



**IAM**  
DRIVING ROAD SAFETY

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**Older Drivers –  
Safe or Unsafe?**



## Foreword

A relatively minor crash may shake up a young driver or passenger; for someone of advanced years it can be fatal. Age-related frailty is one of the main reasons why older drivers and passengers are more likely to suffer death or serious injury in road crashes.

Age-related physical and mental changes can make driving stressful. However, the way older people respond can make them safer drivers. This study shows that they can be safer than those in their 50s by choosing to avoid driving at times and places they perceive as stressful – and because their experienced attitude to safety means they drive more defensively. But as drivers grow older, they are also more likely to make driving mistakes, and this study identifies where and when those mistakes are most likely to occur.

In future, more drivers in their 70s, 80s and 90s will be behind the wheel. Having driven all their adult lives they will want to continue to drive for as long as possible. How can they be helped to do this safely?

It is to find the answers that the IAM commissioned this study. It is also helping us to develop our *DriveCheck 55* package that lets older drivers know how well they are driving, and shows them how to be safer.

The IAM has a two-pronged approach to helping older drivers:

- 1 Give them information showing where, when and why they are most at risk
- 2 Provide tailor-made driving assessments and advice showing how to avoid the pitfalls.

Together, these will help older drivers to continue driving safely well into old age.

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# Summary and recommendations

## The study

During the seven years between 2000 and 2006 inclusive, almost 30,000 drivers over the age of 60 were involved in crashes in which one or more persons were killed or seriously injured (KSI)\*. Over the same period, 28,000 drivers in their 50s were involved in KSI crashes.

The official statistics on these KSI crashes, as recorded by police officers at the scene on the national Stats 19 Form, have been analysed by road safety researcher Jean Hopkin. Her analysis compares the crash circumstances of car drivers aged 60 and over with those aged 50–59 (the safest age group). It reveals how, when and where the nature of the collisions in which older drivers are involved differs from drivers in their 50s.

\*The severity of the crash is determined by the most severely injured casualty, who may not have been the older driver.

## Summary

### Older drivers, past present and future

Thirty years ago, only one in three men and one in 20 women aged over 70 held a driving licence; today, three in four men and one in three women are licensed to drive. In the next twenty years, the number of male drivers over 70 will double, and that of female drivers will treble.

### Older drivers – safe or unsafe?

Older drivers are not unsafe; they are safer than most other age groups. This report shows that older drivers are safer than young drivers. Eight per cent of drivers are over 70, yet they are involved in around four per cent of injury crashes. In contrast, the 15 per cent of drivers who are in their teens and twenties are involved in 34 per cent of injury crashes.

However, age-related decline in mental and physical abilities, coupled with age-related frailty, can make older drivers more likely to be involved in a crash – and more vulnerable to serious injuries. This analysis can find no particular age at which an older driver's functioning and skills suddenly deteriorate to the point at which driving becomes too difficult or unsafe.

### Three key influences on older driver safety

The study has identified three significant factors that influence the safety of older drivers, for better or for worse:

- Self regulation – Older drivers tend to adapt their driving patterns, either through lifestyle changes, or by reducing or avoiding driving in situations in which they are uncomfortable. Compared with drivers in their 50s, older drivers have a smaller proportion of serious crashes in peak traffic periods, in the dark, when it is wet, and on motorways

KSI = Killed or seriously injured

- Safer driving style – Many drivers harness their experience to develop a more defensive and cautious attitude to their driving as they grow older because they are aware that their skills and driving abilities may not be as good as they once were. Older drivers have a smaller proportion of crashes on bends and while overtaking than drivers in their 50s. At junctions on 20/30mph roads, their safety performance is about the same as that of drivers in their 50s. However, on higher speed roads it is much worse
- Driving errors – Despite restricting their driving and adopting a safer driving style, older drivers are more prone to making driving errors that can lead to a crash. This is particularly evident at junctions on 60mph and 70mph roads – and in single-vehicle collisions when no other vehicle is involved

## Recommendations

### What should be done to improve the safety of older drivers?

Measures fall into five groups:

- Information – Informing older drivers where, when and why skills honed over many years of driving may be beginning to fail will encourage them to develop new skills to make them less at risk
- Driving assessments – Encouraging older drivers to undertake regular assessments designed to identify where, when and why they may be more at risk – and to show them how risk can be managed and reduced
- Understanding and managing impairment – Showing older drivers through information and driving assessments, practical ways to overcome the age-related decline in skills, such as advanced route planning and tailored driving techniques
- Engineering safer roads – Designing and managing roads themselves to accommodate the needs of the growing population of older drivers; this would also benefit drivers of all ages
- Adapting vehicles – Designing vehicles to meet the needs of older drivers, and encouraging the fitting of extras that will assist safer driving, such as additional mirrors

### Should the driving licence policy for older drivers be reviewed?

The current UK licensing system requires drivers aged 70 to apply for renewal, and to complete a self-declaration of fitness to drive. They then have to re-apply for renewal every three years. The licence is also 'all or nothing' in that, once granted, the holder is entitled to drive anywhere in Europe and the wider world. This report raises two issues:

- Renewal of the driving licence – Is 70 still the right age, or should it be changed to, say, 75?
- Restricted licensing – Should there be a new 'restricted' licence that would allow older drivers who are faced with withdrawal of their licence to continue to drive – but within a defined local area that avoids the new risks identified in this report?

With the prospect of huge growth in the number of older drivers in the UK, the IAM believes that these two provisions merit wide debate and review. Such provisions are already practised elsewhere, for example in the USA and Australia.



## Part 1 – An ageing population of drivers

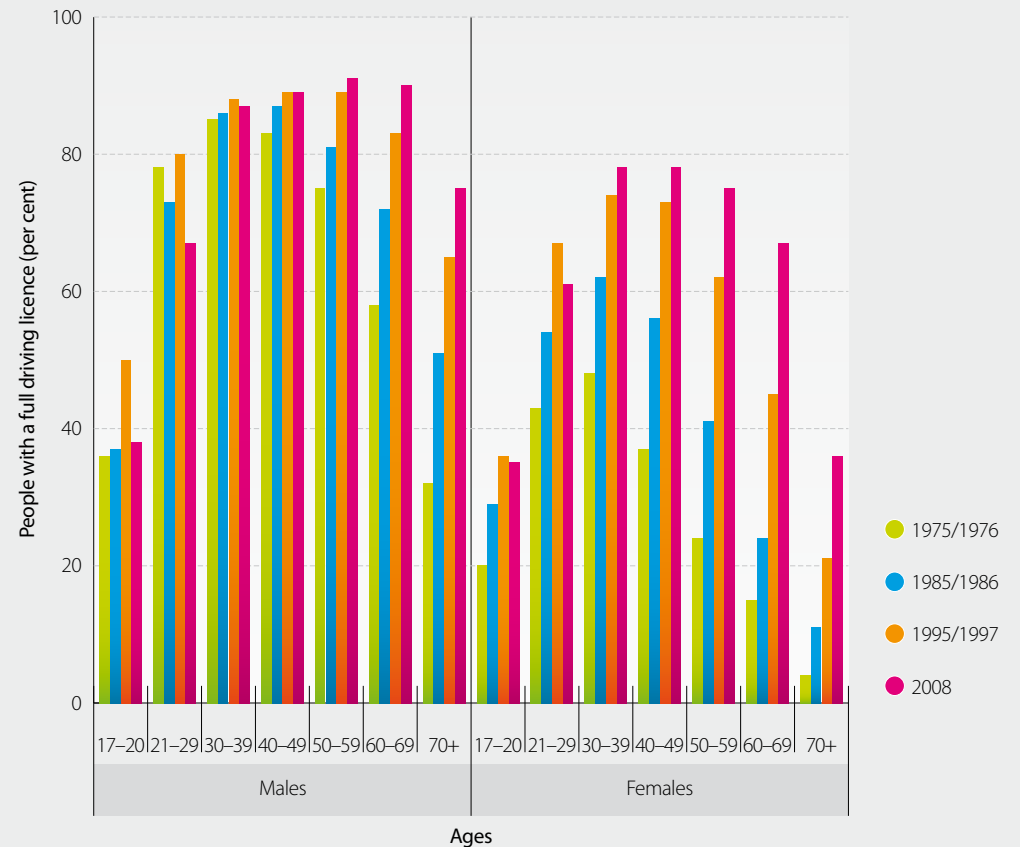


In the UK, older people are an increasing proportion of the population. Forecasts suggest that the number of over 65s will increase from 9.5 million in 2004 to 10.4 million in 2011, and to 12.7 million in 2021. Most will continue to drive long after retirement because their cars will give them the personal mobility to be able to enjoy active lives.

### Driving licence trends over the last 30 years

- More than 30 years ago, only one in three men and one in 20 women aged over 70 held a driving licence; today, three in four men and one in three women are licensed to drive

### Trends in men and women licensed to drive GB 1975/6 – 2008 (per cent)

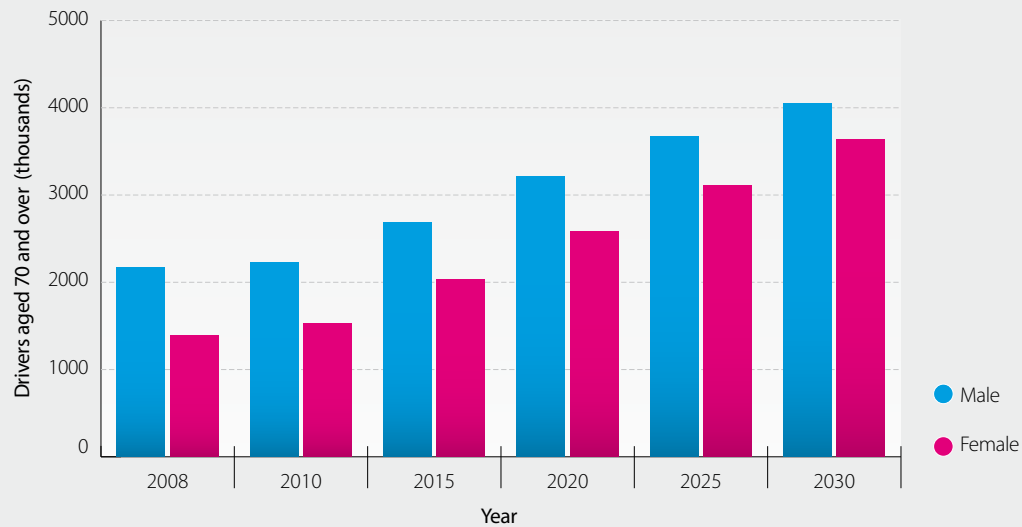




### Older drivers in the future

- Over the next 20 years the number of male drivers over 70 is predicted to double, while the number of women drivers will treble

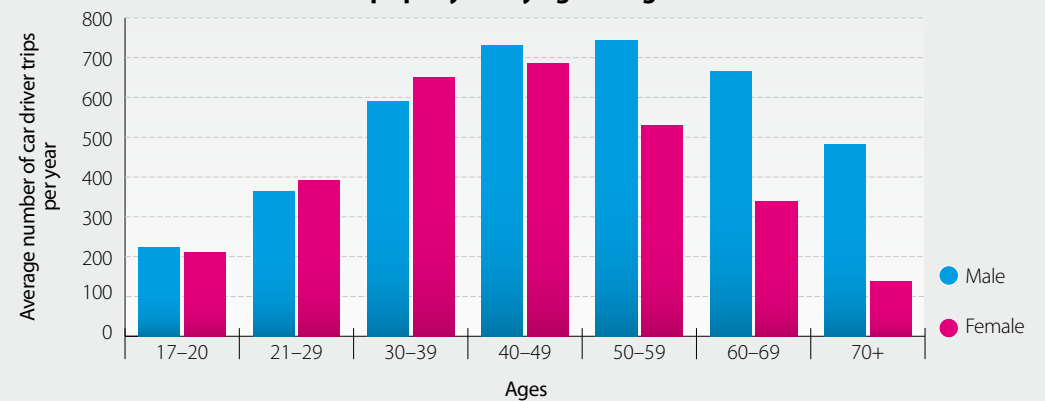
**Drivers aged 70 and over (thousands)**



### The trips older car drivers make

- Men in their 60s drive for almost as many trips annually as men in their 40s and 50s; men in their 70s make more trips as drivers than do men in their late teens and 20s
- Older people rely heavily on their cars. Two thirds of trips made by men and one third by women in their 60s are as car drivers. In their 70s, more than half of trips by men and a fifth by women are as car drivers
- Women make far fewer trips as car drivers than men as fewer of them have a driving licence, and men, tend to be the main car driver

**Car driver trips per year by age and gender: GB 2008**

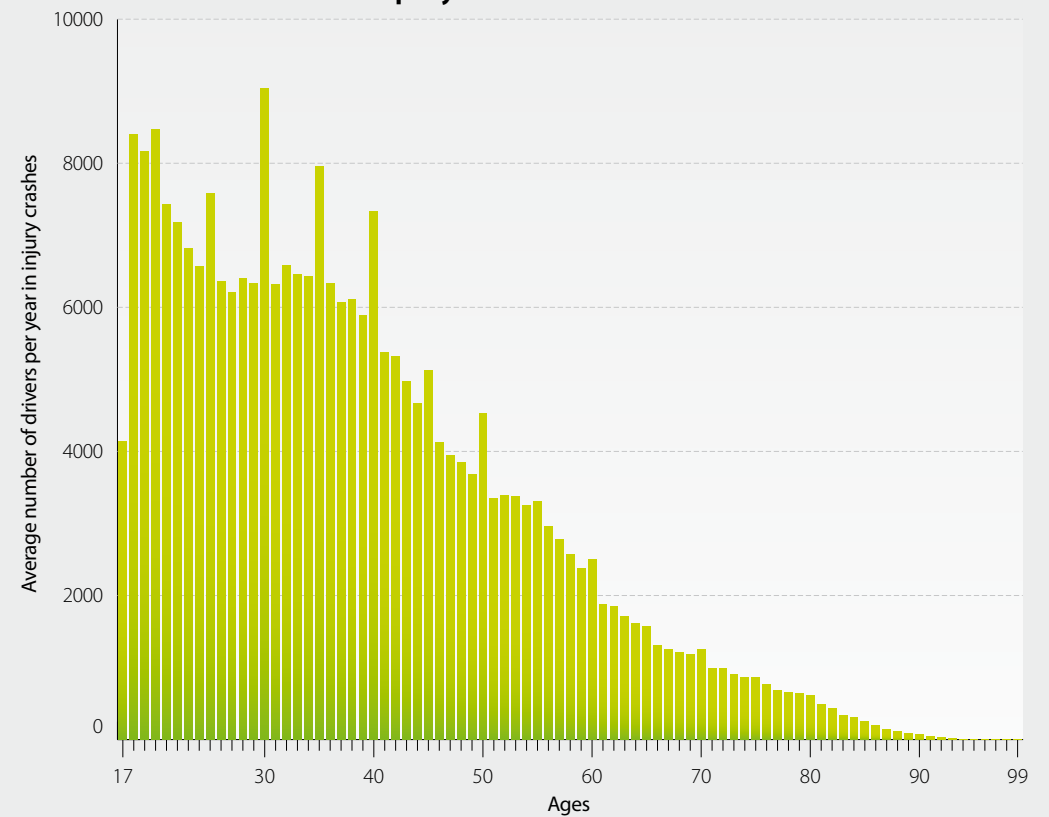




### Car drivers of all ages involved in injury crashes

- The youngest and most inexperienced drivers are involved in the highest number of injury crashes
- As these young drivers gain more experience, the numbers involved in injury crashes decline moderately through their 20s and 30s
- The decline accelerates over the age of 40, with driving experience and a mature attitude to safety
- Older drivers are safer than young drivers - just 8 per cent are over 70 and they are involved in around 4 per cent of injury crashes; 15 per cent of drivers are in their teens and twenties, but are involved in 34 per cent of injury crashes

**Average number of car drivers involved in injury crashes per year between 2000–2006**



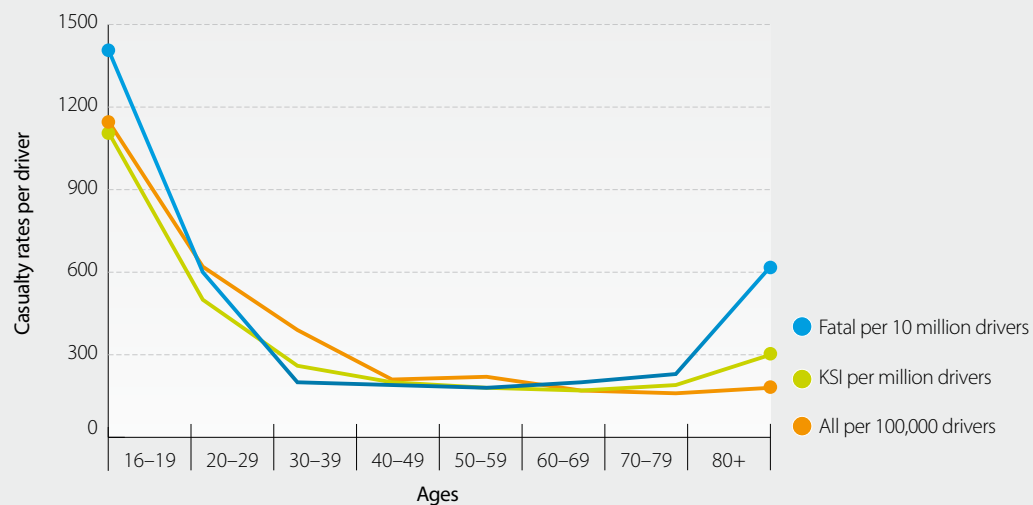
\*The 'blips' at 20 and then at 10 years onward results from the police sometimes recording the drivers age to the nearest 10 years.



### Comparisons of casualty rates at all ages

- Older drivers have the fewest number of casualties per driver (orange line on the graph), but age-related frailty makes them much more likely to be killed (blue line) or killed or seriously injured (green line)

**Car driver casualty rates per car driver: GB 2006\***

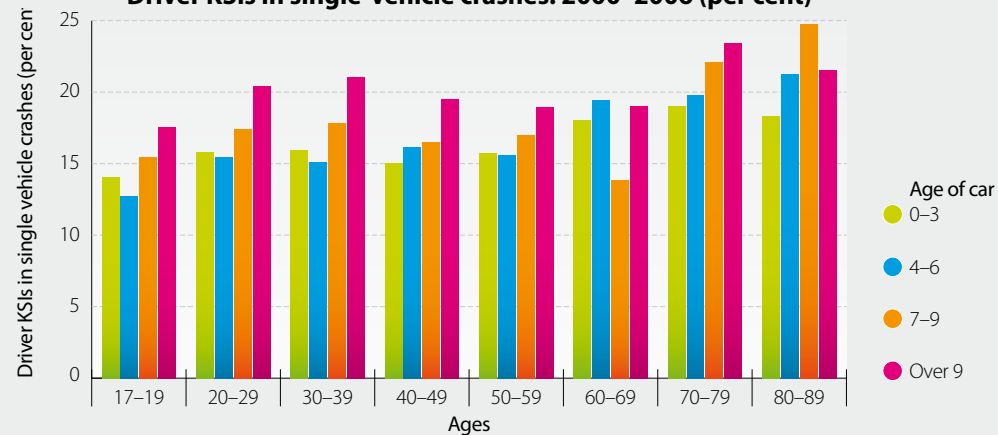


Source: IAM 2008

### Age of car

- On average, drivers in KSI crashes under 30 and over 60 drive the oldest cars, with drivers in their 30s, 40s, and 50s driving the newest
- It is likely that the cars driven by older people have a lower EuroNCAP crash rating and so less crash protection than cars driven by middle-aged drivers. It may partially explain the greater likelihood for older drivers to be more severely injured

**Driver KSIs in single-vehicle crashes: 2000-2006 (per cent)**



## Part 2 – Where, when and why older drivers are more safe or less safe

This part focuses on drivers over the age of 50 involved in crashes in Great Britain in which one or more persons were killed or seriously injured (KSI), and covers the seven year period between 2000 and 2006 inclusive. The severity of the crashes is determined by the most severely injured casualty, who may not have been the older driver.

**It compares car drivers in 5-year age groups over the age of 60 with those aged 50-54 and 55-59. It shows how, when and where the nature of the collisions in which older drivers are involved changes with age, and why.**

This part expands in more detail some of the more dominant features in older driver KSI crashes identified in the main analysis, shown in the Appendix: Where and when over 50s are in KSI crashes

### Three significant factors influence the safety of older drivers:

- Self regulation
- A safer and more restrained driving style
- Age-related driving errors

### Self regulation

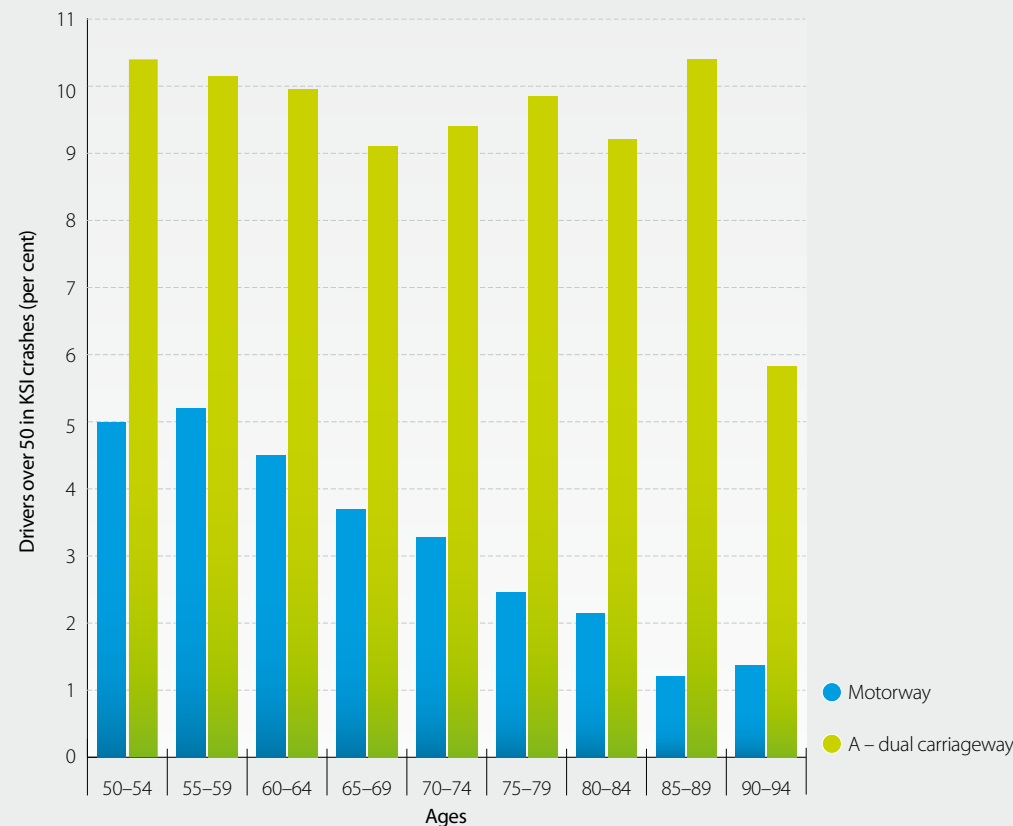
Older drivers tend to adapt their driving patterns, either through lifestyle changes, or by avoiding driving in situations in which they are uncomfortable, eg not driving at night or at busy times of the day, in heavy traffic or in poor weather conditions. This analysis points to where and when this is evident by comparing drivers aged 60 and over with those in their 50s

### Motorways and dual carriageways

- On motorways, the proportion of drivers involved in KSI crashes falls steadily with age, and is lowest after the age of 85
- The proportion on dual carriageways does not follow a similar pattern, except for drivers aged over 90

**Why?** Older drivers avoid motorway driving when they can but are less able to avoid driving on other main roads

Drivers over 50 in KSI crashes on motorways and dual carriageway A roads (per cent)



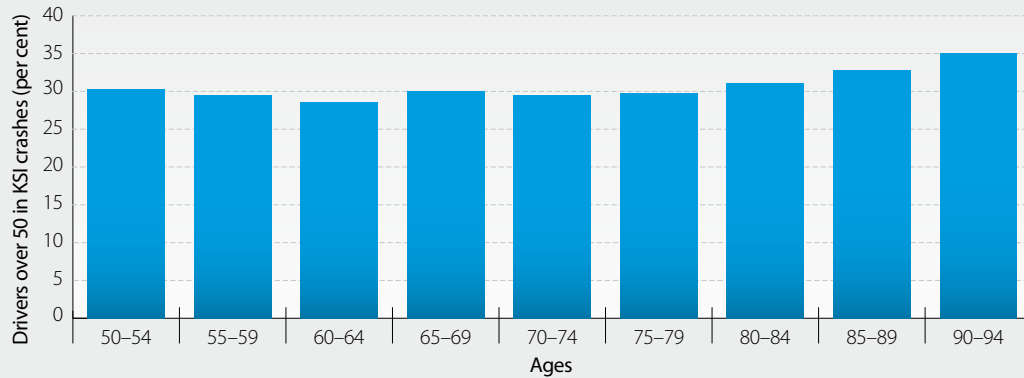


### Minor roads

- The proportion of older drivers in KSI crashes on minor roads (C or unclassified) increases slightly over the age of 80

**Why?** They do more of their driving on local roads and make fewer long journeys on main roads

**Drivers over 50 in KSI crashes on C and unclassified roads (per cent)**

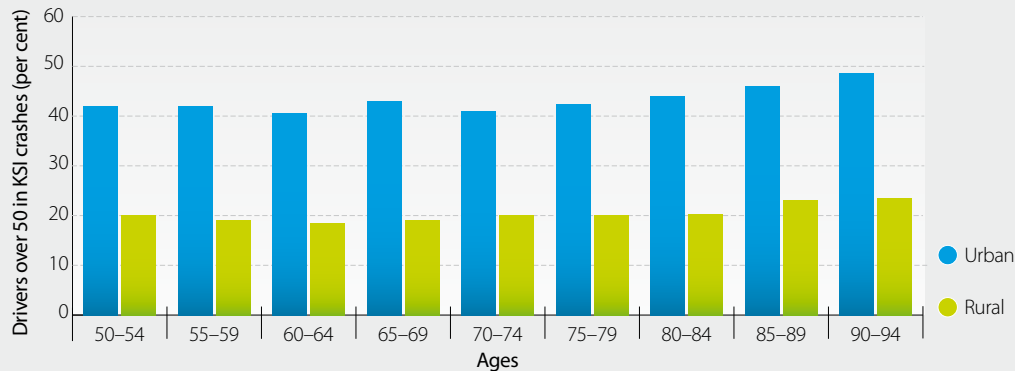


### Town and country

- Around the age of 75, there is an increase in the proportion of older drivers involved in KSI crashes on minor roads in towns. In the country, there is a slight increase between the ages of 65 and 84 and a more marked increase around the age of 85

**Why?** Journey patterns of older drivers change to driving mainly in their local area on local roads

**Drivers over 50 in KSI crashes on C and unclassified roads in town and country (per cent)**

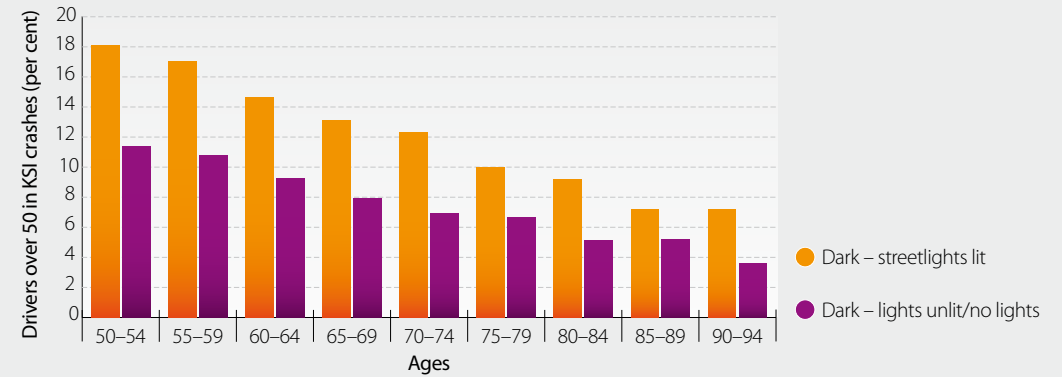


### Collisions in daylight and darkness

- The proportion of KSI crashes involving drivers over 50 during the hours of darkness falls steadily with age – by the 80 plus age group, the proportion is half as many as in the 50-54 age group

**Why?** Many older drivers choose not to drive at night

**Drivers over 50 in KSI crashes in daylight and darkness (per cent)**

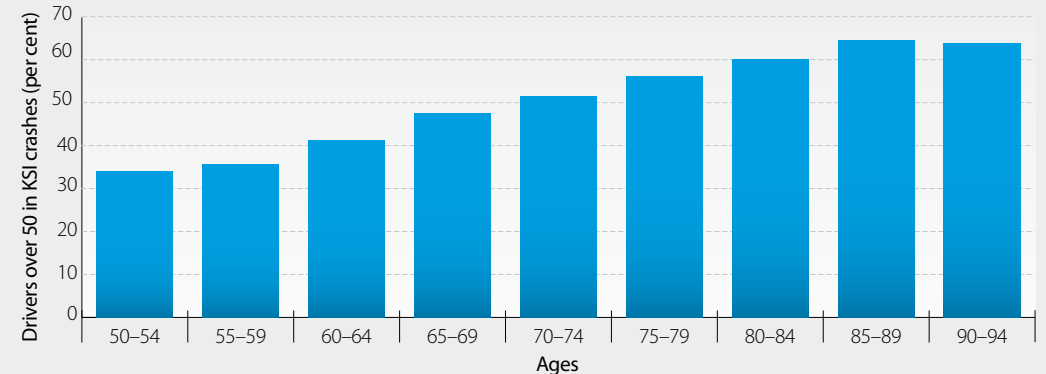


### Collisions between 10 am and 4 pm

- More than half of the KSI crashes involving drivers over 70 occur between 10 am and 4 pm, (ie mostly in daylight between the morning and evening traffic peaks) and account for an increasing proportion up to the age of 85

**Why?** Many older drivers choose to avoid driving at busy times, and in the dark

**Drivers over 50 in KSI crashes between 10am and 4pm (per cent)**

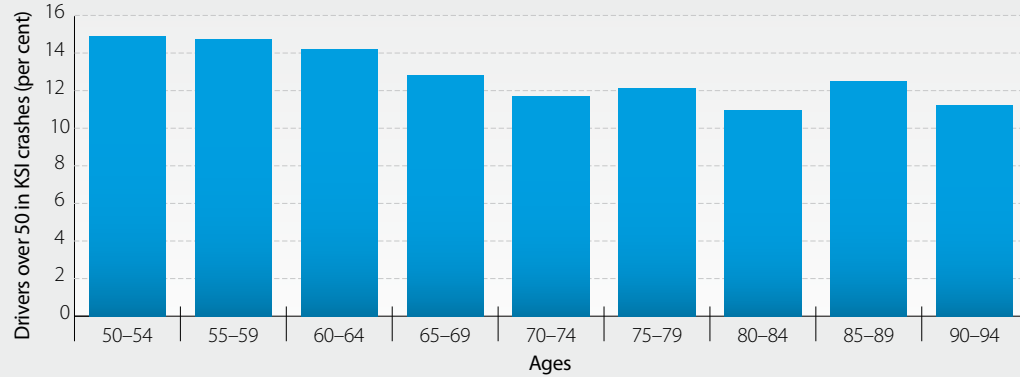


### Collisions in the rain

- After the age of 65, drivers are involved in a marginally smaller proportion of KSI crashes in the rain

**Why?** Experience; greater journey flexibility after retirement; avoiding wet weather driving; and a more cautious driving style

Drivers over 50 in KSI crashes in the rain (per cent)

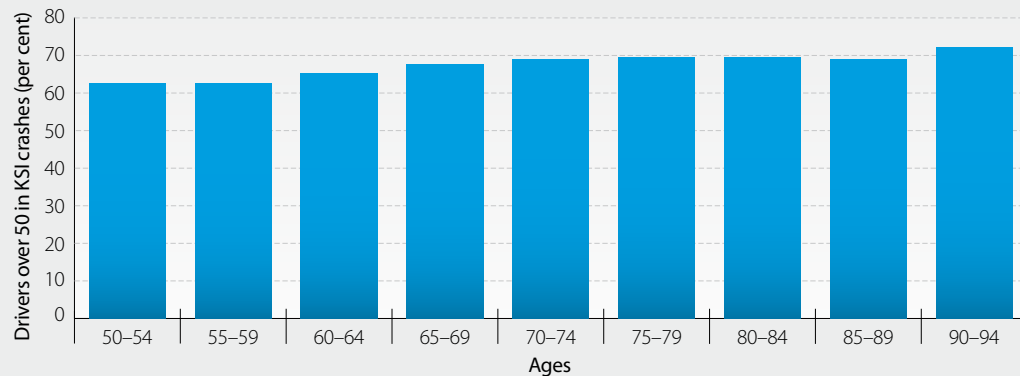


### Collisions in fine weather on dry roads

- Between the ages of 60 and 70, the proportion of older drivers in KSI crashes in fine weather on dry roads increases slightly

**Why?** Older drivers tend to avoid adverse weather conditions

Drivers over 50 in KSI crashes in dry weather (per cent)



### Driving style

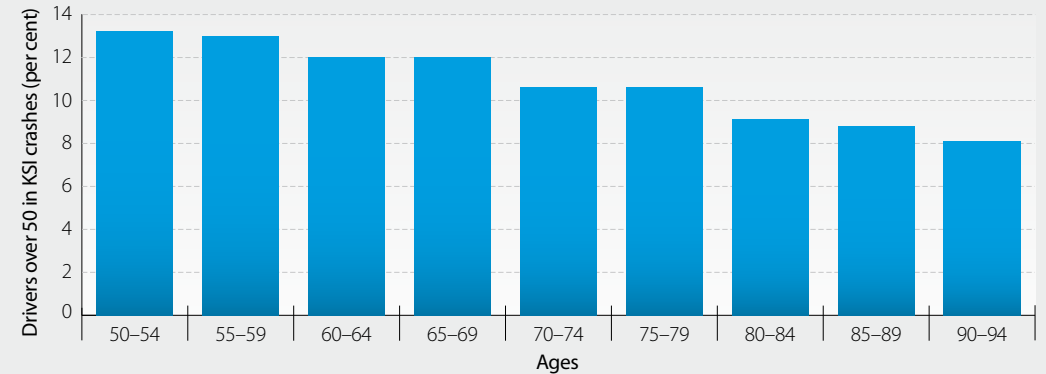
Some crash circumstances where older drivers represent a smaller proportion of KSI crashes than drivers in their 50s may indicate an increasingly cautious driving style, and may be a strategy for counteracting some of the age-related limitations of which they are aware

### Collisions on bends

- On all types and classes of road, the proportion of older drivers in KSI crashes on bends declines continuously after the age of 60

**Why?** Experience, plus a more restrained driving style than younger drivers

Drivers over 50 in KSI crashes on a bend (per cent)



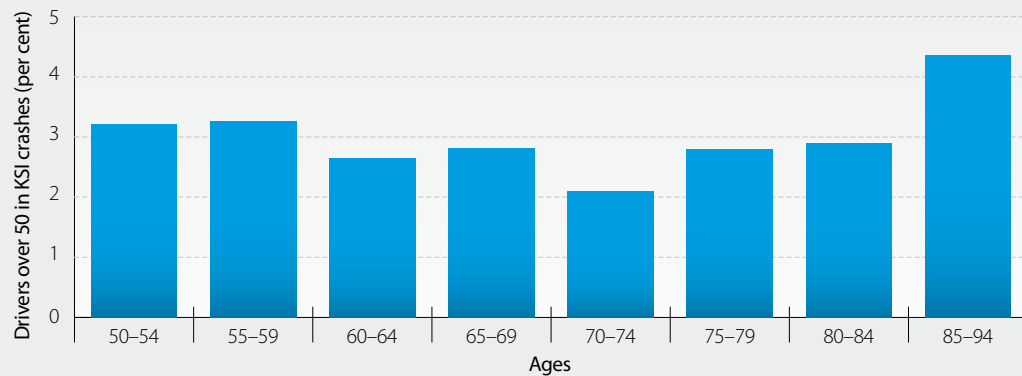


### Overtaking

- Overtaking a moving vehicle features in a relatively smaller proportion of KSI crashes involving drivers in their 60s and early 70s, compared with drivers in their 50s but it is higher among those over 85

**Why?** A more cautious driving style among drivers in their 60s and early to mid 70s. Over the age of 80, problems in assessing speed, reduced ability to observe, and a tendency for errors can increase collision risk for some drivers

**Drivers over 50 in KSI crashes overtaking a moving vehicle (per cent)**

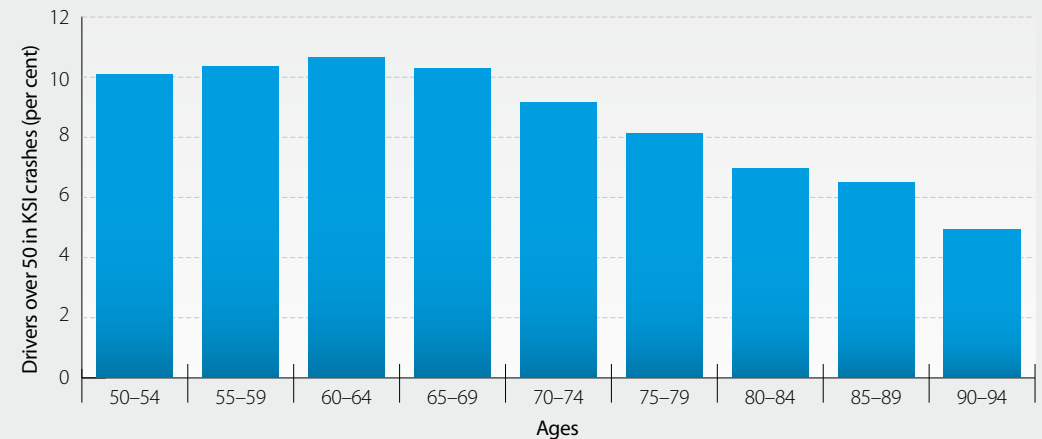


### Head-on collisions

- The proportion of older drivers involved in head-on KSI crashes decreases steadily from the age of 70; for the 90-94 age group, the proportion is half that of drivers aged 60-65

**Why?** A more cautious and restrained driving style than younger drivers

**Drivers over 50 in head-on KSI crashes (per cent)**





## Increasing driving errors

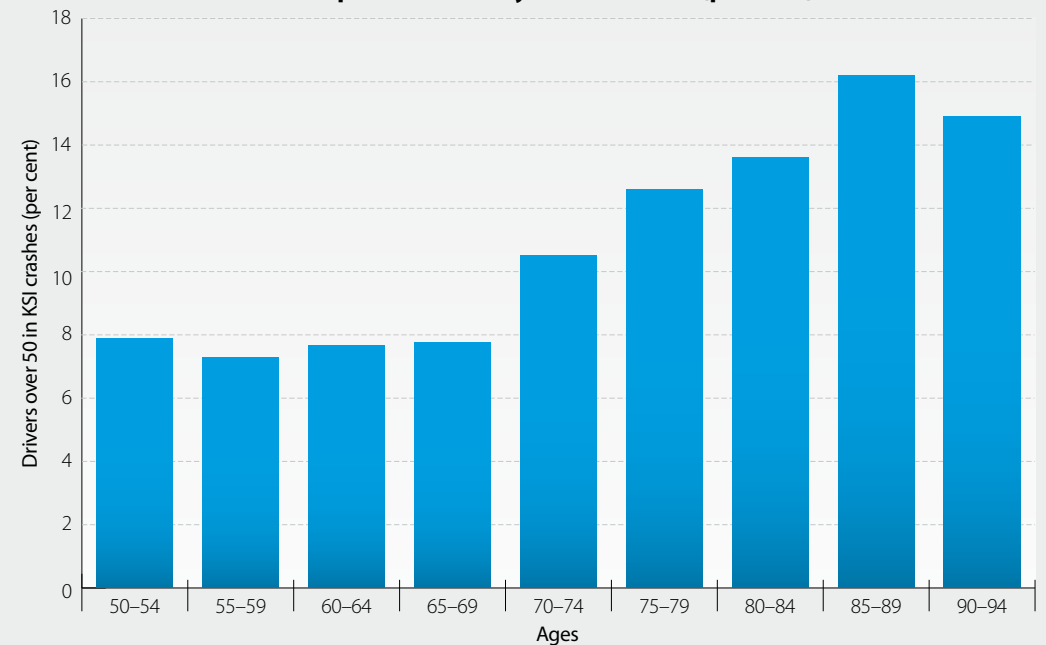
The analysis highlights differences between older drivers and those in their 50s in the proportion of KSI crashes that involve no other road user. It suggests that driver errors may be a significant contributory factor. The types of situation in which older drivers are prone to errors are at junctions on high-speed roads, when entering a main road or roundabout, or when turning right.

### Single-vehicle collision with no other road users involved

- The proportions of drivers in single-vehicle KSI crashes steadily increase from the age of 70, they double for drivers aged 85–89 compared with those aged 65–69

**Why?** This suggests that the ability to observe and some driving skills begin to deteriorate at around the early to mid-70s

**Drivers over 50 in single-vehicle KSI crashes with no pedestrian or cyclists involved (per cent)**



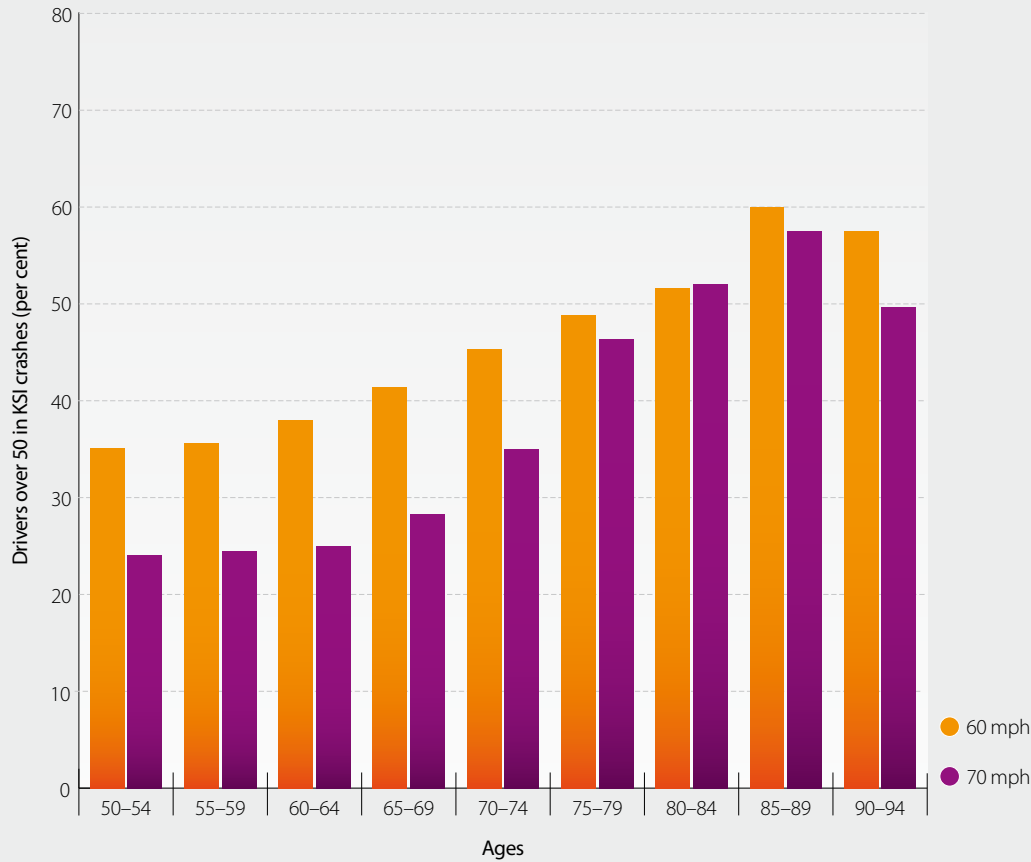


### All junctions on 60 and 70mph roads

- On these high-speed roads, there is a steady increase in the proportion of older drivers' involved in KSI crashes at junctions from the age of 60–64 onwards until the age of 85
- On 70 mph roads, the largest change occurs between the 70–74 and 75–79 age bands, indicating a possible increased risk threshold starting around 75

**Why?** Older drivers are less able than younger drivers to assess and deal with complex traffic at fast speeds; they need more time to process information and they make decisions more slowly

**Drivers over 50 in KSI crashes at junctions on 60mph and 70mph roads (per cent)**

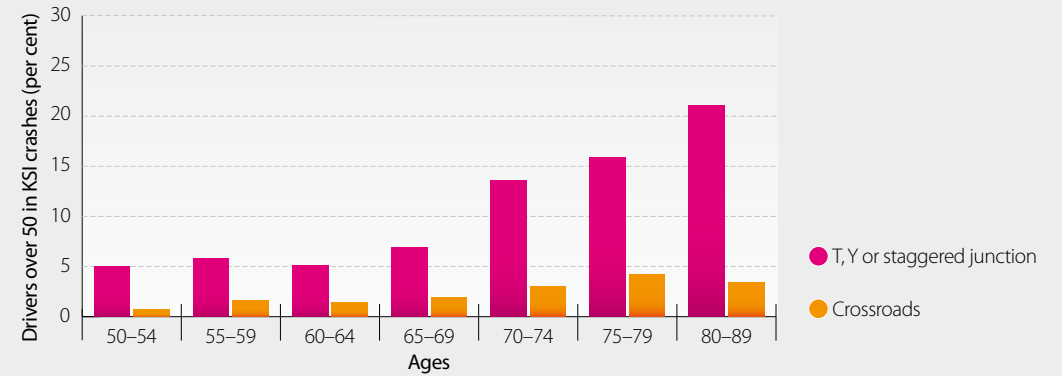


### Crossroads, T, Y or staggered junctions on 70mph roads

- There is a marked increase in the proportion of older drivers' KSI crashes at these high-speed junctions, beginning at the 70–74 age group

**Why?** Older drivers become less able to assess complex traffic at fast speeds, they need more time and information, and make decisions more slowly

**Drivers over 50 in KSI crashes at junctions on 70mph roads (per cent)**

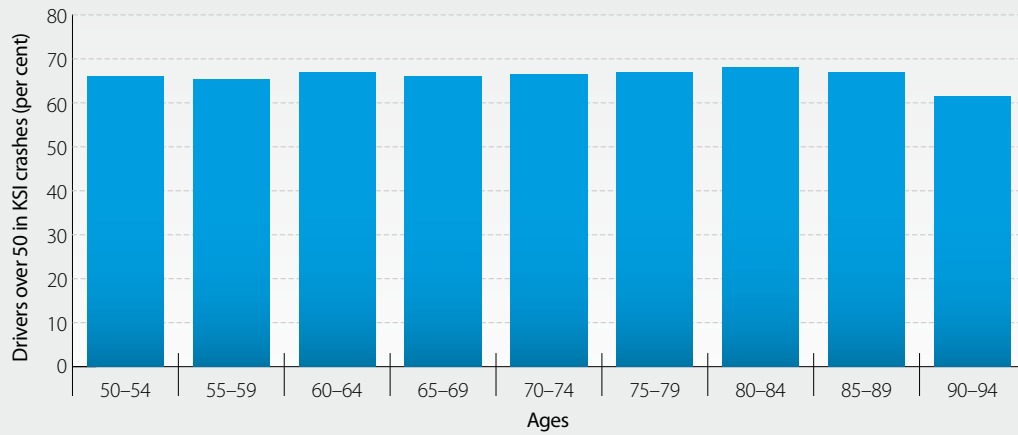


### All junctions on 20 and 30 mph roads

- Older drivers' safety performance at junctions on these lower speed roads is no better or worse than that of drivers in their 50s, whereas on higher speed roads it is much worse

**Why?** At lower traffic speeds and at less complex junctions, older drivers have time to assess approaching traffic and make safe decisions

Drivers over 50 in KSI crashes at junctions on 20–30mph roads (per cent)

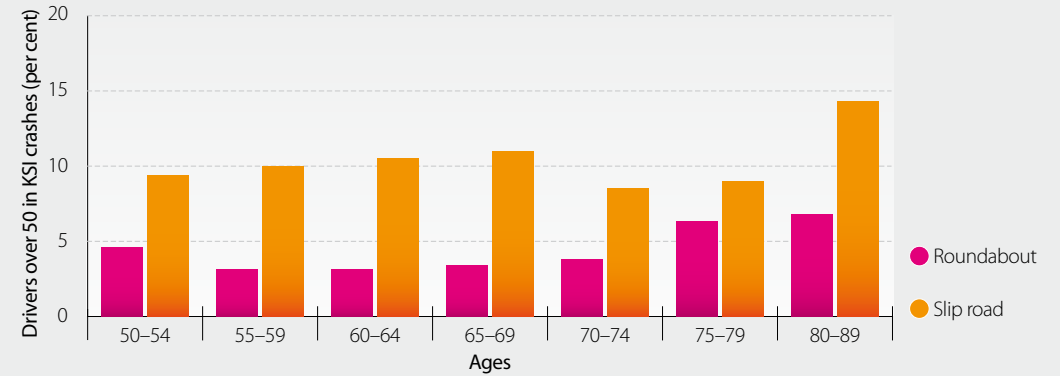


### Roundabouts and slip roads on 70mph roads

- There is a significant increase in the proportion of KSI crashes involving drivers on slip roads, beginning at around the age of 80; it is less marked at roundabouts

**Why?** Older people drive more slowly on motorways than younger drivers. They can also be hesitant when joining high-speed roads and may be forced to make late and risky merges into the traffic. Reduced peripheral vision and age-related neck and joint stiffness can also make merging more difficult

Drivers over 50 in KSI crashes at roundabouts and slip roads on 70mph roads (per cent)



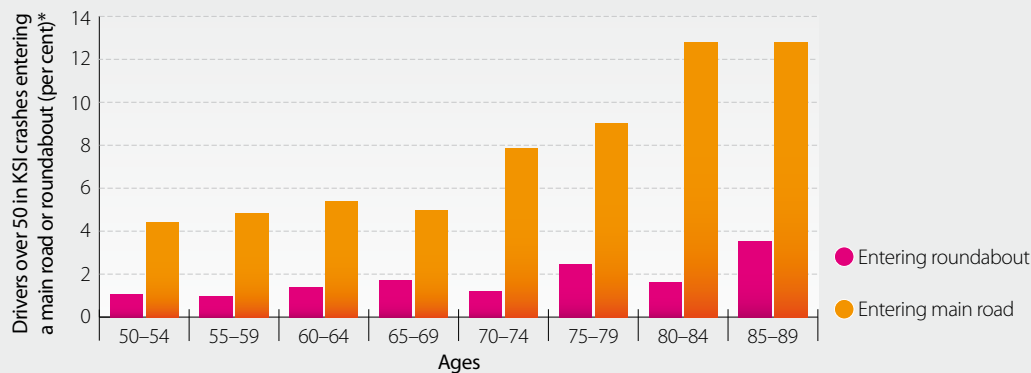


### Entering main roads or roundabouts – all speed limits

- On all types of road, there is an increase in the proportion of KSI crashes involving drivers over the age of 70 entering a main road; this peaks for drivers over 80

**Why?** 75 is the age at which difficulties with these manoeuvres become more evident in the records of KSI crashes

**Drivers over 50 in KSI crashes entering main road or roundabout (per cent)**



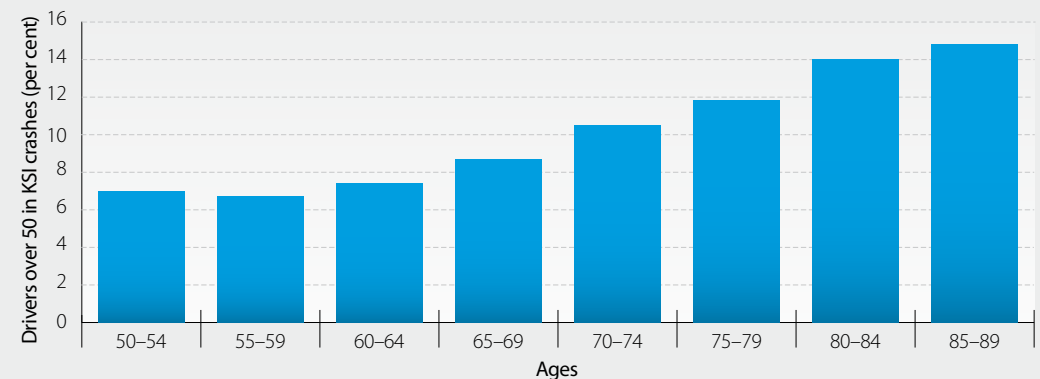
\*The data on junction location at the point of impact has only been available for since the beginning of 2005, so this analysis covers KSI crashes in 2005 and 2006

### Turning right at a junction

- On all types of road, there is a steady increase in the proportion of drivers whose KSI crashes occur when turning right at a T, Y or staggered junction (whether entering the road or waiting to leave it). There is a more marked increase around the age of 70, and again at 80

**Why?** In crashes in which a driver over 60 is to blame, about twice as many involve turning right into a main road as turning off one; the former requires checks left and right, the latter a check ahead

**Drivers over 50 in KSI crashes turning right at T, Y or staggered junctions (per cent)**





### Conclusions

This report shows that older drivers are safer than young drivers. Just eight per cent of drivers are over 70 and they are involved in around four per cent of injury crashes; fifteen per cent of drivers are in their teens and twenties but are involved in 34 per cent of injury crashes.

However, age-related decline in mental and physical abilities can make older drivers more likely to be involved in certain types of crash. Age-related frailty also makes older drivers more vulnerable to serious injuries. However, the analysis pinpoints no particular age at which an older driver's functioning and skills suddenly deteriorate to the point where driving becomes too difficult or unsafe.

#### Research also suggests that:

- Drivers under 70 are no more likely to be the cause of a crash than other drivers. But once over 70, they are more likely to be at fault, particularly where right-of-way violations are involved
- Drivers over 85 are four times more likely to have caused a crash than to have been an innocent victim of one
- Crashes in which older women are to blame peak about five years earlier than those for older men

#### Three factors influence the safety of older drivers:

- Self regulation – Beginning at around the age of 60 to 65, many older drivers change their driving patterns:
  - they avoid driving in the rain. As a result, they have fewer collisions when it is wet but more in dry weather
  - they avoid peak-hour traffic periods but have more collisions during the off-peak hours between 10 am and 4 pm when they drive most
  - they don't drive at night so have fewer collisions in the dark, but more in daylight
- Driving style – In some traffic situations, older drivers are less likely to be in a crash because they tend to adopt a more careful and restrained driving style
- Driver errors – In their mid-70s, drivers start to have problems assessing complex or high-speed traffic situations. They also need more time to process information and they make decisions more slowly. This can cause particular problems:
  - at junctions on high-speed roads
  - entering or joining a main road or roundabout on high-speed roads
  - merging with fast traffic from a slip road, particularly for the oldest drivers





## Recommendations

### What should be done to improve the safety of older drivers?

Measures fall into five groups:

- Information on new risks
- Driving assessments
- Understanding and managing impairment
- Engineering safer roads
- Improving vehicles

**Information on new risks** – informing older drivers why, where and when their skills honed over many years of driving may start to fail will encourage them to develop new skills to put them less at risk

**Driving assessments** – encouraging older drivers to undertake regular assessments designed to identify where, when and why they may be more at risk, and to show them how that risk can be reduced

**Managing impairment** – through information and driving assessments, show older drivers practical ways to overcome the age-related decline in skills, such as advanced route planning and tailored driving techniques

**Engineering safer roads** – designing and managing roads themselves to meet the needs of the growing population of older drivers; this would also benefit drivers of all ages

**Adapting vehicles** – design vehicles to meet the needs of older drivers and encourage the fitting of extras that will help safe driving, such as additional mirrors

### Should the driving licence policy for older drivers be reviewed?

There is no case for compulsory retesting of older drivers at an arbitrary age. This report shows clearly that there is no particular age at which an older driver suddenly becomes an unacceptable risk on our roads.

The UK current licensing system requires drivers aged 70 to apply for renewal, to complete a self-declaration of fitness to drive, and to then re-apply every three years for further renewal. The licence is also 'all or nothing' in that once granted the holder is entitled to drive anywhere in Europe and the wider world. This raises two issues:

- **Renewal of the driving licence** – is 70 now the right age, or should it be changed to, say, 75?
- **Restricted licensing** – should there be a new 'restricted' licence that would allow older drivers facing withdrawal of their licence to continue to drive in a defined local area that avoids the high-risk driving situations this report has highlighted?

With the prospect of huge growth in the numbers of older drivers in the UK, the IAM believes that these two provisions merit wide debate and review. They are already in place elsewhere, for example in the USA and Australia.

## Appendix – Where, and when over 50s are in KSI crashes



This Appendix is the summary of the main report by Jean Hopkin. It highlights most of the circumstances of crashes involving car drivers over the age of 50 in which one or more people were killed or seriously injured.

It compares car drivers over the age of 60 with those in their 50s, in 10-year age groups. It shows how, when and where the nature of the collisions in which older drivers are involved changes with age, and why.

The circumstances that pointed to a significant difference between older drivers and those in their 50s were looked at in more depth and are the basis of *Part 2: Where, when and why older drivers are safe or less safe*

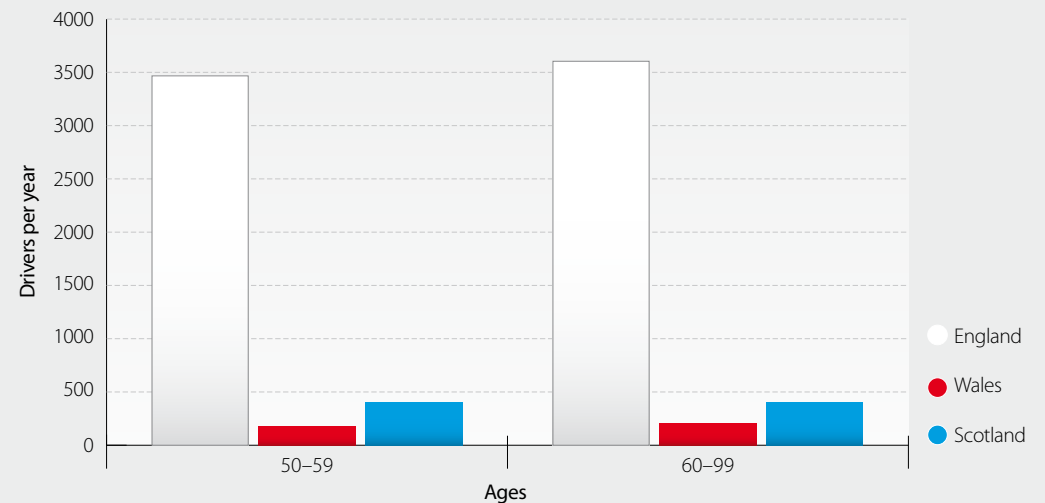
The analysis compares car drivers aged 60 and over with those aged 50-59, to show how, when and where the nature of the collisions in which older drivers are involved changes with age.

### Where KSI crashes happen

#### Country differences

- In Great Britain almost as many drivers in their 50s as in those over 60 are involved in KSI collisions

**Average number of drivers over 50 in KSI crashes per year: GB 2000–2006**

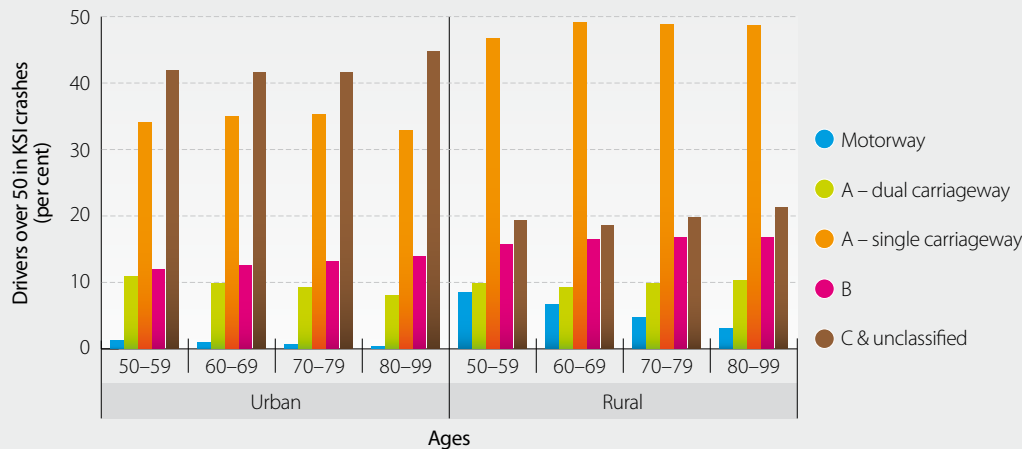


## Road class and type

### Urban and rural roads

- Urban roads – The biggest proportions of KSI crashes involving older drivers happen on C and unclassified roads, followed by single-carriageway A roads
- Rural roads – The largest proportions of KSI crashes happen on single-carriageway A roads, followed by C and unclassified roads; the proportion on motorways falls with age

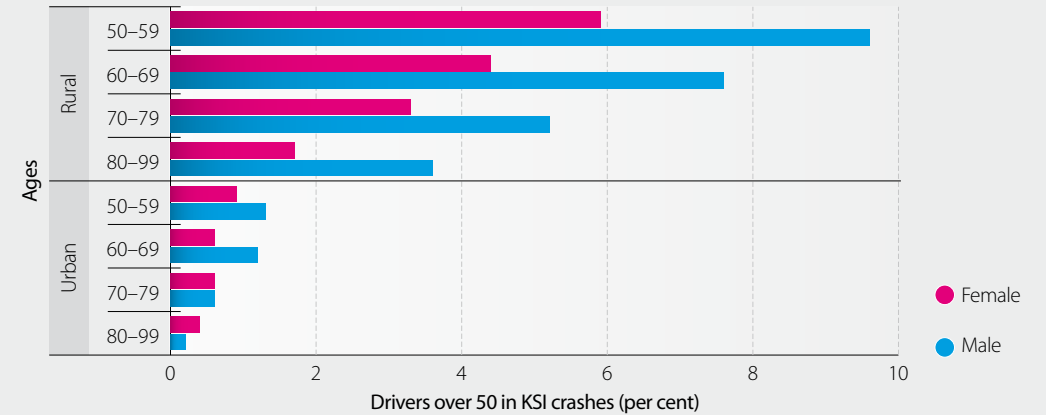
Drivers over 50 in KSI crashes on major and minor urban and rural roads (per cent)



### Urban and rural roads – male and female drivers

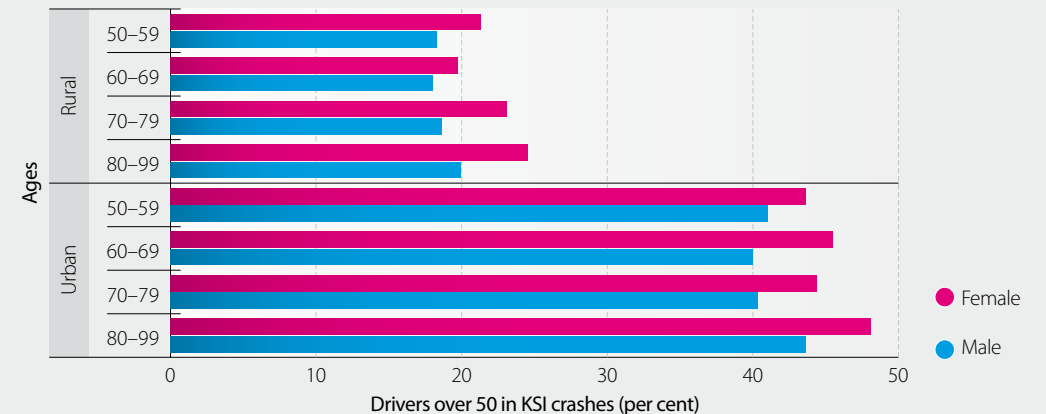
- Motorways – Compared with women, male drivers have significantly greater proportions of KSI crashes on urban and rural motorways but both fall considerably with age

Male and female drivers over 50 in KSI crashes on motorways (per cent)



- Minor roads – Female drivers have marginally greater proportions of KSI crashes than men on urban and rural minor roads, with little variation by age

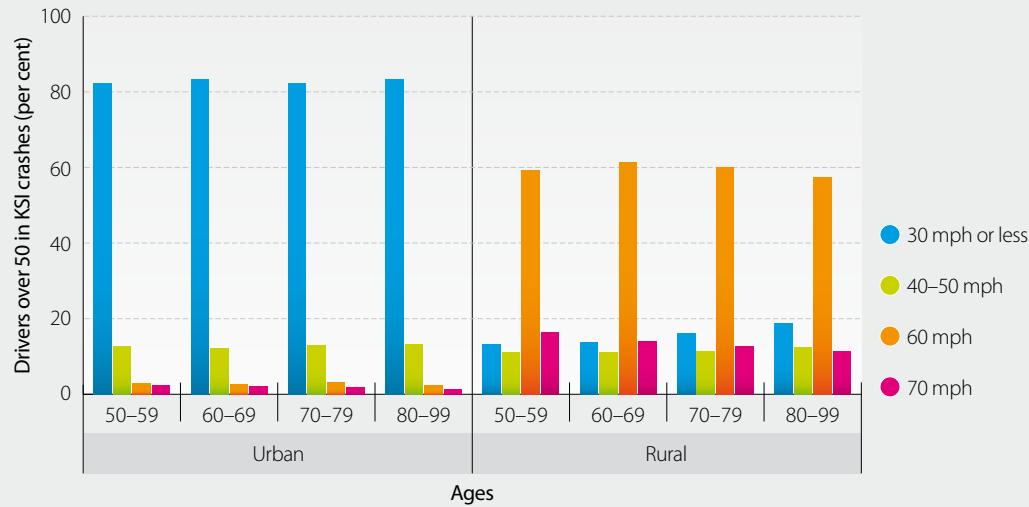
Male and female drivers in KSI crashes on C and unclassified minor roads (per cent)



### Urban and rural roads – speed-limits

- Urban roads – There is no significant difference between the over 50 age groups in the proportion of KSI crashes on urban roads with different speed limits
- Rural roads - Most KSI crashes (around 60 per cent) occur on 60mph roads; the proportion for older drivers on 70mph roads decreases with age, while the proportion on 30mph roads increases, possibly reflecting a tendency for some older drivers living in rural areas to restrict their driving to local roads

### Drivers over 50 in KSI crashes on roads with different speed limits (per cent)

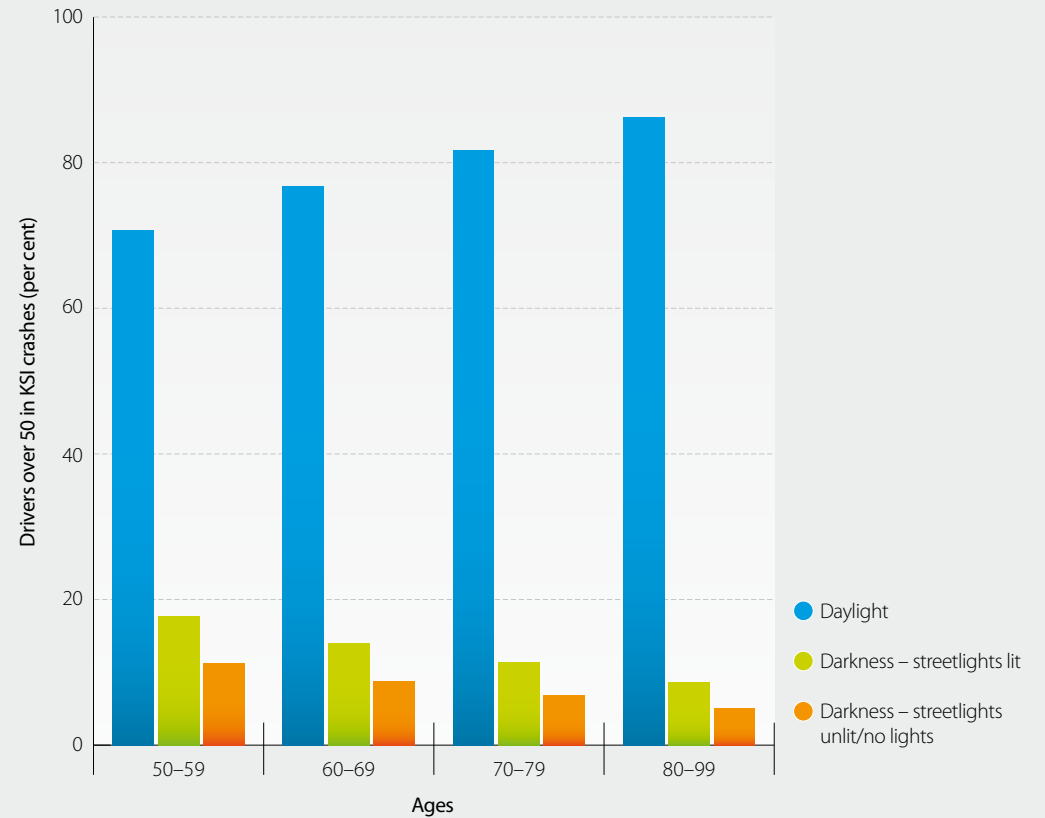


### When KSI crashes happen

#### Daylight and darkness

- The proportion of KSI crashes in daylight increases with the age of the driver; there is a corresponding decrease in the proportion at night on lit and unlit roads
- After the age of 60, there is little difference between male and female drivers in the proportions of KSI crashes in daylight or darkness. This is likely to reflect changes in travel patterns, eg older people choosing to drive less after dark
- Recent research on crashes involving older drivers has found no evidence that as they grow older they are more likely to be to blame for crashes during hours of darkness

### Drivers over 50 in KSI crashes in daylight and darkness (per cent)



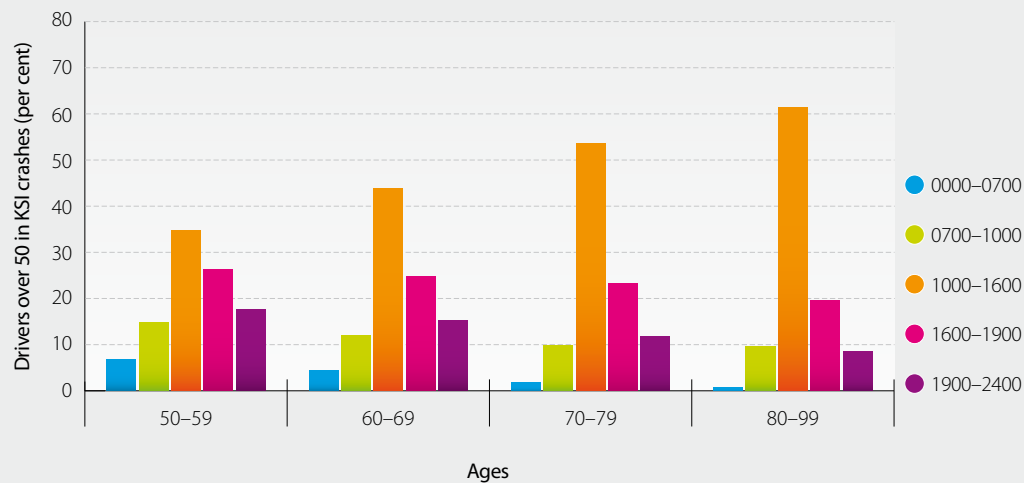




### Time of day

- Compared with drivers in their 50s, the proportion of older drivers in daytime KSI crashes between the morning and evening traffic peaks increases with age, and almost doubles for drivers over 80
- Women in their 50s and 60s have a rather larger proportion of KSI crashes between the morning evening peak hours. However, there is little difference between men and women over 70 at different times of the day and night
- These are likely to result from differing travel patterns associated with post-retirement, and older people avoiding driving in the dark and in peak traffic conditions

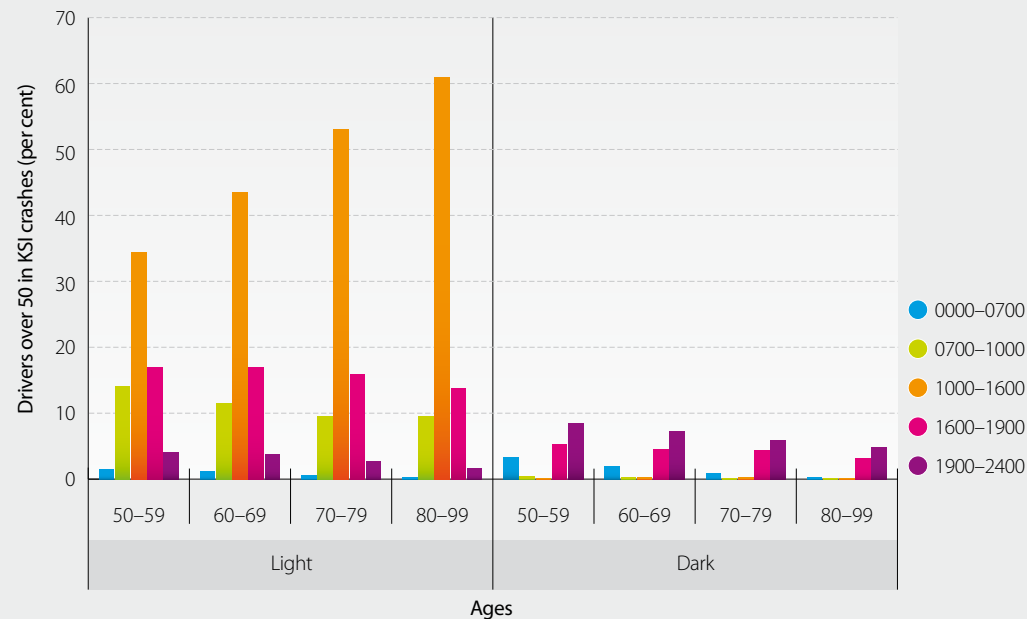
**Drivers over 50 in KSI crashes at different times of the day (per cent)**



### Time of day – daylight and darkness

- The proportion of KSI crashes in daylight after 7pm decreases with age. This suggests that some older drivers make fewer journeys in the evening, even during light summer evenings

**Drivers over 50 in KSI crashes in daylight and darkness (per cent)**

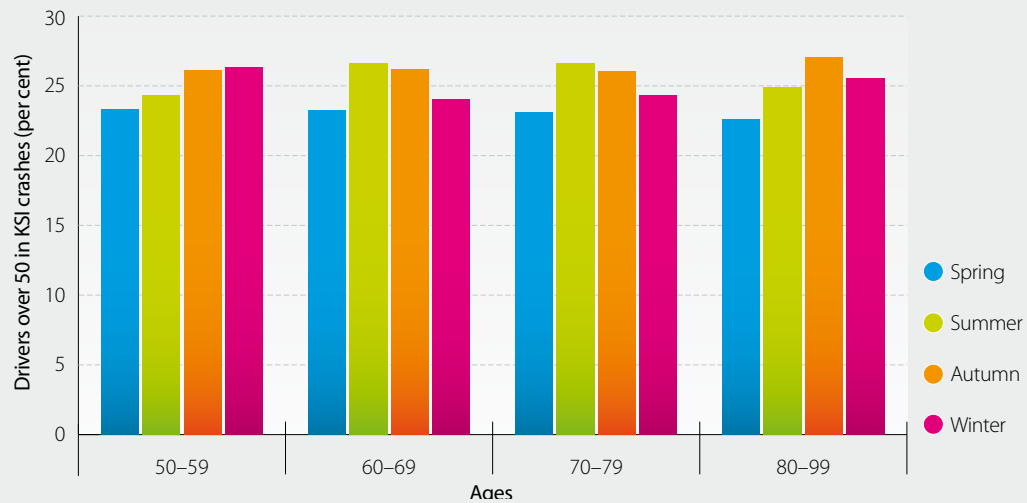




### The four seasons

- There are no clear seasonal difference between age groups over 50, and the differences between men and women are also small

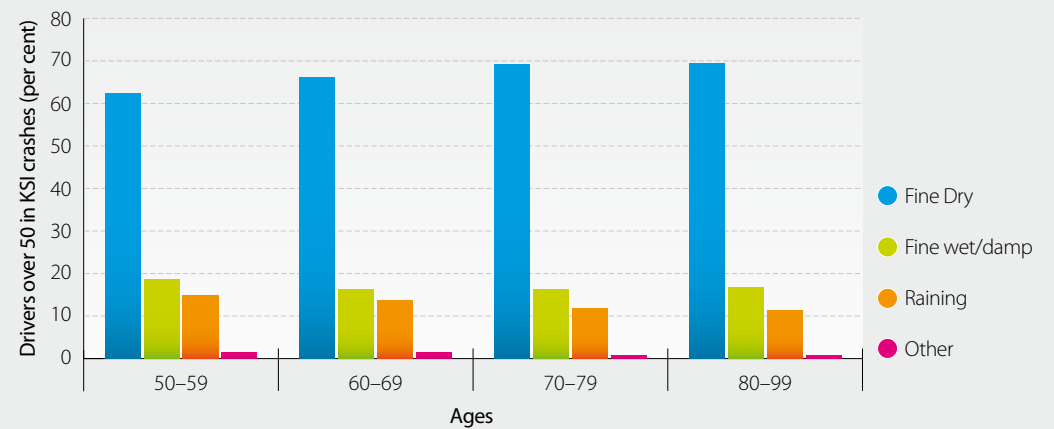
**Drivers over 50 in KSI crashes over the four seasons (per cent)**



### Weather and road surface conditions

- The majority of over-50s KSI crashes happen in fine weather when roads are dry – the same as for the general driving population
- As drivers grow older, a smaller proportion of their KSI crashes occur in adverse weather, probably because they are less likely to drive in those conditions, and they drive more cautiously

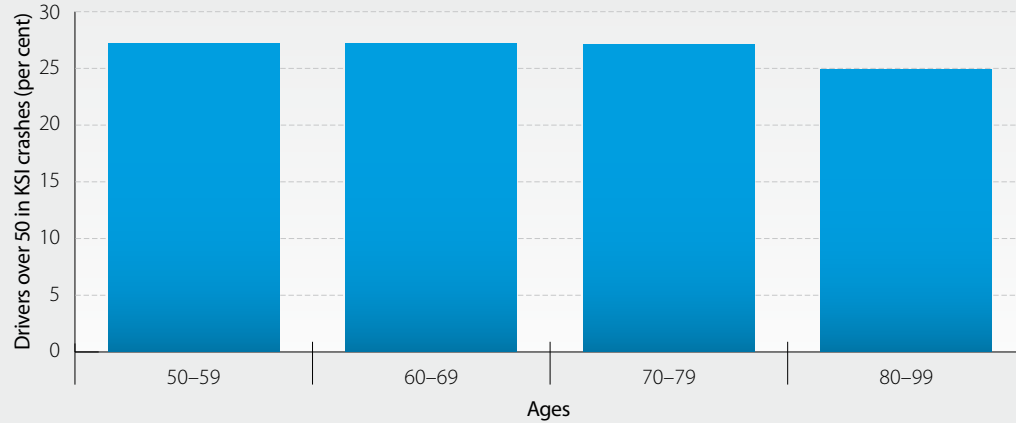
**Drivers over 50 in KSI crashes, road and weather conditions (per cent)**



## Days of the week

- There are no marked differences in the proportions of KSI crashes involving drivers aged between 50 and 79 on different days of the week. But the over 80s have marginally fewer crashes at weekends. This tends to undermine the myth of crashes caused by older 'Sunday drivers'

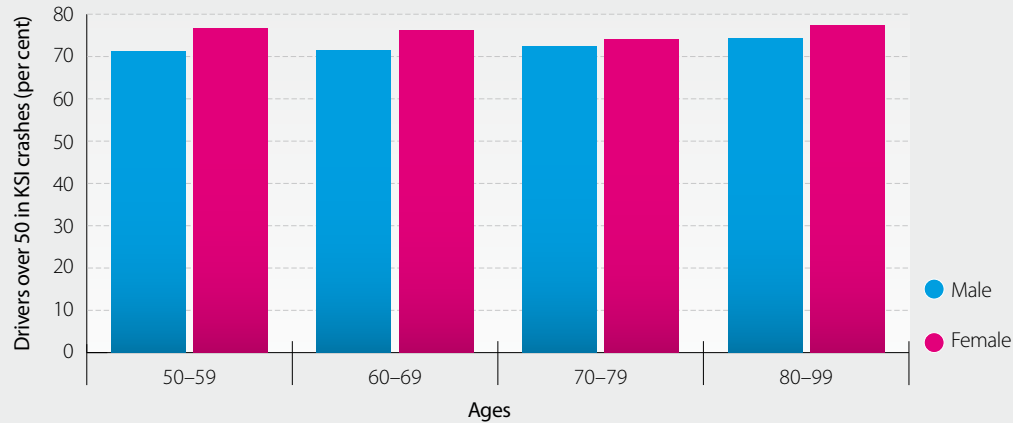
**Drivers over 50 in KSI crashes on Saturdays or Sundays (per cent)**



## Days of the week – male and female drivers

- Differences between men and women across the age groups are small; a slightly larger proportion of KSI crashes involving male drivers happen at weekends and a slightly larger proportion involving women occur on weekdays

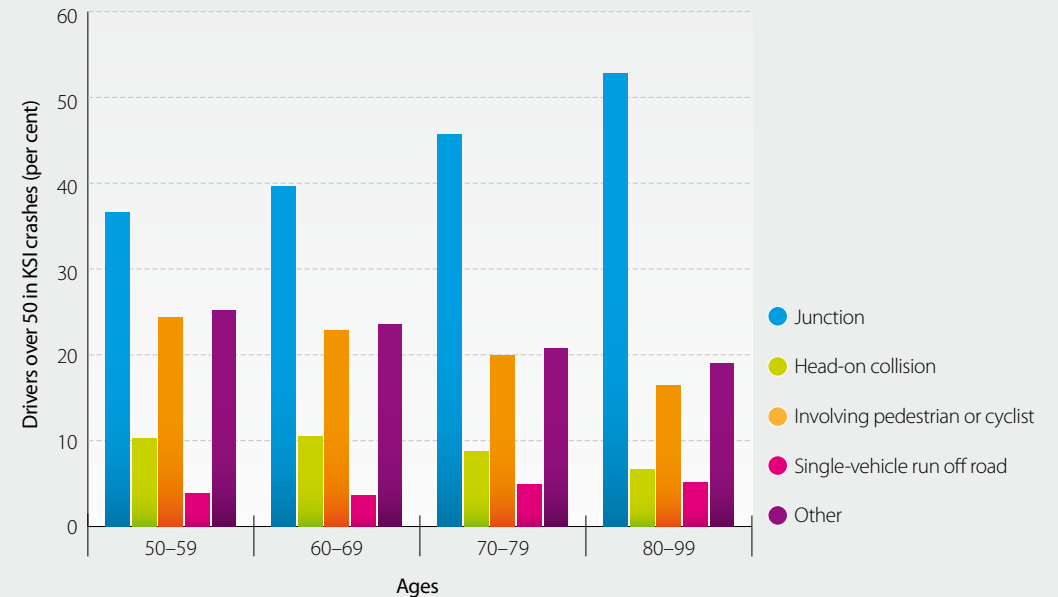
**Male and female drivers over 50 in KSI crashes on weekdays (per cent)**



## The four most common crashes

- Collisions at or near a junction (not involving a pedestrian or cyclist)
  - As drivers grow older, significantly larger proportions of their KSI crashes happen at junctions (just over half in the case of drivers over 80) compared with drivers in their 50s (just over a third)
  - Older drivers are not as good as they once were at handling a large amount of traffic information and then processing it quickly
- Head-on collisions
  - These account for about a tenth of older drivers in KSI crashes; they are less common for drivers over 70 compared with those in their 50s and 60s, suggesting a safer driving style
- Running off the road (not involving other road users)
  - These represent the smallest proportion of older driver KSI crashes, although they do increase slightly after 70
- Collisions with pedestrians or cyclists
  - Older drivers have a lower proportion (decreasing with age) of collisions with pedestrians or cyclists than drivers in their 50s
  - Research shows that in a collision, the pedestrian is primarily to blame in twice as many cases as the older driver

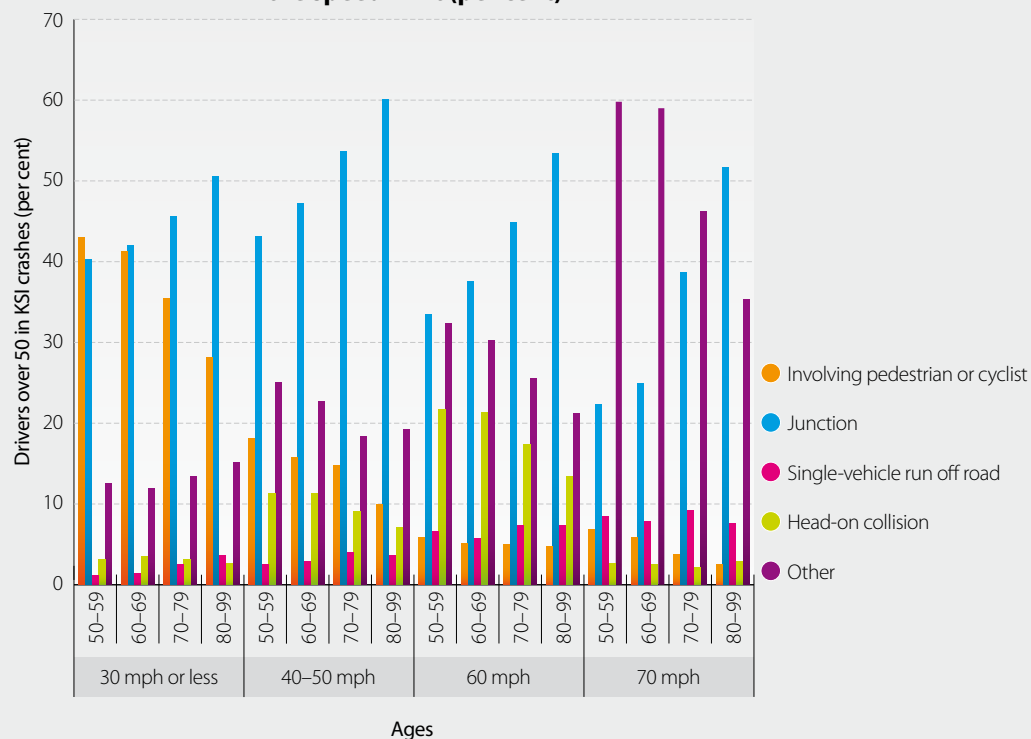
**Drivers over 50 in the four most common KSI crashes (per cent)**



### The four most common crashes – the speed limit

- 20 and 30mph
  - Over the age of 50, KSI collisions at or near junctions increase as drivers grow older, but those involving pedestrians and cyclists decrease with age
- 40 and 50mph roads
  - On these roads, the greatest proportion of crashes happen at junctions, and is highest among drivers over 80
- 60mph roads
  - KSI crashes at junctions are the most common; second most common are head-on collisions, particularly among drivers over 80
- 70mph roads
  - Junction collisions are less common than on other roads but the proportion increases significantly among older drivers

**Drivers over 50 in the four most common KSI crashes, the speed limit (per cent)**



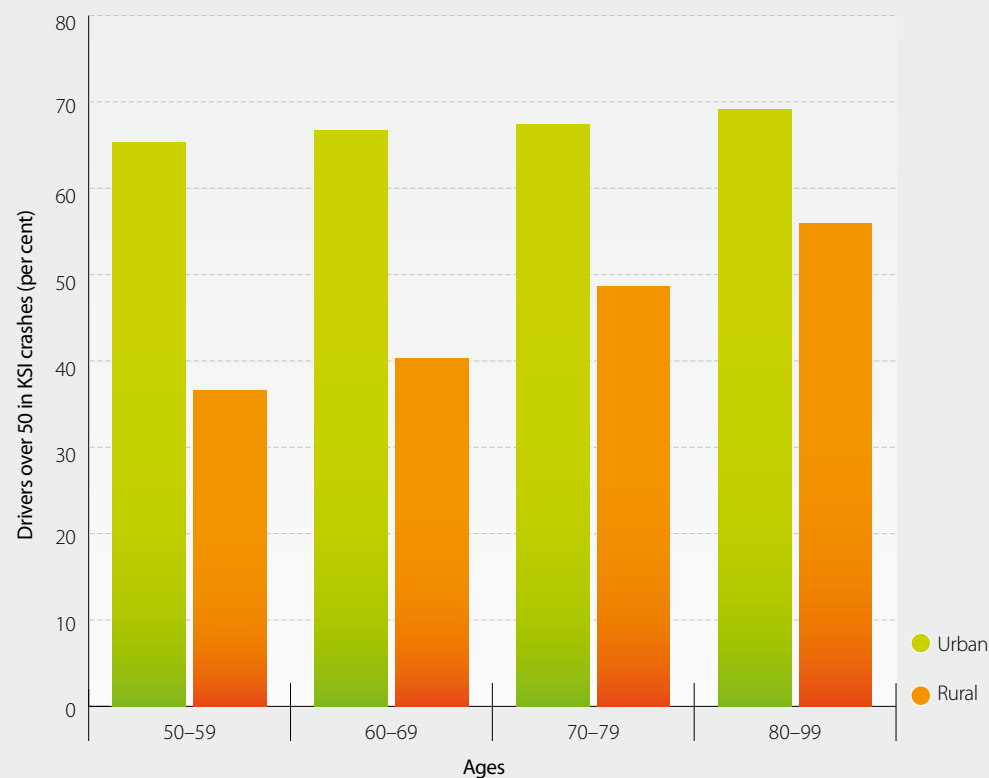
### KSI collisions at junctions

This section looks at different facets of junction collisions to highlight the safety performance of older drivers compared with drivers in their 50s

#### Junctions on urban and rural roads

- Urban roads – There is only a marginal difference between the over 50 age groups in the proportion of KSI crashes on urban roads that occur at junctions, with a slightly higher proportion for those over 80
- Rural roads – The proportion of KSI crashes at or near junctions increases significantly with age: by a third for drivers in their 70s and by half for those over 80, compared with drivers in their 50s. These suggest that as drivers get older they can cope with urban junctions, but are less able to deal with junctions on rural roads

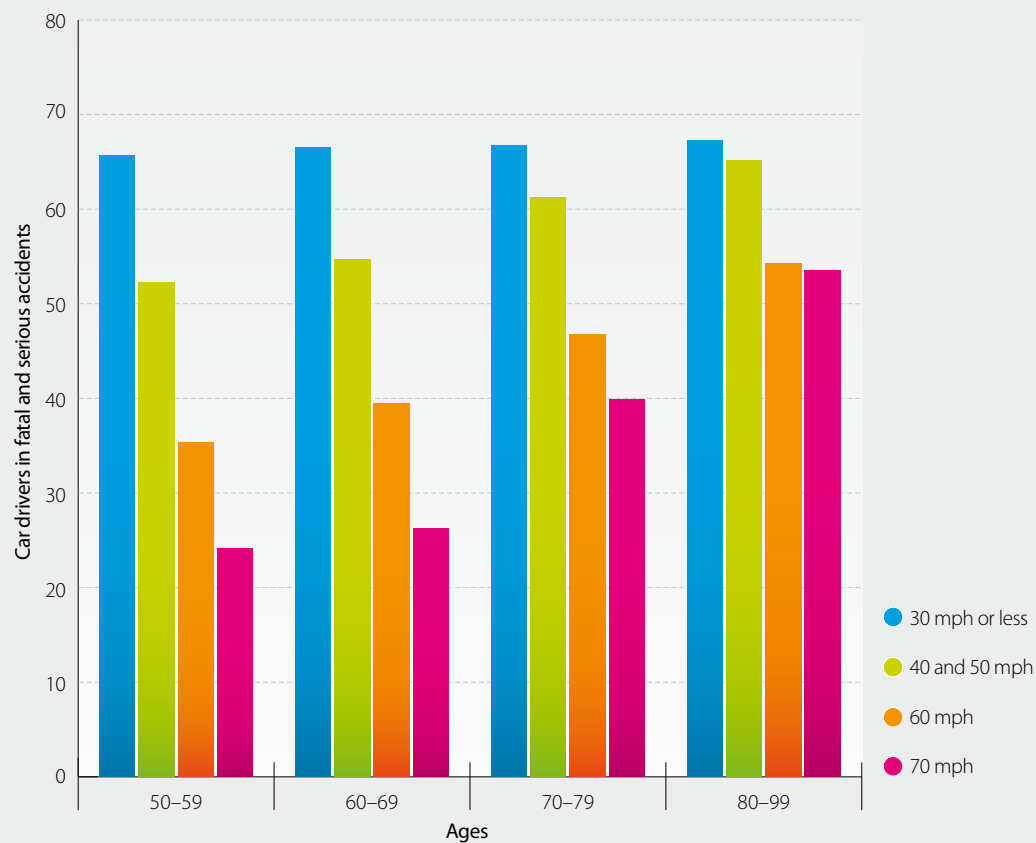
**Drivers over 50 in KSI crashes at urban and rural junctions (per cent)**



## Junctions – the speed limit

- 20 and 30mph roads – There are no differences in the proportion of KSI crashes at or near to junctions among the over 50 age groups
- 40 and 50mph roads – The proportion of KSI crashes occurring at junctions increases gradually with the age of the driver
- 60mph and 70mph roads – Drivers over 70 have a significantly greater proportion of junction crashes than those in their 50s; for drivers over 80, it is more than twice that of drivers in their 50s
- There are only marginal differences in the proportions of KSI crashes among male and female drivers on roads with different speed limits

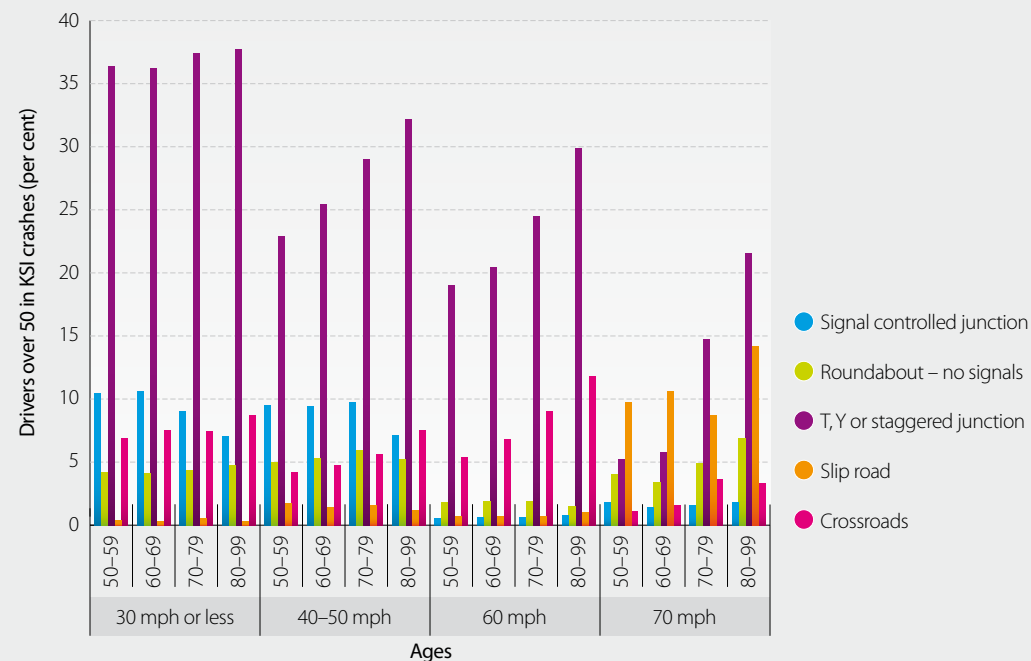
**Drivers over 50 in KSI crashes at junctions – speed limits (per cent)**



## Junctions – impact of layout and speed limits

- On 30mph or less roads, there are few differences between the age groups in KSI crashes at junctions. This suggests that older drivers aged 60 plus have no more difficulty negotiating junctions safely than drivers in their 50s
- A different picture emerges on higher speed roads where drivers aged 60 plus have significantly greater proportions of KSI crashes compared with drivers in their 50s:
  - KSI crashes on 40, 50 and 60 mph roads:
    - T, Y or staggered junctions – the proportion of KSI crashes increases with the age of drivers but it is not as marked compared with crashes on 70mph roads
    - Roundabouts and slip roads – there is little variation between age groups
  - KSI crashes on 70mph roads:
    - T, Y or staggered junctions – 21 per cent are aged 80 plus, 15 per cent are in their 70s, but just 5 per cent are in their 50s
    - Roundabouts – 7 per cent are aged 80 plus, 4 per cent are in their 50s
    - Slip roads – 14 per cent are aged 80 plus, 10 per cent are in their 50s

**Drivers over 50 in KSI crashes at junctions – layout and speed limit (per cent)**

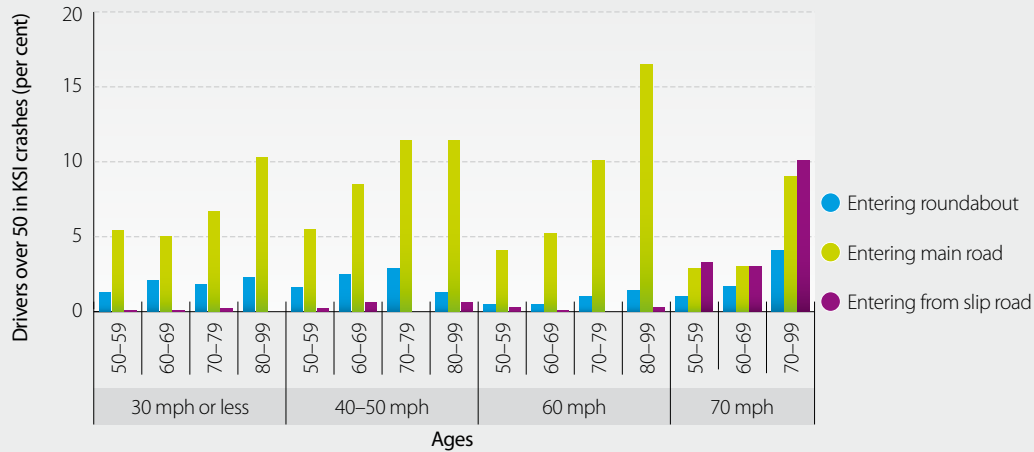




### Joining or leaving a main road or roundabout – speed limit

- Entering a main road from the side road is the point of crash impact for increasing proportions of drivers over 60; it is most marked for drivers aged 70 plus, and increases with the speed limit
- On 70 mph roads, drivers aged 80 plus have a greater proportion of KSI crashes when joining a main road from a slip road – more than all other age groups

#### Drivers over 50 in KSI crashes joining or leaving a main road, roundabout or slip road – speed limit (per cent)\*

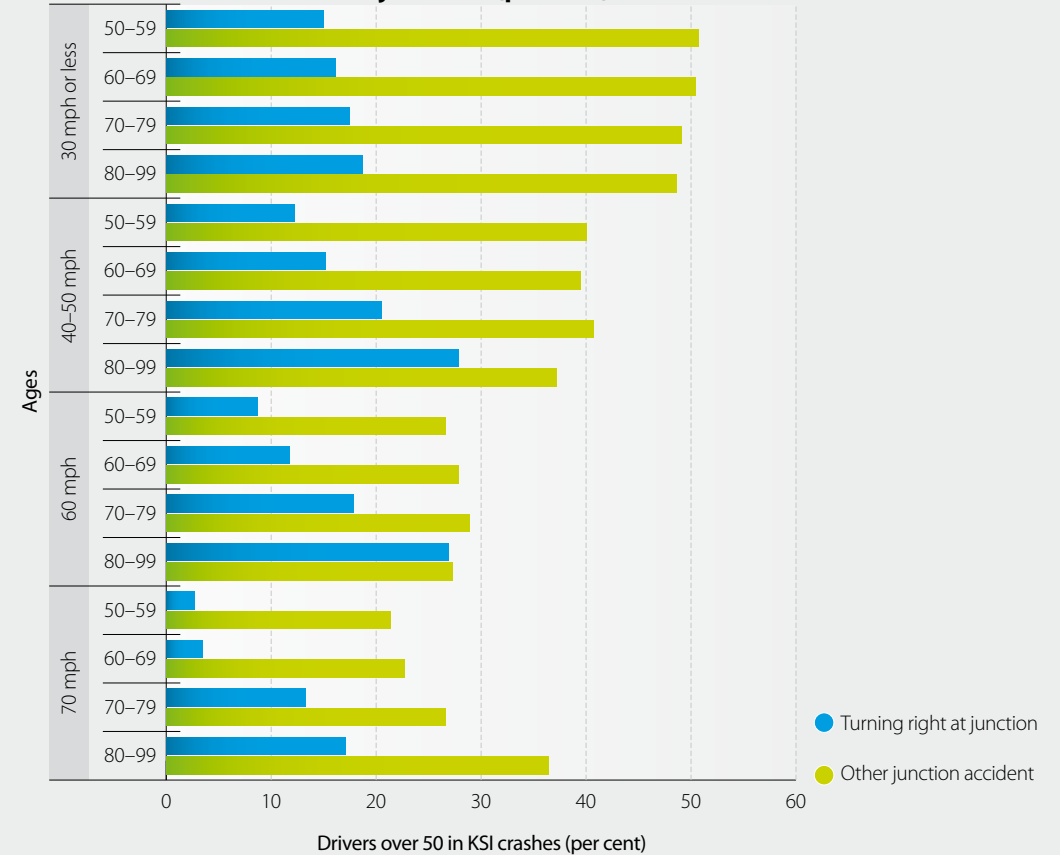


\*The data on junction location at the point of impact has only been available for since the beginning of 2005, so this analysis covers KSI crashes in 2005 and 2006

### Turning right at junctions

- As drivers grow older, turning right at junctions (to leave or join a main road) becomes a significant factor in KSI crashes where speed limits are greater than 30mph:
  - 30mph – Little variation between all the age groups over 50
  - 40mph and more – Drivers aged 70 plus have a significantly greater proportion of right-turn crashes compared with those in their 50s and 60s; and it is most marked among drivers aged 80 plus
- Research shows that in crashes in which a driver over 60 is to blame, about twice as many involve turning right into a main road as turning off one; the former involves checking left and right, whereas the latter mainly requires a check on approaching vehicles

#### Drivers over 50 in KSI crashes turning right at junctions (per cent)



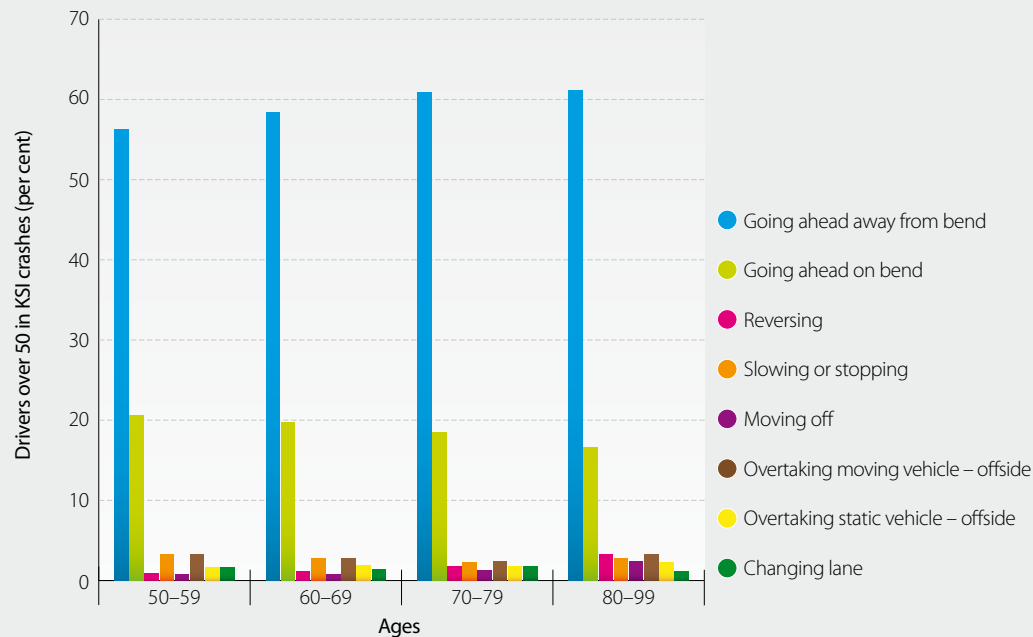
## KSI crashes away from a junction

This section examines the KSI crashes of drivers over 50 that happen at least twenty metres away from a junction

### The most common pre-crash driving actions

- More than half of the over 50s drivers are 'going ahead' and are not on a bend; the proportion increases marginally in all age groups compared with those in their 50s
- A smaller proportion of older driver KSI crashes are on a bend compared with drivers in their 50s, suggesting a more cautious driving style
- Although relatively rare, reversing and 'moving off' are pre-crash manoeuvres more likely with older drivers than those in their 50s. This suggests errors of judgment (other research has found that older drivers are 8.5 times more likely to have caused a reversing crash than to have been the innocent victim of one)
- Over the age of 80, a larger proportion of drivers are overtaking a moving or stationary vehicle compared with drivers in their 50s, 60s and 70s

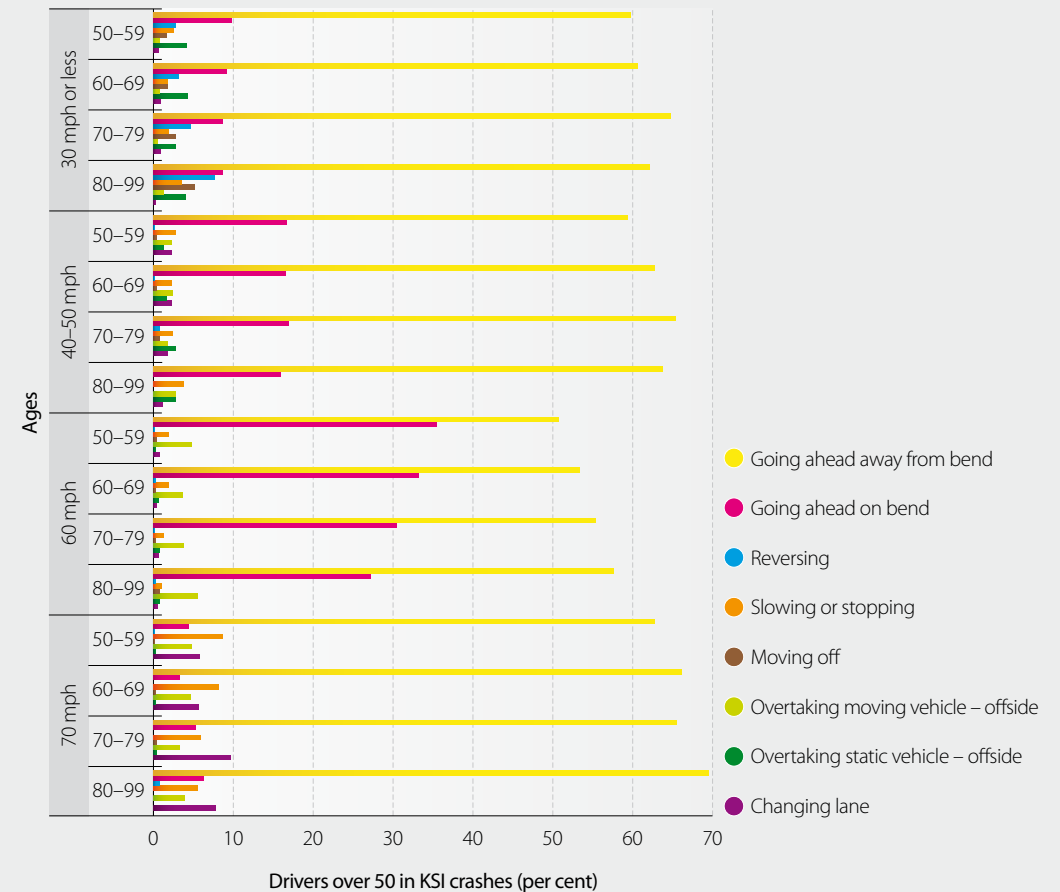
Drivers over 50 in non-junction KSI crashes – pre-crash driving actions (per cent)



### Speed limit

- The speed limit has considerable influence on KSI crashes involving older drivers:
  - 30 mph – Reversing and moving off represent a relatively small proportion, which increase with age, particularly for the over 70s
  - 60 mph – The proportion on a bend is smaller among older drivers than those in their 50s; it falls in each age group after 60
  - 70 mph – A larger proportion of drivers over 70 are changing lane at the time, compared with drivers in their 50s and 60s

Drivers over 50 in KSI crashes not at or near a junction, speed limit (per cent)



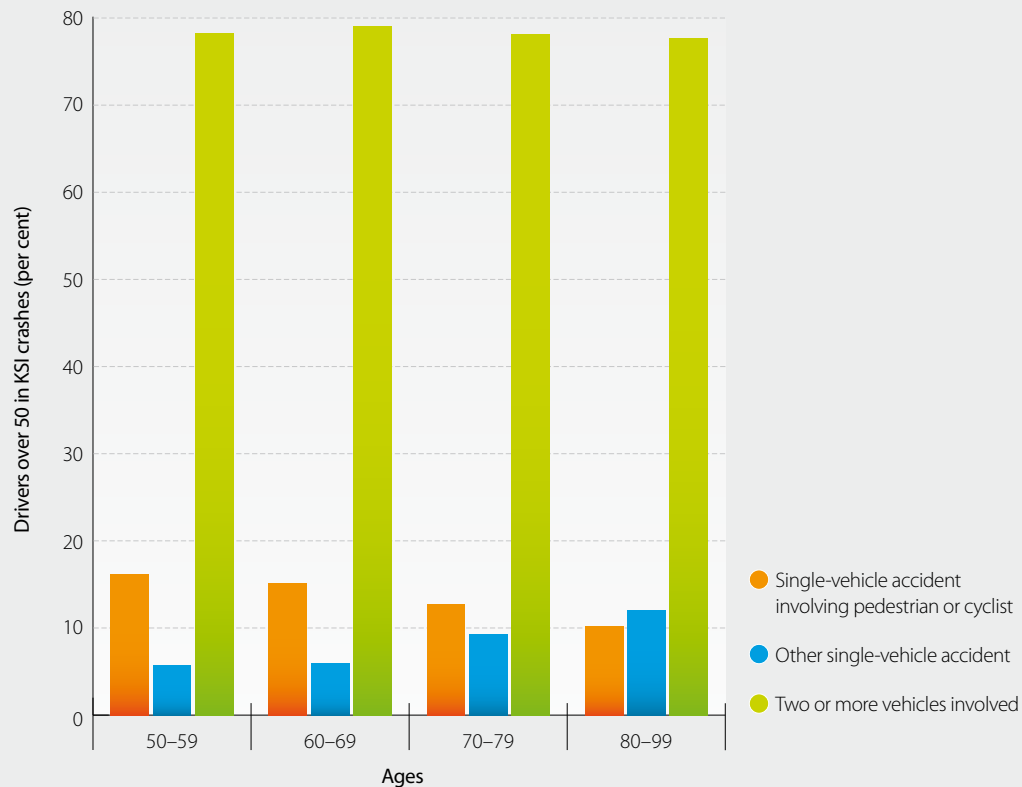
## Single and multi-vehicle collisions

This section compares older drivers with those in their 50s who are involved in single-vehicle and multi-vehicle crashes

### All drivers

- Drivers in their 50s are involved in a larger proportion of single-vehicle crashes with a pedestrian or cyclist. The proportion falls as drivers get older
- Other single-vehicle crashes are more common among drivers over 70, suggesting a greater tendency for older drivers to lose control of their cars
- The proportion of drivers in KSI crashes involving two or more vehicles does not vary between age groups, or between men and women of the same age

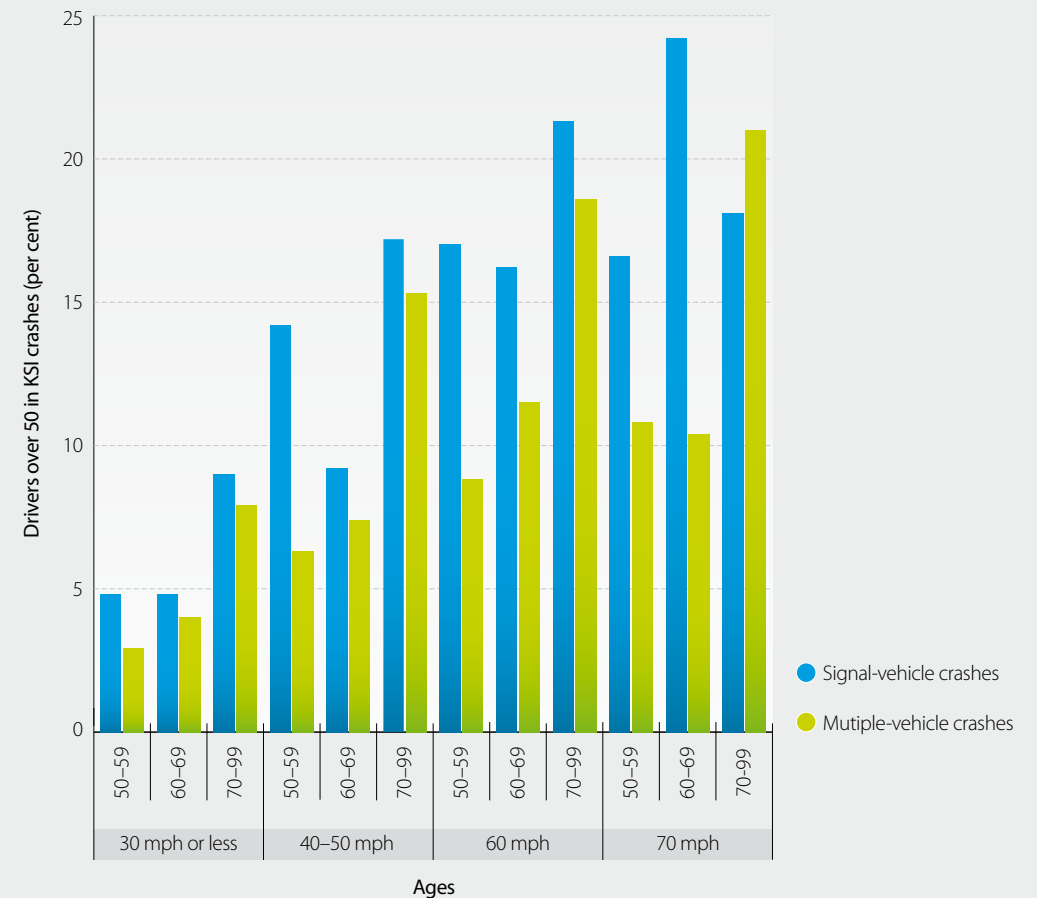
### Drivers over 50 in single and multi-vehicle KSI crashes (per cent)



### Fatalities in single and multi-vehicle crashes

- Occupants tend to be more severely injured in cars driven by the over 60s than those in their 50s. This is the case for both single and multi-vehicle crashes
- 30 mph – In a multiple vehicle crash, there is a fatality in 11 per cent of KSI crashes involving a driver over 80 compared with 6 per cent of drivers in their 70s and 3 per cent in their 50s
- 70 mph fatalities – In a multi-vehicle KSI crash, there is a fatality in a third of those involving a driver over 80 compared with 11 per cent of drivers in their 70s

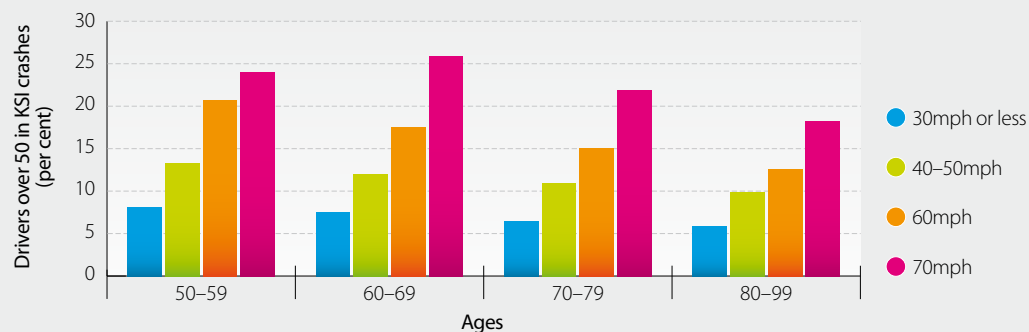
### Fatalities in single and multi-vehicle crashes—speed limit (per cent)



## Skidding and overturning – speed limit

- In KSI crashes, a smaller proportion of drivers over 60 than those in their 50s skidded on higher and lower speed limit roads; this indicates a more cautious and controlled driving style adopted by older drivers
- Compared with skidding, a smaller proportion of cars in KSI crashes overturned and does not vary significantly between older drivers and those in their 50s

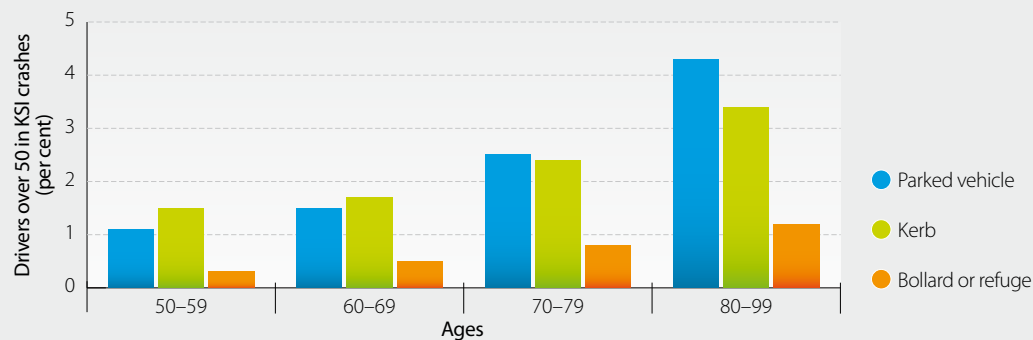
**Drivers over 50 who skidded in KSI crashes, speed limit (per cent)**



## Collisions with objects in the carriageway

- While only a small proportion of older drivers in KSI collisions hit something in the carriageway (most commonly a parked vehicle or a kerb), the proportions increase most significantly for drivers over 70; this may indicate increased errors as drivers age

**Drivers over 50 in KSI crashes hitting an object in carriageway**



## Notes for readers

- The study was carried out by road safety researcher Jean Hopkin
- It is an analysis of seven years of data (2000-2006 inclusive) on crashes that resulted in deaths or serious injuries to drivers over the age of 50
- It compares drivers aged 60 and over with drivers in their 50s in both 5-year age bands (Part 2), and in 10-year age bands (Appendix)
- Part 2 is a summary of the most significant differences in safety performances of older drivers found in the detailed analysis shown in the appendix
- This IAM booklet is a summary of the main findings of Jean Hopkin's report which can be downloaded from the IAM's web site [www.iam.org.uk](http://www.iam.org.uk)
- The analysis of where, when and how drivers over the age of 50 are killed or injured is based on the official statistics derived from data recorded by the police at the crash scene on the Stats 19 form
- The researcher's interpretations of factors outside the scope of the Stats 19 data about why certain factors emerge from the analysis are based on other research that is referenced in the full report referred to above
- The conclusions and recommendations from this study shown in this summary report are those of the IAM
- The IAM welcomes debate on the facts and issues that Jean Hopkin's analysis presents; please let us know at [info@iamtrust.org.uk](mailto:info@iamtrust.org.uk) what you think should be done to help older drivers to continue to drive for as long as they are able to, safely

## References

- Department for Transport- 2009. National Travel Survey 2008
- Department for Transport - 2001. Older Drivers: a literature review. Road Safety Research Report 25

## Acknowledgments

The IAM is grateful to the Department of Transport for giving access to the data

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## Get more from your driving

So you've been driving for quite a while now and you'd probably rather forget just how long it's been since you passed your test!

You've done OK, your driving's not bad – but maybe, just maybe, it's time to get a helpful and informed refresher.

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And if you progress to being a full IAM Advanced Driver and Member, you can benefit from many discounts and member benefits including likely savings on your motor insurance.

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**President:** Nigel Mansell

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The IAM (Institute of Advanced Motorists) is the UK's largest independent road safety charity, dedicated to raising driving standards, engaging with the road-using public and influencing road safety policy.

Established in 1956, the IAM is best known for the advanced driving test and the advanced driving course.

The IAM directly influences the driving and riding of more than 160,000 road users a year (full members, associates and commercial clients) in the UK and Ireland.

[www.iamtrust.org.uk](http://www.iamtrust.org.uk)

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Established in 2007 the IAM Policy and Research Division supports the advocacy work of the IAM. Core activities include:

- undertaking a unique programme of road safety research
- encouraging responsible motoring by promoting advanced driver and rider training
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Brunel University found most drivers and riders who receive advanced driving coaching developed significantly better safety skills, from speed management and cornering to hazard awareness and keener anticipation.

**IAM road safety initiatives include:**

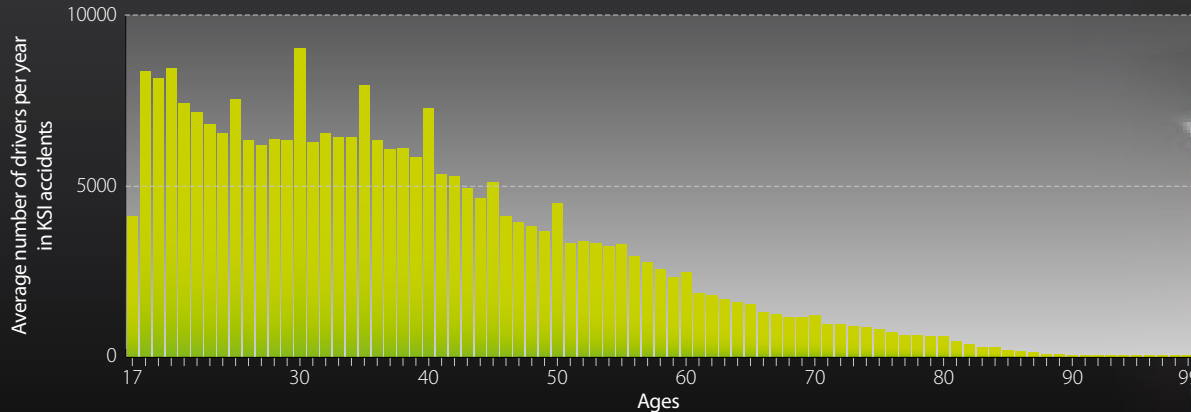
- **the IAM's commercial business** – Drive & Survive and IAM Fleet – provides leading UK occupational driver training that improves the skills of more than 35,000 drivers every year
- **IAM cycling** – through the provision of cycle training and advice, the IAM encourages safe and confident cycling for all, especially on journeys for work and leisure

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- *IAM motorcycling facts*
- *Cycling motorists*
- *IAM motoring facts*
- *16 – the dangerous age for moped riders*
- *Young drivers – where, when and why they are unsafe*
- *Barriers to change – designing safer roads for motorcyclists*
- *Rural roads – the biggest killer*
- *Star rating roads for safety* (partnership with the Highways Agency)
- *Traffic laws and policing – does Sweden do them better?*
- *Child safety – a guide for parents*

More information for each can be found at [iamtrust.org.uk](http://iamtrust.org.uk)

**8 per cent of drivers are over 70, yet they are involved in around 4 per cent of injury crashes. However, the 15 per cent of drivers who are in their teens and twenties are involved in 34 per cent of injury crashes**



**Over the next 20 twenty years, the number of male drivers over 70 will double, while the number of women drivers will treble .**



View the full report at:  
[iam.org.uk/olderdrivers](http://iam.org.uk/olderdrivers)

Research by Jean Hopkin

Summary report by Bert Morris  
and Jean Hopkin

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