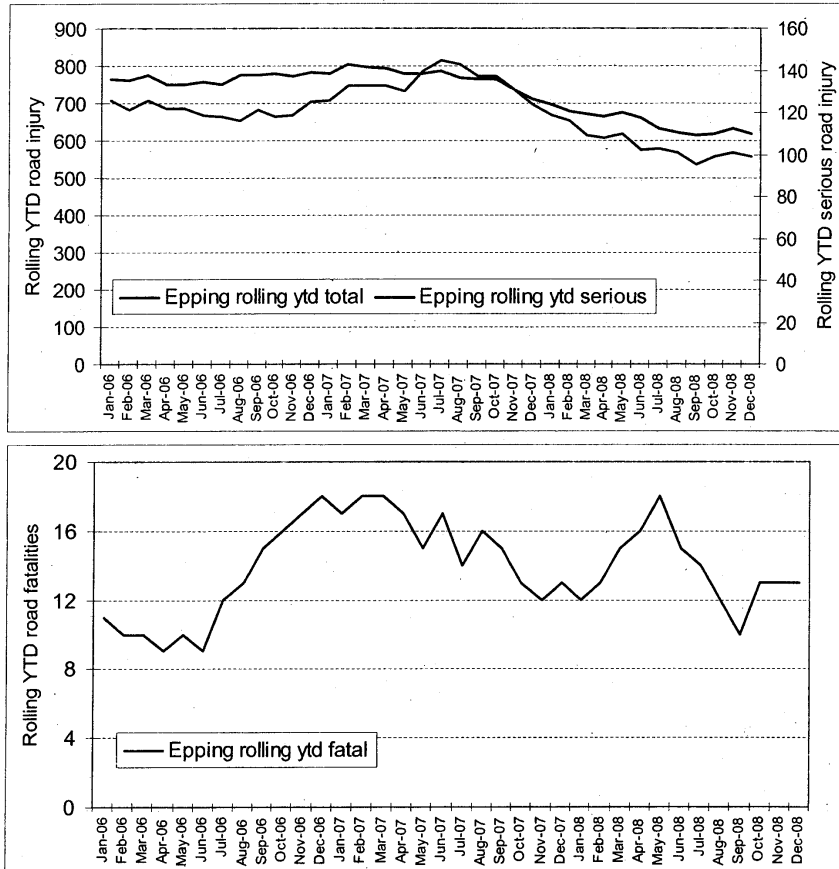


Figure 1 Rolling year to date road user injury: January 2006 to December 2008

Epping Forest is traversed by two motorways, The M25 and the M11. Road casualties on these motorways comprised a quarter of all casualties and KSI in Epping Forest and as a result, an analysis was completed for motorway and non-motorway casualties separately.

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### Collisions and casualties on motorways

The pie chart below shows that most motorway casualties were car users followed by goods vehicle occupants and to a lesser extent, motorcyclists. The risk of KSI injury was greatest for goods vehicle occupants and motorcyclists who comprised 24% and 10% of all KSI on respectively (pie chart not shown).

Of the 14 motorway fatalities, 10 were car users and 4 were goods vehicle occupants.

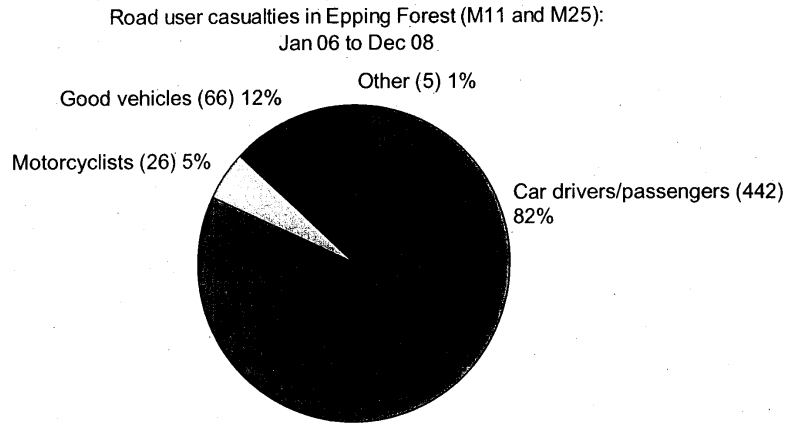


Figure 2 Pie chart of road user injury on motorways: January 2006 to December 2008

### Collisions involving car user casualties (motorways)

Collisions involving cars<sup>1</sup> resulted in 475 road user casualties, of which 442 were a car user (49 serious injuries and 10 fatalities).

#### Age and gender

The graph below shows that most casualties were men aged from 17 to 25 years old, with this age group most at risk of KSI injury (data not shown).

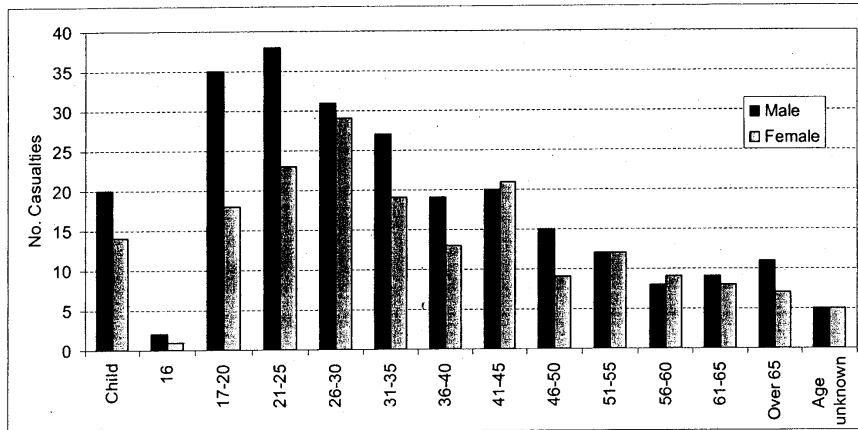


Figure 3 Car user casualty age and gender (motorways): January 2006 to December 2008

- Car driver casualties were more likely to be male with men aged from 17 to 45 comprising nearly half of all casualties.
- Car passenger casualties were equally likely to be male or female (81 male casualties vs. 88 female).

Most car passenger casualties<sup>2</sup> did not come from the Epping Forest area with just 3% residing there. Thirteen percent were resident in other Essex areas with 73% coming from outside the county.

<sup>1</sup> The term car includes both cars and taxis for the purposes of this report.

<sup>2</sup> It was not possible to extract the postcode of car driver casualties from Accsmap.

### Seasonal and temporal trends

Collisions, including serious collisions, peaked in August with a secondary peak in December (see graph below). This coincided with significant holiday periods and it is likely that more traffic would be on the motorways during these months increasing the risk of collisions.

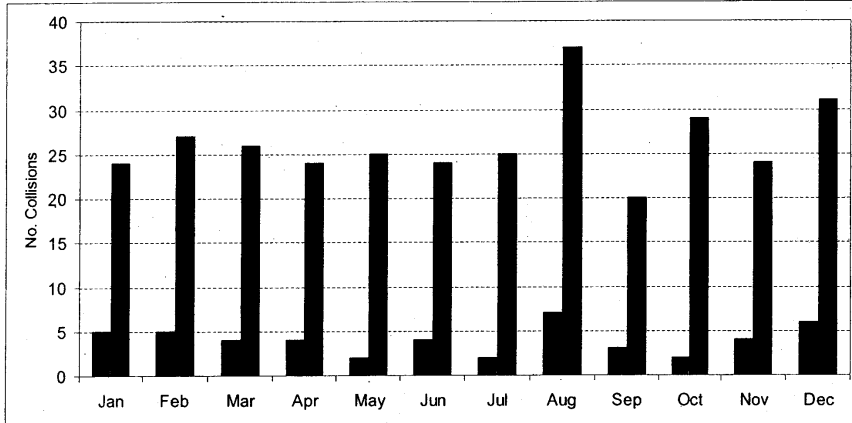


Figure 4 Collisions involving car user injury by month on motorways (avg from 2006 to 2008)

➤ The graph below shows that, in general, collisions peaked on weekdays between 5 and 7pm (especially Fridays) and, at weekends, between 2 and 3pm (especially Saturdays).

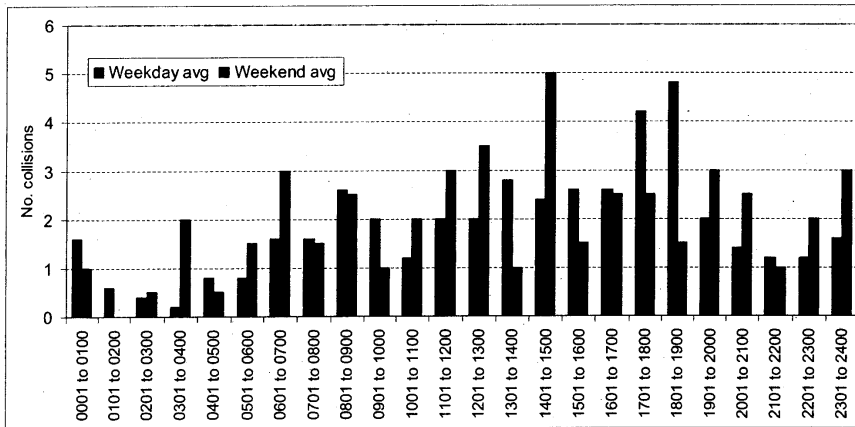


Figure 5 Collisions involving car user injury by time of day on motorways (avg from 2006 to 2008)

## Types of collision

Most motorway collisions (53%) were between cars (half of these were lone car collisions), with collisions between cars and goods vehicles making up most of the remainder. Lone car collisions were more likely to result in KSI.

The table below shows that most collisions were caused by car drivers, especially when the collision was serious, with goods vehicle drivers being at fault for just over a quarter of all collisions. Goods vehicle collisions, including 'driver fault', are discussed later in the report.

|                    | Car and no other vehicle | Car 'fault' | Goods vehicle 'fault' | Other vehicle 'fault' |
|--------------------|--------------------------|-------------|-----------------------|-----------------------|
| All collisions     | 79                       | 137         | 86                    | 2                     |
| Serious collisions | 19                       | 21          | 8                     | 0                     |

## Drivers at fault and causes of collisions

Car drivers deemed at fault in a collision were more likely to be male (see graph below), with male drivers under the age of 36 being responsible for 40% of all collisions. A similar trend was seen for serious collisions (data not shown).

Most drivers were not from the Epping Forest area (less than 6% were resident here), with 20% coming from other areas in Essex and 60% coming from outside the county.

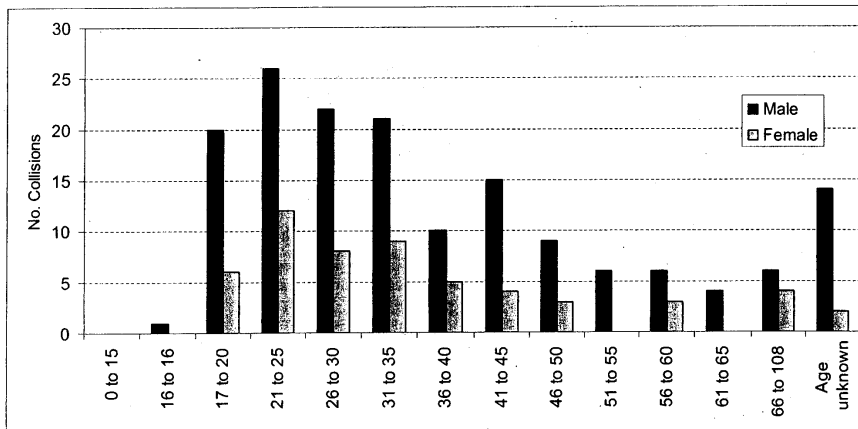


Figure 6 Age/gender of car drivers deemed at fault in collisions with car user injury (motorways): January 2006 to December 2008

The prime cause of collisions was car drivers failing to judge another person's speed. Losing control of the car and drivers being careless/reckless/in a hurry were also commonly cited, with these two factors being the prime causes of serious collisions. Speed-related factors (exceeding the speed limit and travelling too fast for the conditions) also featured and these

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factors, along with slippery (wet weather) road conditions, were often associated with loss of control.

There were 4 lone car fatal collisions and for 3 of these a young car driver was at the wheel, losing control on the carriageway or while negotiating a bend on a junction. The driver was cited as being in a hurry for two of these incidents.

Other fatalities arose when cars were positioned on the hard shoulder, the car being hit later by a goods vehicle while the occupants were still in the car (2 incidents).

### **Collisions involving goods vehicles (motorways)**

There were 66 goods vehicle occupants and 49 car users injured on motorways in Epping Forest as a result of collisions between goods vehicles and cars. The number of collisions was too limited to enable a meaningful analysis to be undertaken but, in general, collisions were most often caused by the goods vehicle driver. The overwhelming majority of these drivers were male, with drivers in their 30s to 50s having the most collisions.

Drivers failing to look properly or the goods vehicle blind spot were cited most often as causation factors, with other factors relating to the goods vehicle driver performing a poor turn or manoeuvre (changing lanes), failing to judge the car's speed and/or being careless/reckless/in a hurry.

### **Collisions involving motorcycles (motorways)**

There were 25 collisions involving motorcycles resulting in 25 motorcyclist injuries (10 serious) and 2 slight injuries for other vehicle users. The number of collisions involving motorcycles was too limited to perform a meaningful analysis but, in general, collisions were most often caused by the motorcyclist (18 out of 25 collisions). The overwhelming majority of these motorcyclists were male, with most casualties aged 26 or over. The most common causation factor related to riders failing to judge the other vehicle's path or speed.

### Collisions and casualties on non-motorway roads

Most non-motorway casualties were car users (see pie chart below) followed by motorcyclists and pedestrians. There was a greater risk of KSI for motorcyclists who comprised 22% of all KSI – pie chart not shown (car users comprised 60% and pedestrians, 10%).

Most fatalities were car users (21 out of 29 fatalities).

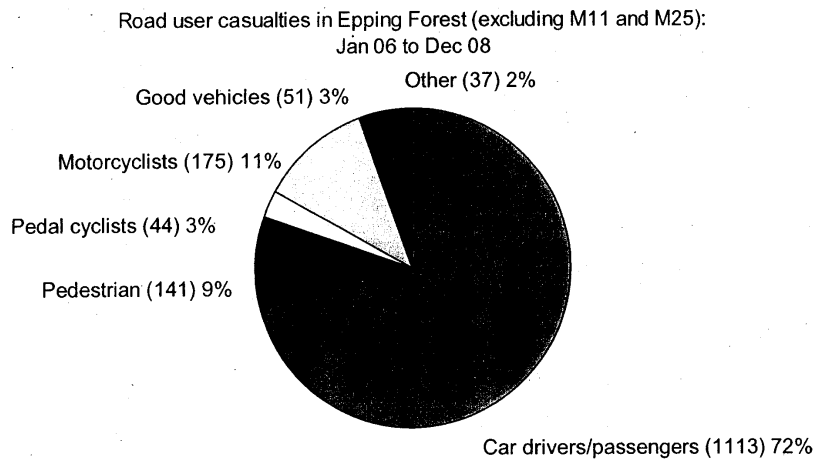


Figure 7 Pie chart of road user injury (non-motorways): January 2006 to December 2008

### Collisions involving car user casualties (non-motorways)

Collisions involving cars resulted in 1472 road user casualties of which 1132 were either a car driver or passenger (153 serious injuries and 21 fatalities).

#### Age and gender

The graph below shows that males aged between 17 and 20 were over-represented as casualties, especially for serious collisions (data not shown).

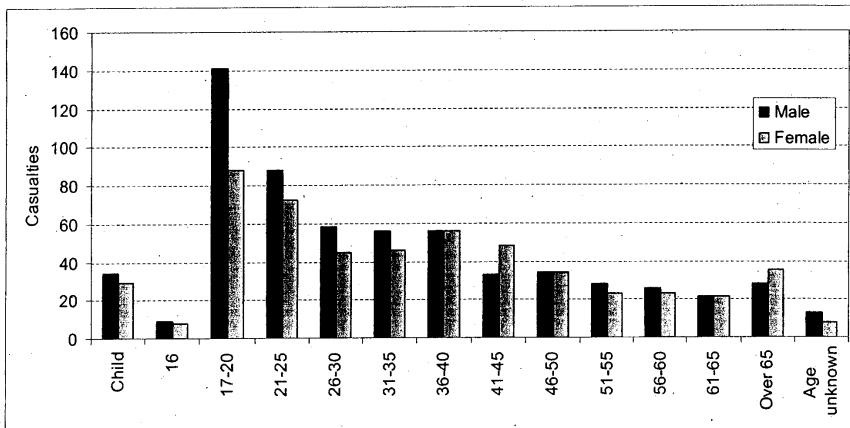


Figure 8 Car user casualty age and gender (non-motorway): January 2006 to December 2008

- Car driver casualties were more likely to be male, especially if the collision was serious (male drivers aged 17 to 20 were over-represented).
- Car passenger casualties were slightly more likely to be female (150 male casualties vs. 187 female), especially in the over-30 age group. However, KSI injury was more common for men, with male passengers aged from 17 to 20 more likely to be seriously injured than any other group.

Most car passenger casualties<sup>3</sup> came from the Epping Forest or London/Greater London areas (see graph overleaf). Other casualties resided in Essex with most from the Harlow area (23 casualties).

<sup>3</sup> It was not possible to extract the postcode of car driver casualties from Accsmap.



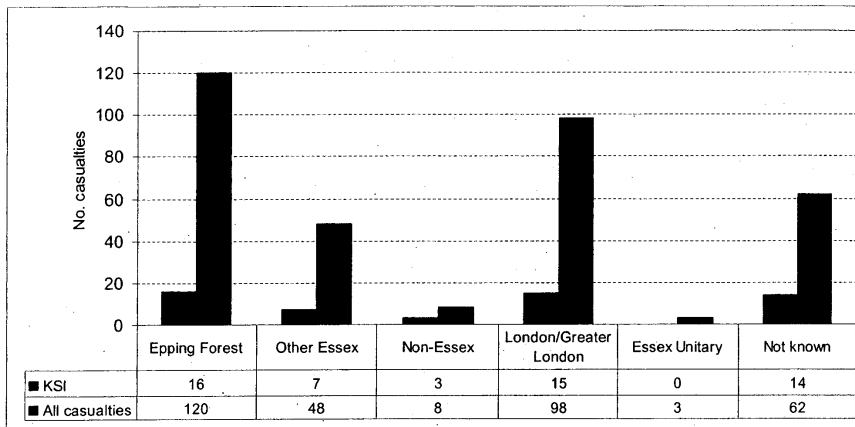


Figure 9 Car passenger casualty postcodes (non-motorway): January 2006 to December 2008

### Road type

Collisions occurred on both urban and rural single carriageways (49% and 43% of all collisions respectively, see graph below), with serious collisions much more frequent on the faster rural single carriageways (data not shown).

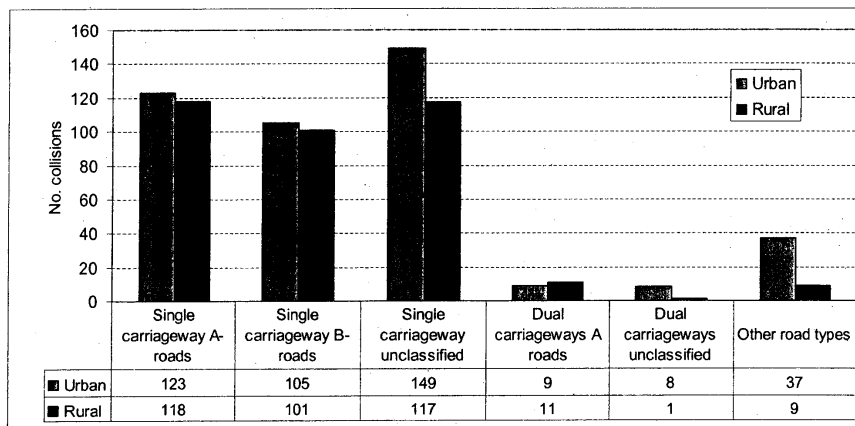


Figure 10 Collisions causing car user injury by road type: January 2006 to December 2008

### Collisions on urban single carriageways

As the graph below shows, collisions occurred on all classes of urban single carriageway but were most frequent on unclassified roads. Serious collisions were most frequent on unclassified roads and away from junctions (data not shown).

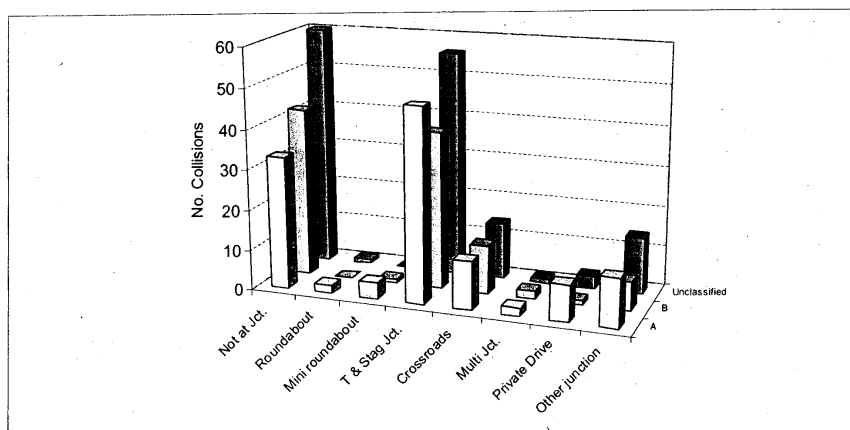
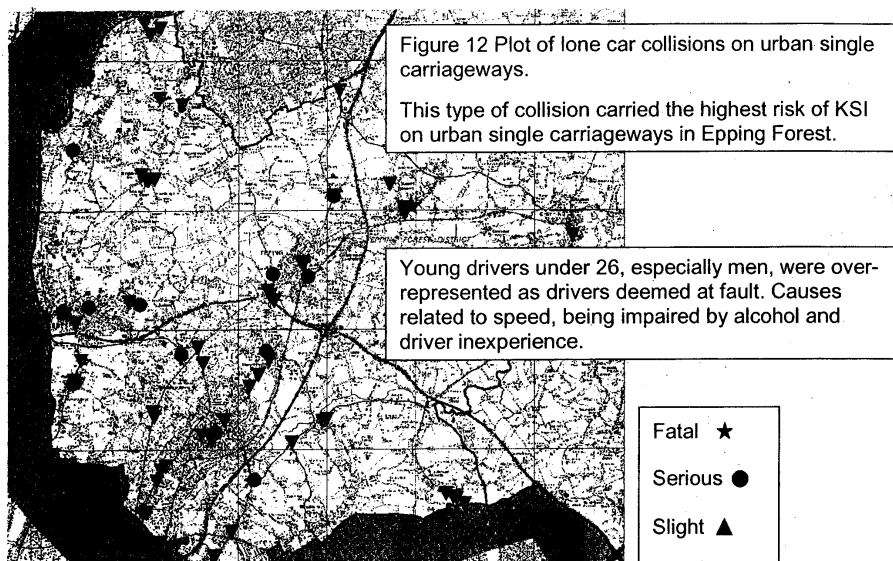


Figure 11 Collisions causing car user injury by junction type on urban single carriageways: January 2006 to December 2008

### Types of collision

Most collisions were deemed to have been the fault of a car driver (see table below). Lone car collisions carried the greatest risk of KSI on urban roads and a plot of collision sites is shown on the next page.

|                    | Car and no other vehicle | Car 'fault' | Goods vehicle 'fault' | Other vehicle 'fault' |
|--------------------|--------------------------|-------------|-----------------------|-----------------------|
| All collisions     | 66                       | 293         | 11                    | 16                    |
| Serious collisions | 13                       | 34          | 1                     | 3                     |



### Other trends

- There were no strong seasonal trends but collisions peaked:
  - On weekday mornings between 8 and 9am (especially Fridays) and weekday afternoons between 3 and 6pm;
  - On Fridays from 3pm through to the early hours of Saturday morning; and
  - At weekends from 11am to 10pm. At the weekend a higher proportion of collisions occurred at night, with several serious collisions happening early on Saturday, Sunday or Monday mornings (midnight to 4am).
- Half of all 'fault' drivers<sup>4</sup> came from Epping Forest with a third coming from the London/Greater London area. Most drivers deemed 'at fault' had not looked properly, with other causes listed as failing to judge another person's speed and/or being careless/reckless/in a hurry.
- Loss of control was the most frequently recorded causation factor for serious collisions, along with the driver performing a poor turn or manoeuvre. Deeper analysis showed that several cars lost control on bends or as a result of the weather creating slippery road conditions. Loss of control was often recorded alongside speed-related causation factors and/or the driver being careless/ reckless/in a hurry.

<sup>4</sup> It was not possible to extract the postcodes of car drivers causing car user injury on Epping Forest's urban single carriageways but it was possible to extract the postcodes of all car drivers deemed at fault in a collision on a single carriageway (regardless of the vehicles involved).

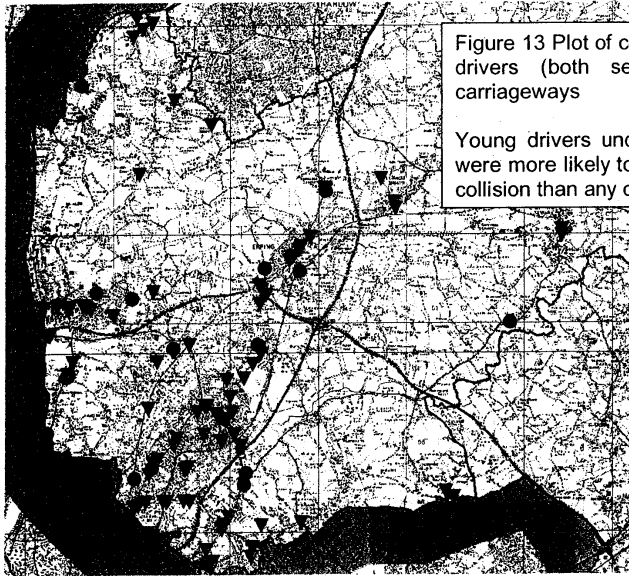


Figure 13 Plot of collisions caused by young drivers (both sexes) on urban single carriageways

Young drivers under 26, especially males, were more likely to be deemed 'at fault' in a collision than any other group.

Fatal ★  
 Serious ●  
 Slight ▲

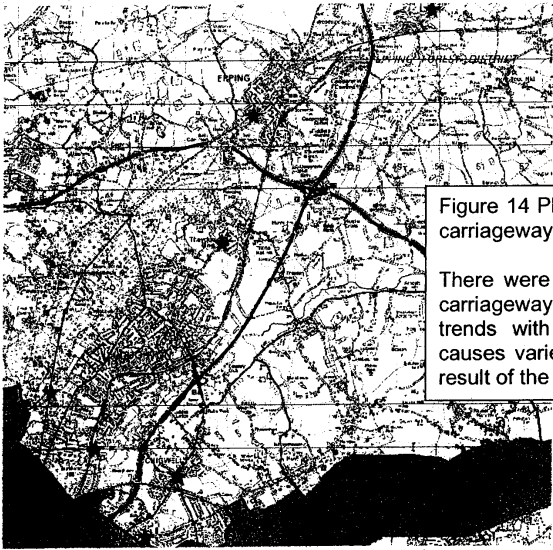


Figure 14 Plot of fatal collisions on urban single carriageways.

There were 7 car users killed on urban single carriageways in Epping Forest. There were no trends with respect to drivers 'at fault' and causes varied although two collisions were the result of the driver being impaired by alcohol.

### Collisions on rural single carriageways

Collisions occurred on all classes of rural single carriageway (see graph below), with most occurring away from junctions. Serious collisions followed similar trends (data not shown).

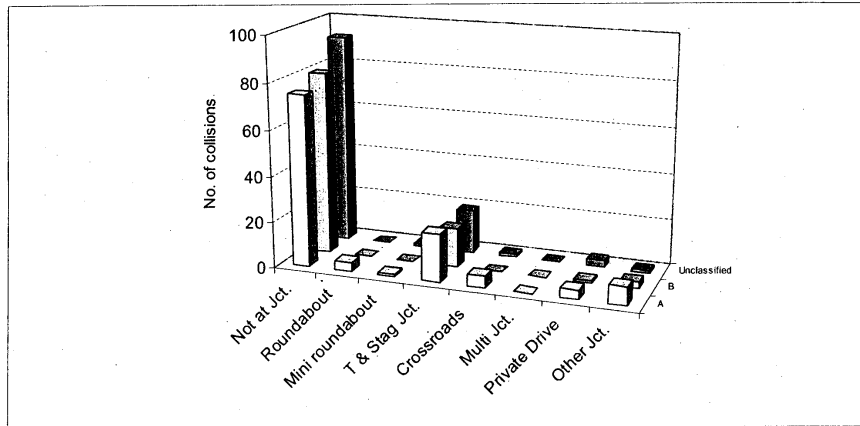


Figure 15 Collisions causing car user injury by junction type on rural single carriageways: January 2006 to December 2008

### Types of collision

Most collisions on rural single carriageways were deemed to have been the fault of a car driver (see table below). Lone car collisions were more prevalent on rural single carriageways compared to those in urban areas and carried the greatest risk of KSI. A plot of lone car collisions is shown on the following page.

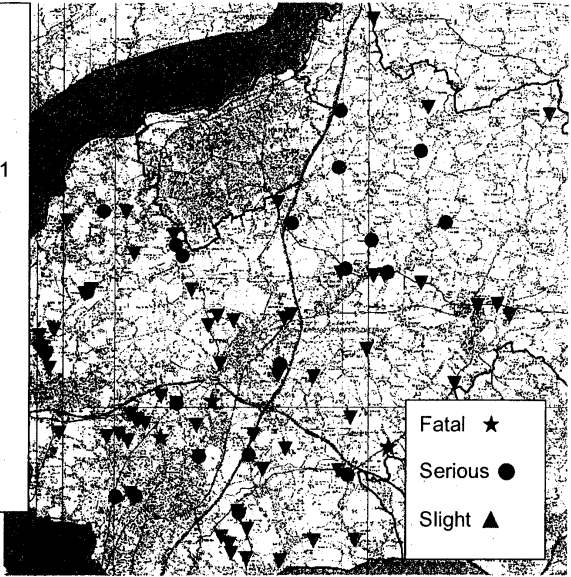
|                    | Car and no other vehicle | Car 'fault' | Goods vehicle 'fault' | Other vehicle 'fault' |
|--------------------|--------------------------|-------------|-----------------------|-----------------------|
| All collisions     | 90                       | 223         | 16                    | 11                    |
| Serious collisions | 25                       | 57          | 1                     | 3                     |

Figure 16 Plot of lone car collisions on rural single carriageways.

Lone car collisions were fairly spread out but hot spots were apparent on the A414, the A121 and the B194.

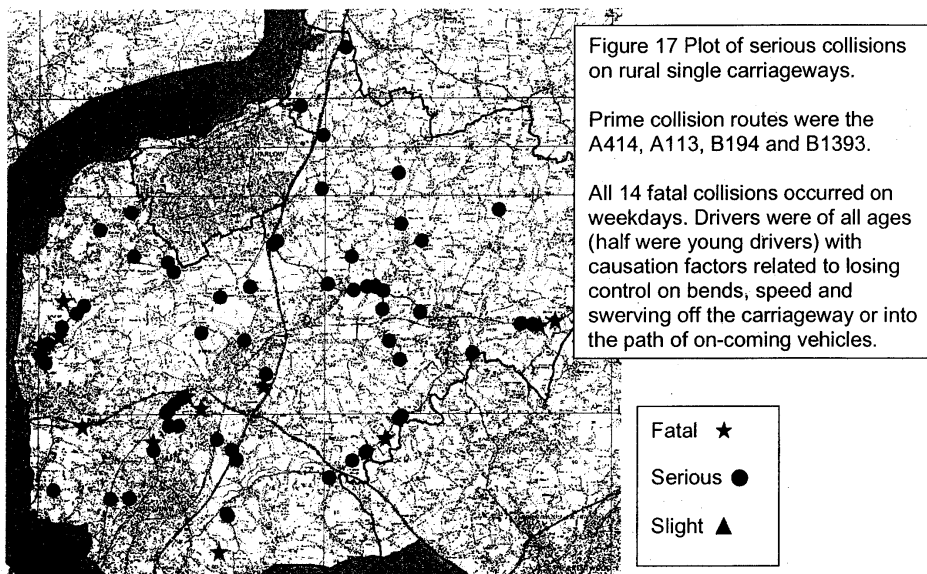
Young drivers under 26 (both sexes) were over-represented as drivers 'at fault'.

Causes of collisions related to slippery road conditions (weather-induced), speed and being impaired by alcohol. It was not just young drivers who had these types of causation factor recorded against them.



### Other trends

- Most collisions, including serious collisions, happened in July, with far fewer collisions occurring in either June or August.
- In general, collisions peaked on weekday mornings between 8 and 9am (all weekdays) and weekday afternoons where there was a broad peak from 3pm onwards (especially on Wednesdays).



- 'Slippery road conditions' (weather-induced) was recorded more frequently than any other contributory factor, followed by being careless/reckless/in a hurry and failing to judge the other person's speed. Speed-related factors (exceeding the speed limit and travelling too fast for the conditions) were one of the prime causes of serious collisions, along with 'loss of control' which was itself often related to speed and/or slippery road conditions.
- Car drivers deemed 'at fault' for collisions were more likely to be male.
  - Young males aged 17 to 20 were more likely to have been deemed at fault than any other group (causing nearly one-fifth of all collisions).
  - Serious collisions were more likely to be caused by men, with men aged 30 or under being responsible for over two-fifths of all serious collisions.
  - Epping Forest residents were responsible for 37% of all collisions, with the remaining collisions caused by drivers from the London/Greater London area (33%) or from other areas in Essex (25%, mostly Harlow and Uttlesford residents).



Figure 18 Plot of collisions caused by young car drivers (both sexes) on rural single carriageways.

Causes related to speed/reckless driving, slippery road conditions (weather-induced) and driver inexperience.

Five fatal collisions were attributed to young car drivers. Causes here often related to the car entering the opposite carriageway or failing to negotiate a bend, with speed being a factor for 2 collisions.

|         |   |
|---------|---|
| Fatal   | ★ |
| Serious | ● |
| Slight  | ▲ |

### Collisions involving goods vehicles (non-motorways)

There were 139 collisions involving goods vehicles, resulting in 201 road injuries (40 serious injuries and 13 fatalities), with most of these injuries to car drivers/passengers (55%) or goods vehicle occupants (25%). A plot of collisions is shown on the next page.

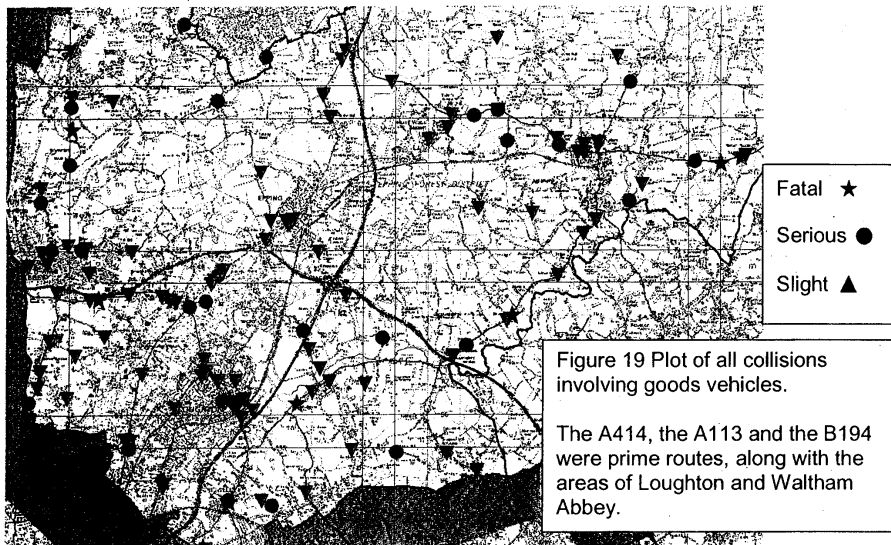
In general, just over half of all collisions were caused by the goods vehicle driver with most of the remainder caused by car drivers.

All goods vehicle drivers deemed 'at fault' were male, with drivers aged from 21 to 40 having the most collisions. Drivers failing to judge another vehicle's speed or being careless/reckless/in a hurry, as well as speed-related factors, were cited most often as causation factors. The goods vehicle swerving or performing a poor turn or manoeuvre (overtaking, pulling out and veering) were also commonly listed.

With respect to car drivers deemed 'at fault', young males aged from 17 to 20 were over-represented. Drivers being careless/reckless/in a hurry and failing to judge another vehicle's speed, as well as speed-related factors, were cited most often as causation factors. Loss of control, often linked to speed and/or slippery road conditions was also a common cause of collisions.

There were 11 fatal collisions involving goods vehicles and of these, 8 were the fault of a car driver. Of the 3 collisions deemed to have been caused by goods vehicle drivers, one was alcohol-related and the other two were related to speed.





### Collisions involving motorcycle user casualties (non-motorways)

Collisions involving motorcycles resulted in 195 road user casualties of which 176 were either a motorcycle rider or pillion passenger (including 62 serious injuries and 3 fatalities).

Of motorcycles involved in collisions in Epping Forest, 15% were mopeds (27 collisions including 8 serious and one fatal). Due to the marked difference between mopeds and more powerful motorcycles (most notably that mopeds are often ridden by 16-year olds), separate analyses were completed for these two motorcycle groups.

### Collisions involving moped user casualties

#### Age and gender

The overwhelming majority of casualties were males aged 16, with young males aged 20 and under comprising over 81% of all casualties. Most moped-riders in Epping Forest were local residents with 71% having an Epping Forest home postcode.

#### Seasonal and temporal trends

Limited data prevented a thorough analysis but it was possible to determine that most serious collisions happened in the autumn/winter months (especially at weekends).

## Road type

The graph below shows that most collisions happened on urban single carriageways, especially B-class and unclassified roads, with serious collisions following a similar pattern (data not shown). Deeper analysis revealed that collisions happened almost equally on the open road or at junctions on all classes of urban single carriageway.

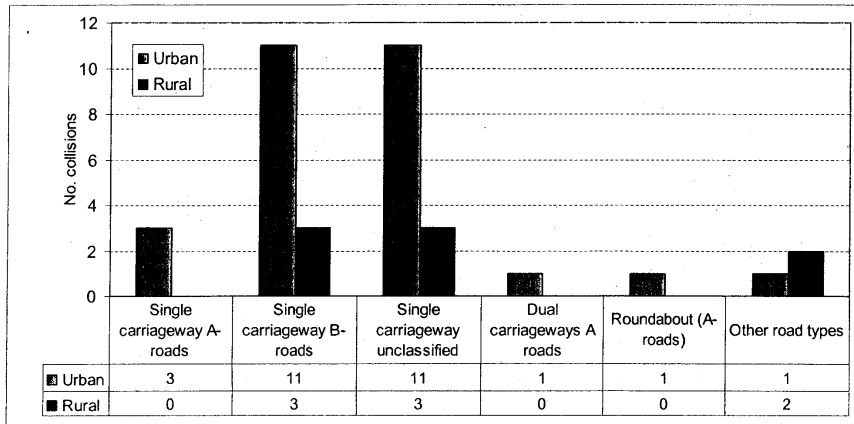


Figure 20 Collisions causing moped user injury by road type: January 2006 to December 2008

## Types of collision

Most collisions were deemed to have been the fault of the moped rider, with car drivers responsible for nearly a third of all collisions, fewer if the collision was serious (see table below).

|                    | Moped and no other vehicle | Moped rider 'fault' | Car driver 'fault' | Other vehicle 'fault' |
|--------------------|----------------------------|---------------------|--------------------|-----------------------|
| All collisions     | 8                          | 14                  | 11                 | 2                     |
| Serious collisions | 2                          | 5                   | 1                  | 1                     |

- Moped-riders at fault were most likely to be 16-year old males from the Epping Forest area. Causes nearly always related to rider inexperience and/or loss of control.
- It was not possible to identify age and/or gender trends relating to car drivers at fault due to limited data but most drivers deemed at fault had failed to look properly.

## Collisions involving motorcycle user casualties (125cc or over)

### Age and gender

Casualties were predominantly male with two main age groups: Those aged 17 to 20 and those aged 41 to 45 (see graph below).

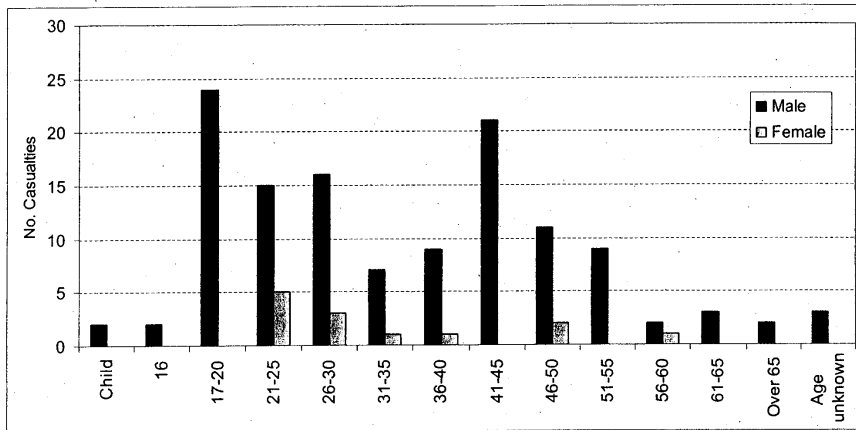


Figure 21 Motorcycle user casualty age and gender: January 2006 to December 2008

Many motorcycle-riders in Epping Forest were not local residents (more than 60% did not have an Epping Forest postcode). Motorcyclists came mainly from London/Greater London or other areas in Essex (Chelmsford and Harlow in particular).

### Seasonal and temporal trends

Motorcycle collisions peaked in June and July (serious collisions peaked in June), see graph on the following page.

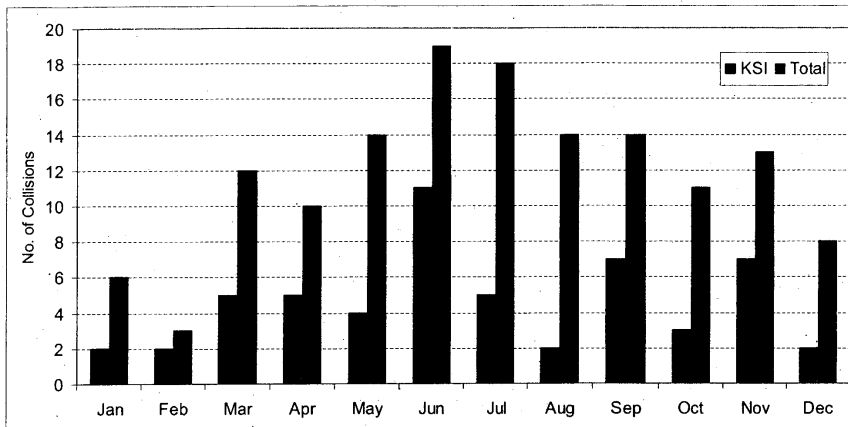


Figure 22 Collisions involving motorcycle user injury by month (average from 2006 to 2008)

- Collisions were most frequent mid-week (Tuesdays and Wednesdays) *except* in June and July when collisions were more frequent on weekends.

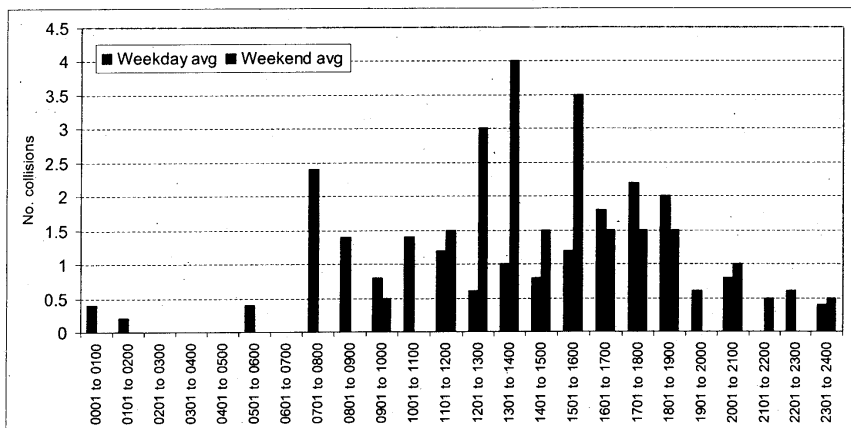


Figure 23 Collisions involving motorcycle user injury by time of day (average from 2006 to 2008)

- On weekdays, collisions peaked early during rush hour between 7 and 8am and again later in the day between 4 and 7pm (the largest peak), as shown by the graph above. At weekends, collisions rose sharply from noon to 2pm and again from 3 to 4pm. On weekends in June and July, collisions peaked between 1 and 2pm.

## Road type

The graph below shows that collisions occurred on all classes of urban single carriageway but that in rural areas, collisions were more frequent on A-roads, as opposed to more minor roads. When a collision happened on a rural road it was more likely to be serious, especially on A-roads (data not shown). A plot of collisions occurring on urban single carriageways and a plot of collisions on rural single carriageways is given on page 31.

In urban areas, collisions on unclassified roads were more frequent away from junctions whereas collisions on the more major A- and B-class roads were more frequent near T-/staggered junctions and at crossroads. Collisions on rural roads were most common away from junctions.

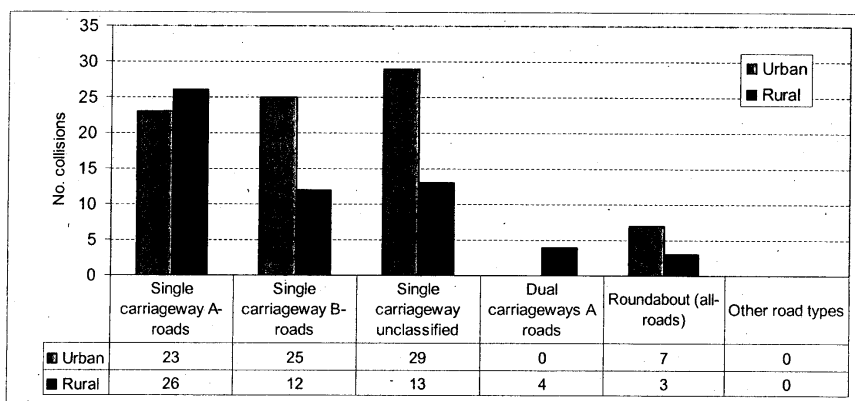


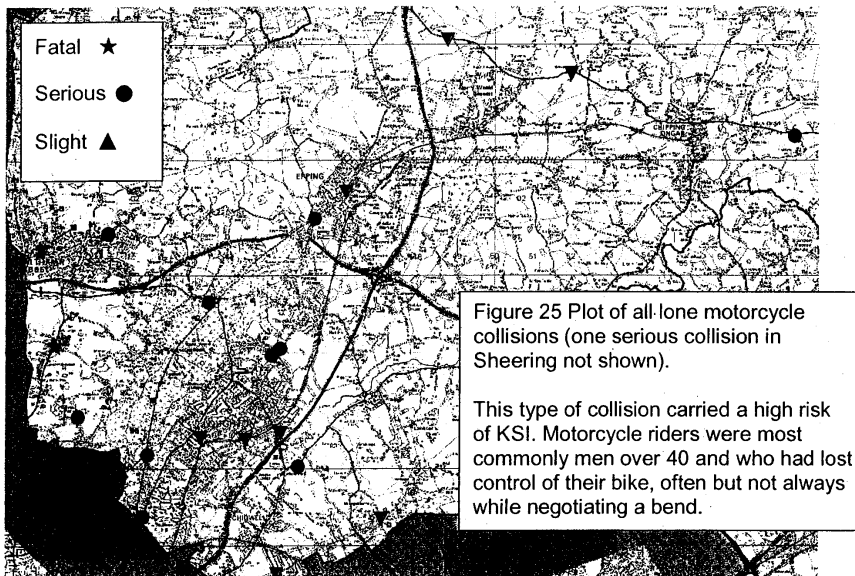
Figure 24 Collisions causing motorcycle user injury by road type: January 2006 to December 2008

## Types of collision

The table below shows that slightly more collisions were deemed to have been the fault of the motorcyclist, with most of the remainder being car driver fault (53% vs. 41%). Deeper analysis showed that motorcyclists were slightly less likely to be at fault at junctions but that when a collision was serious collisions, motorcyclists were much more likely to be deemed at fault (69% of all serious collisions).

|                    | Motorcycle and no other vehicle | Motorcycle rider 'fault' | Car driver 'fault' | Other vehicle 'fault' |
|--------------------|---------------------------------|--------------------------|--------------------|-----------------------|
| All collisions     | 24                              | 47                       | 55                 | 8                     |
| Serious collisions | 12                              | 25                       | 15                 | 2                     |

Lone motorcycle collisions carried high risk of KSI, as did all collisions where the motorcyclist was deemed at fault. A plot of lone motorcycle collisions, and causes, is shown on the following page.



- In general, motorcyclists deemed at fault were more likely to be young males aged from 17 to 20 (responsible for one quarter of all motorcyclist 'fault' collisions) or older males aged from 41 to 45 (responsible for one-fifth of all motorcyclist 'fault' collisions). The majority of motorcyclists were not local residents (35% came from Epping Forest ), with a third coming from the London/Greater London area and one-fifth coming from other areas in Essex.
- It was difficult to identify trends from data recorded for car drivers deemed 'at fault' because ages and home postcodes were often missing. However, 'fault drivers' were equally likely to be male or female, with most coming from the Epping Forest area and one-fifth coming from London/Greater London.

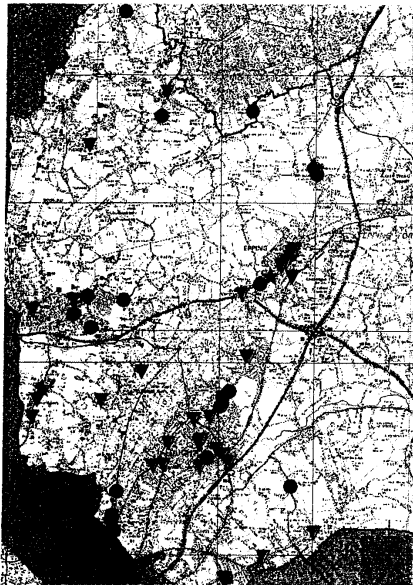


Figure 26 Plot of motorcycle collisions on urban single carriageways.

Collision hot spots were Epping High Street, the areas of Loughton and Waltham Abbey along with a small cluster of serious collisions on the southern stretch of the A104.

Most collisions were deemed to have been the fault of the motorcyclist, with causes listed as poor over-taking, failing to judge another's speed (e.g. running into the back of a vehicle which had slowed to turn) and loss of control.

Collisions not deemed the fault of the motorcyclist were very often at junctions where the vehicle driver (usually a car driver) had failed to see the motorcyclist and pulled out in front of them.

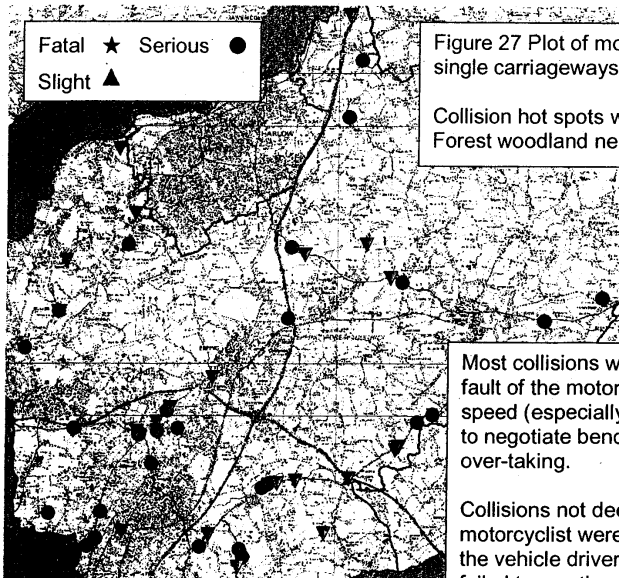


Figure 27 Plot of motorcycle collisions on rural single carriageways.

Collision hot spots were the roads crossing Epping Forest woodland near Loughton and the A113.

Most collisions were deemed to have been the fault of the motorcyclist with causes relating to speed (especially for serious collisions), failing to negotiate bends/loss of control and poor over-taking.

Collisions not deemed the fault of the motorcyclist were very often at junctions where the vehicle driver (usually a car driver) had failed to see the motorcyclist and pulled out in front of them.

## Collisions involving pedestrian casualties

From January 2006 to December 2008 there were 141 collisions involving pedestrians which resulted in 151 road user casualties of which 143 were pedestrians (including 30 serious injuries and 1 fatality).

### Age and gender

Children and women over 65 were the most vulnerable groups, with girls aged 0-15 and women over the age of 65 most at risk of serious injury (data not shown). One in 4 pedestrian casualty home postcodes were missing but, where they were recorded, showed that most came from the Epping Forest area (more-so if the casualty was of pensionable age).

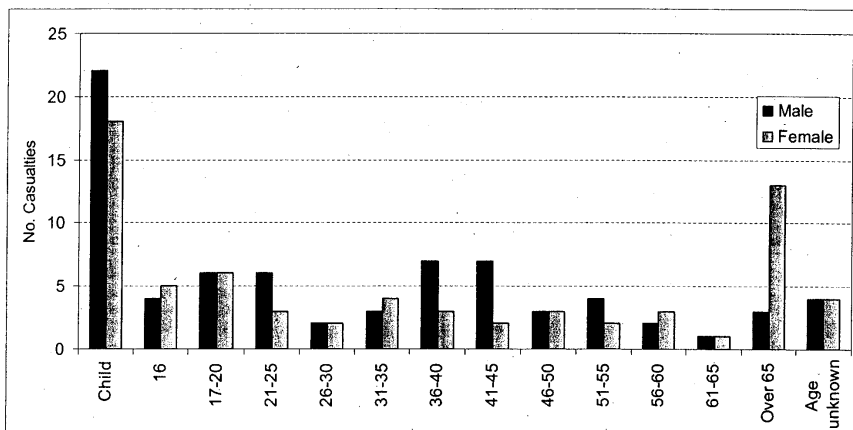


Figure 28 Pedestrian casualty age and gender: January 2006 to December 2008

### Seasonal and temporal trends:

- Pedestrian collisions, including serious collisions, were more frequent between September and February. Over two-thirds of KSI injury also occurred during these months.
- It was difficult to determine temporal trends as data was relatively limited, however it did appear that most collisions happened early on weekdays from 7 to 10am and later in the day from 2 to 6pm. Collisions at weekends peaked between noon and 1pm, especially on Saturdays.

### Road type

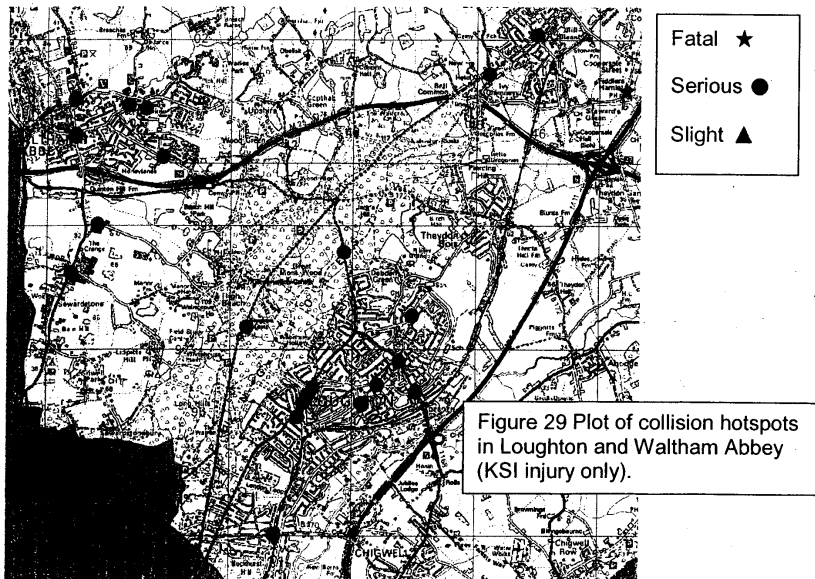
The vast majority of collisions happened on urban roads, especially unclassified roads, with serious collisions following the same trend (data not shown). Most collisions happened away from junctions.



## Type of collision

The vast majority of pedestrians (83%) were in collision with a car. One in 10 was in collision with a goods vehicle although these collisions rarely caused serious injury.

- Child casualties were nearly always deemed at fault, usually by running out into the carriageway without looking or crossing while masked by parked or stationary vehicles.
- OAP casualties were usually slow in crossing the road with most already mid-carriageway when the collision occurred (as opposed to stepping out without looking). Collisions of this type usually occurred at junctions with the vehicle turning into the road the pedestrian was crossing. Some drivers slowed/stopped to allow the pedestrian to cross but failed to give the pedestrian enough time, moving off and striking the pedestrian before they had reached the pavement.
- Vehicle drivers were as likely as other adult pedestrians to be deemed at fault in a collision.
  - Pedestrian faults were almost always recorded as 'failing to look' or 'entering the carriageway while masked by parked vehicles';
  - Vehicle driver details, including home postcodes, were often not recorded but where they were, 'fault' drivers were nearly always male, with males under 26 and males over 50 being deemed responsible for most collisions caused by car drivers. Drivers were usually Epping Forest residents (nearly one-fifth were from London/Greater London), with causes often related to failing to look properly, being careless/reckless/in a hurry and/or aggressive driving.



### Collisions involving pedal cyclist casualties

From January 2006 to December 2008 there were 44 collisions involving pedal cyclists in Epping Forest, which resulted in 46 road user casualties of which 44 were pedal cyclists (including 2 serious injuries and 2 fatalities).

Limited data made it difficult to perform a thorough analysis but most casualties were male with boys under 16 especially vulnerable. Most pedal cyclists, regardless of age, were Epping Forest residents but one-quarter did come from the London or Greater London area.

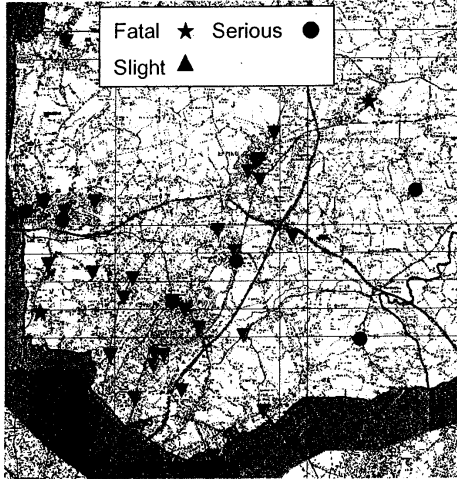


Figure 30 Plot of collisions involving pedal cycle casualties.

Most collisions happened on urban roads and peaked in summer.

Child casualties were often but not always deemed at fault in a collision, usually by cycling out in front of a car. Adult cyclists were unlikely to have precipitated a collision, with car drivers failing to look properly or judge the cyclist's speed. There were also several incidents of car drivers clipping the back wheels of pedal cycles.

The two fatalities were older male cyclists in their 50's-60's. One had fallen from his bike with no other vehicle involved and the other was in collision with a car (car-driver fault).