THINGS THAT GO BUMP IN THE NIGHT

Adult Pedestrians in the Night Time Economy

Road Safety GB

***Road Safety GB** is pleased to be launching this important report at the **National Road Safety Conference 2014**.*

Whereas there has been strong progress in reducing the number of children injured whilst walking on Britain's roads in the last 10 years (48% reduction), progress in reducing the number of adult pedestrians has been much slower. There has only been a 22% reduction since 2004 and the proportion of all casualties who were injured whilst walking continues to rise year on year. One third of these casualties occur during night-time hours and yet very little attention has been focussed on understanding or addressing the emerging issue.

This research, carried out by Road Safety Analysis, examines collisions in the night-time economy with analysis focussing on the 30,000 adult pedestrians injured as a result between 2009 and 2013.

The study reveals factors which are common in collisions involving adult pedestrians at night. Whilst some of these factors serve to confirm the profession's assessment, where this study is unique is in the way it uses socio-demographic profiling, contributory factor data and national collision information to provide new insights.

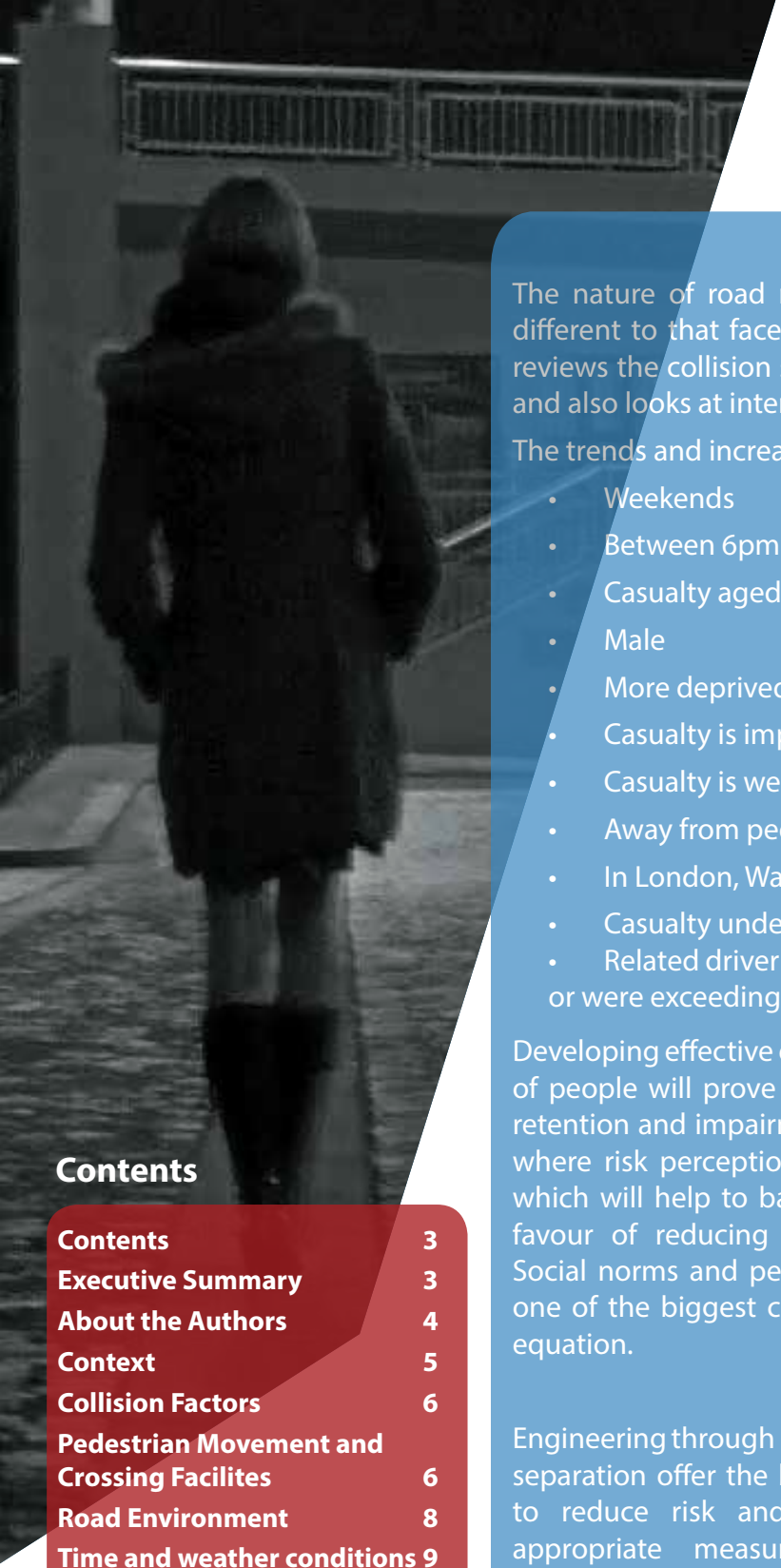
The analysis found that males are at greater risk of being injured as a pedestrian at night; that these casualties often come from similar types of community; and that their actions often contributed to their collisions, through alcohol impairment, wearing dark clothing and/or dangerous actions in the carriageway.

This research shines a light on what is occurring with adult pedestrians, especially at night-time, and can be used as a starting point for developing evidence-led interventions for drivers and pedestrians alike. Those who seek to reduce road casualties need information about the people and other factors involved in collisions. Only then can appropriate interventions be devised in order to break the chain of events that leads to injury and harm. An intervention may be an information campaign or physical engineering measures or it may comprise a mix of targeted police enforcement and community centred action or any combination of these. This report provides detailed analysis to inform those decisions.

As Road Safety GB promotes the best use of data and analysis to inform interventions, we are pleased to present this report to our members and the wider community.

Honor Byford
Chair
Road Safety GB

Road Safety GB



Executive Summary

The nature of road risk to adult pedestrians at night is significantly different to that faced by children or during the daytime. This report reviews the collision statistics for Great Britain between 2009 and 2013 and also looks at international research.

The trends and increased risk factors revealed are as follows:

- Weekends
- Between 6pm and 11pm
- Casualty aged between 16 and 34 years old
- Male
- More deprived household
- Casualty is impaired by alcohol
- Casualty is wearing dark clothing
- Away from pedestrian crossings
- In London, Wales, Scotland and the North-East of England
- Casualty undertook dangerous actions in the carriageway
- Related driver was impaired by alcohol, driving aggressively and/or were exceeding the speed limit

Developing effective education campaigns that will work with this group of people will prove difficult due to low perceptions of risk, message retention and impairment. There are however some good examples of where risk perception can be altered which will help to balance models in favour of reducing risky behaviour. Social norms and peer behaviour are one of the biggest challenges to this equation.

Engineering through lower speeds and separation offer the best opportunity to reduce risk and exposure and appropriate measures should be considered wherever the night time economy has its greatest presence.

Richard Owen
Director
Road Safety Analysis

Contents

Road Safety Analysis

About Road Safety GB

Road Safety GB is a national road safety organisation that includes representatives from groups across the UK, such as local government road safety teams.
Road Safety GB aims to reduce the number and severity of road collisions (and therefore to reduce loss of life and personal injury) by raising awareness of road safety and safer road user behaviour with the road using public, through the provision of training, advice, information, leadership, research, publicity, informed comment and other services to relevant bodies (national and local) and to its members.
Road Safety GB works to develop a range of educational initiatives; many in partnership with other organisations and all widely publicised to encourage the national; debate on road safety. Road Safety GB aims to inform public opinion by making available more information on the subject, working with other organisations to achieve shared goals.

www.roadsafetygb.org.uk

About Road Safety Analysis

Since its formation in early 2010, Road Safety Analysis has become a market leader in supplying innovative, creative and competitive services to the road safety sector. Built on the principles of social enterprise, Road Safety Analysis is focused on developing and delivering a range of road safety services that are evidence based and highly cost effective.
With extensive experience in the road safety field and yet a wide range of specialities in areas such as analysis, insight reporting, social marketing, communications strategy, evaluation and partnership development, Road Safety Analysis are keen to support the profession with services that make a difference.

www.roadsafetyanalysis.co.uk

About the Authors

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Dan Campsall
A renowned social marketing expert, Dan helped found RSA after 8 years' experience as Communications Manager at the Thames Valley Safer Roads Partnership. As well as creating new ways of understanding more about the socio-demographics of road casualties, he is also responsible the development of dozens of road safety campaigns and products.

Context

Whilst only 10% of adult casualties are injured as pedestrians (compared to 40% of children), adult pedestrian casualty numbers have not reduced to the same extent as those for children. In the last 10 years, there was a 48% reduction in the number of children injured as pedestrians on Britain's roads while the reduction amongst adults was only 22%. On average, there are 18,213 adults and 7,423 children injured as pedestrians each year (based on 2009-2013 figures).

As a percentage of all adult casualties, there were more adult pedestrians injured in 2013 (10.5%) than in 2004 (9.1%). When it comes to death and serious injury, the same is true: in 2004, 16.9% of adult KSI casualties were pedestrians and this rose to 18.9% in 2013.

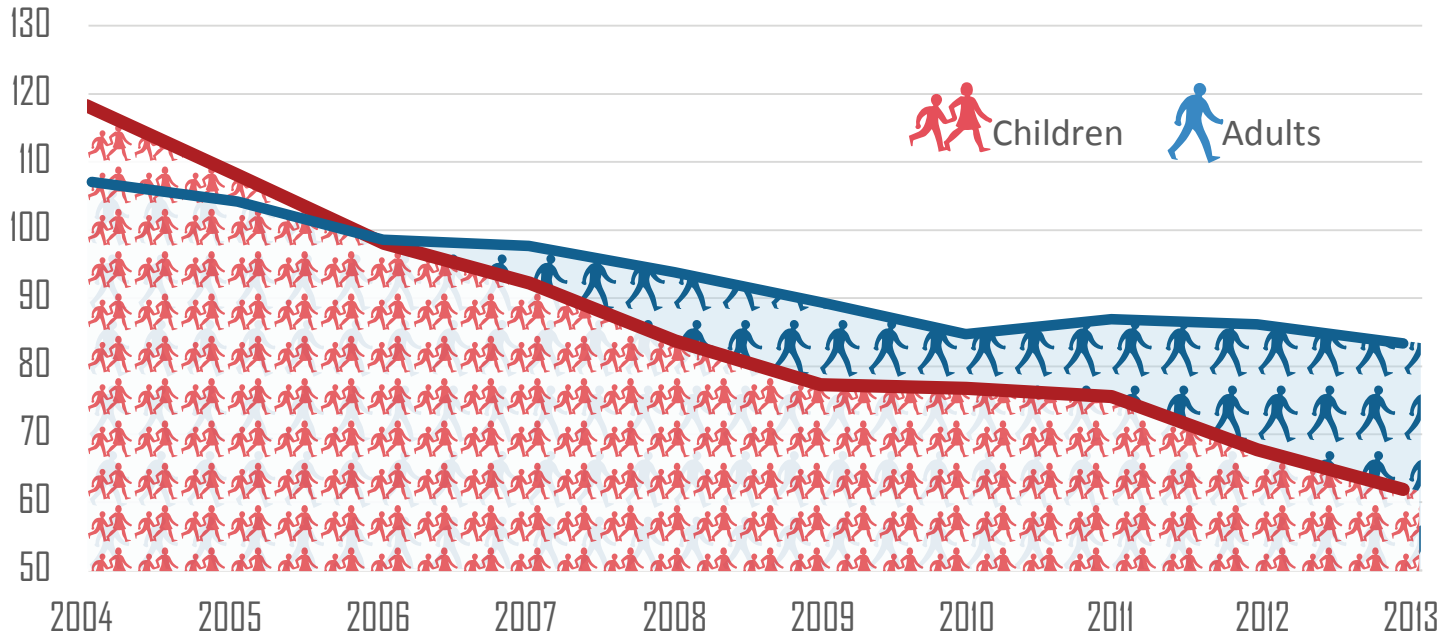


Figure 1: All Pedestrian Casualties 2004 - 2013

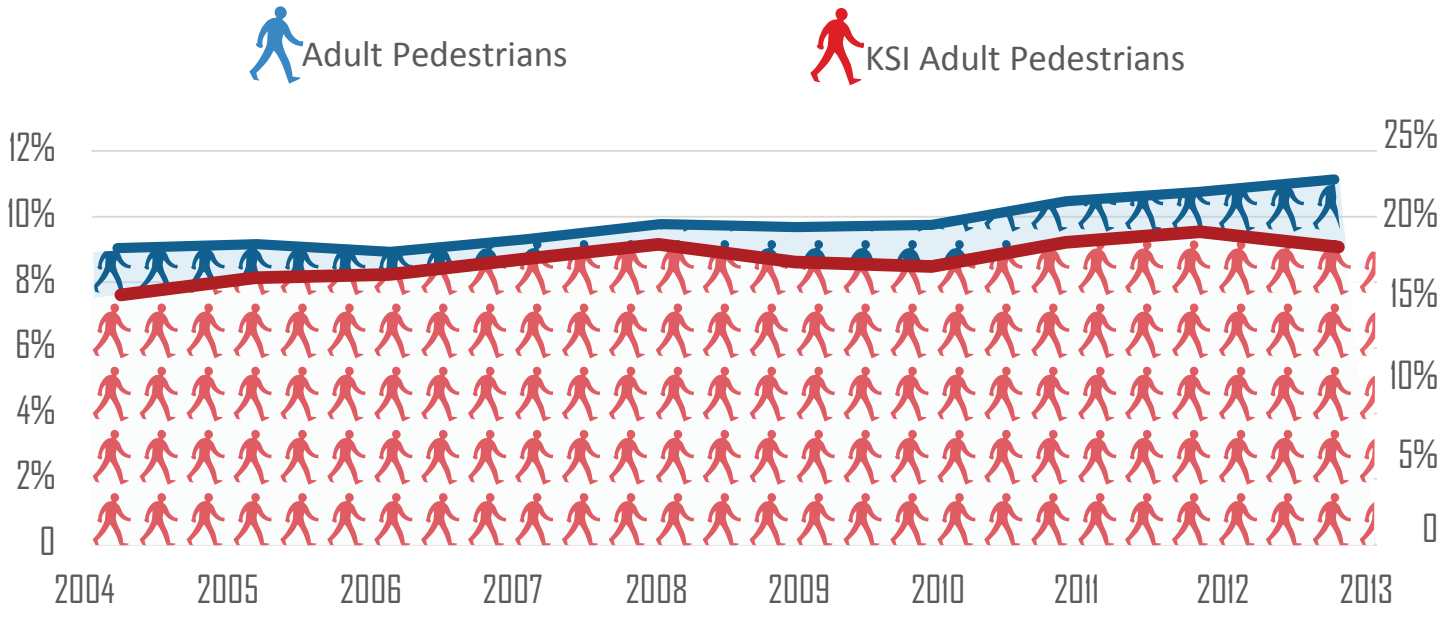


Figure 2: Adult Pedestrians as % of all Adult Casualties

This analysis focuses on adults injured in the night-time economy between 2009 and 2013, defined as the hours between 6pm and 6am.
Thirty-three percent of all adult pedestrians were injured between 6pm and 6am and this increases to 39% for adult KSI pedestrians.
Over the last ten years, there has been little change in the percentage of adult pedestrians who were injured at night-time.

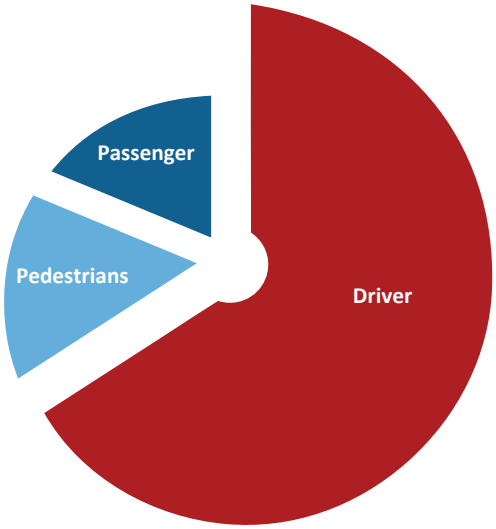


Figure 3: Adult KSI Casualties

Collision Factors

Pedestrian Movement and Crossing Facilites

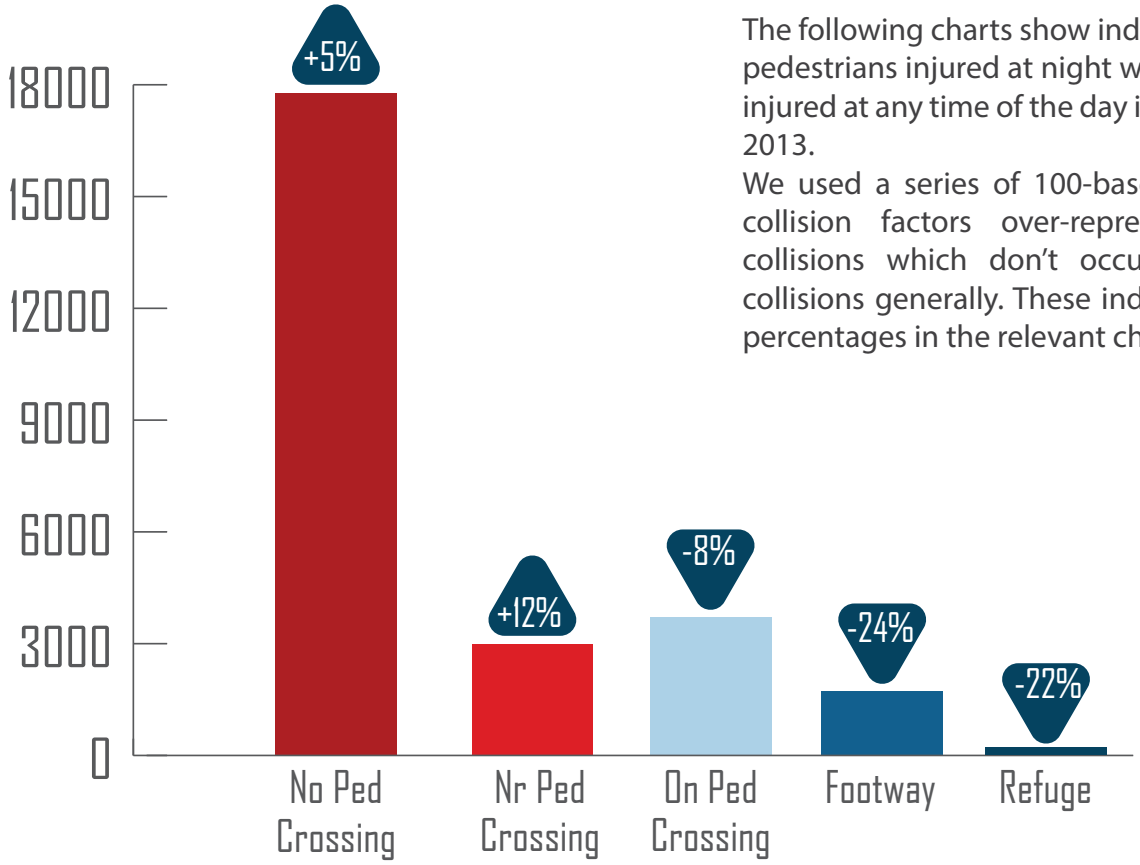


Figure 4: Pedestrian Location

The following charts show indices comparing all adult pedestrians injured at night with all adult pedestrians injured at any time of the day in GB between 2009 and 2013.
We used a series of 100-based indices to highlight collision factors over-represented in night-time collisions which don't occur in adult pedestrian collisions generally. These indices are represented as percentages in the relevant charts.

Whilst most adult pedestrians injured at night are not at a pedestrian crossing, this is similar to the behaviour of adult pedestrians injured at any time of the day. Interestingly, between 2009 and 2013, there were over 3,000 adult pedestrians who were injured at night-time and were near to a pedestrian crossing at the time. This might indicate incorrect use of crossing facilities at night-time – where pedestrians choose to cross in the vicinity of a crossing rather than reaching to use the crossing properly.
Most injured adult pedestrians, where their movement was known, were injured whilst crossing from the nearside – this is the case at night-time and all times of day. There were nearly 1,600 adult pedestrians injured at night-time who were walking in the road and a further 2,367 who were stationary in the road.

Reflecting the 'pedestrian location' analysis findings that the greatest numbers of adult pedestrians injured at night were not at a pedestrian crossing, over 20,000 adult pedestrians injured at night were in a location where there was not a physical crossing facility within 50 metres. There was an over-representation at night-time of adult pedestrians at the pedestrian phase at traffic signal junctions and on footbridges or subways (although the numbers in the latter locations were very small).

Figure 5: Physical Pedestrian Crossing

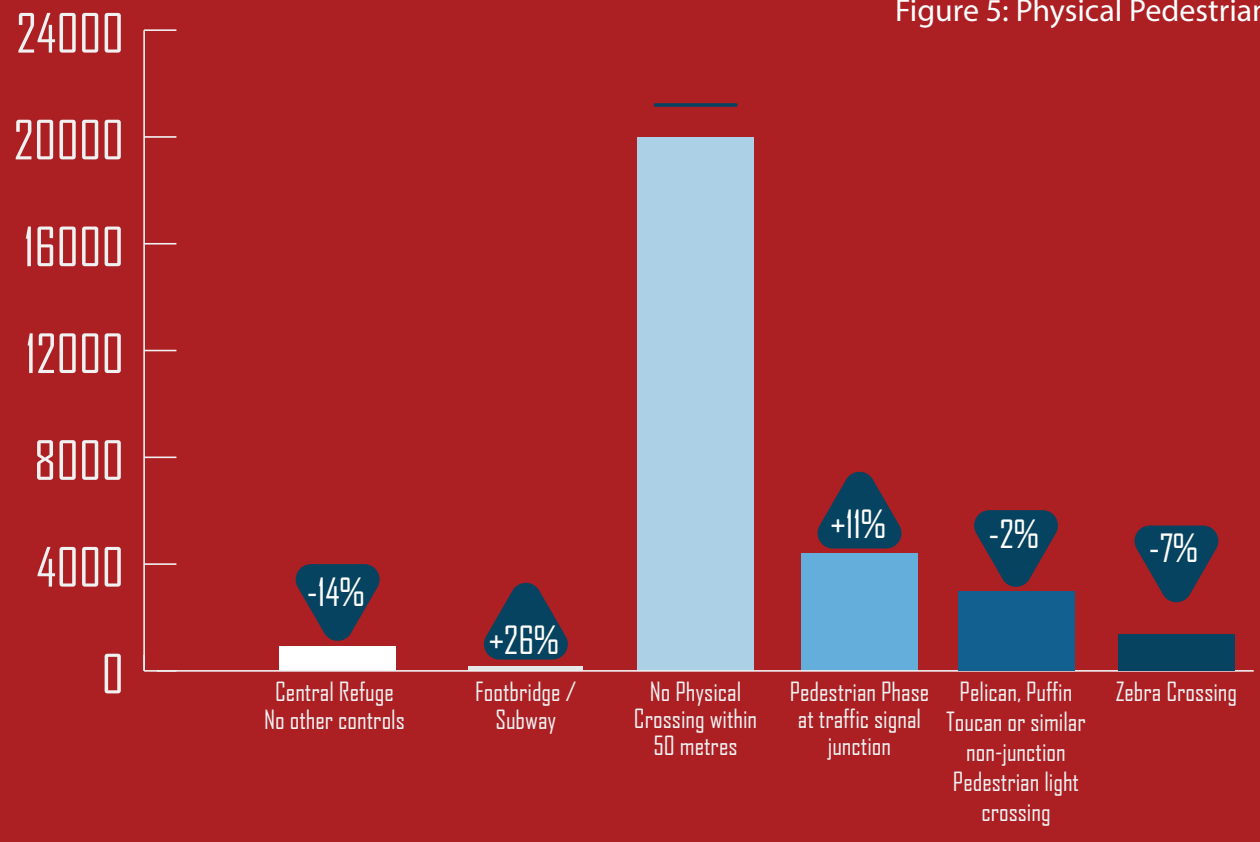
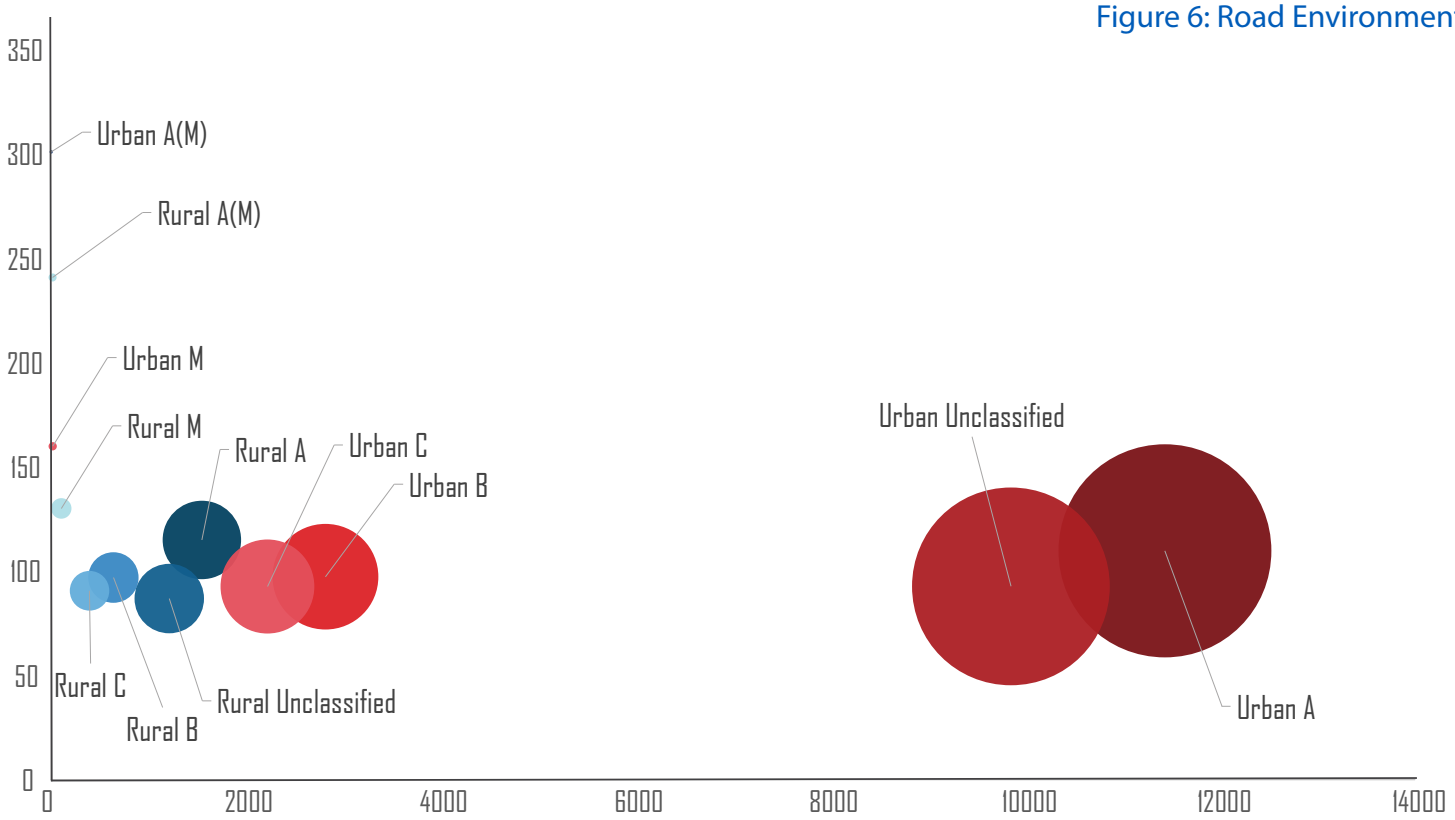


Figure 6: Road Environment



Road Environment

Analysis of junction types and junction controls shows that there are no significant differences in location for adult pedestrians injured at night compared to all adult pedestrians.
Road class analysis shows that nearly 13,000 adult pedestrians were injured at night on A roads and this is an over-representation compared to all adult pedestrians.

There were also 11,000 adult pedestrians injured at night-time on unclassified roads but this was under-represented compared to all adult pedestrians. Whilst numbers were extremely small, there were over-representations of adult pedestrians at night-time on A(M) roads and motorways.

Reflecting the road class analysis, adult pedestrians injured at night are over-represented on dual carriageways, compared to all adult pedestrians. Speed limit analysis tells a similar story – whilst over 27,000 adult pedestrians were injured at night-time on 20mph and 30mph roads, there was an over-representation at night of adults on 40mph or faster roads.

Time and weather conditions

The day of week analysis shows that there were over 6,000 adult pedestrians injured on Saturdays between midnight and 6am and 6pm and midnight. This is an over-representation compared to all adult pedestrians injured.

There were a further 5,197 adult pedestrians injured at these times on Sundays, which is also an over-representation.

The numbers of adult pedestrian casualties injured at night decreases sharply from a peak at 6pm to levelling at 9pm to 10pm before decreasing slowly over the rest of the night.

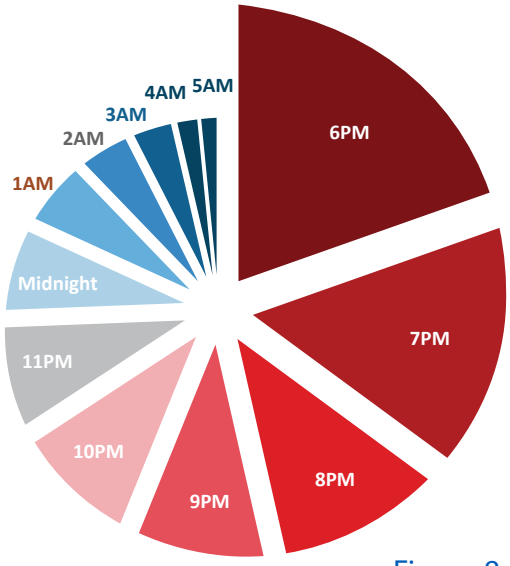


Figure 8: Time of Day

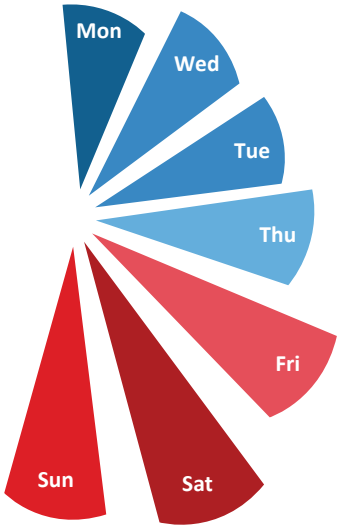


Figure 7: Day of Week

Higher numbers of adult pedestrians were injured at night-time in the months of October and February but these patterns are similar to those for all adult pedestrians.

Most adult pedestrians injured at night-time were involved in collisions in fine and still weather. However, there was an over-representation in adverse weather conditions and perhaps this is due to poorer visibility for both motorists and pedestrians, with headlight and streetlight glare becoming a factor, and that pedestrians could be crossing roads with restricted views (due to the use of umbrellas or head coverings).

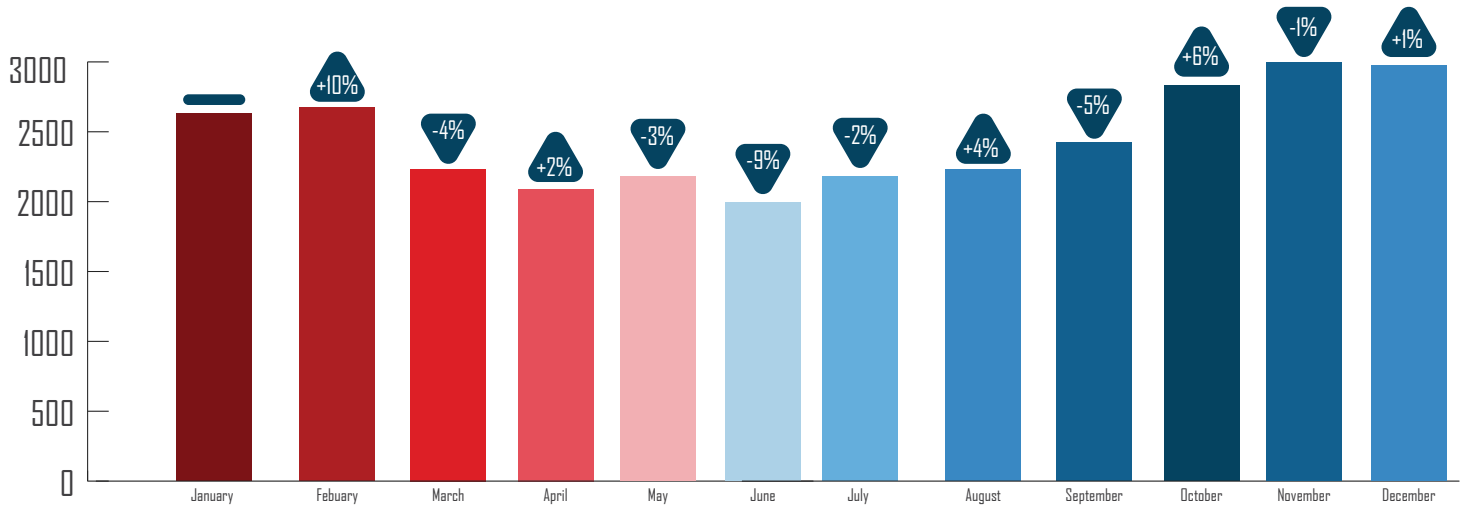


Figure 9: Month of Year

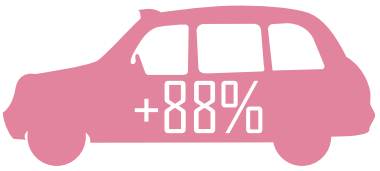
Other parties involved

Pedestrian casualties could be counted more than once in the analysis as they could be injured in crashes involving various parties. The indices are calculated individually against the number of adult pedestrian casualties injured at night-time, therefore the overall totals in the chart will be higher than the actual number of casualties.

It shows that most adult pedestrians injured at night-time were involved in a collision with a car and this is an over-representation compared to all adult pedestrians. Casualties in crashes involving young drivers were also over-represented at night-time. However, when comparing the casualties involved in night-time collisions, regardless of age and casualty class, young drivers are no longer over-represented for casualties injured at night-time.

The related vehicle is the one in direct contact with the pedestrian casualty. For adult pedestrians at night, 22,498 were struck by a car, but this is at a similar rate as to all adult pedestrians. There was an over-representation of adult pedestrians struck by taxis at night.

Looking at all casualties injured at night-time, regardless of age and casualty class, pedestrians are more likely to have taxis as the related vehicle than casualties of any class.



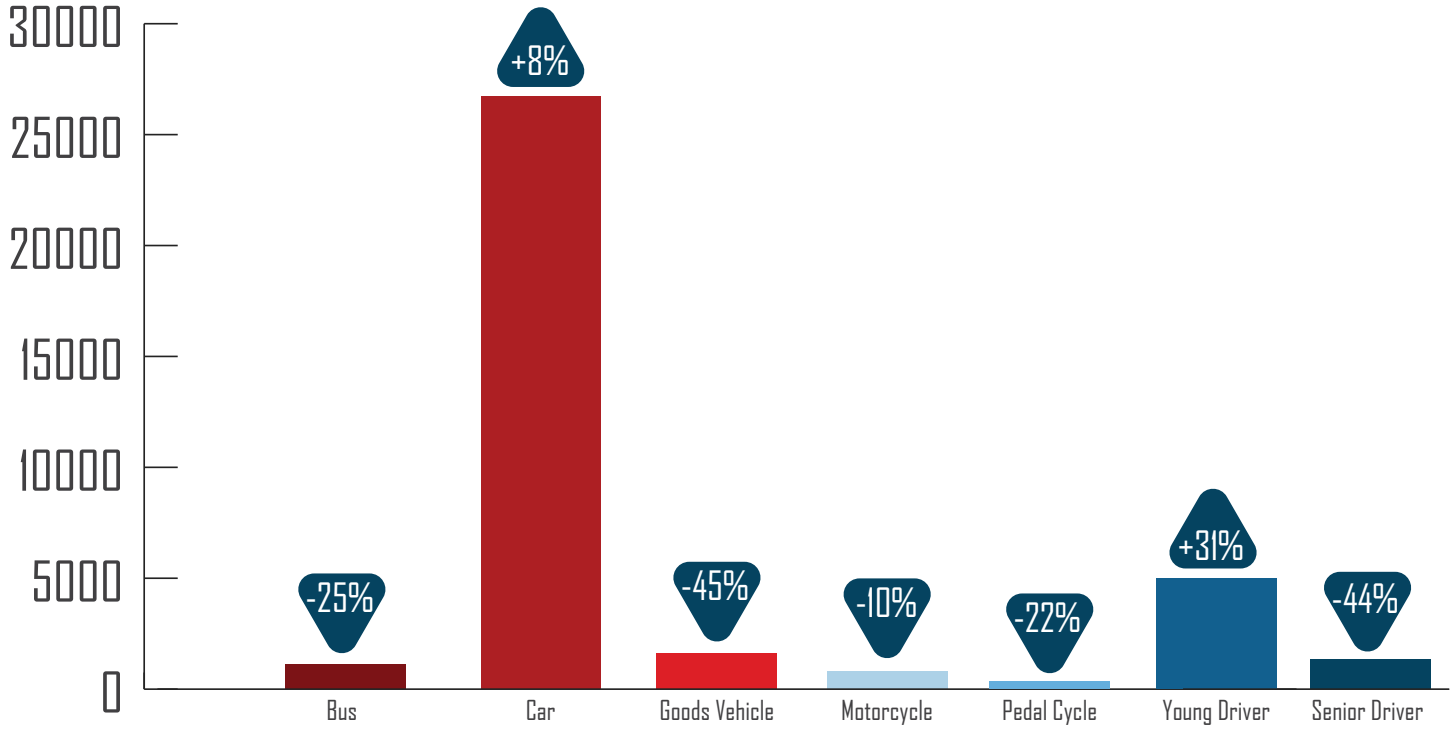


Figure 10: Pedestrian Casualties in Crashes involving

Reflecting the 'crash involved' analysis, the related drivers of adult pedestrians injured at night are most likely to be aged between 16 and 34 years old and these age groups are over-represented compared to the related drivers for adult pedestrians injured at any time. As shown earlier, younger drivers are over-represented in night-time collisions involving all classes of road user.

Analysis of the manoeuvre of the related driver for adult pedestrians injured at night-time reveals some interesting results. Most of the drivers were not performing a manoeuvre but were instead travelling straight ahead. This is an over-representation compared to the findings for all adult pedestrians. It could suggest that the behaviour of the pedestrian played a bigger part in the collision at night-time or that the driver was travelling straight ahead but not able to react in time (by travelling too fast, whilst distracted or impaired perhaps).

There were over 17,000 adult pedestrians aged between 16 and 34 years old who were injured in Great Britain between 2009 and 2013. These two age groups are over-represented compared to all adult pedestrians. There were over 20,000 male adult pedestrians injured at night-time and males were over-represented at night-time compared to all injured adult pedestrians.

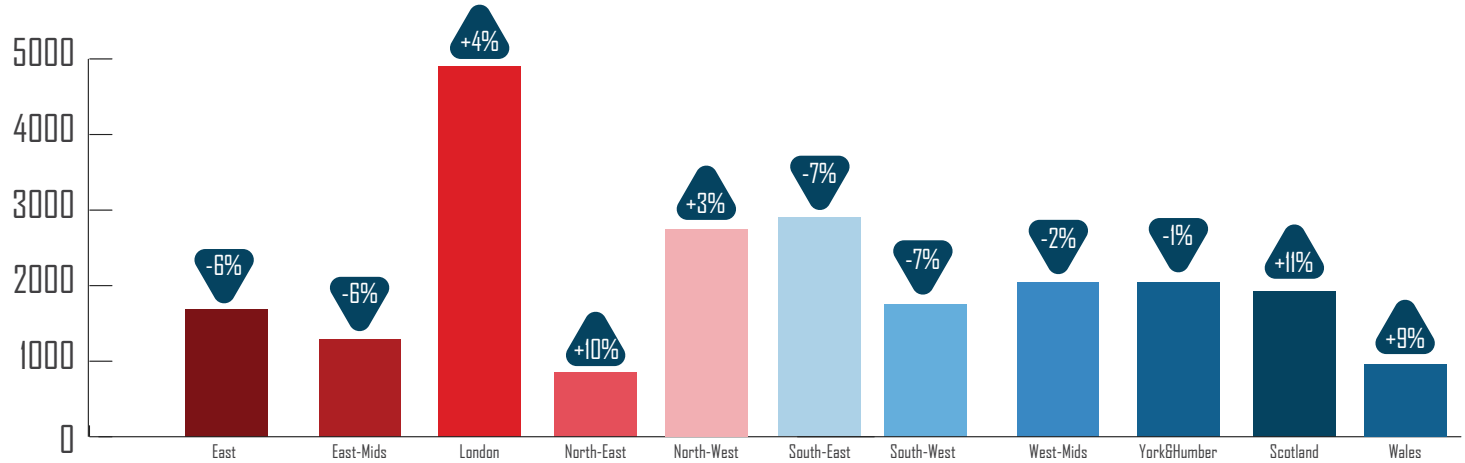


Figure 11: Pedestrian Casualties' Home Location

Not accounting for population figures, the highest number of adult pedestrian casualties injured at night live in London and this is an over-representation compared to all adult pedestrians. Other areas where night-time adult pedestrians are over-represented are the North East, the North West, Scotland and Wales.

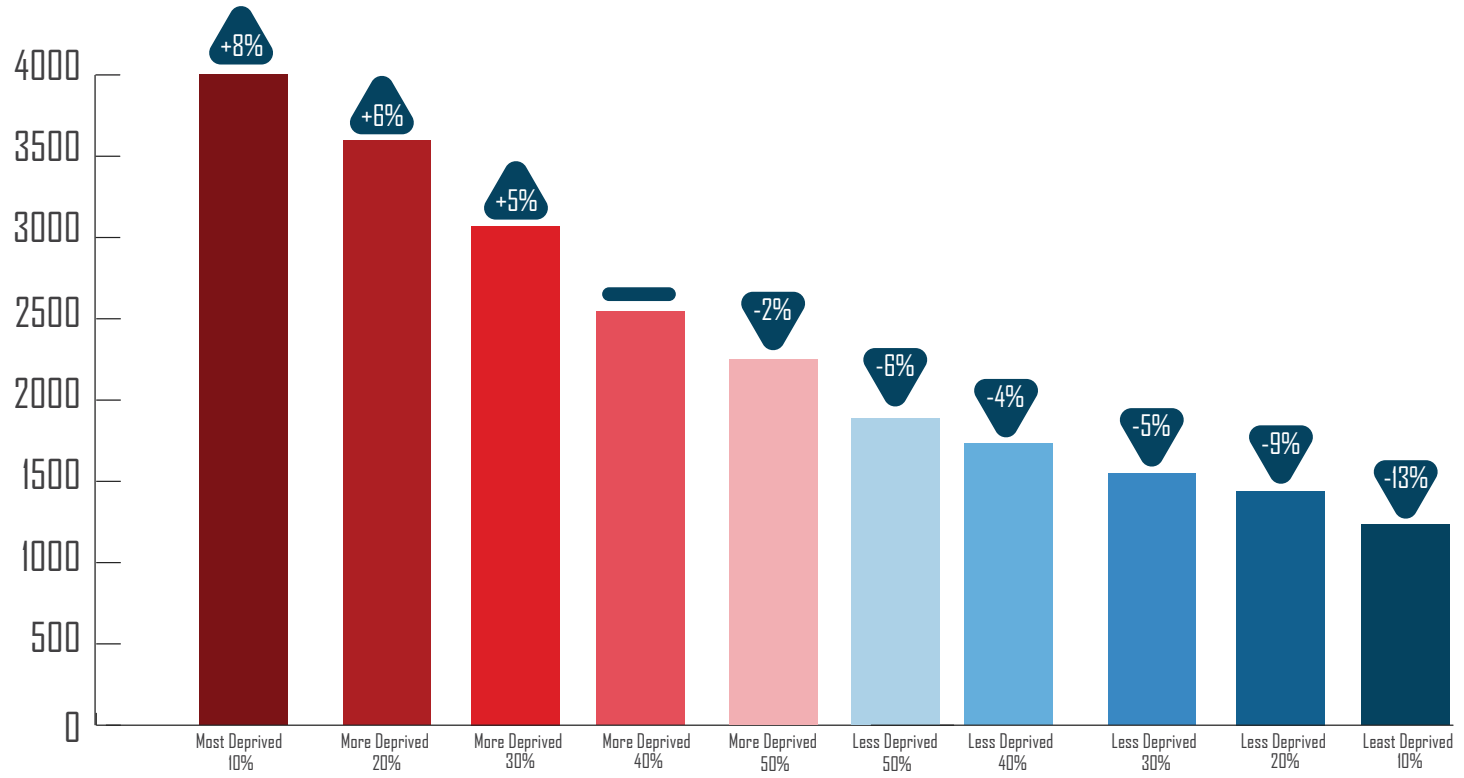


Figure 12: Pedestrian Casualties' IMD

Overall, adult pedestrians tend to live in the most deprived communities but those injured at night-time are over-represented as being from the 10-30% most deprived areas of Britain.

Mosaic Public Sector 2014 has been used to profile adult pedestrians injured at night-time. It uses the casualty postcodes and indexes them against the distribution of Mosaic Types across the country. The analysis shows that Mosaic Types M55, L50, O63, M56 and J44 all had over 650 adult pedestrian resident casualties injured at night-time between 2009 and 2013. All of these Types were over-represented when indexed against population.

M55

Families with Needs

Families with many children living in areas of high deprivation and who need support.

L50

Renting a Room

Transient renters of low cost accommodation often within subdivided older properties.

J44

Flexible Workforce

Young renters ready to move to follow worthwhile incomes from service sector jobs.

M56

Solid Economy

Stable families with children renting better quality homes from social landlords.

O63

Streetwise Singles

Hard-pressed singles in low cost social flats searching for opportunities

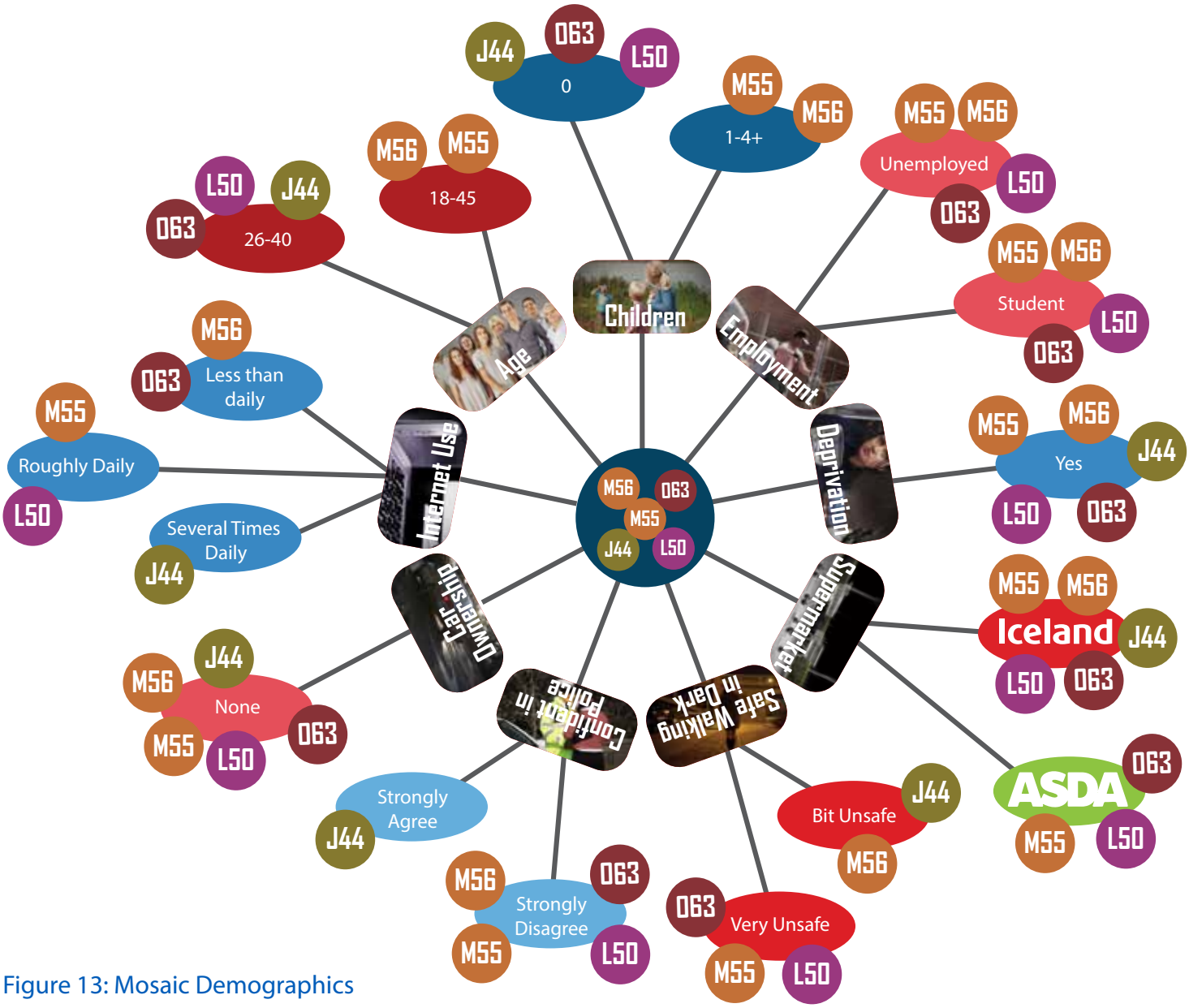


Figure 13: Mosaic Demographics

These Types share common characteristics which can be used to target road safety interventions. All of the Types are over-represented as having residents within the target age group of 16 to 34 years old.

There is an over-representation of students or unemployed residents and where they are employed, residents from the different Types work in similar industries. As with the Index of Multiple Deprivation analysis, these Mosaic Types are deprived and have high levels of financial stress, with low household incomes.

They tend to live in council or rented properties and there are high numbers of benefit claimants amongst residents. They tend to shop at similar supermarkets, with Iceland being popular across all the Types.

There are slight variations in the types of crime that these communities experience but it is interesting to note that residents of these Types all feel unsafe to walk alone after dark. This fear could be linked to information about pedestrian road risk in order to change walking behaviour.

Residents of these communities tend to have low confidence in the police, poor health, drink alcohol at least one a month and are smokers.
The newspaper they are most likely to read is The Sun. Most of the Types love technology and are always the first to have the latest gadgets.

They have high internet usage and they tend to use their smartphone. Residents from these communities are regular Facebook users but they don't use Twitter as much.

They are likely to have low levels of qualification – where they do have qualifications, they are 1 to 4 GCSEs, are work-related or are foreign qualifications.

Lastly, and relevant to their pedestrian road risk, residents of these Mosaic Types are unlikely to own a car.

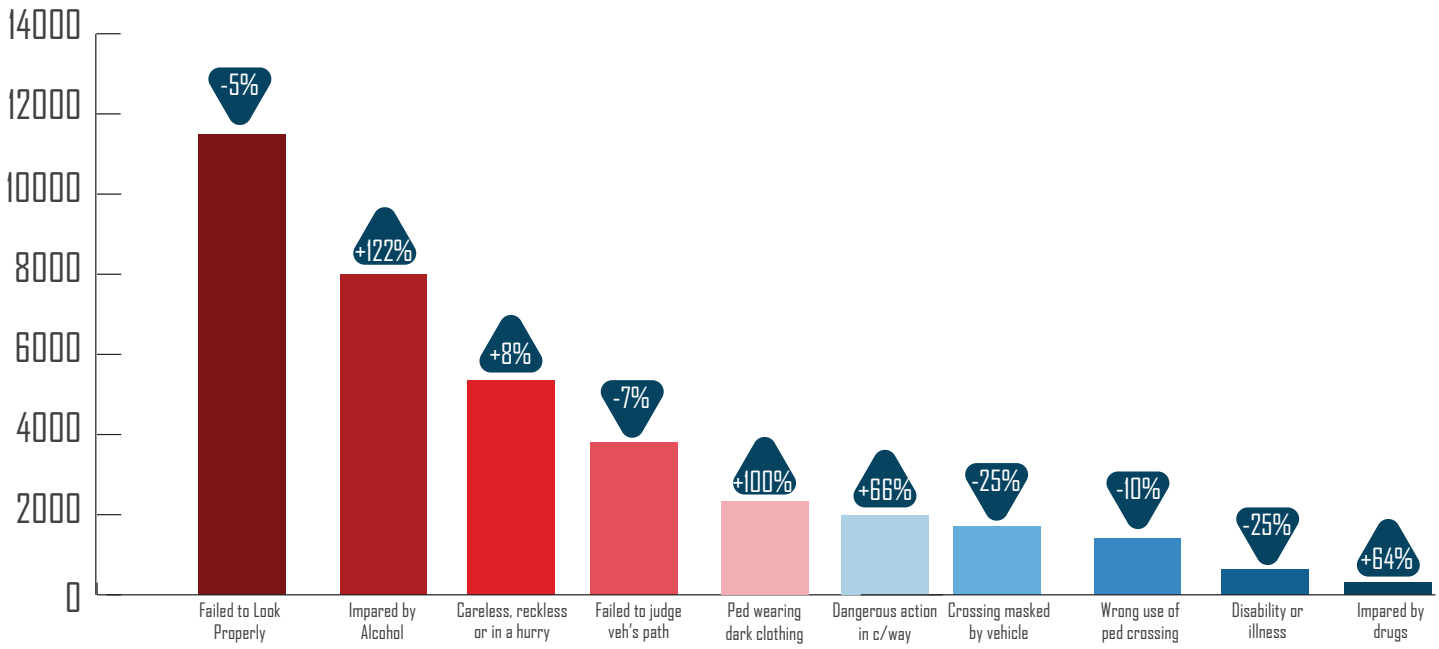


Figure 14: Pedestrian Casualties' Contributory Factors

Contributory factor (CF) analysis is conducted on collisions attended by a police officer and where at least one CF was recorded. Adult pedestrians injured at night-time are more likely to receive any contributory factor (75.6% of night-time pedestrians) than those injured during the daytime (68.3%).

The most commonly attributed CF (as it is in most collisions involving all types of road user) is 'Failed to Look Properly'. However, adult pedestrian casualties injured at night receive this CF less often than expected, compared to all adult pedestrians. The next most commonly attributed CF is 'Impaired by alcohol' and adult pedestrians injured at night-time are 122% more likely to receive this CF than all adult pedestrians. Adult pedestrians at night are also over-represented as being attributed 'Careless, reckless or in a hurry', 'Pedestrian wearing dark clothing at night', 'Dangerous action in carriageway' and 'Impaired by drugs'.

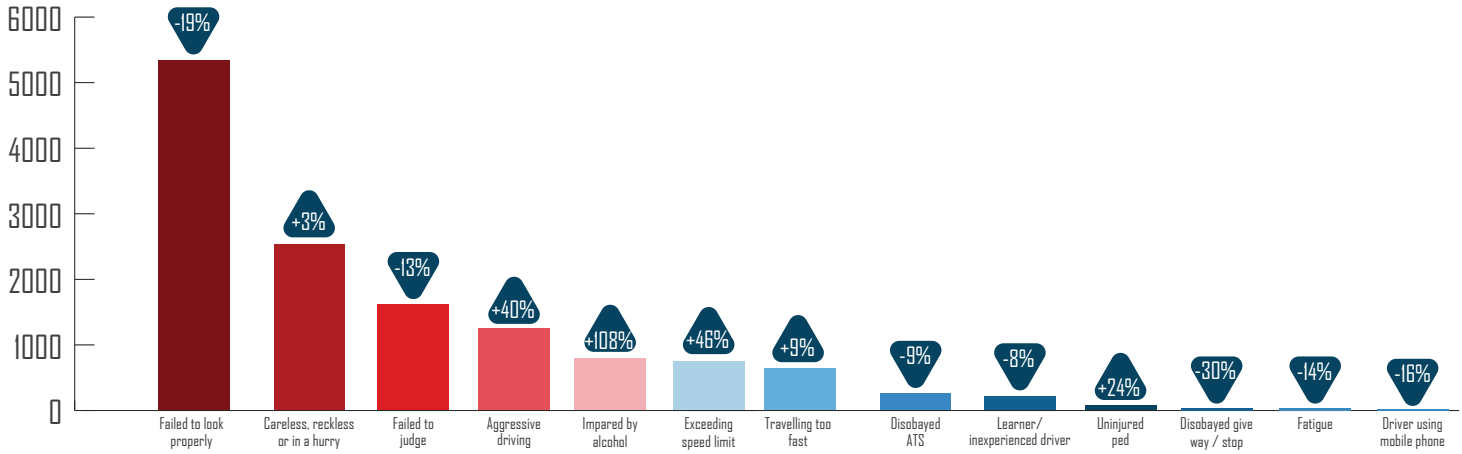


Figure 15: Pedestrian Casualties by Drivers' Contributory Factors

The contributory factors of drivers involved in collisions with adult pedestrians at night can also be analysed. These are shown as the number of adult pedestrian casualties where at least one driver in their collision received that CF. As before, the highest number of adult pedestrian casualties at night were in collisions where at least one driver 'Failed to look properly'. Adult pedestrian casualties at night were over-represented where at least one driver was assigned 'Careless, reckless or in a hurry', 'Aggressive driving', 'Impaired by alcohol', 'Exceeding the speed limit' and/or 'Travelling too fast for conditions'. Accounting for small numbers of adult pedestrian casualties at night, but still over-represented compared to all adult pedestrians, was where an uninjured pedestrian was thought to have contributed to the collision occurring.

As 'Impaired by alcohol' was the second most commonly attributed CF to adult pedestrians injured at night and this is an over-representation compared to all adult pedestrians, this CF should be examined in more detail.

This is done by comparing those injured at night-time and impaired by alcohol against all pedestrians impaired by alcohol, by age group. All age groups are more likely to be impaired by alcohol at night, with 16 to 24 year olds representing the highest numbers and over-represented the most at night-time compared to 16 to 24 years injured whilst impaired at any time of the day.

There were over 3,000 16 to 24 year old pedestrians who were injured at night and were thought to have been impaired by alcohol (based on a subset of data where a police officer attended and at least one CF was attributed), suggesting the levels of alcohol involvement in pedestrian injuries amongst this age group could be a lot higher. "National data for Great Britain shows that the incidence of alcohol amongst fatally injured adult pedestrians is increasing: 46% of fatally injured pedestrians had BACs in excess of 9mg/100ml in 1997 compared with 39% a decade earlier".[1]

Existing Research

The issue of impaired pedestrians contributing to road traffic collisions isn't a new one. There were studies in 1934 in Pennsylvania and 1941 in New York City exploring the issue of impaired pedestrians. The findings of this current study were compared with research from across the world, from the 1960s up until 2014.

The studies varied greatly in focus and scope and included:

Examining blood alcohol concentration (BAC) levels amongst pedestrians admitted to trauma centres

Evaluating available countermeasures to reduce the risks to intoxicated pedestrians

An experiment looking at the road crossing behaviour of intoxicated and sober pedestrians

Geostatistical analysis examining the relationships of neighbourhood characteristics (including alcohol availability and consumption) to pedestrian injury collisions

Understanding the alcohol use and dependency history of pedestrian casualties

Developing a methodology to compare the blood alcohol and breath samples of pedestrian casualties and controls (with controls recruited one week after the collision at the same time and location)

Understanding the related behaviour and attitudes of young people who walk while intoxicated

Identifying the socio-demographic backgrounds of impaired pedestrians

Analysis of full collision investigation reports of pedestrian fatalities

A comprehensive literature review of the various environmental and behavioural factors influencing pedestrian collisions

These studies, spanning a 50 year period, identified factors which this current research has also highlighted (as shown in the 'Common Factors' row of the table. The approach in this current study has revealed new factors which were not identified in other studies (due to scope and methodology) and these are shown in the 'Current Study – Additional Factors' section. Lastly, there is the additional information gathered from some of these other studies ('Existing Research – Additional Factors).

	Existing Research	Current Study
Common Factors	At weekends Between 6pm and 11pm Where the casualty is aged between 16 and 34 years old Where the casualty is male Where the casualty is deprived Where the casualty is impared by alcohol Where the casualty is wearing dark clothing Where the casualty undertook dangerous actions in the carriageway Where the related driver was impared by alcohol, driving aggressive and/or were exceeding the speed limit	
Additional Factors	Intoxicated pedestrians showed lack of awareness of impairment, a tendency to engage in risky road-crossings, & difficulty integrating speed and distance information in a timely manner, necessary to select safe gaps in the traffic.(2) Alcohol-involved pedestrian collisions occurred more often in areas with greater bar densities and greater population, and where the local population reported drinking more alcohol per drinking occasion.(3) 16% of injured pedestrians had a lifetime or current diagnosis of alcohol abuse/alcohol dependence - twice that of the estimates for general US population. (4) It appeared that a high BAC was the result of their normal drinking habits. (5)	Pedestrian casualties at night are over-represented on faster roads and dual carriageways. That taxi's are over-represented in collisions involving pedestrians at night. That young drivers are often involved in collisions involving pedestrians at night. That the related vehicle was often traveling straight ahead.

Possible Interventions

Road safety interventions are traditionally divided into three types: engineering, enforcement or education.

Engineering Solutions

The international studies have suggested that there are a variety of engineering solutions which could be used to reduce adult pedestrian risk at night-time, mainly through segregation or by assisting the driver to reduce the likelihood of impact with a pedestrian who is perhaps behaving unpredictably (because of alcohol impairment). Suggestions include:

Separation of pedestrians from motor vehicles by fences.[6]

Making the environment safer for all pedestrians, drunk or sober. The measure that would be expected to have the greatest effect quickest is a reduced speed limit, especially in locations where traffic is busy and there are many pedestrians.[7]

Fencing or other facilities to separate pedestrians and motor vehicles in areas where bars cluster.[8]

Adequate lighting to assist drivers in seeing pedestrians at night.[9]

Traffic calming devices.[10]

Enforcement

There are limited enforcement options available to target impaired pedestrians and reduce their road risk. Jay-walking is not offence in the UK nor is there any general prohibition on drinking in the street. There are, however, certain alcohol related offences which may be committed in public places. These include drinking in a designated public place (and refusing a police officer's requirement not to drink or not surrendering the alcohol); being drunk and disorderly in a public place; or being drunk in any highway or other public place[11].

Enforcement of these offences in areas with high pedestrian casualty rates might reduce levels of risk whilst also affecting levels of public disorder. However, whilst alcohol has been shown to play a part in collisions involving adult pedestrian at night-time, it does not mean that an impaired pedestrian is committing any of the above offences.

Education

One study concluded "that there is no reason for optimism about directing safety measures specifically at drunk pedestrians." [12] It went on to cite another report which stated "alcohol-impaired pedestrian crashes continue to present a challenge to road safety practitioners because there are few known effective countermeasures and due to the difficulty of measuring and modifying behaviour in this area.[13]"The reason why impaired pedestrians present such a challenge is that not only are perceptual, cognitive, and physical skills (such as being able to detect vehicles in motion, processing multiple sources of information and safely initiating actions) all adversely affected by alcohol[14] but also that "you can't tell somebody who has had a skin full what the sensible thing to do is." [15]

The Pedestrian Council of Australia highlights that:

"Over 20% of pedestrians who are killed on our roads have a BAC exceeding .15%. Most of these people were so inebriated, they were sleeping, playing, crawling and falling onto the road when hit.

Clearly, people this inebriated will not be retaining any advertising or awareness messages." [16]

There are a number of factors to consider when developing an educational, training or publicity campaign aimed at impaired pedestrians:

"Alcohol slows brain functions, reduces judgement, increases risk taking, affects sense of balance and increases sleepiness. Alcohol reduces your ability to judge the speed and distance of vehicles." [17]

That a high BAC amongst injured pedestrians appears to be a result of normal drinking habits and that studies have shown that there is high alcohol abuse/dependence amongst casualties. This suggest that there might be a role for agencies outside of road safety (such as public health and the police) as these organisations would also benefit from lower levels of alcohol use and abuse.

An exploratory study examining the behaviour and characteristics of young drinking pedestrians looked at their perceptions of the risk associated with drink walking and decision making processes associated with 'drink-walking.' [18] It found that many of the people in the study were heavy drinkers, echoing the findings from casualty based studies.

The drink walking study found that respondents did see walking whilst impaired as dangerous but not as dangerous as drink-driving, driving unlicensed, not wearing a seatbelt, speeding, driving when tired or riding a bicycle after drinking.[19] With perception of risk low, there may be a need to focus education on crash risk at moderate intoxication levels.

Respondents in the drink-walking study recognised that there were dangers associated with walking whilst impaired, including injury or robbery. "Almost one quarter had injured themselves and a further 30% reported knowing someone who had been injured whilst drink walking."[20] They believed that the likelihood of being hit by a vehicle or assaulted was greater than being robbed. Many reported falling over, stumbling or getting lost whilst impaired. These findings could be used to tailor a wider safety message aimed at reduce alcohol-related harm whilst walking, from a road safety, health and crime perspective.

The analysis within this study, reinforced by other findings, identifies a key target audience in terms of socio-demographics and areas of focus for messages in terms of behaviour and circumstances.

With potential difficulties with the recall and acceptance of risk messages by impaired pedestrians, one solution might be to educate drivers to be alert to the presence of alcohol-impaired pedestrians.[21] This approach was echoed in a focus group conducted for the Northern Ireland study: "The fact that they are intoxicated and some of them quite heavily intoxicated means that they don't have enough sense to keep themselves safe, so for them the best route from the research that we have carried out is to educate the other road users, the drivers to try and protect them".[22]

In the drink walking study, the participants were asked to suggest strategies to avoid injury: the most common were staying with sober friends (30%), drinking less (19%), and catching cabs or arranging other transport (22%)[23]. "While away from home, most young people drink alcohol with their friends. Therefore programs targeted at peer groups may be valuable and could incorporate the participants' suggestion of having a "sober walker", a person who did not drink alcohol (or not drink heavily) who could accompany intoxicated friends to ensure their safety."[24]

Existing Campaigns

One existing campaign, using some of the research findings highlighted above, is the "NEVER LET A MATE WALK HOME DRUNK" launched by the Pedestrian Council of Australia in 2011[25] . The campaign encourages friends of drunk people to see that they get home safely and uses a YouTube video and radio advert to raise awareness as well as asking local authorities to stencil a reminder logo in yellow on the footpaths outside pubs and clubs.

Whilst the 'Blazed and Wasted'[26] campaign targets drink-drivers and not drink walkers, there are many similarities in the characteristics of the target audience. The most appropriate behaviour change techniques for the campaign were identified using the Behaviour Change Wheel.[27] The approach uses the COM-B model ('capability', 'opportunity', 'motivation' and 'behaviour' to understand behaviour and how to change it).

The result from working through the model was that the campaign should encourage young males to book taxis, use public transport or a designate driver through the following:

Physical opportunity: Enablement – support designated drivers

Social opportunity: Modelling – Provide examples of others who use alternative modes of transport, role models for young males to aspire to or imitate

Reflective motivation: Education – increasing knowledge or understanding of the consequences of drink-driving

Automatic motivation: Training – imparting skills so that they are capable of going out and not drinking and driving (skills for designated driver)

The campaign was developed with these elements in mind and post-test evaluation questions designed to gain an understanding of past and future intended behaviour amongst the target audience. The questions were designed to gather information about the COM-B components identified in relation to drink-driving. It asked about their current modes of transport on a night out; whether that was likely to change as a result of the intervention; how capable they saw themselves and their friends in terms of avoiding drinking and driving; their previous awareness of drink-drive penalties and likelihood of being involved in a crash; and whether or not they had learnt anything.

The evaluation showed positive effects on the target audience, based on these measures.

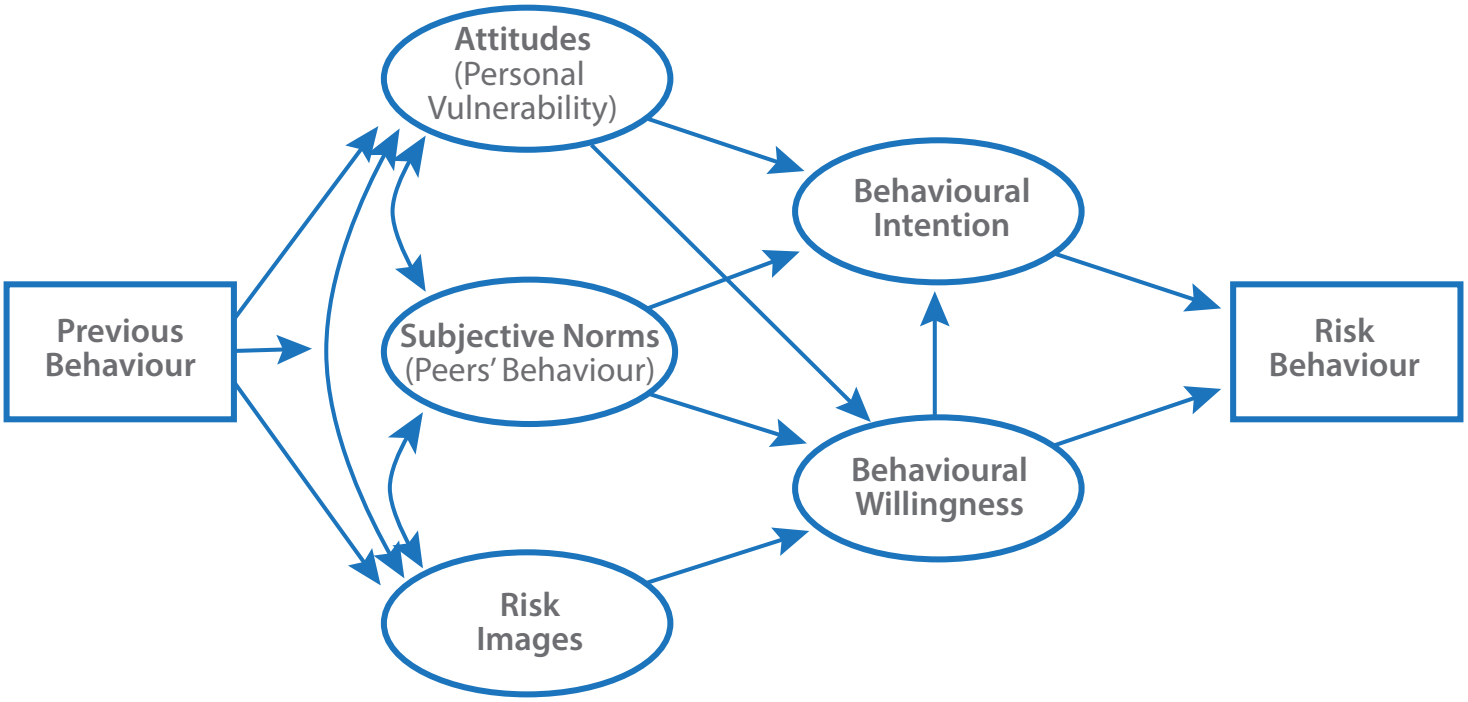
With a similar target audience identified for impaired pedestrians, there are perhaps opportunities to combine the drink-drive message with a message about getting home safely and using alternative transport methods instead of driving or walking.

One behaviour change theory which might be appropriate for the target audience is the 'Prototype Willingness Model'.[28] It seeks to explain the decision-making processes involved in adolescents' risk behaviour by suggesting a dual process model: a 'reasoned path' based on attitudes, intentions and subjective norms; and a 'social reaction path' based on willingness, perceptions of vulnerability and risk prototypes.

The model suggests that a young person's previous behaviour, their attitudes, intentions and subjective norms do all affect how likely they are to indulge in a certain risky behaviour but for adolescents, the social path is stronger.

This path is not related to intentions but how willing they are to engage in an activity, where willingness is a function of attitudes, subjective norms, perceptions of vulnerability and how they view others who engage in that activity. It means that an adolescent can intend not to smoke but if they have positive views of other smokers their age and low perceptions of vulnerability (that something bad is unlikely to happen to them if they smoke) then they will have stronger behavioural willingness to smoke, which is more likely to lead to them smoking if the opportunity arises.

For impaired pedestrians, they do not intend to go out and get so drunk that they will place themselves in a dangerous situation (resulting in rape, muggings, fights, falls or hit by a vehicle) but the research shows that they have low perceptions of vulnerability that these things might happen to them. They may also hold positive risk images/prototypes about the types of people who go out drinking and then walk. Providing more negative prototypes and increasing perceptions of vulnerability could reduce levels of willingness amongst the target group.



Source: Gerrard et al, A dual-process approach to health risk decision making: The prototype willingness model, (Developmental Review 28 (2008) 29-61)

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[13] ibid., p.5

[14] ibid., p.4

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[16] http://www.walk.com.au/pedestriancouncil/page.asp

[17] Hardy, p.24

[18] Lang et al., p.2

[19] ibid., p.5

[20] ibid., p.5

[21] ibid., p.5

[22] Hardy, p. 29

[23] Lang at al., p.4

[24] ibid., p.5

[25] http://www.walk.com.au/pedestriancouncil/page.asp

[26] http://www.saferroads.org/wp-content/uploads/sites/15/Blazed-and-Wasted-Evaluation-Report.pdf

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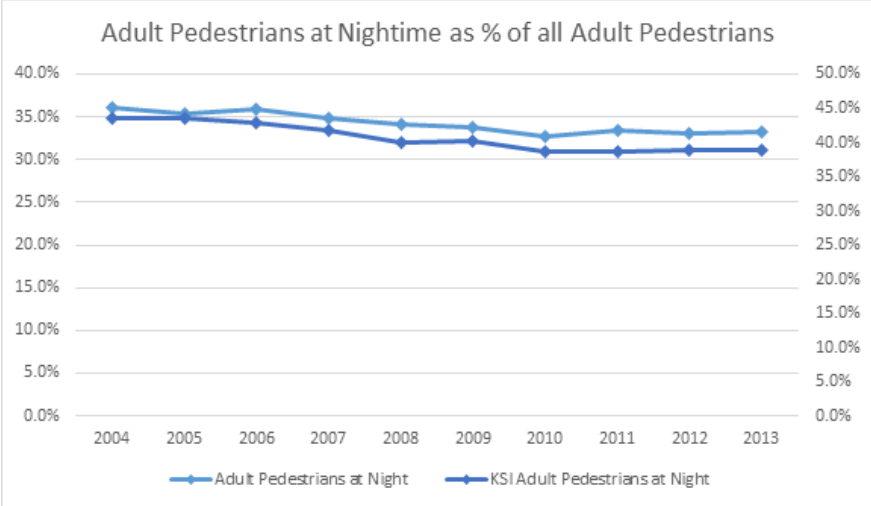
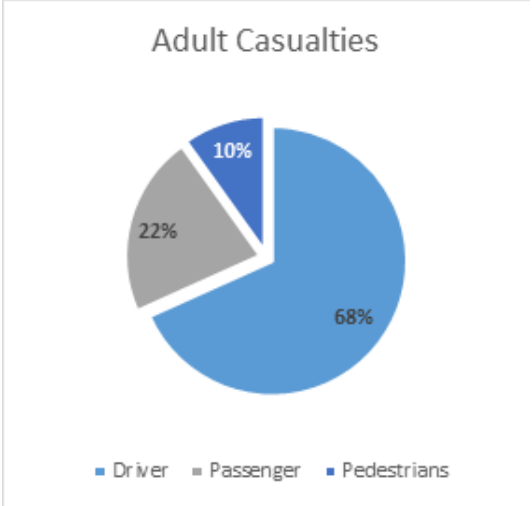
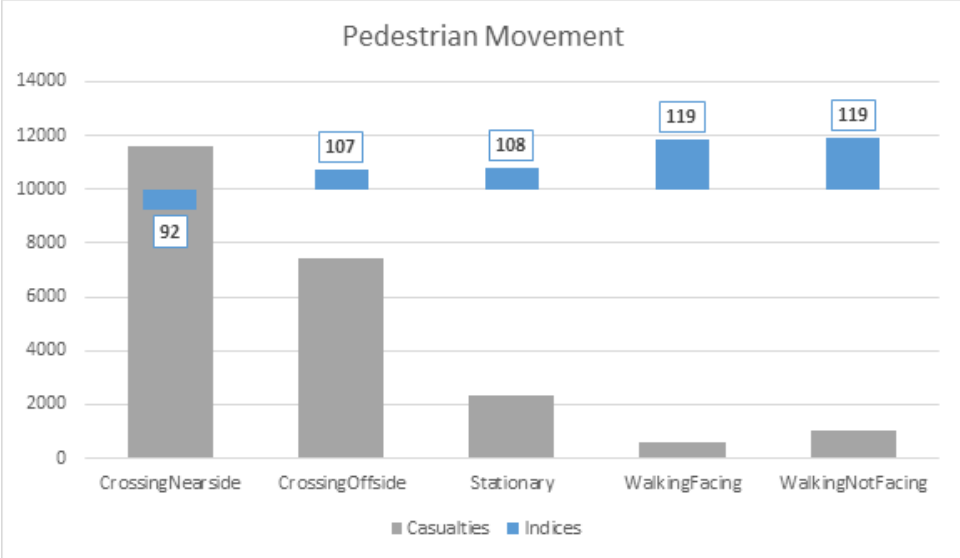


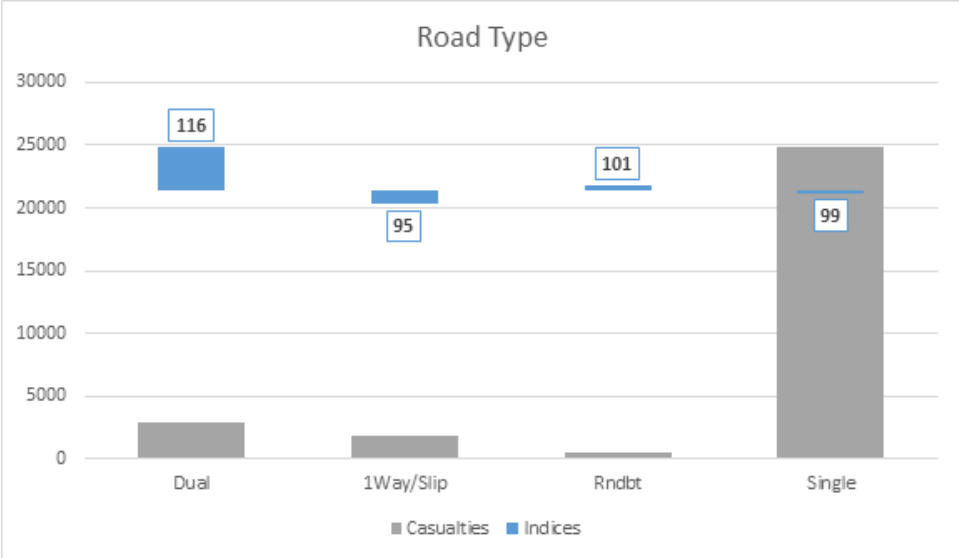
Over the last ten years, there has been little change in the percentage of adult pedestrians who were injured at night-time.



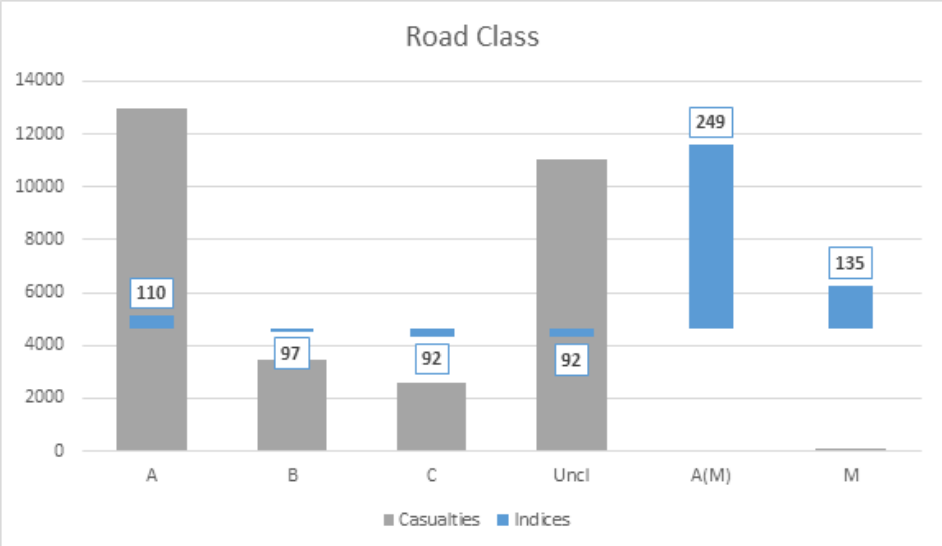
33% of all adult pedestrians were injured between 6pm and 6am.



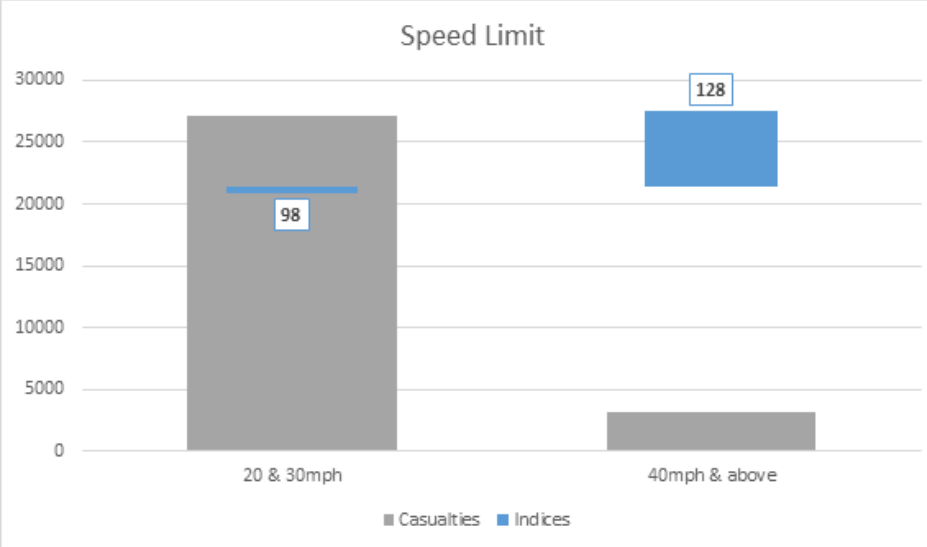
Most injured adult pedestrians, where their movement was known, were injured whilst crossing from the nearside - this is the case at night-time and all times of day.



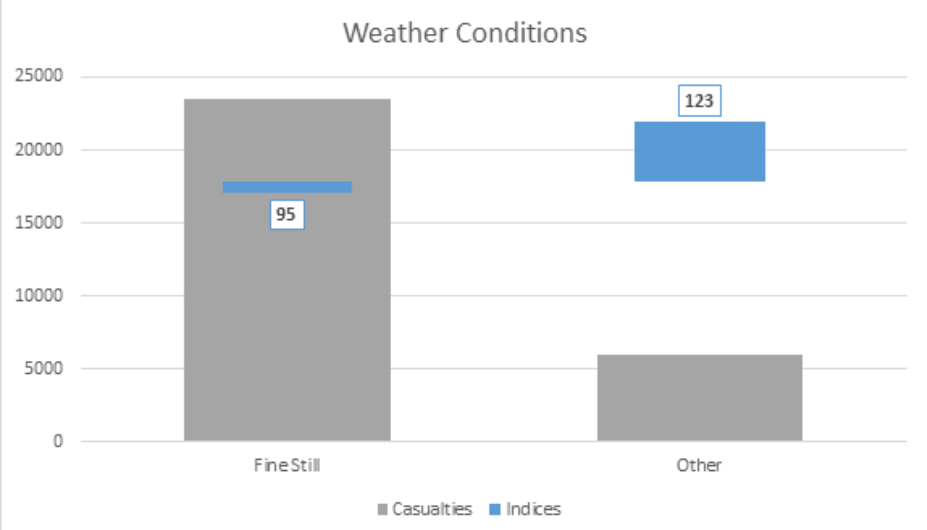
Adult pedestrians injured at night are over-represented on dual carriageways, compared to all adult pedestrians.



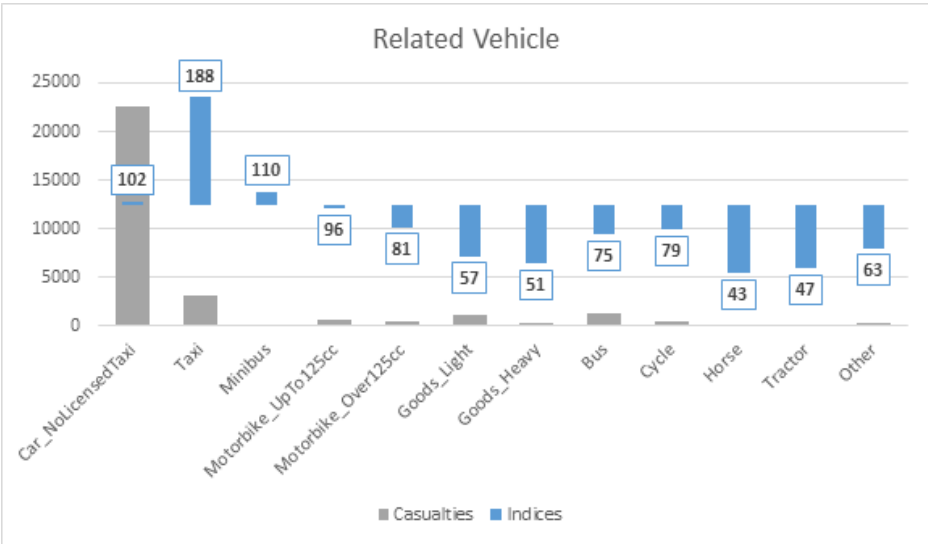
Road class analysis shows that nearly 13,000 adult pedestrians were injured at night on A roads and this is an over-representation compared to all adult pedestrians.



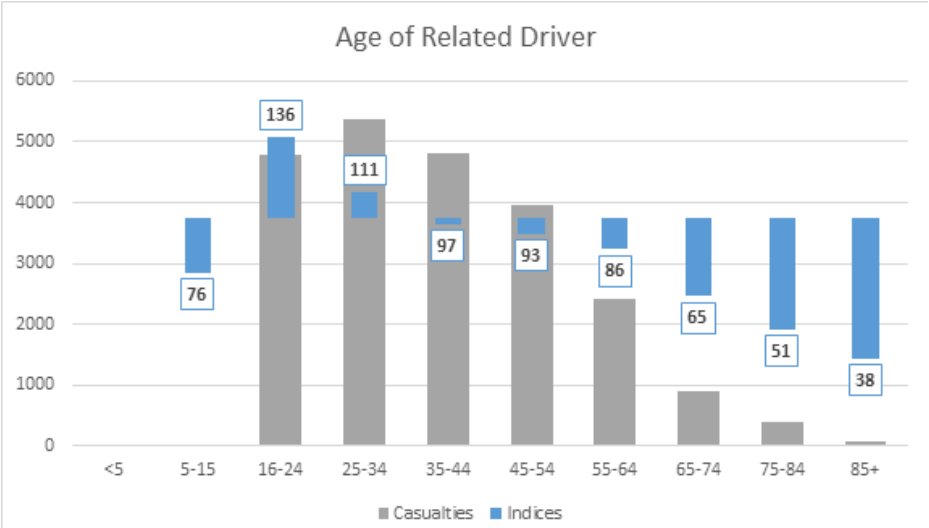
Whilst over 27,000 adult pedestrians were injured at night-time on 20mph and 30mph roads, there was an over-representation at night of adults on 40mph or faster roads.



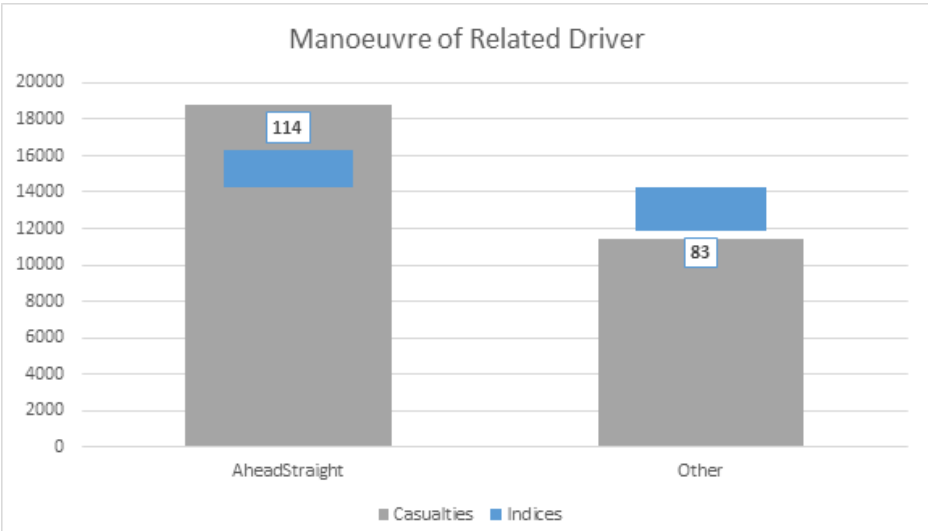
Most adult pedestrians injured at night-time were involved in collisions in fine and still weather. However, there was an over-representation in adverse weather conditions.



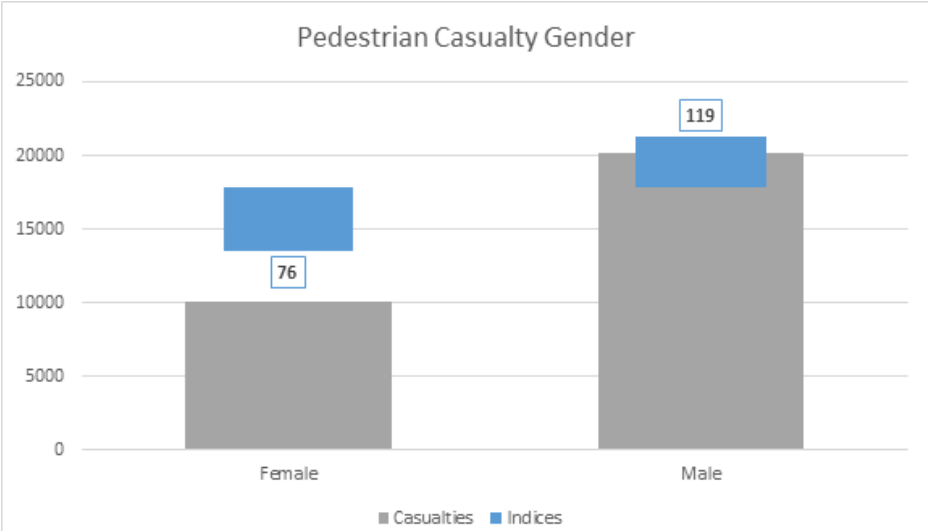
For adult pedestrians injured at night, 22,498 were struck by a car, but this is at a similar rate as to all adult pedestrians. There was an over-representation of adult pedestrians struck by taxis at night.



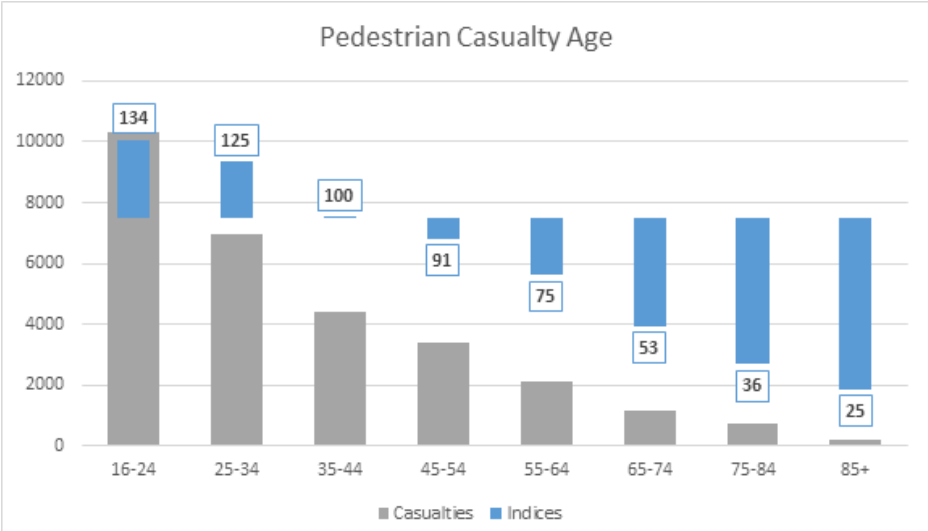
The related drivers of adult pedestrians injured at night are most likely to be aged between 16 and 34 years old and these age groups are over-represented compared to the related drivers for adult pedestrians injured at any time.



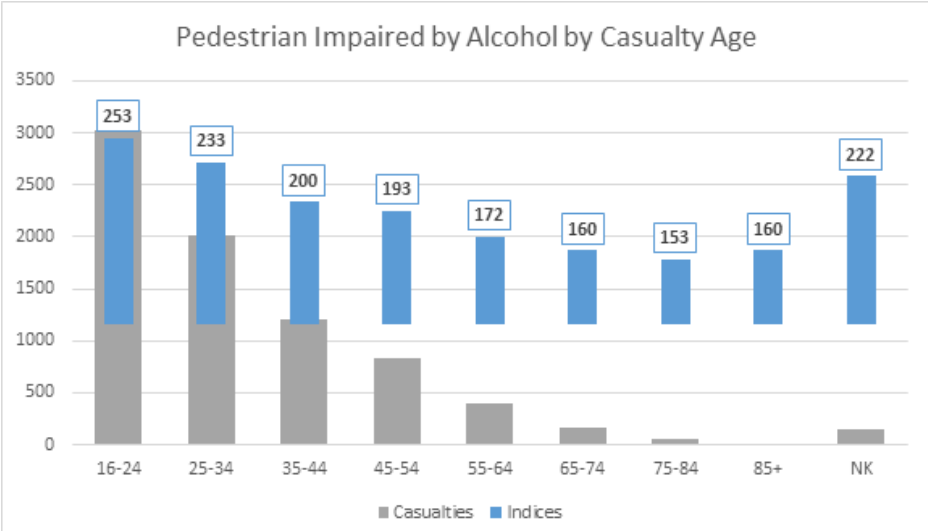
Most of the drivers were not performing a manoeuvre but were instead travelling straight ahead. This is an over-representation compared to the findings for all adult pedestrians.



There were over 20,000 male adult pedestrians injured at night-time and males were over-represented at night compared to all injured adult pedestrians.



There were over 17,000 adult pedestrians aged between 16 and 34 years old who were injured at night and these two age groups are over-represented compared to all adult pedestrians.



All age groups are more likely to be impaired by alcohol at night, with 16 to 24 year olds representing the highest numbers and over-represented the most at night-time.

Road Safety
Analysis

Road Safety GB