

Young Working Drivers involved in police reported injury collisions 2011 to 2015

Commissioned by AA DriveTech from Road Safety Analysis

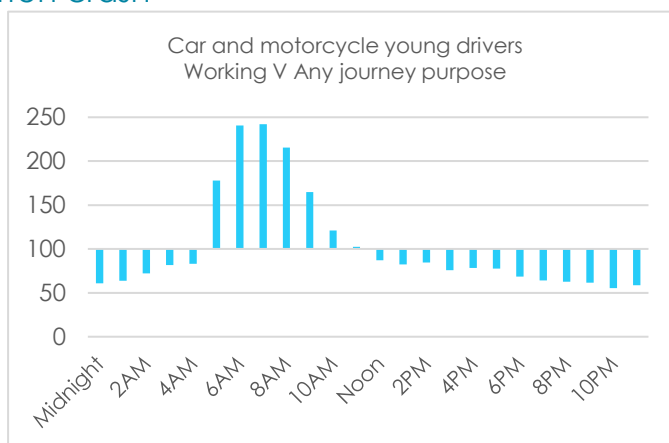
October 2016

Executive Summary

This report was commissioned by AA DriveTech to understand more about those young drivers who are involved in reported injury collisions whilst 'driving for work'. Road Safety Analysis carried out a review of incidents reported to the police between 2011 and 2015 (1.3 million drivers) and focussed on those involving 'car and motorcycle young working drivers' (29,192 drivers) and 'van and professional young working drivers' (12,888 drivers). For comparison, reviews were also undertaken for car and motorcycle and van and professional working drivers of all ages, as well as car and motorcycle and van and professional young drivers with journey purposes excluding work. The definition of 'working' excludes those commuting to work.

When working young drivers most often crash

By comparing young drivers who were involved in an injury collision whilst 'working' with young drivers with any journey purpose, it is possible to determine differences in collisions patterns. Car and motorcycle young drivers are over twice as likely to be involved in collisions in the 6am to 9am period when driving for work than those with any journey purpose. This group is less likely to be involved in collisions in the afternoon, evening and during the early morning however.



This pattern is not the same for van and professional vehicles although there is a peak between 9am and 3pm where collisions are slightly over-represented. But once again, this group is less likely to be involved in collisions in the evening through to the early hours.

By analysing the day of the week there is an over-representation for car and motorcycle young working drivers between Monday and Thursday compared to young drivers with any journey purpose, whilst both car and motorcycle and van and professional young working drivers are under-represented at weekends. During weekdays van and professional young working drivers are generally represented as expected compared to both van and professional working drivers of all ages, and van and professional young drivers with any journey purpose.

There are slight seasonal variations in collision involvement rates for car and motorcycle young working drivers with small peaks within the autumn and winter months (October – March), and under-representation in April-June and August, when compared to car and motorcycle young drivers with any journey purpose. This may be a reflection on working patterns, holidays and the nature of the work involved. Van and professional vehicle patterns vary little throughout the year from young working drivers when compared to both van and professional drivers of all ages and van and professional young drivers with any journey purpose. This may demonstrate that drivers of goods vehicles and buses are always on the roads, no matter what the season.

The roads where working drivers most often crash

Car and motorcycle young working drivers are more over-represented in collisions on rural A, B and unclassified roads compared to car and motorcycle working drivers of all ages, and also more over-represented on busy, multi-lane roads compared to car and motorcycle young drivers with any journey purpose. They are less likely than both comparison groups to be involved in a collision on urban unclassified roads. Van and professional young working drivers are over-represented in collisions on rural A, B and unclassified roads compared to van and professional working drivers of all ages, whilst over-represented on urban single A and B roads compared to van and professional young drivers with any journey purpose. Van and professional young working drivers are under-represented compared to those of all ages on urban A, B and unclassified roads, and on rural single A and B and urban unclassified roads compared to van and professional young drivers with any journey purpose. When collisions on the strategic roads network is reviewed it is surprising to find that only 19% of van and professional drivers' incidents occur here with the remainder on other roads. This is compared to 12% for car and motorcycle young working drivers.



The majority of collisions occur at junctions for both car and motorcycle young working drivers (61%) and van and professional young working drivers (56%). Car and motorcycle young working drivers are under-represented at controlled junctions compared to those of all ages and over-represented at slip roads compared to car and motorcycle young drivers with any journey purpose. These trends are the same for van and professional young working drivers compared to the relevant comparison groups with collisions at slip roads over-represented when compared to both van and professional working drivers of all ages and van and professional young drivers with any journey purpose.

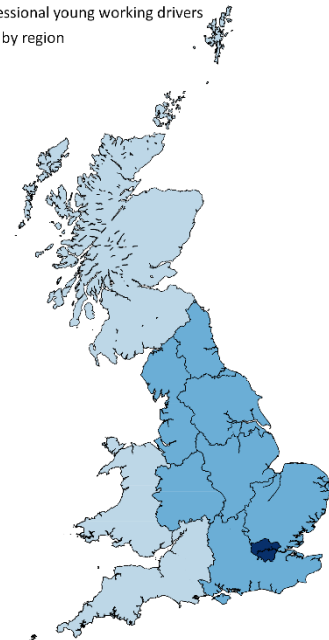
Regional variations in young working driver behaviour

Crash densities for both types of young working driver unsurprisingly reflect road network and traffic densities. For car and motorcycle young working drivers, the South-East and East come out quite high after London which is considerably higher. Whereas for van and professional young working drivers, the South-East is the highest after London. In both cases, Scotland, Wales and the South-West come out quite low in crash density per 1,000km of roads.

As well as looking at the location of crashes it is also possible to track the home residency of drivers and compare these to national averages. Car and motorcycle young working drivers from the East, Scotland, South-East and East Midlands have higher risk rates per head of population. Although these results are not balanced according to license-holders it is a fair indication of risk. Van and professional young working drivers have higher risk rates from Wales, South-East, East and East Midlands.

Crash location of van and professional young working drivers per year per 1,000 km of road, by region

Over 10
5 to 10
Lower than 5



By knowing the home location of the driver it is also possible to analyse the distance from home when the collision took place. Van and professional young working drivers are, on average, further from home (30.4 km), compared to van and professional young drivers with any journey purpose (28.1 km) but closer to home than van and professional working drivers of all ages (33.6 km). There is some regional variation, most pronounced in London where distances from home are very short – more than 25% shorter than the national average whereas drivers from Scotland are over 50% further than average from home. Car and motorcycle young working drivers (16.5 km) are similarly further from home compared to car and motorcycle young drivers with any journey purpose (17.8 km) but closer to home than van and professional working drivers of all ages (14.8 km). Drivers from the South-West, East and Scotland tend to be furthest from home; around 25% further than the average, compared to those from the North-East and London who are respectively 25% and 40% closer to home than the average.

The final piece of analysis that shows significant regional variations is the time of day when crashes happen. In the 12am-6am slot, car and motorcycle young working drivers are generally under-represented when compared to those of all ages, whilst generally over-represented between 6am and 12pm apart from London which is under-represented. London is also over-represented between 6pm-12am. When compared to car and motorcycle young drivers with any journey purpose most regions are considerably over-represented between 6am-12pm and under-represented during the rest of the day, aside from Yorkshire and the Humber which is over-represented between 12am-6am.

For van and professional young working drivers, when compared to drivers of all ages, all regions apart from Wales are under-represented between 12am-6am and Yorkshire and the Humber, Wales and the North East are under-represented from 6pm-12am. From 6am-12pm London and Wales are over-represented, with Scotland and the East Midlands over-represented between 6pm-12am. Compared to van and professional young drivers with any journey purpose, all regions other than Scotland are over-represented between 6am-12pm and all regions are under-represented from 6pm-6am



How young working drivers contribute to collisions

Using the opinions of police officers attending the scene of an injury collision it is possible to look at why collisions may have taken place. Groups of 'contributory factors' have been analysed and the frequency of reporting compared to the average for all drivers. Young working drivers of both car and motorcycle and van and professional vehicles are involved in collisions at a higher frequency than the national norm, although they are involved at a slightly lower frequency than car and motorcycle and van and professional young drivers with any journey purpose. When compared to car and motorcycle and van and professional working drivers of all ages, young working drivers are generally over-represented more often than under-represented, meaning they are more likely to be assigned the contributory factor in question. Although as these drivers are young drivers, they are more likely to be less experienced, so it could be expected that these drivers are more likely to be assigned these CF's.

Whilst over-represented compared to working drivers of all ages for nervous behaviour, close following, speed choices, unsafe behaviour, control errors, distraction and substance impairment, car and motorcycle young working drivers are under-represented for traffic contraventions and considerably under-represented for health impairments (although the sample size is small).

However, when compared to car and motorcycle young drivers with any journey purpose, car and motorcycle young working drivers are under-represented for nervous behaviour, speed choices, unsafe behaviour, control errors, distraction, traffic contraventions, and health impairments; but considerably under-represented for substance impairments and marginally over-represented for fatigue impairment.

Similarly, for van and professional young working drivers, when compared to van and professional working drivers of all ages, there is over-representation in all CF groupings apart from health impairments which is under-represented. But when compared to van and professional working drivers with any journey purpose, there is more under-representation from speed choices, unsafe behaviour, traffic contraventions and substance impairment.

Conclusion

The report and the detailed analysis that is behind it paint a sometimes-surprising picture of life on the roads for those young drivers who drive for work. Many of the results shown can be explained by known traffic densities, behaviour patterns and working practises. Most young drivers who are involved in collisions on the roads are not driving for work and it cannot be known whether the overall risk for working drivers is lower than for the general population. This is because there are no reliable figures which distinguish car miles driven for work as opposed to other purposes.

There are indications however, that young people who drive for work are generally less likely to be 'at fault' in a collision than young drivers of similar vehicles in general; but they are more likely to be 'at fault' than working drivers of any age. Young working drivers are more likely than working drivers in general to be assigned contributory factors related to speed choice and close following. In addition, young working drivers of van and professional vehicles are more likely than van and professional working drivers of all ages to be assigned contributory factors relating to: distraction (40% more likely), unsafe behaviour (30% more likely) and traffic contraventions (27% more likely). Car and motorcycle young working drivers are 49% more likely to be assigned control errors.

Also, worth noting is that both van and professional and car and motorcycle young working drivers are noticeably over-represented in collisions on rural single non-motorway roads, and on roads with 50 and 60mph speed limits, compared to working drivers of all ages.

This report and analysis has shed light on the circumstances surrounding the collisions of young working drivers and can be used as a guide to assist managers in mitigating the risks presented to their employees who drive for work



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INTRODUCTION

Road Safety Analysis was commissioned by The AA to analyse the circumstances of collisions involving working young drivers. On the basis of scoping analysis undertaken for previous reports in this series, definitions of working drivers and associated vehicle types have already been identified. In the interests of consistency, those definitions have also been used in this report. The definition of working drivers specifically excludes commuters, who exhibit different tendencies and were the subject of a separate study.

The conclusions of the analysis are divided into four sections:

- **When** young working drivers are involved in injury collisions (times of day, week, year)
- **Where young** working drivers are involved in injury collisions (junction and road types, speed limit, strategic roads)
- **Regional Differences** of young working drivers involved in injury collisions (where they are involved in collisions and where they live, distance from home, and regional differences in when and where factors)
- **Contributory factors** of working drivers involved in injury collisions (how they contributed to the collision)

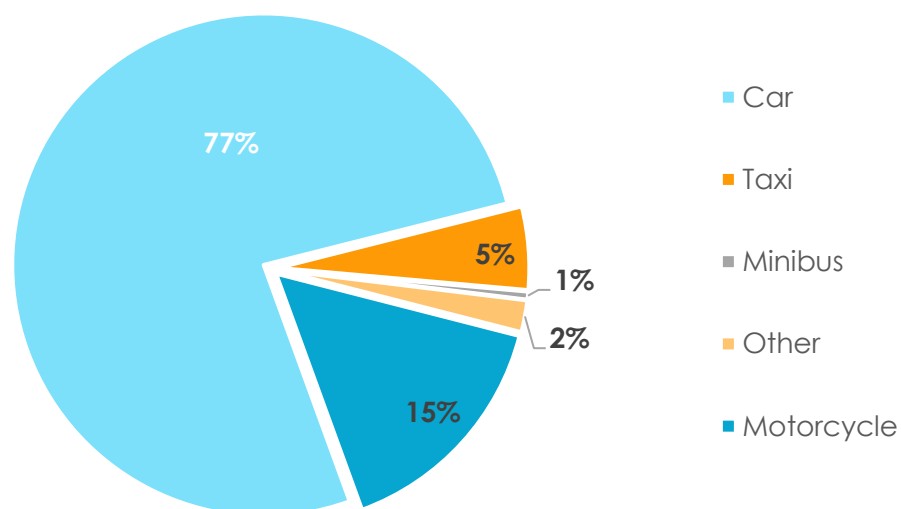
The four sections combined provide an insight into the types of challenges facing young working drivers and how they differ as a group in terms of the types of collision in which they are involved.

Scope

The analysis focuses on drivers involved in injury collisions (as reported to the police) in Britain between 2011 and 2015. Because it is probable¹ that driver journey purposes are significantly under reported in these statistics, all absolute figures quoted in this report should be understood as representative samples. They are highly unlikely to embody the totality of road risk for all working drivers.

Based on findings from the scoping process, the following analysis focuses primarily on two varieties of working drivers:

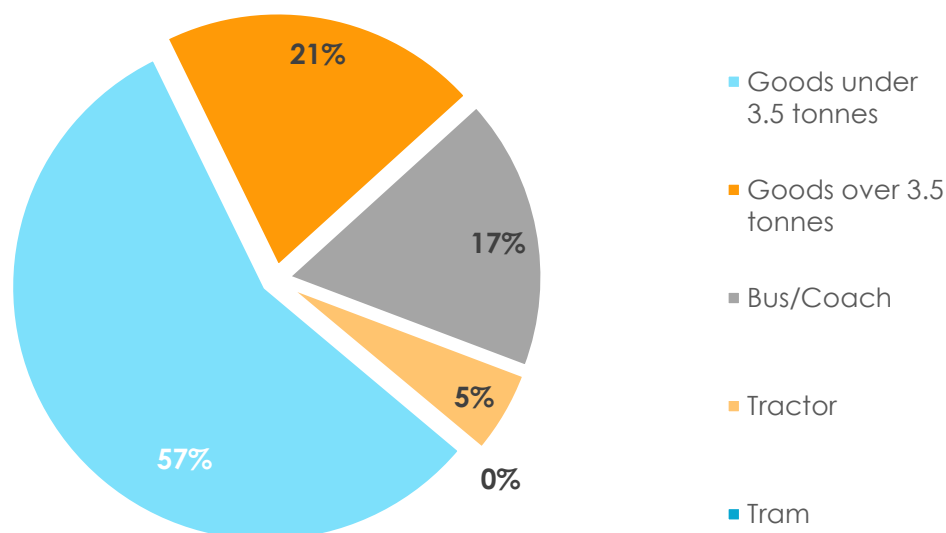
- **Car and motorcycle young working drivers:** Drivers and riders of car and motorcycle vehicle types aged between 16 and 29 who were explicitly recorded as driving for work purposes, (29,192 drivers) including: cars (22,366); taxis (1,562); minibuses (152); motorbikes (4,512) and others (600) excluding horses, tractors, trams and mobility scooters.



- **Van and professional young working drivers:** Drivers aged between 16 and 29 of van and professional vehicle types designed and driven mainly for work purposes, who were not recorded as commuting (12,888 drivers in all) including: goods vehicles under 3.5 tonnes, including car based vans (7,302 drivers); goods vehicles over 3.5 tonnes (2,642 drivers); buses and coaches (2,253 drivers); tractors and other agricultural vehicles (685 drivers); and trams or other light rail vehicles (6 drivers).

¹ Assessment of the feasibility of producing statistics on all work-related fatalities and injuries (HSE 2011) <http://www.hse.gov.uk/statistics/pdf/feasibility.pdf>





For comparative purposes, two other varieties of working drivers were also analysed:

- **All Car and motorcycle working drivers:** Drivers and riders of car and motorcycle vehicle types of any age who were explicitly recorded as driving for work purposes, (121,543 drivers) including: cars, taxis, minibuses (108,526), motorbikes (9,450) and others (3,567) excluding horses, tractors, trams and mobility scooters.
- **All Van and professional working drivers:** Drivers of any age of van and professional vehicle types designed and driven mainly for work purposes, who were not recorded as commuting (88,781 drivers in all) including: all goods vehicles (59,894 drivers); buses and coaches (26,646 drivers); tractors and other agricultural vehicles (2,149 drivers); and trams or other light rail vehicles (92 drivers).

In addition to these two varieties, two other any journey comparison varieties were also used:

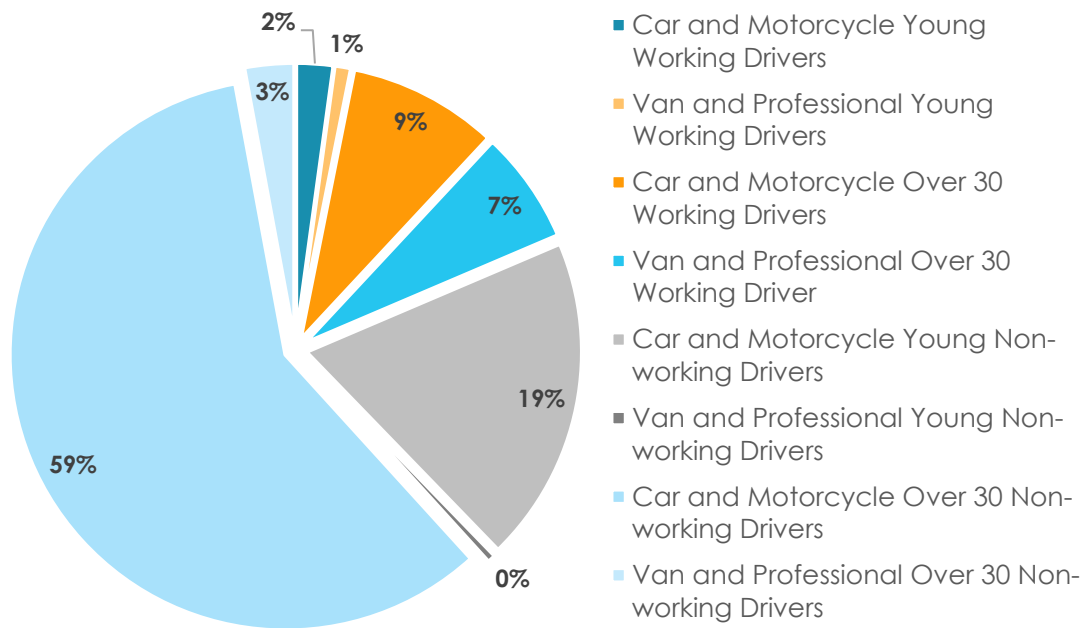
- **All Car and motorcycle young drivers:** Drivers and riders aged between 16 and 29 of car and motorcycle vehicle types regardless of journey purpose, (310,683 drivers) including: cars, taxis, minibuses (260,497), motorbikes (48,887) and others (1,299) excluding horses, tractors, trams and mobility scooters.
- **All Van and professional young drivers:** Drivers aged between 16 and 29 of van and professional vehicle types designed and driven mainly for work purposes, regardless of journey purpose (20,167 drivers in all) including: all goods vehicles (16,792 drivers); buses and coaches (2,553 drivers); tractors and other agricultural vehicles (814 drivers); and trams or other light rail vehicles (8 drivers).

The analysis focuses on drivers and riders of motorised vehicles: therefore cyclists and horse rides were not included. Mobility scooters were also removed as there were so few in number.

Context

To put these groups into context it is helpful to have an insight into the proportion of working drivers on the road in Britain compared other drivers that are not-working. Whereas above, **all drivers** were used for comparison, **drivers aged over 30** were used here in order to give accurate percentages (avoiding double counting). Once again young drivers are those aged 16-29, as in the groups above. Drivers who are at-work account for approximately 19% of those on the roads in Britain. Car and motorcycle young working drivers account for 2% and van and professional young working drivers account for 1%. Over 81% of drivers on the roads are not-working. Car and motorcycle young non-working drivers account for 19%, compared to those car and motorcycle drivers who are over 30 who account for 59%.





Presentation of results

Since the principal objective of this research is to identify how road risk for young working drivers compares to other road users, conclusions are generally expressed in terms of how much they differ. These differences are expressed numerically as 100 based indices, where a value of exactly 100 indicates young working drivers at the same level as all drivers involved in collisions, while an index over 100 indicates a higher frequency than average and under 100 indicates a lower frequency.

To provide context for these indices, absolute numbers of drivers are also included. As indicated above, such numbers should be understood as a sample, rather than a total measure.

Results are generally presented in a graphical format using column charts. To facilitate understanding and comparison, most charts follow a standard format in which certain chart elements are consistently used and presented in the same manner, as follows:

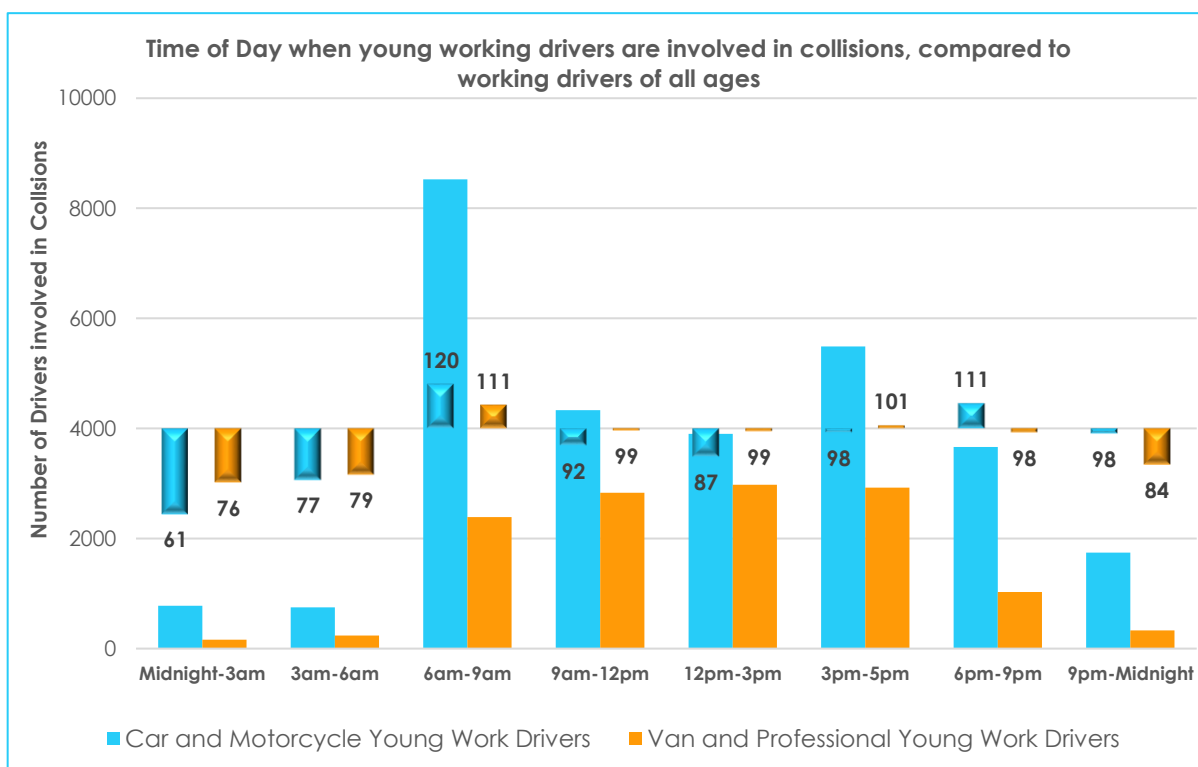
- **Main title:** which metric related to young working driver collision involvement is being examined
- **Horizontal axis:** categories into which that metric is divided (selected to highlight important trends)
- **Colours:** varieties of working drivers included in the sample: In the 'When' analysis, **blue** for car and motorcycle young working drivers and **orange** for van and professional young working drivers
- **3-D bevelled columns:** 100 based indices for working drivers of the variety indicated by the colour
- **Solid columns:** Actual recorded number of working drivers of the variety indicated by the colour

'WHEN' ANALYSIS

Analysis of when young working drivers were involved in collisions was carried out to compare them to all working drivers and all young drivers involved in collisions.

Times of day

When compared to working drivers of all ages, car and motorcycle young working drivers are over-represented in collisions between 6am and 9am, and between 6pm and 9pm. They are under-represented between midnight and 6am, and between 12pm and 3pm. Van and professional young working drivers are over-represented in the morning between 6am and 9am, and are under-represented between midnight and 6am, and from 9pm to midnight.

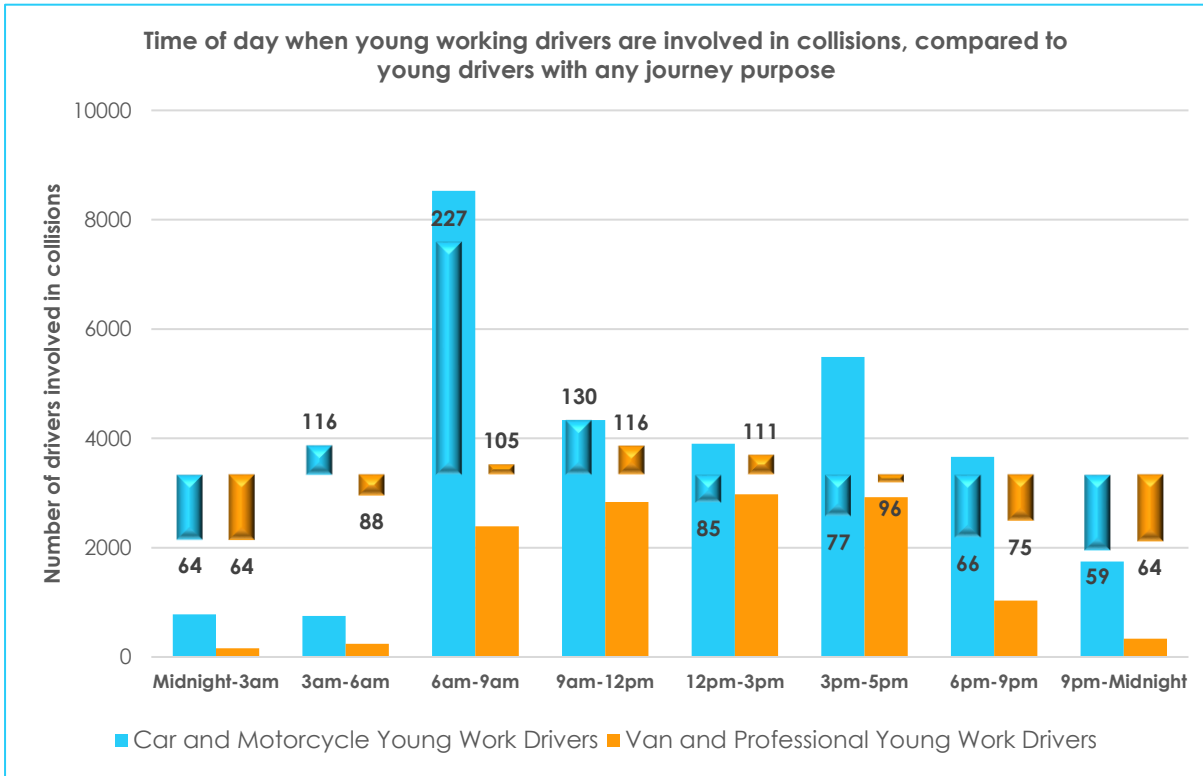


More detailed charts, showing individual hours of the day, are provided in the appendix and show that car and motorcycle young working drivers are specifically over-represented in collisions between 7am and 9am and 6pm and 9pm, whereas van and professional young working drivers are more likely to be involved in collisions in early morning between 6am and 8am.

When compared to drivers with any journey purpose, car and motorcycle young working drivers are over-represented between 3am and 12pm and are significantly over-represented between 6am and 9am. Between midnight and 3am, 12pm and midnight, car and motorcycle young working drivers are under-represented. Van and professional young working drivers are over-represented between 9am and 3pm, and they are under-represented between midnight and 6am, and between 6pm and midnight.

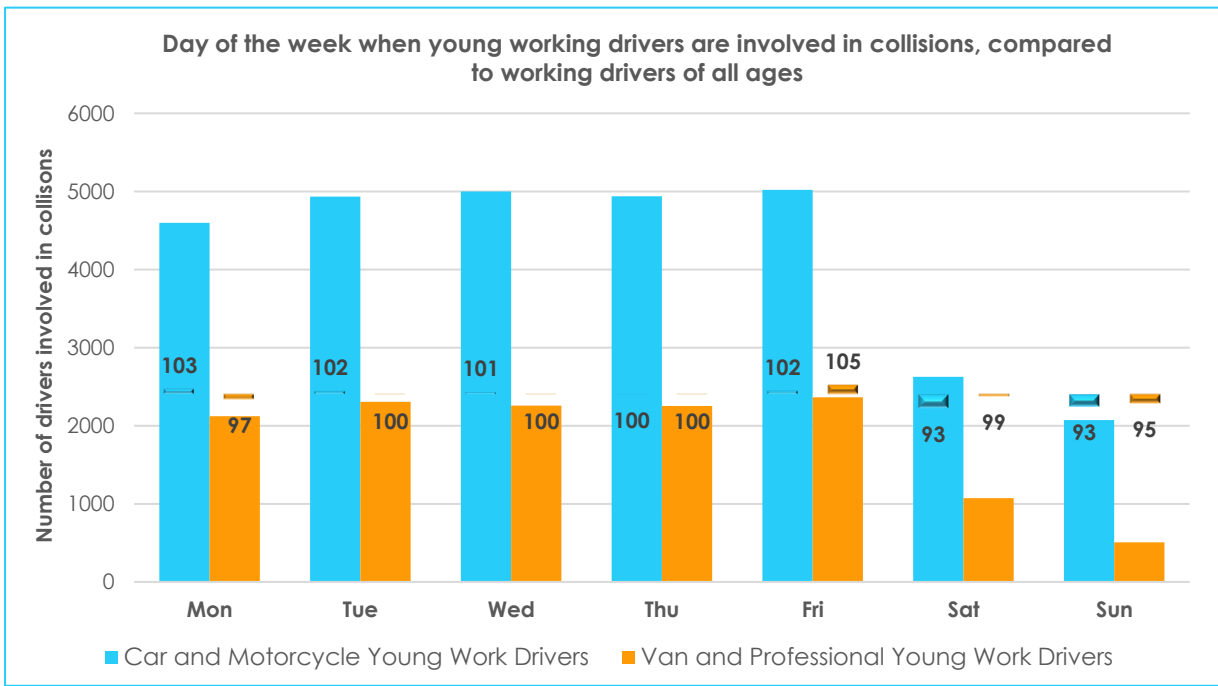
When looking in more detail at the charts in the appendix, car and motorcycle young working drivers are specifically over-represented in collisions between 5am and 11am.



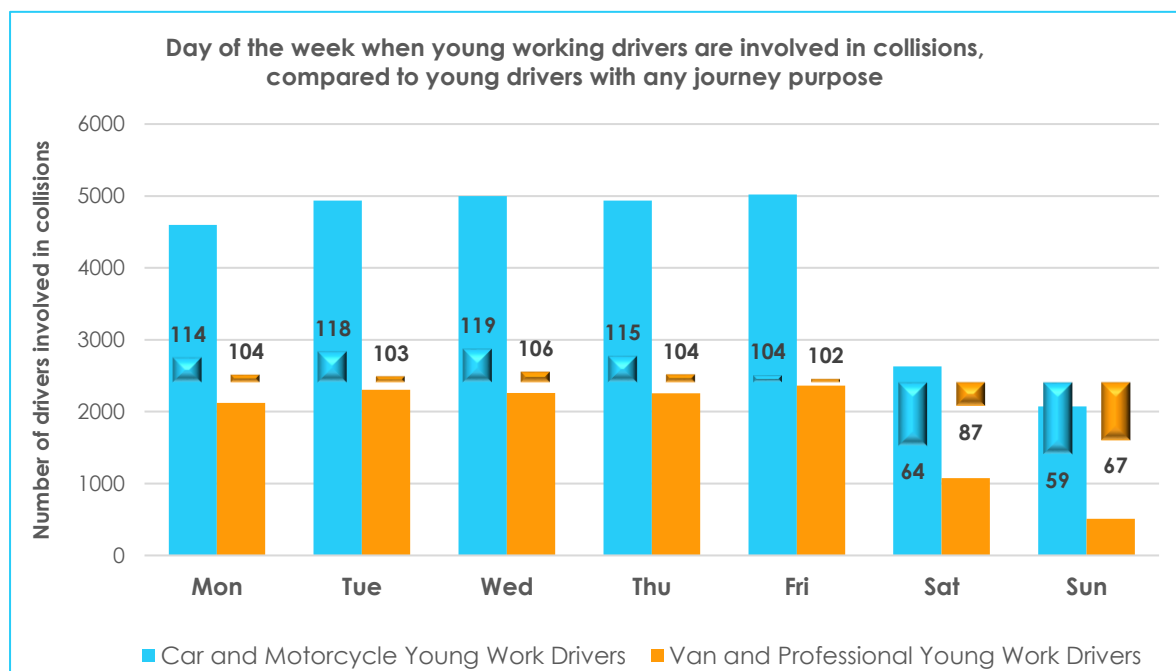


Days of the week

Compared to working drivers of all ages, young working drivers of both car and motorcycle and van and professional vehicles are neither over-represented or under-represented during any weekday. Car and motorcycle young working drivers are marginally over-represented at weekends.

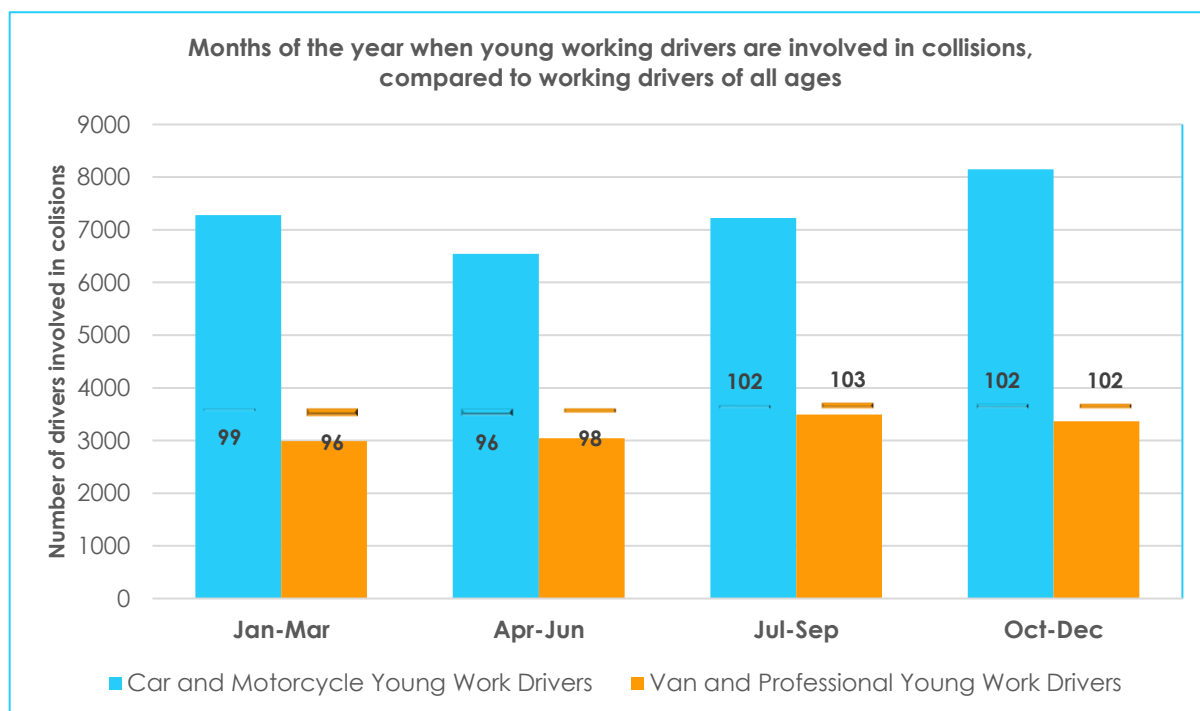


When compared to young drivers with any journey purpose, car and motorcycle young working drivers are over-represented from Monday to Thursday and are under-represented at weekends. Van and professional young working drivers are marginally over-represented during the week and under-represented at weekends.



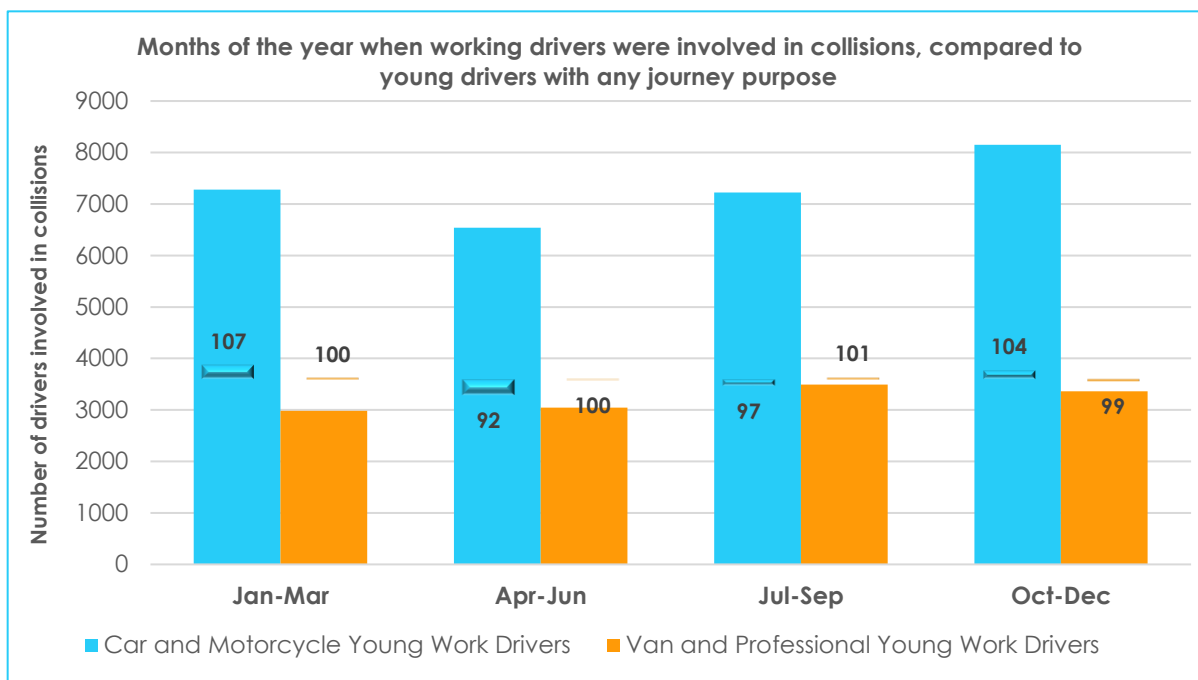
Time of year

The time of year when car and motorcycle and van and professional young working drivers were involved in collisions was analysed with no significant changes observed throughout the year when compared to working drivers of all ages.



When compared to young drivers with any journey purpose car and motorcycle young working drivers were slightly over-represented from January to March, whilst slightly under-represented from April to June.





Conclusions

The 'when' analysis has shown that car and motorcycle young working drivers have higher frequencies of collision-involvement in the early morning between 6am-9am and between 6pm-9pm (when compared to working drivers of all ages). When compared to young drivers with any journey purpose, car and motorcycle young working drivers are considerably over-represented between 6am-9am, over-represented between 9am-12pm and 3am-6am, whilst noticeably under-represented during the other hours of the day. Again, when compared to young drivers with any journey purpose, car and motorcycle young working drivers are over-represented during weekdays (Monday-Thursday, but not Friday) and under-represented at weekends. They also have slightly higher frequencies in the winter months than summer months.

Van and professional young working drivers have slightly higher frequencies of collision-involvement between 6am-9pm, compared to working drivers of all ages. These drivers also have higher frequencies compared to young drivers with any journey purpose between 9am-3pm, with under-representation throughout the other hours of the day. Again, when compared to young drivers with any journey purpose, van and professional young working drivers are under-represented at weekends, but represented as expected the months of the year.



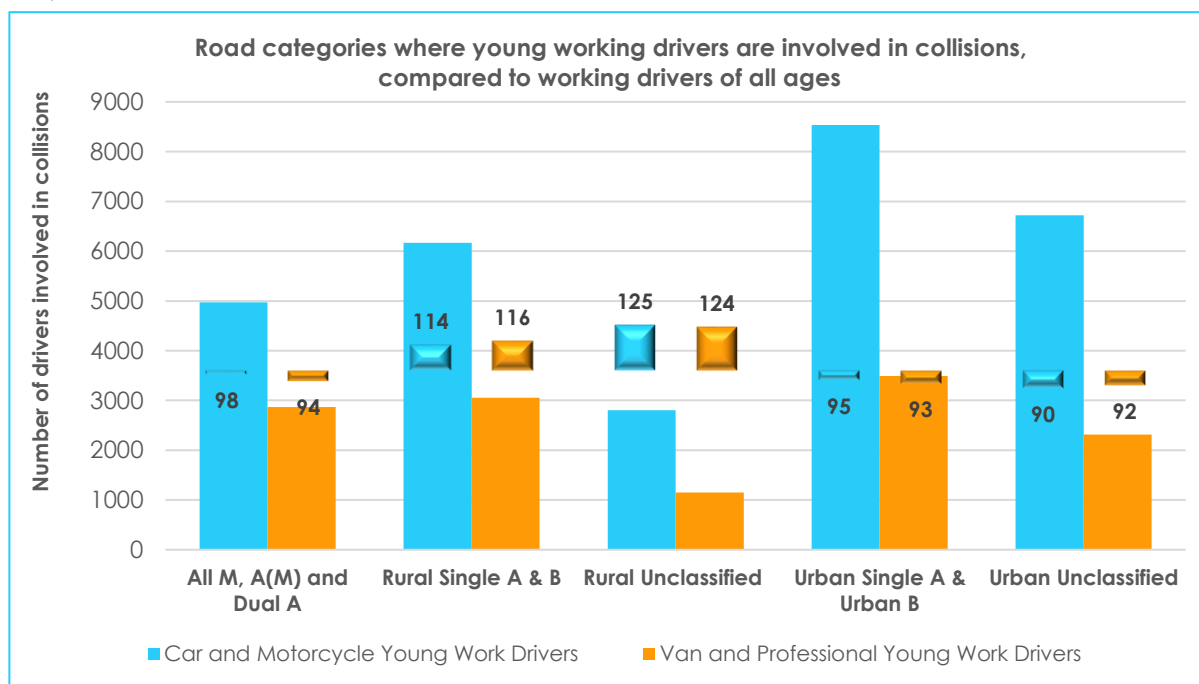
'WHERE' ANALYSIS

Analysis of where working drivers were involved in collisions was carried out to compare them to all working drivers and all young drivers involved in collisions.

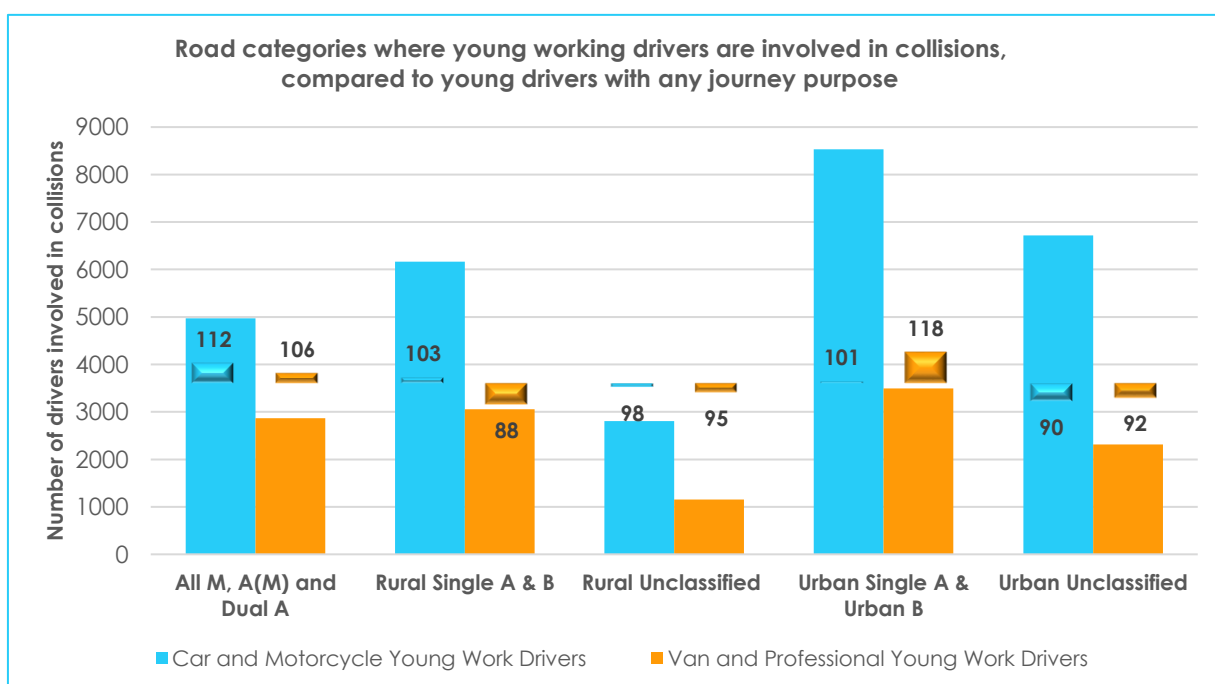
Road categories

Analysis of road categories at collision locations shows that young working drivers compared to working drivers of all ages, are most over-represented on rural single roads (A & B) and rural unclassified roads for both car and motorcycle and van and professional vehicle drivers.

Young working drivers of both car and motorcycle and van and professional vehicles are also slightly under-represented on urban unclassified roads.



When compared to young drivers with any journey purpose, car and motorcycle young working drivers are slightly over-represented on main roads (All M, A(M) and Dual A) and are slightly under-represented on urban unclassified roads. Van and professional young working drivers are under-represented on rural single (A & B)

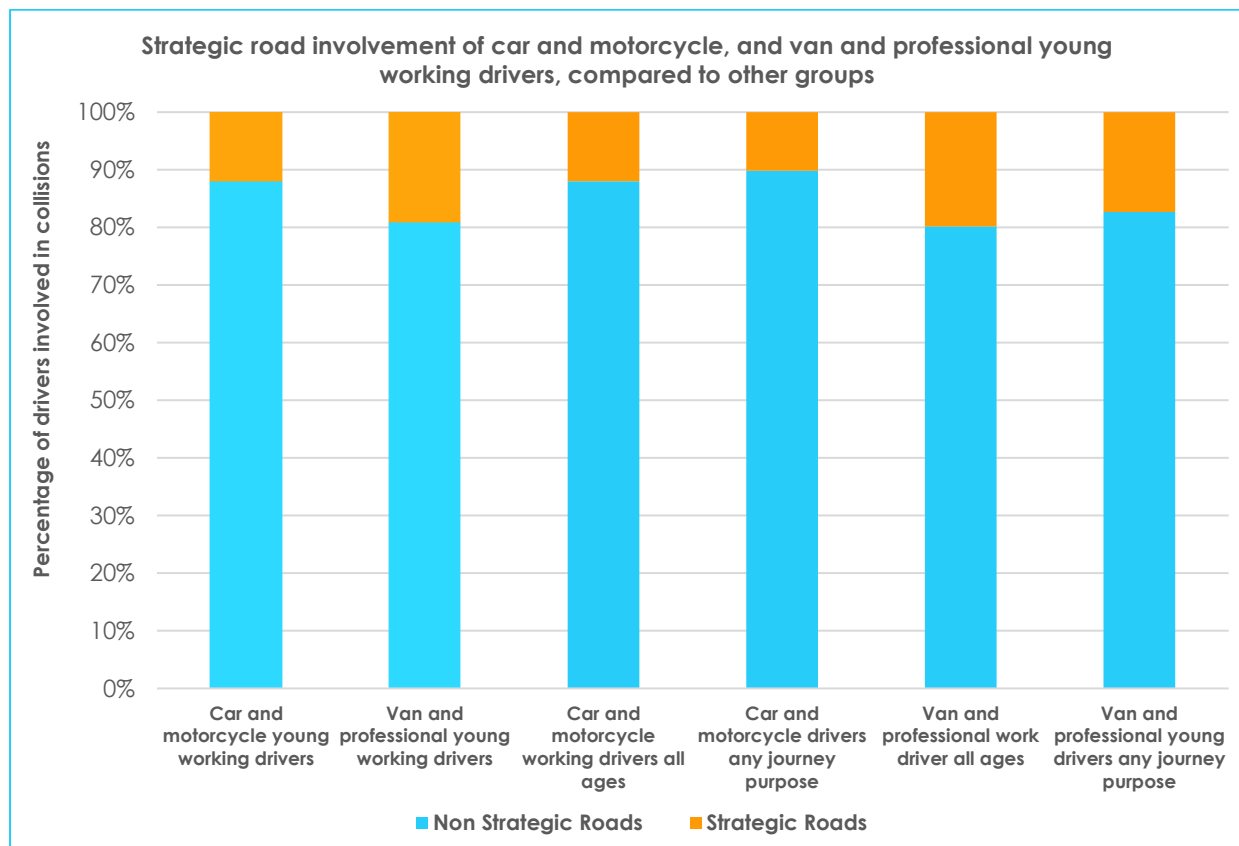


roads and slightly under-represented on urban unclassified roads. They are also over-represented on urban single A and urban B roads.

Proportions of drivers involved in collisions on strategic roads

Analysis was carried out to determine whether working drivers were involved in collisions on strategic roads. Strategic roads are trunk roads, managed by the Highways Agency in England, Transport Scotland in Scotland and the Welsh Government in Wales. Trunk roads or strategic roads are major roads, usually connecting cities, ports and airports. Twelve percent of car and motorcycle young working drivers were on a strategic road at the time of their collision. This is the same as car and motorcycle working drivers of all ages also at 12%. When compared to car and motorcycle young drivers with any journey purpose, collisions on strategic roads make up 10% of their collisions.

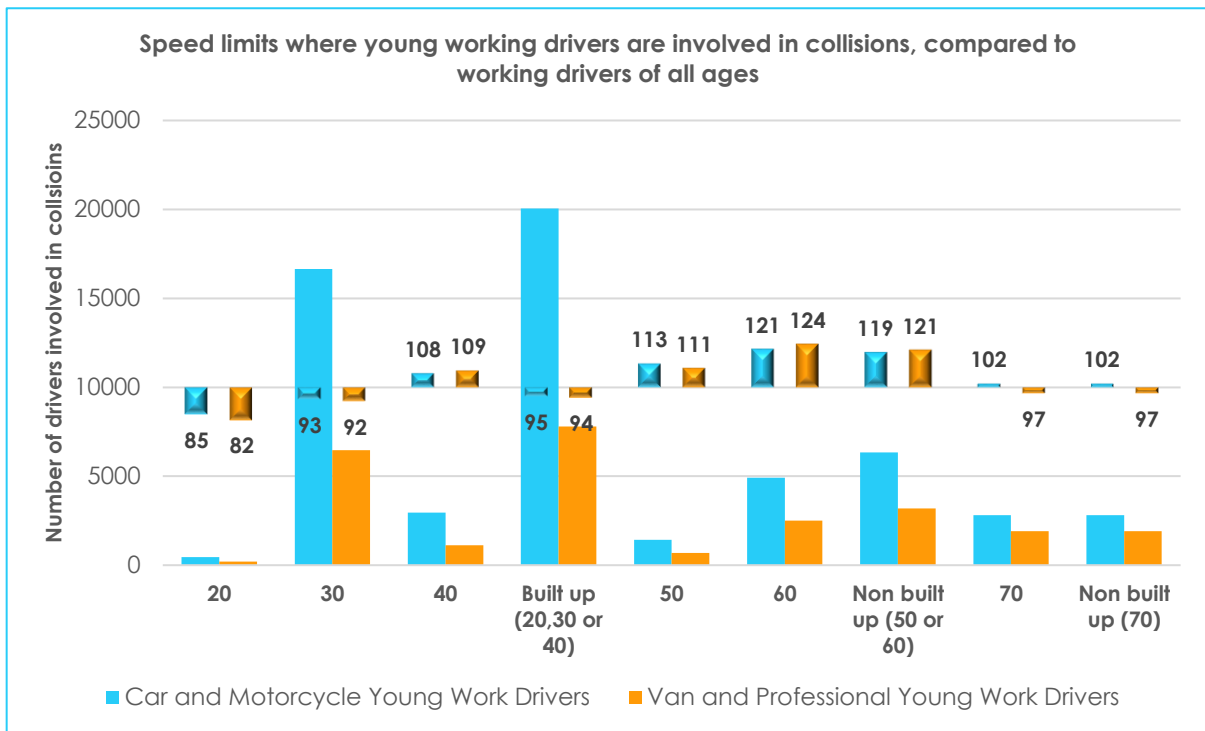
When looking at van and professional young working drivers, 19% of their collisions were on strategic roads, compared to 20% of van and professional working drivers of all ages. Finally, 17% of collisions involving van and professional young drivers with any journey purpose were on strategic roads.



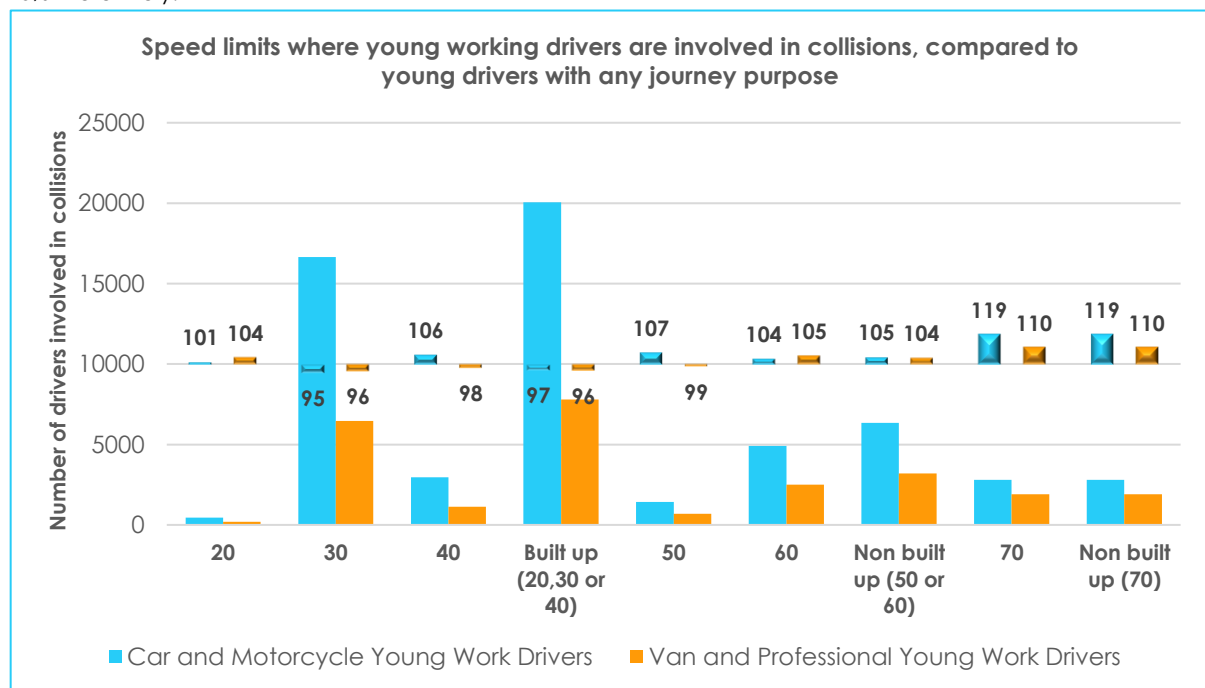
Speed limits

In this analysis, speed limits have been aggregated: 20mph, 30mph and 40mph roads are categorised as 'Built up'; 'Non-built up' refers to 50mph and 60mph roads; and 'Non-built up dual' roads are dual carriageways subject to the 70mph national speed limit. Both car and motorcycle and van and professional young working drivers are over-represented on roads with 50 and 60mph limits when compared to working drivers of all ages.





When compared to young drivers with any journey purpose, car and motorcycle working young drivers are 19% more likely to be involved in a collision on a 70mph road, with van and professional working young drivers 10% more likely.

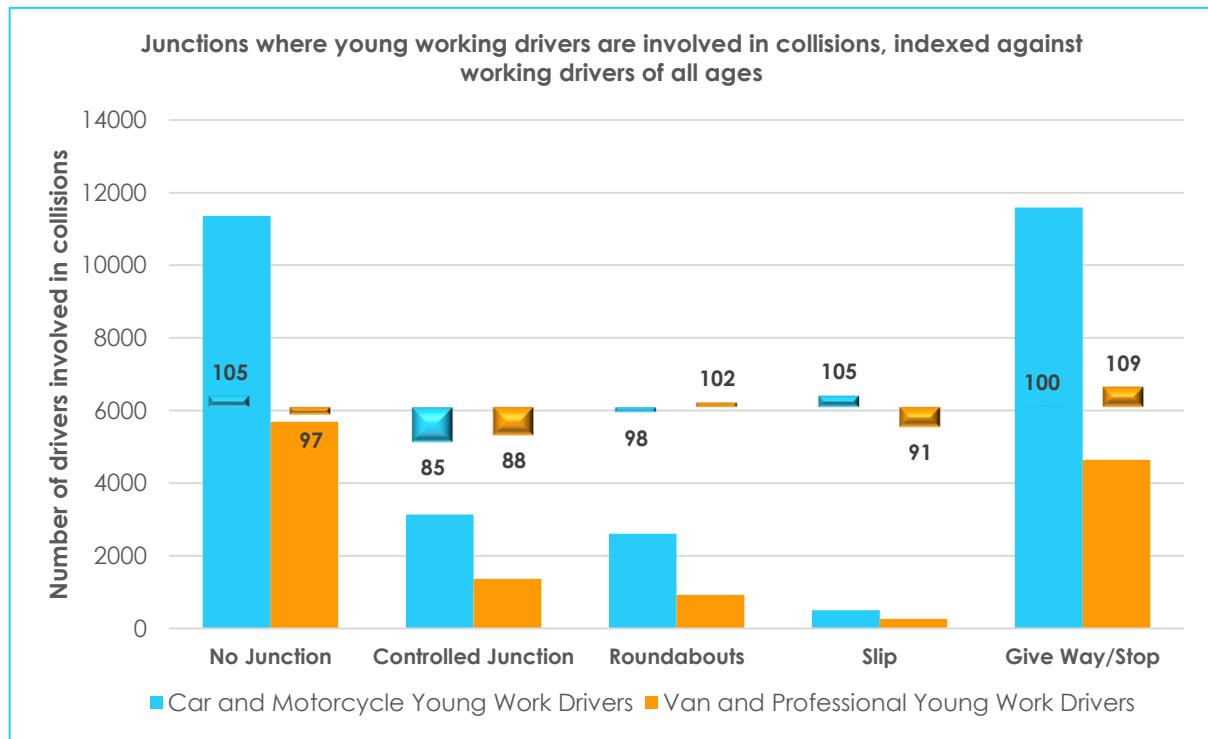


Junctions

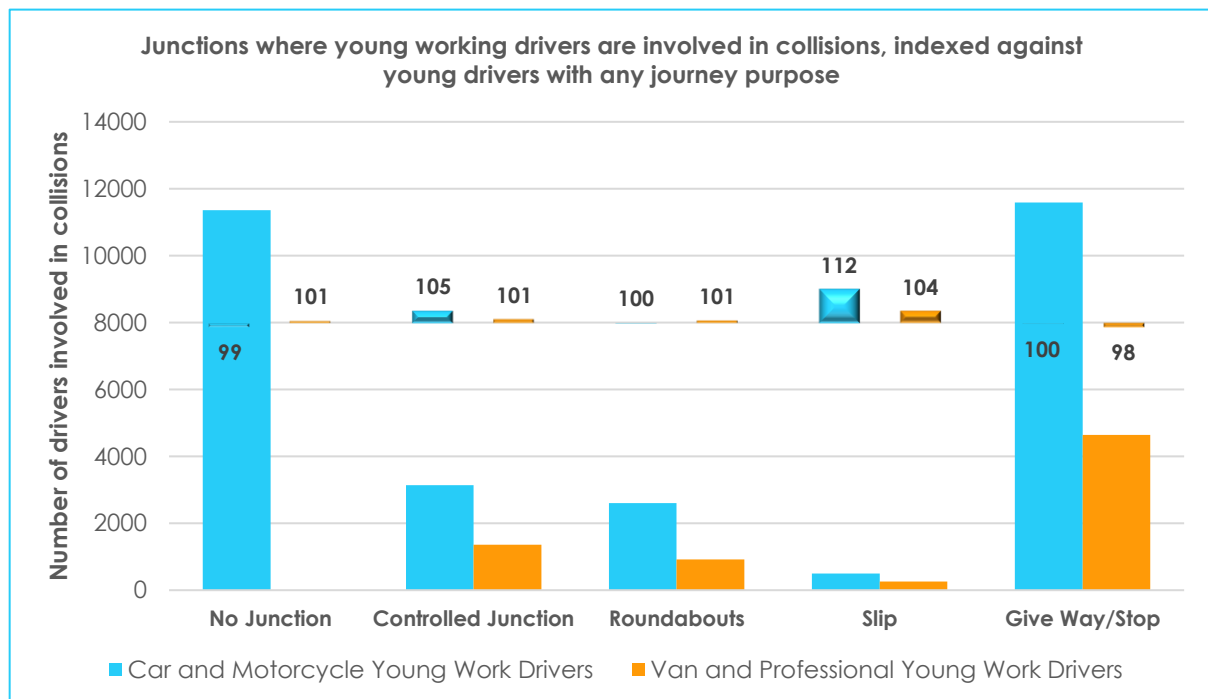
Junction and traffic control details have been extracted from collision reports to analyse the locations where working drivers are involved in collisions. This analysis shows the differences between young working drivers compared to all working drivers and compared to young drivers with any journey purpose.



Both car and motorcycle and van and professional young working drivers are under-represented in collisions at controlled junctions, with van and professional young drivers slightly over-represented at Give Way/Stop Signs. Van and professional young working drivers are under-represented at slip roads although the sample sizes are much lower.

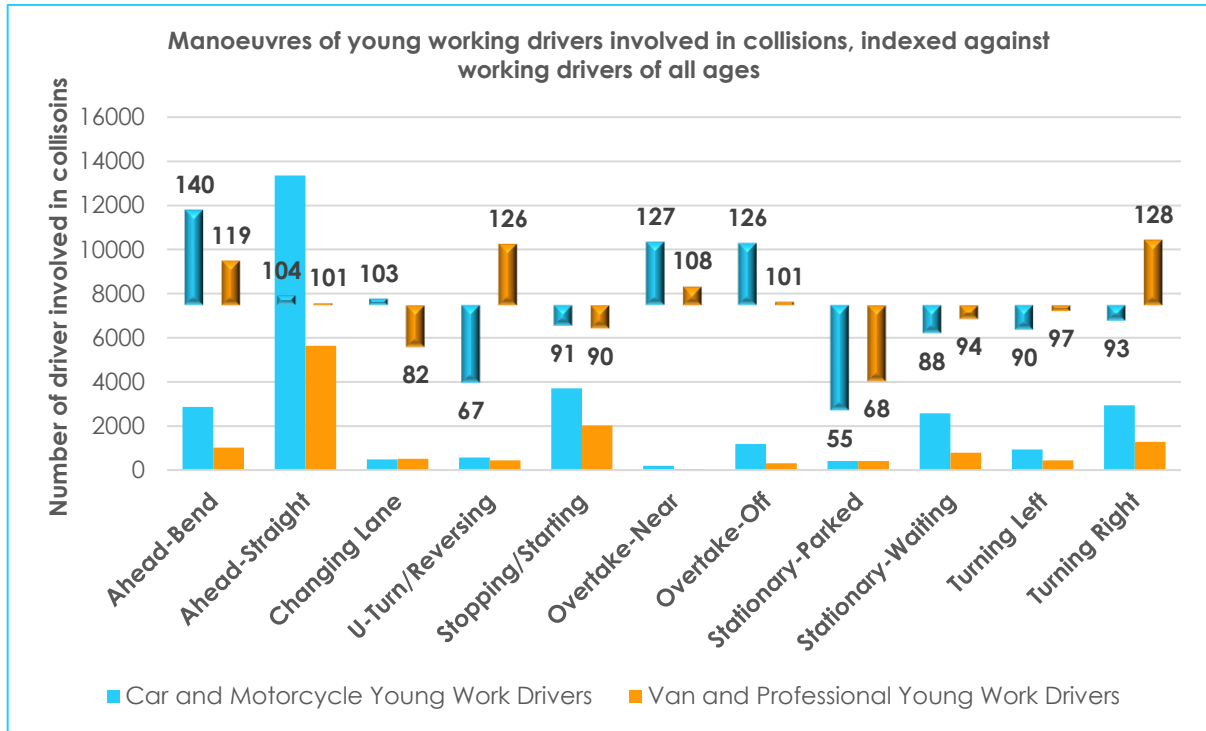


When compared to young drivers with any journey purpose, van and professional young working drivers are represented as expected, with car and motorcycle young working drivers marginally over-represented at slip roads, although again, the figures at slip roads contain significantly smaller sample sizes.

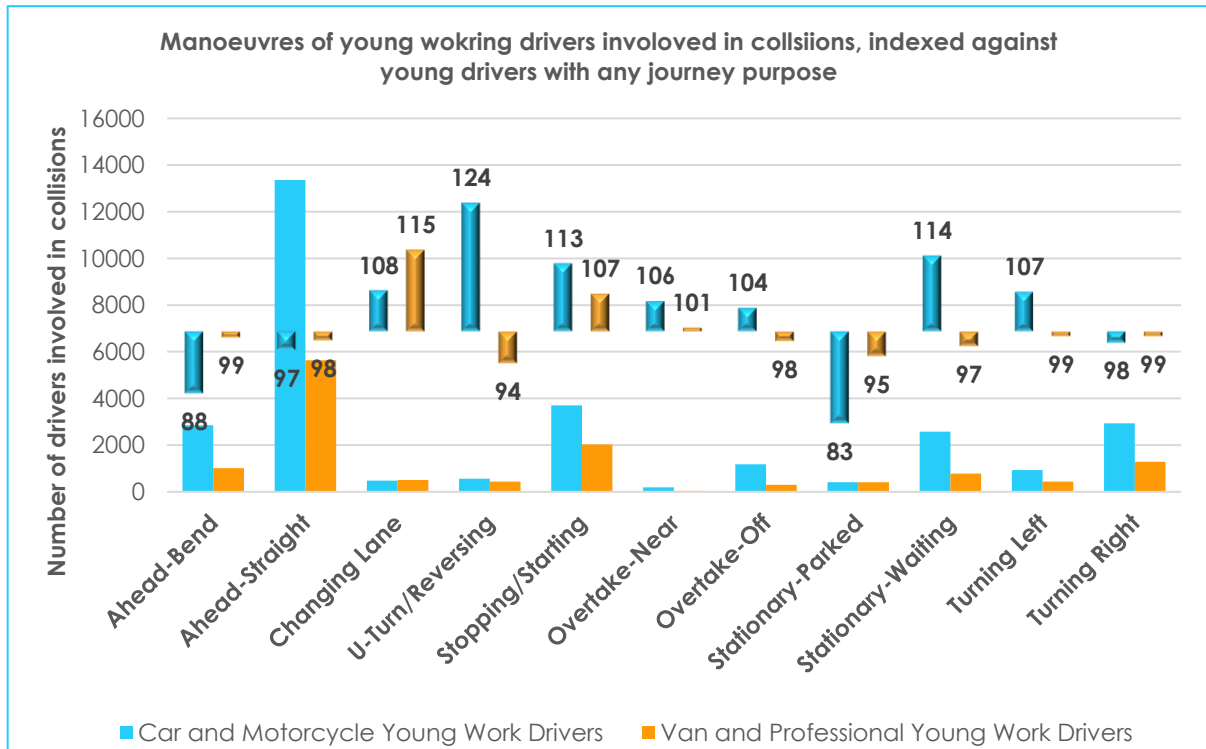


Manoeuvres

Manoeuvre details have been extracted from collision reports to analyse the types of manoeuvre of working drivers who are involved in collisions. This analysis shows the differences between young working drivers compared to all working drivers and compared to young drivers with any journey purpose.



When compared to working drivers of all ages, car and motorcycle drivers are over-represented when travelling ahead at bends and whilst overtaking. They are under-represented for U-turns/reversing and whilst stationary parked and waiting. Van and professional working drivers are also over-represented when travelling ahead at bends, during U-turns/reversing and when turning right. They are under-represented whilst changing lanes and when stationary parked.



When compared to young drivers with any journey purpose, car and motorcycle young working drivers are over-represented for U-turns/reversing, stopping/starting and stationary waiting. They are under-represented



when travelling ahead at bends and when stationary parked. Van and professional working drivers are over-represented when changing lanes.

Conclusions

Analysis of the locations at which working drivers are involved in injury collisions has found some clear patterns amongst the categories. Both car and motorcycle and van and professional young working drivers are over-represented on non-built up roads compared to working drivers of all ages, reflected in the higher indices on 50mph and 60mph roads. They are also over-represented in non-built up (70mph) zones when indexed against young drivers with any journey purpose.

On rural roads both car and motorcycle and van and professional young working drivers are over-represented compared to working drivers of all ages, but are under-represented on urban roads. Car and motorcycle young working drivers are over-represented on Motorways, A(M) and Dual-A roads and under-represented on Urban unclassified roads compared to young drivers with any journey purpose. Van and professional young working drivers who are under-represented on Urban Single A and B roads and also over-represented on Urban Single A and B roads.

At junctions, compared to working drivers of all ages, car and motorcycle and van and professional young working drivers are under-represented in collisions at controlled junctions, with van and professional young drivers slightly over-represented at Give Way/Stop Signs. When looking at manoeuvres, car and motorcycle young working drivers are over-represented compared to all working drivers when travelling ahead on bends and when overtaking, whilst van and professional young working drivers are over-represented whilst performing U-turns/reversing and when turning right.

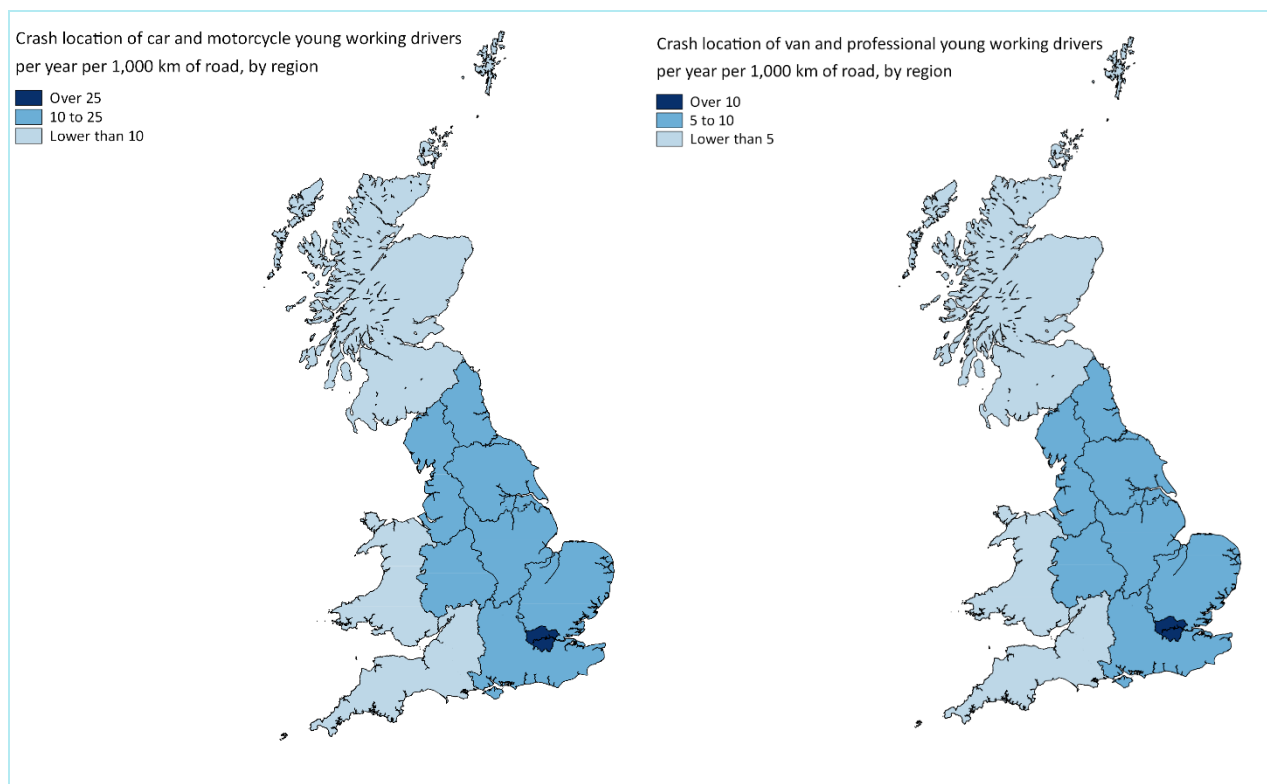


REGIONAL VARIATIONS

Van and professional and car and motorcycle young drivers were analysed by region, both in terms of where they become involved in collisions and where they live.

Collision location

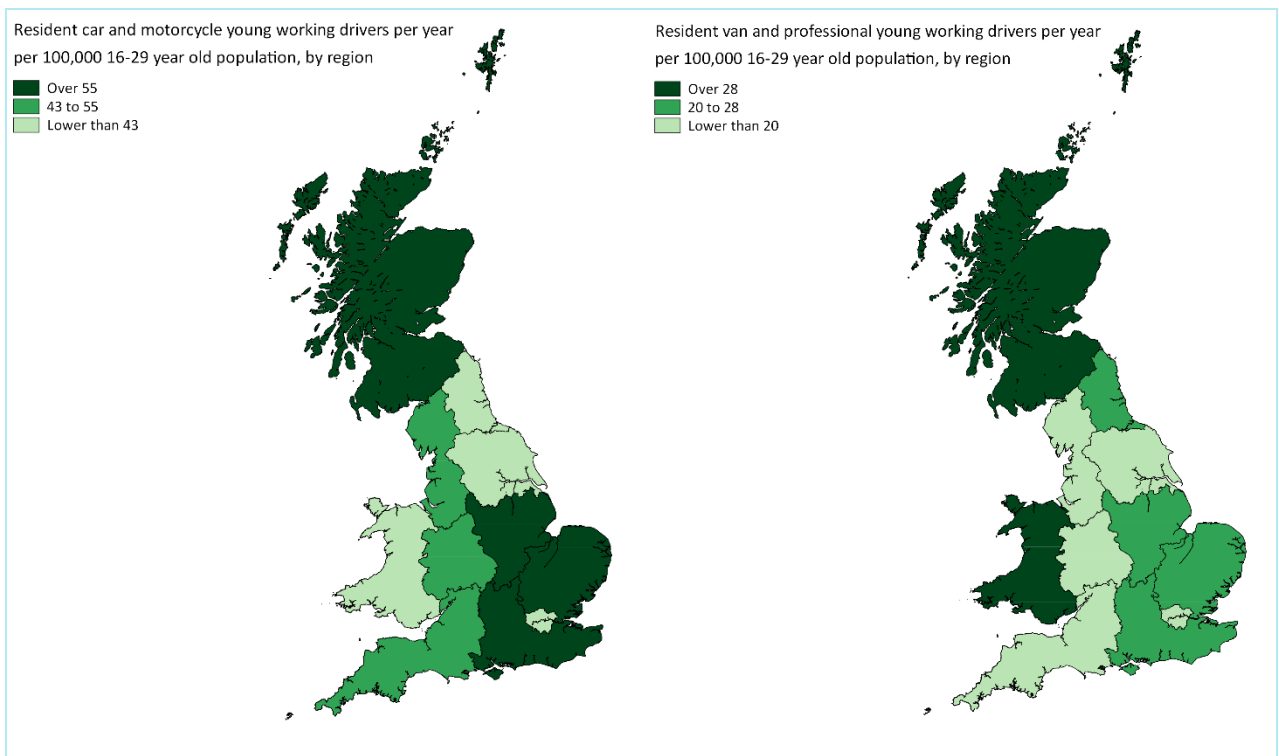
The region in which van and professional and car and motorcycle young working drivers are involved in collisions was examined by 1,000km of road length. The thematic map displaying the collision locations of car and motorcycle young working drivers shows that London has the highest rate of 49.1 per 1,000 km each year with Scotland, Wales and the South West with the lowest rates. Van and professional young working drivers had the lowest rates per 1,000km of road again in Scotland, Wales and South West. Again, the highest numbers of drivers were involved in collisions in London, with a rate 28.3 per 1,000km of road.



Driver residency

Different patterns emerge when the home residency of working drivers is analysed. In order to set the figures in context, involved drivers are expressed as a rate per 100,000 population in the relevant age group of the region in question. Car and motorcycle young working drivers who live in the South East, East, East Midlands and Scotland are more likely to be involved in collisions, with the lowest rates in London, Wales and the North East. Interestingly the number of car and motorcycle young working drivers from London involved in collisions is 27% lower than the national average, despite collisions in London involving car and motorcycle young working drivers over three times the national average. Van and professional young working drivers involved in collisions are most likely to live in Wales and Scotland and least likely to live in the North West.





Distance from home

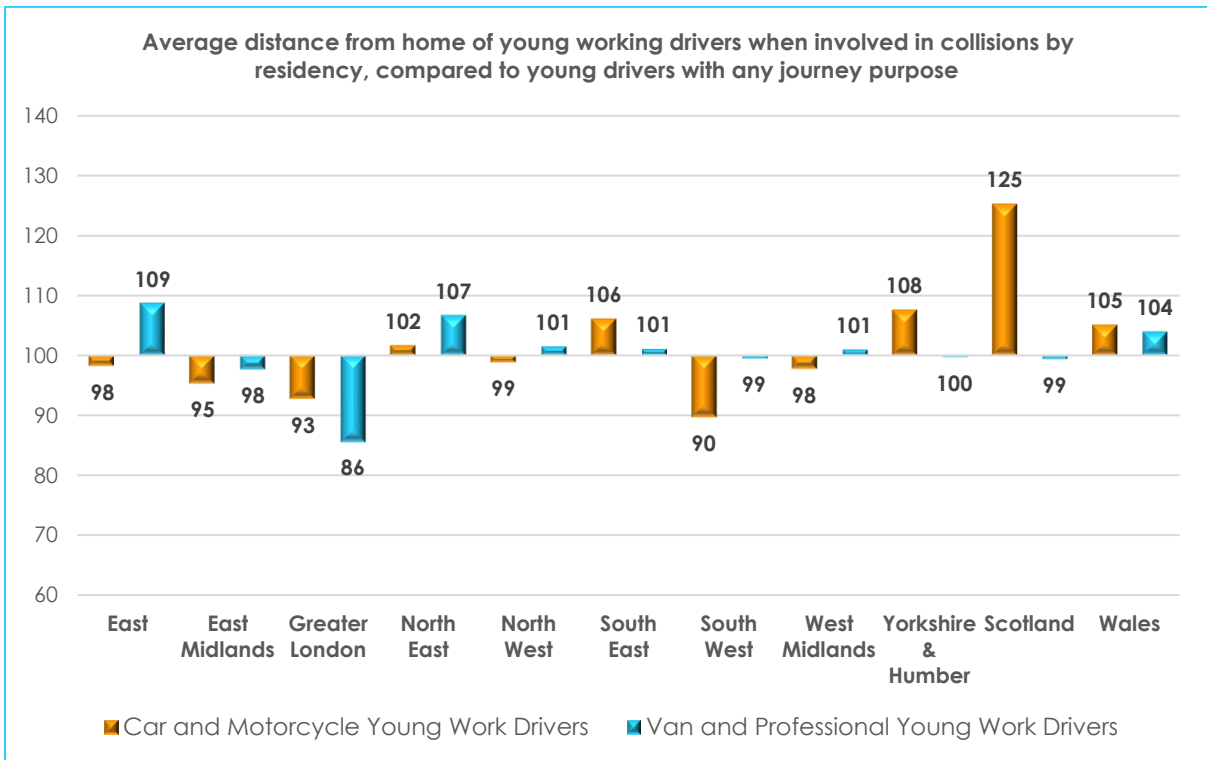
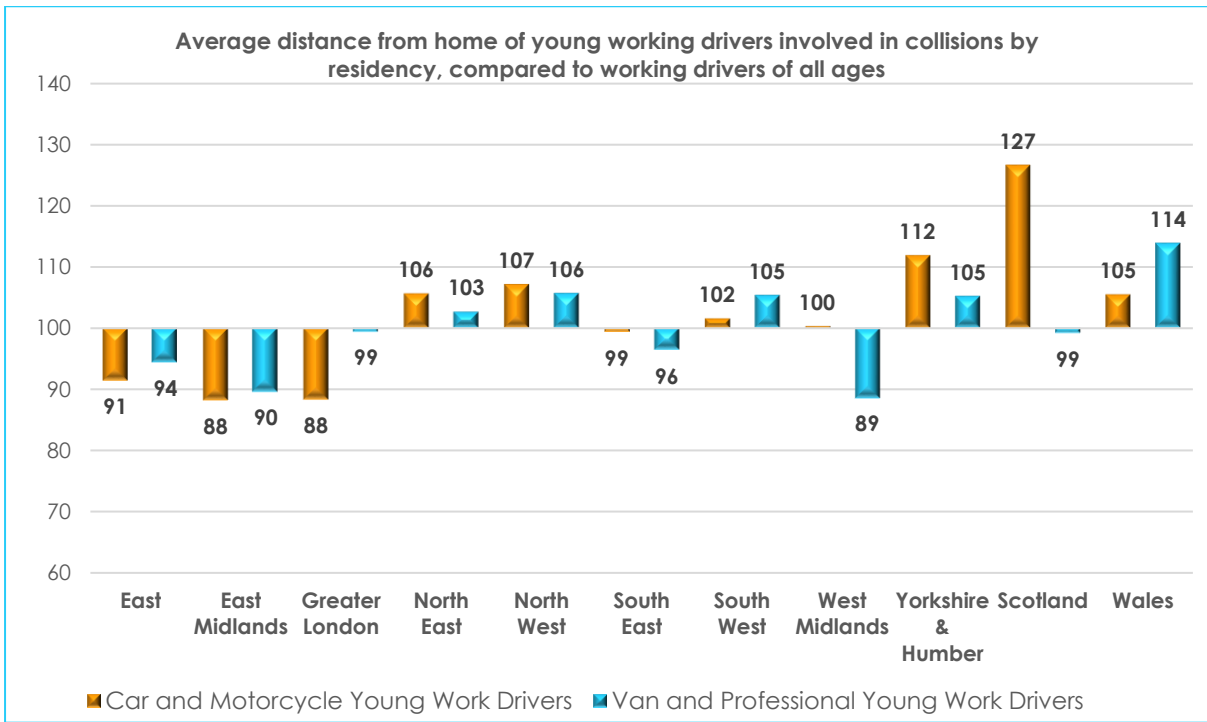
Given the regional differences in collision location and driver residency, the distance from home (as the crow flies) of car and motorcycle and van and professional young working drivers at time of collision was analysed for residents of each region compared to drivers of all ages. Significantly higher average distances from home indicate that drivers are less likely to become involved in collisions within their own communities while driving at work.

When looking at car and motorcycle young working drivers, residents from the East, East Midlands and Greater London are closer to home when compared to working drivers of all ages, whereas those from Scotland and Yorkshire and the Humber are the furthest from home. For van and professional young working drivers, those from the East Midlands and West Midlands are the closest to home, compared to drivers from Wales which are the furthest from home.

Car and motorcycle young working drivers from the South West are closer to home compared to young drivers on any journey purpose, with drivers from Scotland further from home. In comparison, van and professional working drivers from the East are slightly further from home compared to young drivers on any journey purpose whereas drivers from Greater London are closer to home. For most regions however, there were no considerable variations when comparing to young drivers on any journey purpose.

To put the indices into context, car and motorcycle young working drivers involved in collisions are, on average, 16.5km away from home at the time of their collision. This is 8% lower than for car and motorcycle working drivers of all ages (17.8km) and 10% higher than for car and motorcycle young drivers with any journey purpose (14.8km). For van and professional young working car drivers, the average distance from home is 31km which is 8% lower than for van and professional drivers of all ages (33.6km) and 9% higher than for van and professional young drivers with any journey purpose (28.1km).

For car and motorcycle young working drivers, the region with the further average distance from home is Scotland at 25.7km followed by the South West (19.4km), and the closest to home are those from Greater London at 12.2km followed by the North West (14.4km). For van and professional young working drivers, those from Scotland had the longest average distance from home at 38.7km, closely followed by the East (38.5km) and South West (38.3), whilst Greater London residents again had the shortest distance at 18.8km.



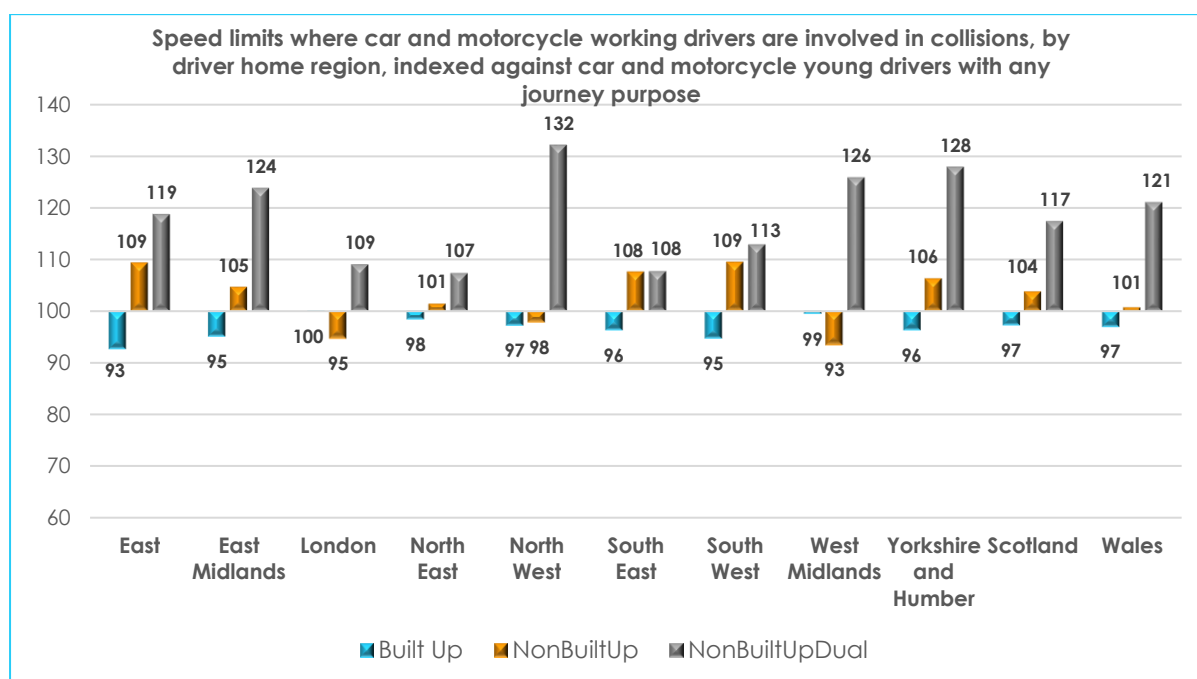
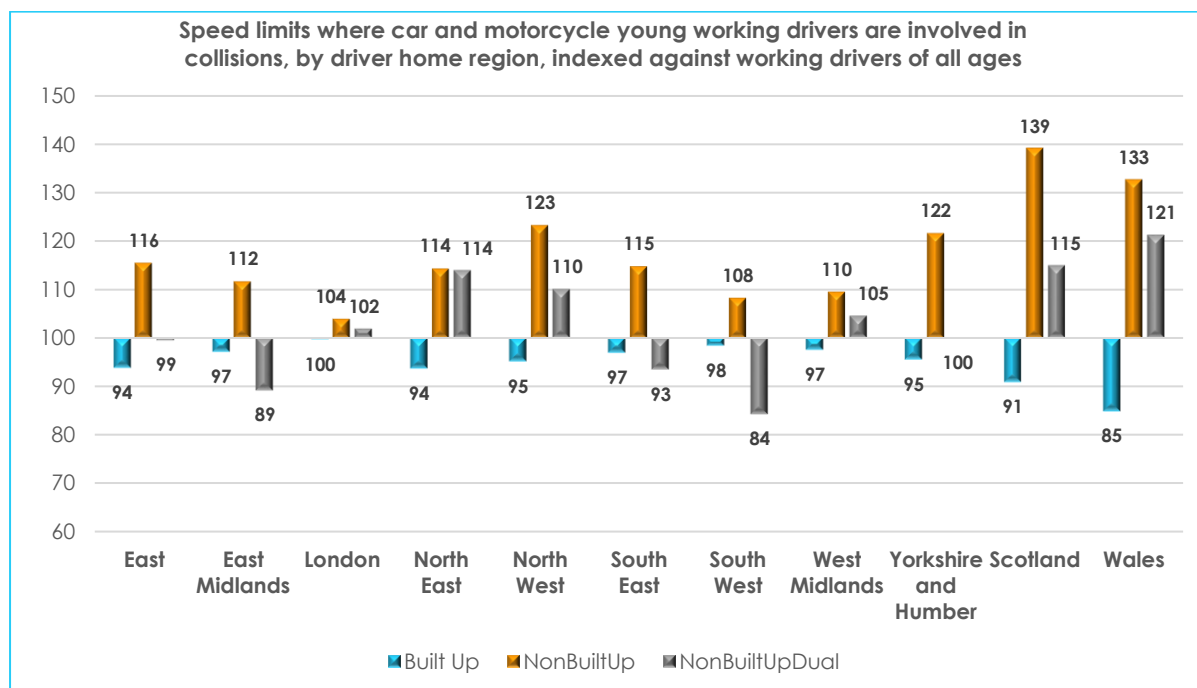
Speed limits

There are regional differences in the speed limit of the roads on which car and motorcycle working young drivers were involved in collisions. When looking at car and motorcycle young at work drivers, on built up roads (20-40mph) drivers from most regions are represented as expected, with only Wales under-represented and Scotland marginally under-represented, with all regions indexed below 100. On non-built up roads (50-60mph), drivers from the majority of regions are over-represented aside from London. On non-built up dual roads (70mph), drivers from Scotland, Wales, North West and the North East are over-represented, compared to drivers from the South-West and East Midlands who are under-represented.

When compared to car and motorcycle young drivers with any journey purpose, on built up roads, drivers from all regions have index scores below 100, but none are significantly under-represented. On non-built up roads,

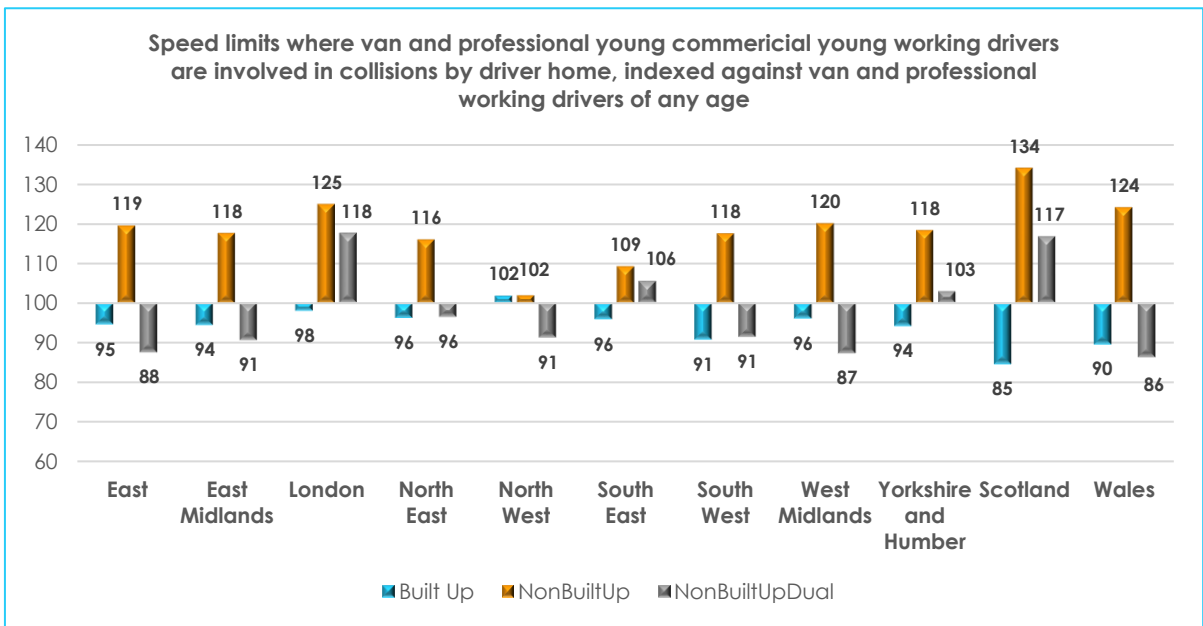


drivers from the East, South East and South West are marginally over-represented, with the West Midlands the most under-represented but only marginally with an index of 93. On non-built up dual roads, drivers from most regions are over-represented with drivers from the North West, East and Yorkshire and the Humber the most over-represented.

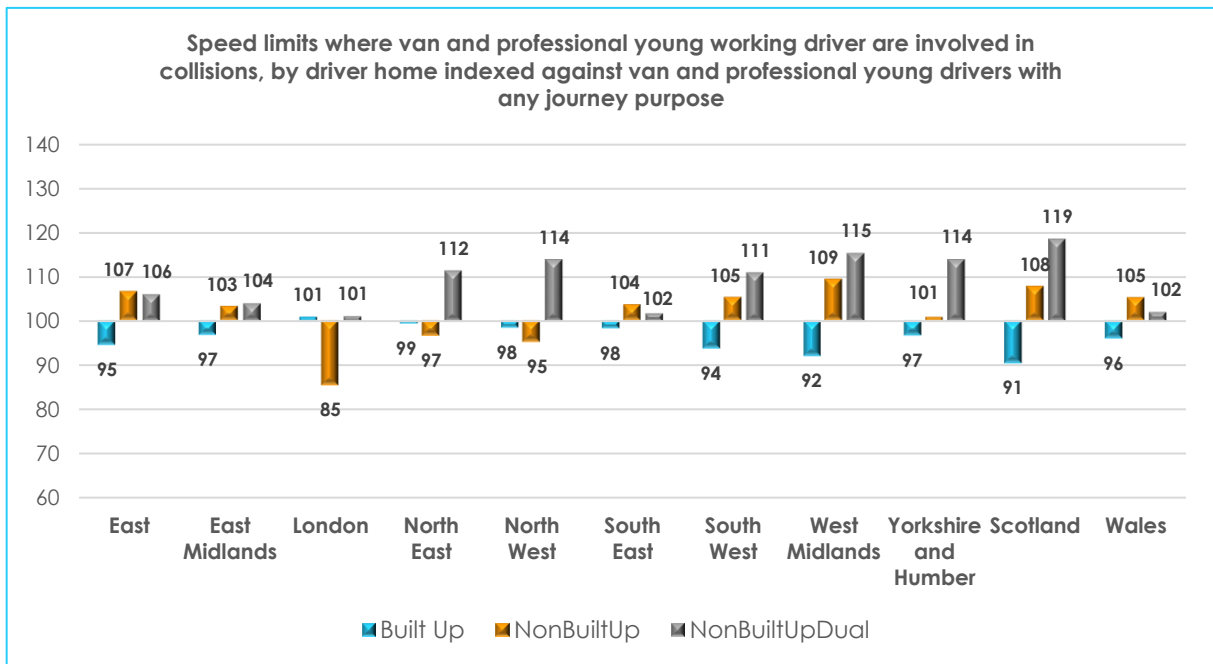


There are also regional variations in the speed limit of the roads where van and professional working young drivers are involved in collisions. Compared to working drivers of any age, on built-up roads drivers from Scotland and Wales are most under-represented, with all regions aside from the North West (Index 102) having an index below 100. On non-built up roads, drivers from most regions are over-represented with drivers from Scotland and London the most over-represented. On non-built up dual roads, drivers from Wales, West Midlands and the East were most under-represented, with drivers from London and Scotland over-represented.





Compared to young drivers with any journey purpose, on built up roads most drivers were represented as expected with drivers from Scotland and the West Midlands marginally under-represented. On non-built up roads drivers from London were under-represented with drivers from the West Midlands and Scotland marginally over-represented. On non-built up dual roads drivers from all regions have index scores above 100 with drivers from Scotland and the West Midlands most over-represented.



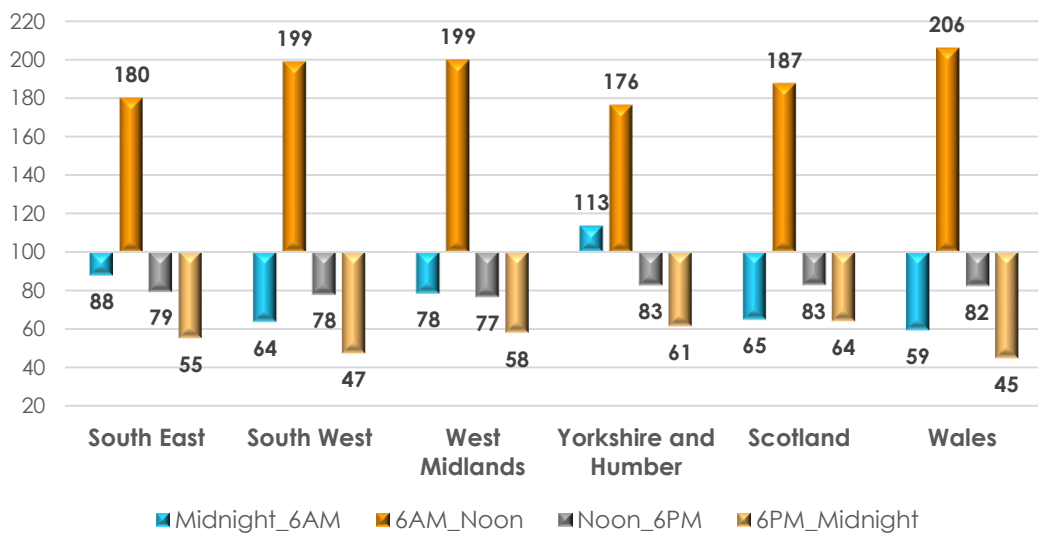
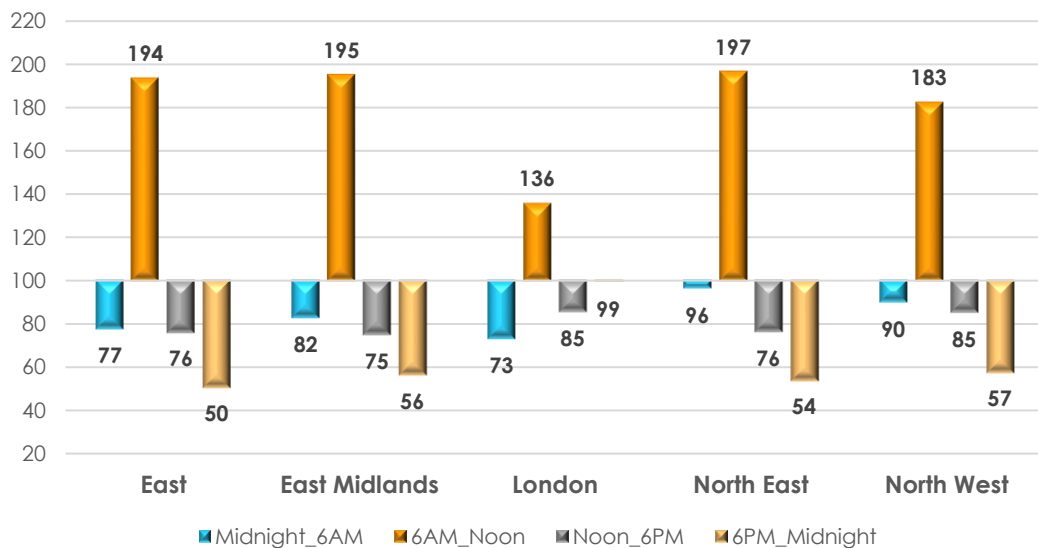
Time of day – Car and motorcycle young working drivers

The charts below show the regional analysis of times of the day for car and motorcycle young working drivers, indexed against car and motorcycle working drivers of any age. There is generally a similar pattern between regions with all regions under-represented between midnight and 6am and all regions marginally over-represented (index between 106 and 113) between 6am and noon aside from London which is slightly under-represented. Between noon and 6pm all regions are indexed below 100, with East Midlands, West Midlands and South West marginally under-represented. Finally, between 6pm and midnight the majority of regions are represented as expected, however London is noticeably over-represented, and the East Midlands is also slightly over-represented.



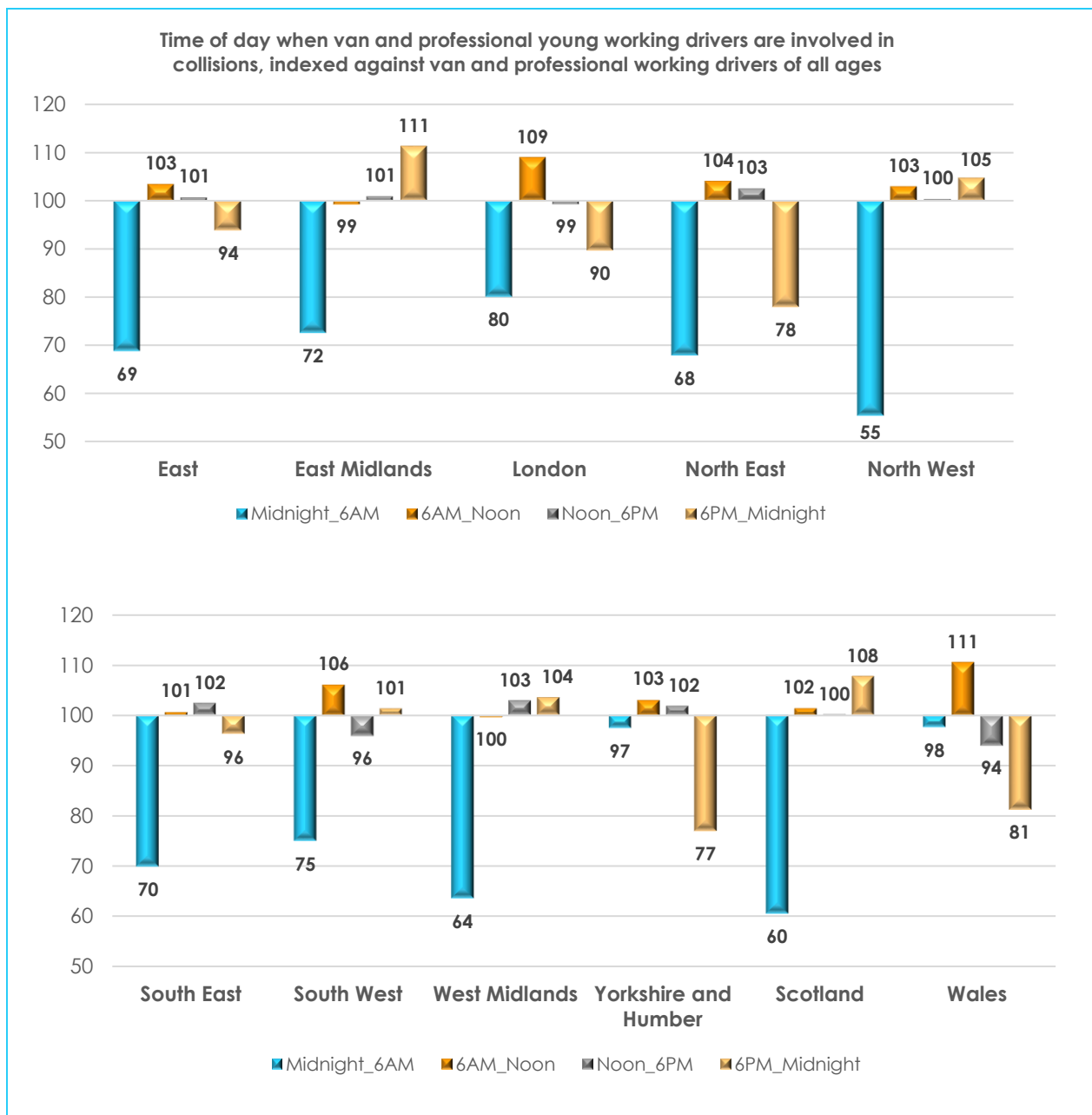
When compared to car and motorcycle young drivers with any journey purpose, slightly different patterns emerge. Between midnight and 6am most regions are under-represented, aside from the North East (index 96) and Yorkshire and the Humber which is slightly over-represented. Between 6am and noon all regions are significantly over-represented and London with the smallest over-representation with an index of 136. Between noon and 6pm all regions are under-represented, which is also the case between 6pm and midnight in all regions other than London.

Time of day when car and motorcycle young working drivers are involved in collisions, indexed against car and motorcycle young drivers with any journey purpose



Time of day – Van and professional young working drivers

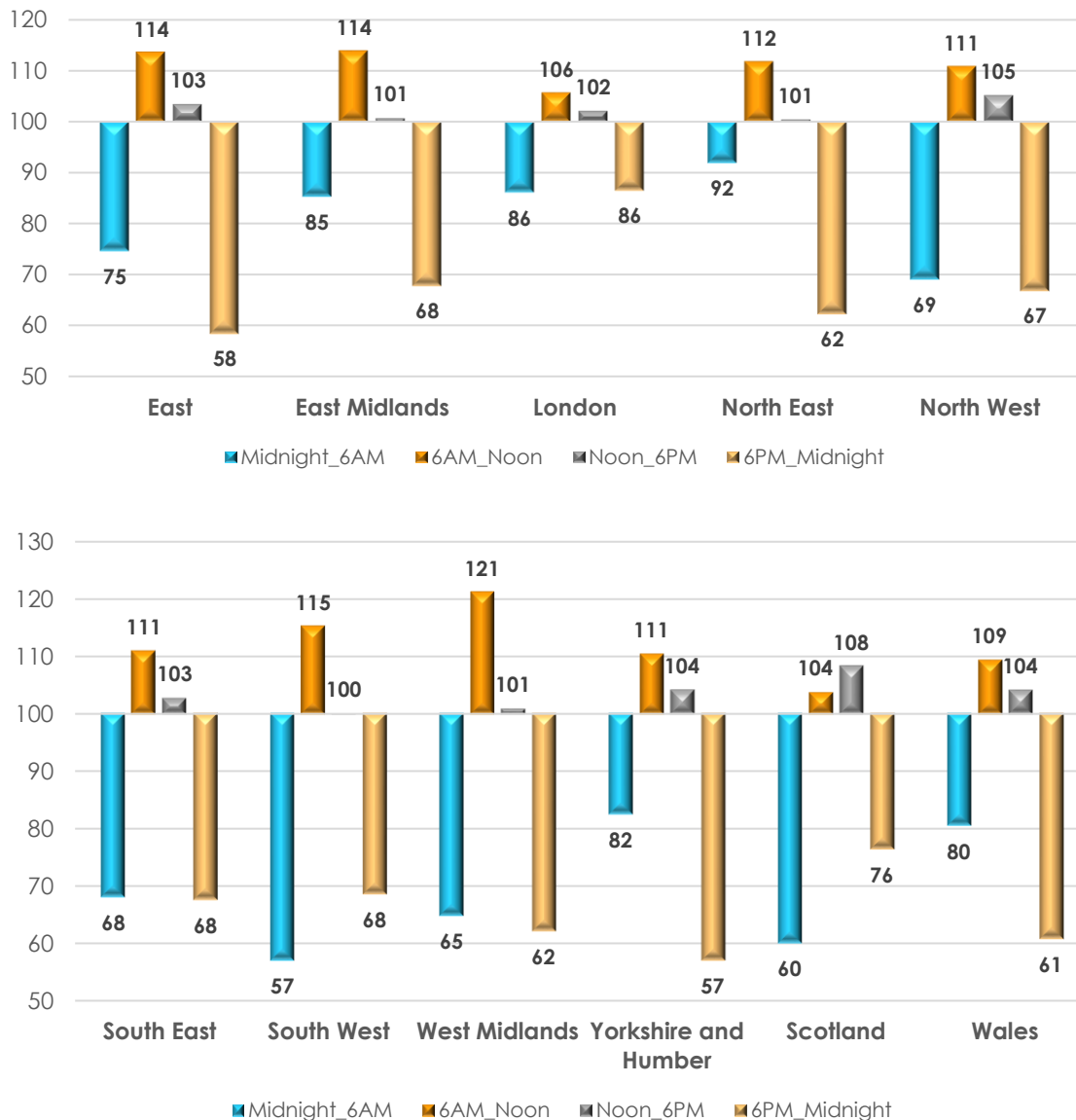
The charts below show the regional analysis of times of the day for van and professional young working drivers, indexed against van and professional working drivers of any age. Between midnight and 6pm all regions are under-represented apart from Yorkshire and the Humber and Wales. From 6am to noon most regions are represented as expected, with London and Wales slightly over-represented and all regions are represented as expected between noon and 6pm. Finally, between 6pm and midnight there is some variation with the North East, Yorkshire and the Humber and Wales under-represented, London slightly under-represented and the East Midlands slightly over-represented.



The second two charts show the regional analysis for times of the day for van and professional young working drivers indexed against van and professional young drivers with any journey purpose. Between midnight and 6am all regions are under-represented whilst between 6am and noon the majority of regions are over-represented. From noon to 6pm the regions are generally represented as expected and from 6pm to midnight all regions are under-represented.



Time of day when van and professional young working drivers are involved in collisions, indexed against van and professional young drivers with any journey purpose



The analysis has shown regional variations in working drivers. There were over 28 van and professional young working drivers involved in collisions per 1,000km of road in London each year. There were nearly 50 car and motorcycle young working car drivers each year per 1,000km of road in London, and nearly 22 per 1,000km in the South East. Van and professional young drivers were over-represented as residents, per head of population, in Scotland and Wales. Car and motorcycle young working drivers from Scotland and the regions surrounding London are over-represented.

There were differing distances from home and speed limit locations for working driver residents of the various regions. There were also different over-representations at times of the day for those from different regions when compared to car and motorcycle and van and professional drivers of any age – residents of London have higher frequencies of collisions from 6pm-12am for car and motorcycle young working drivers than elsewhere. Whereas for van and professional young working drivers, residents of Yorkshire and the Humber and Wales are represented as expected between 12am-6am with the other regions largely under-represented.

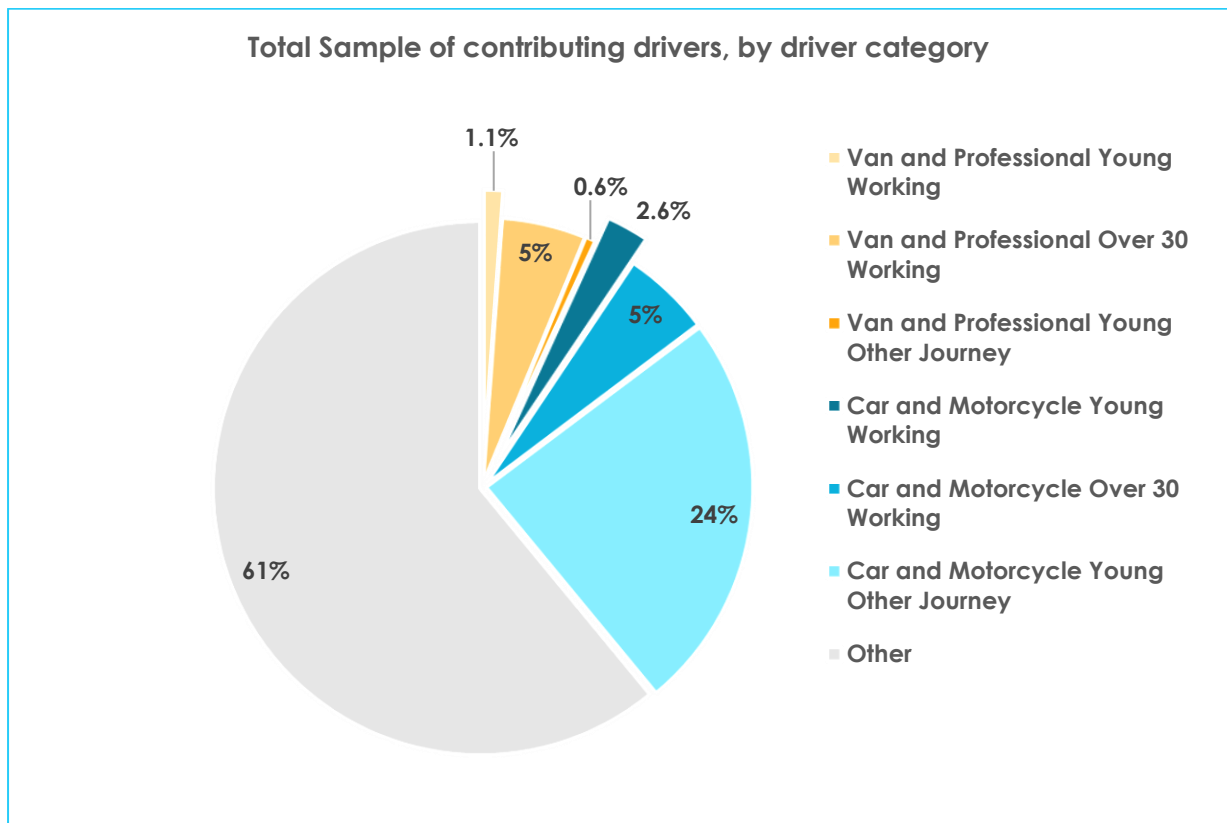


CONTRIBUTORY FACTORS

This section examines how young working drivers may contribute to collisions, and how their contributions appear to differ from those of other road users. The analysis includes all motor vehicle drivers who, in the view of an attending police officer, contributed to an injury collision in Britain between 2011 and 2015. It is recognised that collisions are likely to be significantly under-reported and police officers only attend some reported incidents. Consequently, this analysis covers only a sample of the at-risk road user population, rather than its totality.

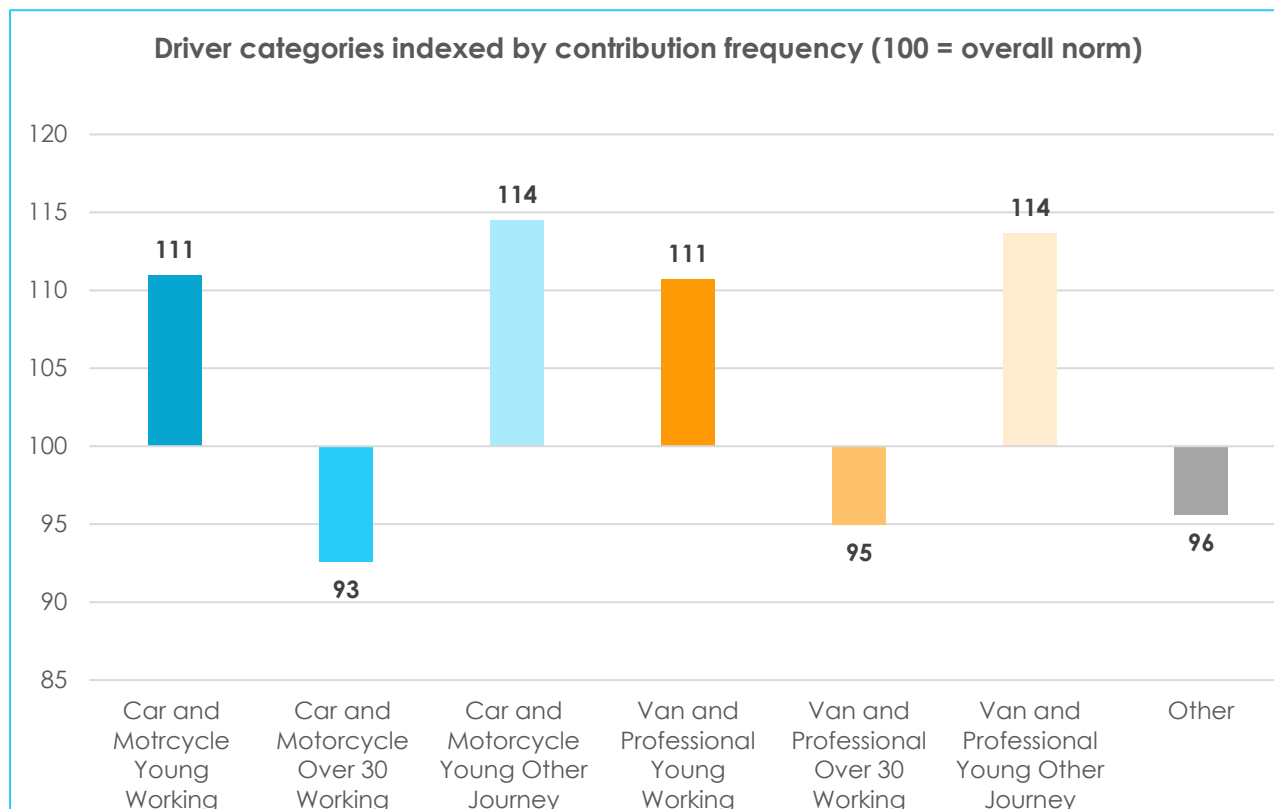
The total sample of involved drivers included was in excess of 975,000. The same working driver categories which have been used elsewhere in this report are also used in this section, aside from the total sample chart below by which van and professional, and car and motorcycle drivers of all ages, which have been changed to 'over 30' (not including young drivers), in order to avoid double counting contributory factors. Also included is the category of 'other' drivers (those drivers who have vehicles and journey purposes not included in the six categories, including commuters). Again, pedal cyclists, horses and mobility scooters were excluded from this analysis.

Unsurprisingly, 'other' drivers account for over 61% of the total. Just over 1% were categorised as van and professional young working drivers, with 5% van and professional working drivers of other ages. A further 0.6% were categorised as van and professional young drivers with other journey purposes (excluding work). For car and motorcycle working drivers, 2.6% were categorised as car and motorcycle young working drivers, with a further 5% car and motorcycle working drivers of other ages. Finally, over 24% were categorised as car and motorcycle young drivers with any journey purpose (excluding work).



Factor frequency

Well over half a million (577,764) involved drivers contributed to collisions in some way. Those who were young and driving for work contributed to collisions more frequently than older working drivers: 66% of both car and motorcycle young working drivers and van and professional young working drivers contributed to collisions, compared to 58% of both car and motorcycle and van and professional working drivers of other ages. However, car and motorcycle young drivers with any journey purpose contributed to their collisions 68% of the time compared to 67% for van and professional young drivers with any journey purpose. In comparison 'Other' drivers contributed to their collisions just 56% of the time.



Factor grouping

In order to characterise driver actions which contributed to collisions, the factors attributed to drivers by attending officers have been grouped into the following thirteen varieties:

Injudicious Action	Driver Errors or Reactions	Driver Impairment or Distraction	Driver Behaviour or Inexperience
Traffic Contraventions	Manoeuvre Errors	Substance Impairments	Nervous Behaviour
Disobeyed automatic traffic signal	Poor turn or manoeuvre	Impaired by alcohol	Nervous, uncertain or panic
Disobeyed double white lines	Failed to signal or misleading signal	Impaired by drugs (illicit or medicinal)	Learner or inexperienced driver/rider
Disobeyed 'Give way' or 'Stop' signs or markings	Passing too close to cyclist, horse rider or pedestrian		Inexperience of driving on the left
Disobeyed pedestrian crossing facility			Unfamiliar with model of vehicle
Illegal turn or direction of travel			
Speed Choices	Control Errors	Distraction	Unsafe Behaviour
Exceeding speed limit	Sudden braking	Driver using mobile phone	Aggressive driving
Travelling too fast for conditions	Swerved	Distraction in vehicle	Careless, reckless or in a hurry
	Loss of control	Distraction outside vehicle	
Close Following	Observation Error	Health Impairments	
Following too close	Failed to look properly	Uncorrected, defective eyesight	
	Failed to judge other person's path or speed	Illness or disability, mental or physical	
	Junction Errors	Fatigue Impairment	
	Junction overshoot	Fatigue	
	Junction restart (moving off at junction)		

The contribution profile of each driver category was examined in turn, in terms of how it differed from the overall norm for all drivers. This is intended to identify the road risks which are most characteristic of each group. The prevalence of each variety of contribution in each driver category was compared to the overall rate for the same contribution. It was discovered that certain varieties of contribution are disproportionately common among some driver categories.

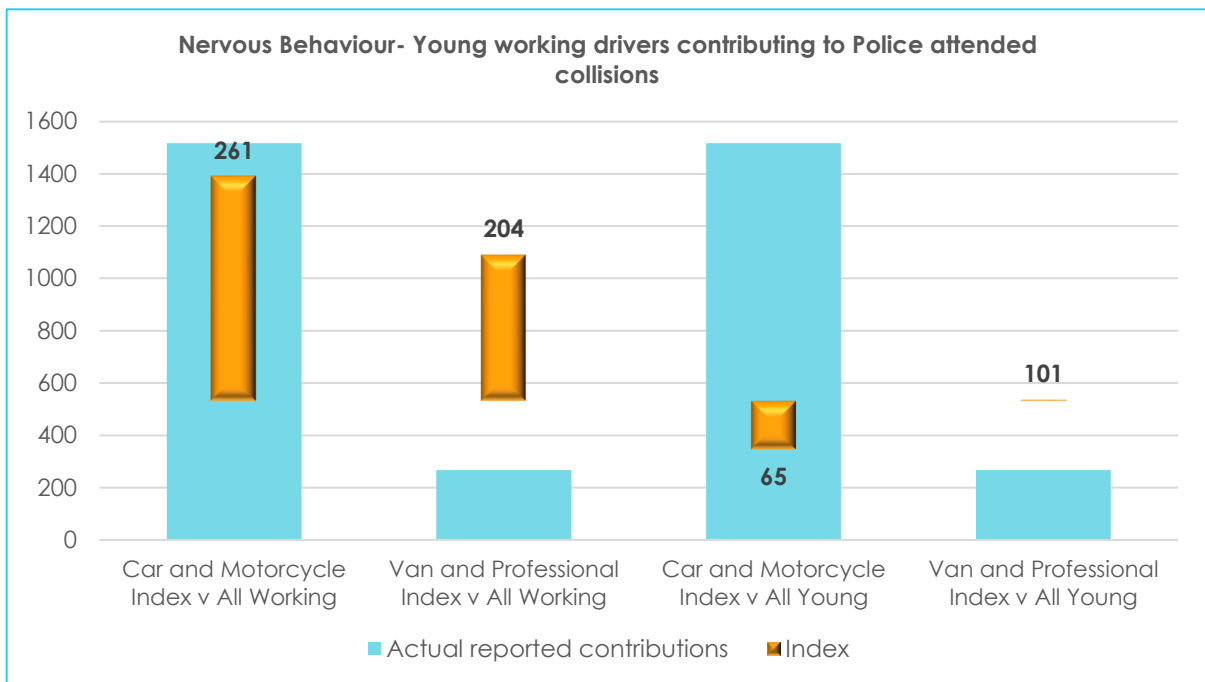
As elsewhere in this analysis, 100 based indices have been used to express where categories of working driver have higher or lower frequencies of a contribution than average. In addition, the differences in contribution have also been expressed as differences in the absolute average number of contributions actually reported by attending police officers each year, compared to the value which would be expected if that driver category exhibited that variety of contribution at a rate equal to the national norm.

Prominent trends

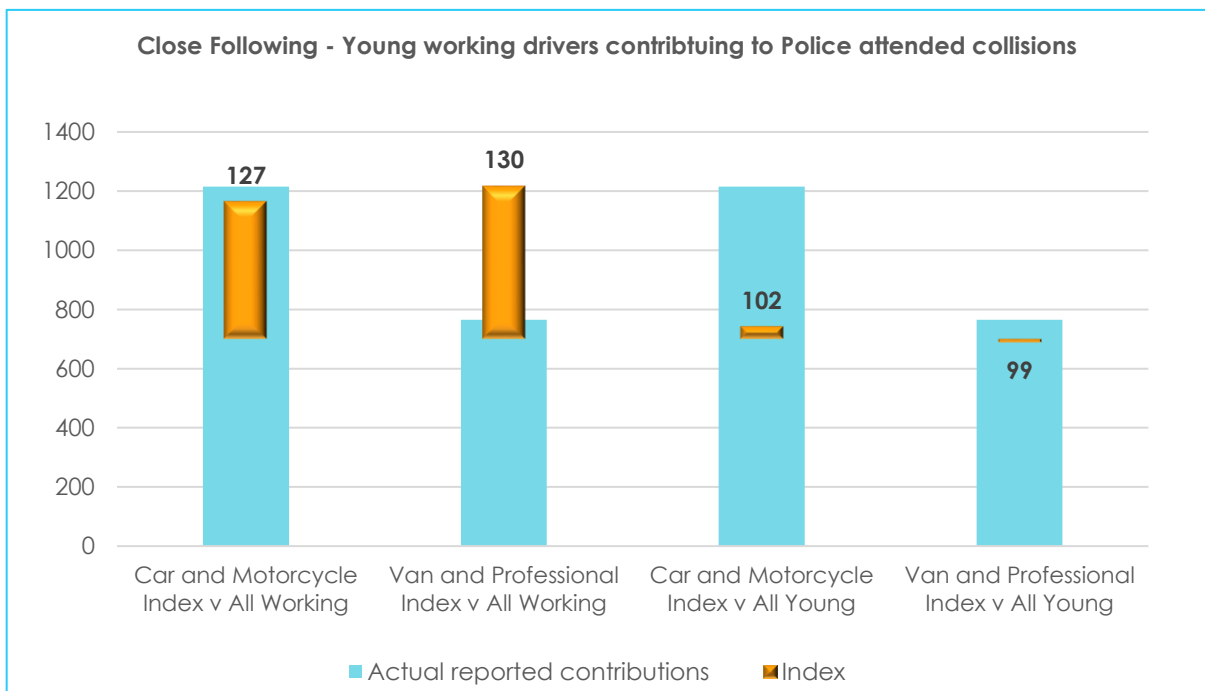
Young working drivers in general also show an increased tendency towards contributing to collisions through close following compared to working drivers of all ages.

Nervous behaviour in car and motorcycle drivers has an index of 261, meaning these drivers are 161% more likely to be attributed one or more of the four Nervous Behaviour CF's than all working car and motorcycle drivers. However, they are under-represented when compared to young drivers with any journey purpose with an index value of 65. Van and professional drivers are also over-represented compared to all working drivers with an index of 201, although raw numbers are lower than with car and motorcycle drivers.



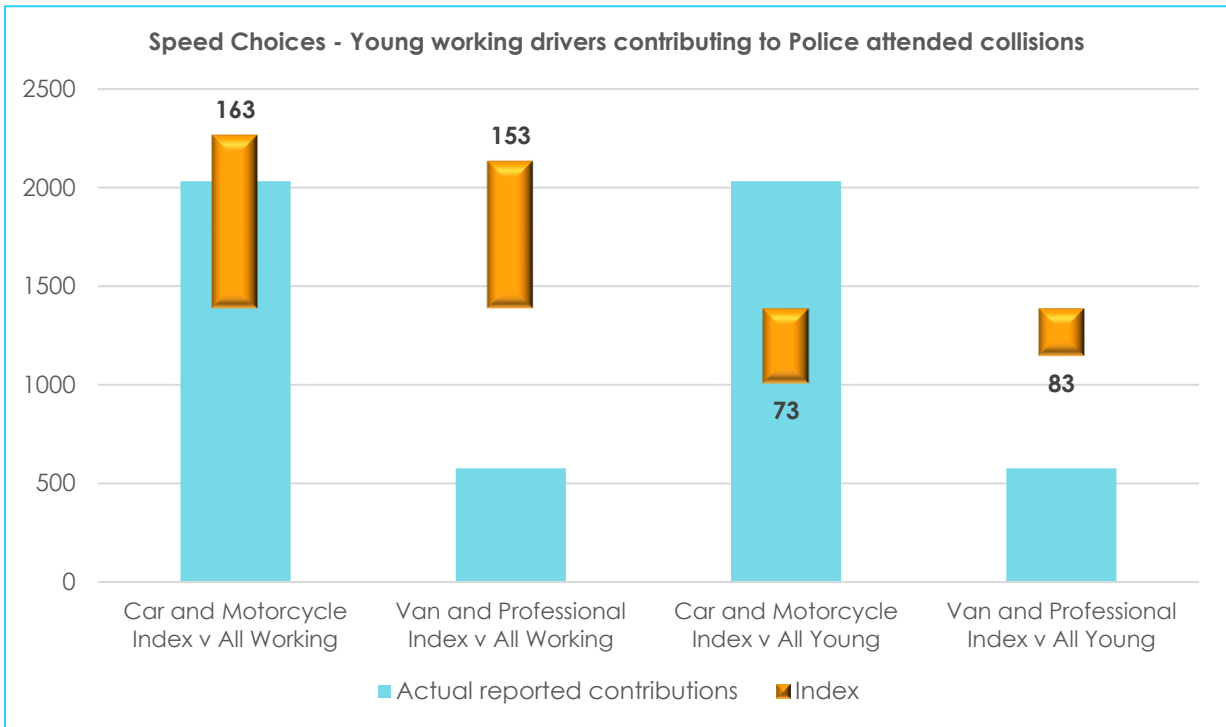


Close following in van and professional young drivers has an index of 130, while car and motorcycle young working drivers has an index of 127. When compared to drivers of any journey purpose, van and professional and car and motorcycle young working drivers are represented as expected.

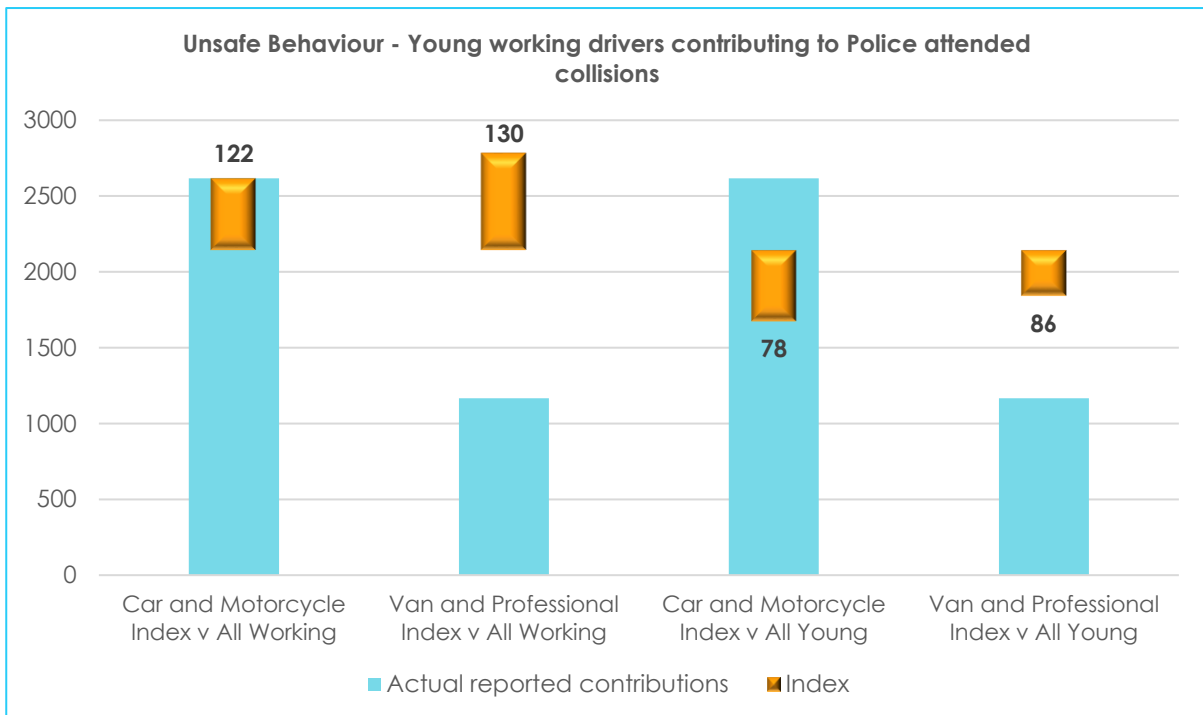


Speed choices in car and motorcycle and van and professional young working drivers are both significantly over-represented when compared to car and motorcycle and van and professional working drivers of all ages. When compared to young drivers with any journey purpose, both car and motorcycle and van and professional working drivers are under-represented.

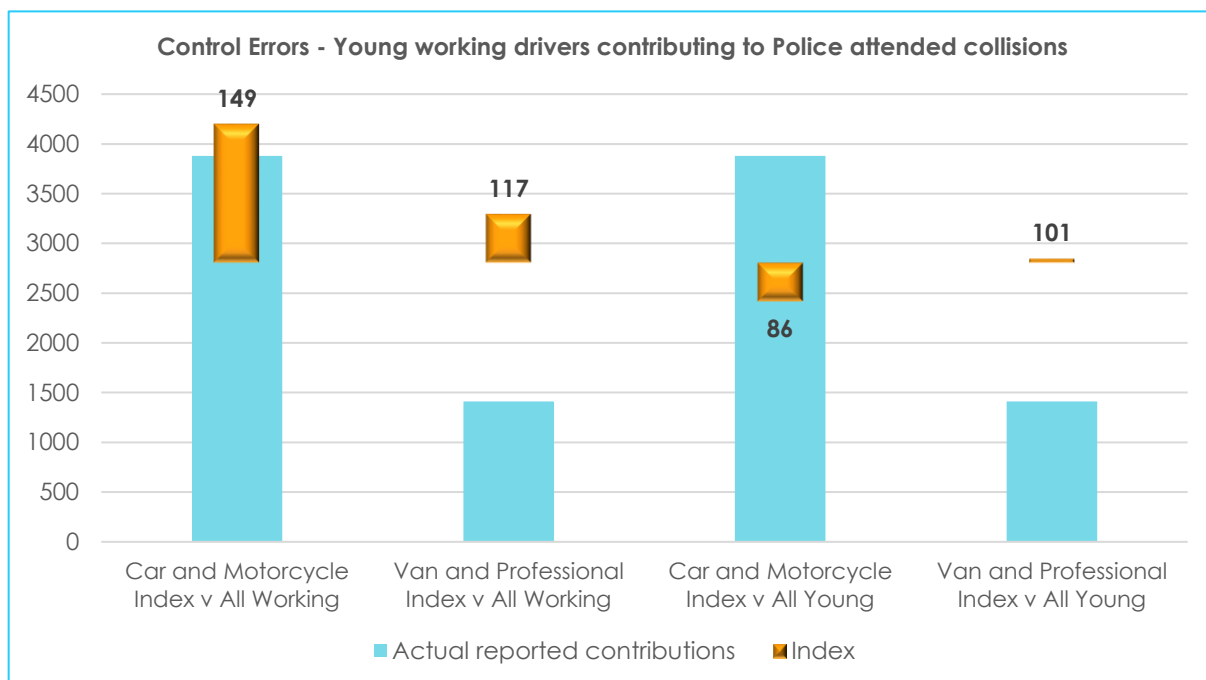




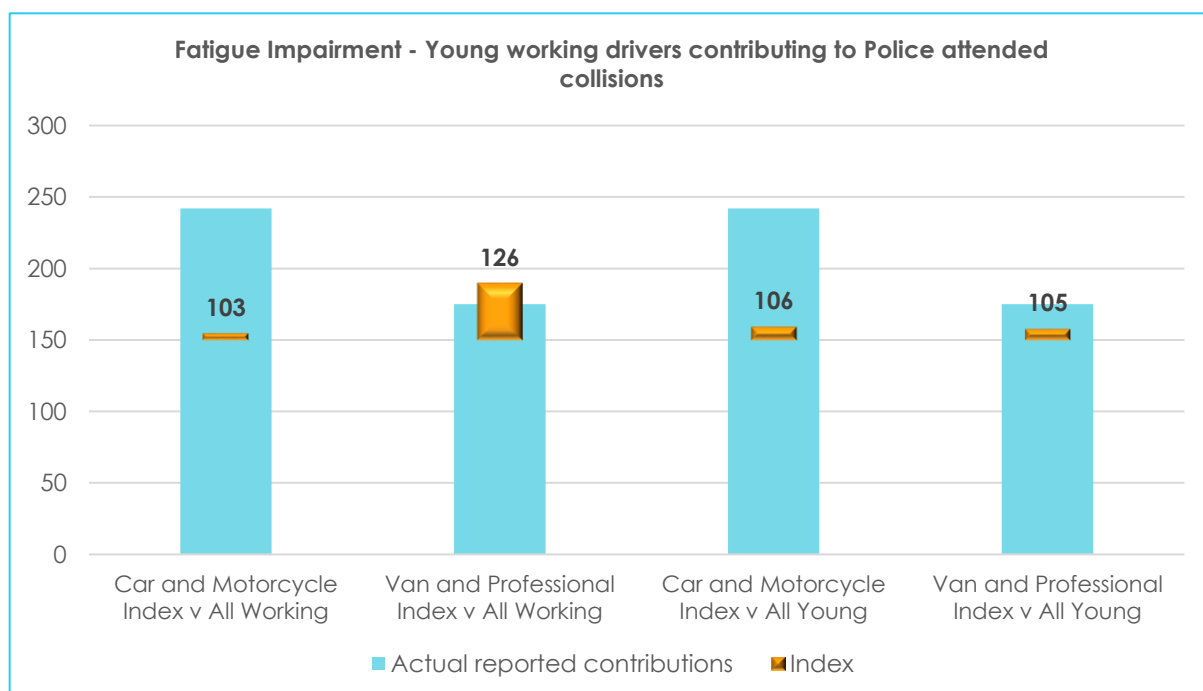
Unsafe behaviour in car and motorcycle and van and professional young working drivers are both over-represented when compared to car and motorcycle and van and professional working drivers of all ages. When compared to young drivers with any journey purpose, both car and motorcycle and van and professional working drivers are under-represented.



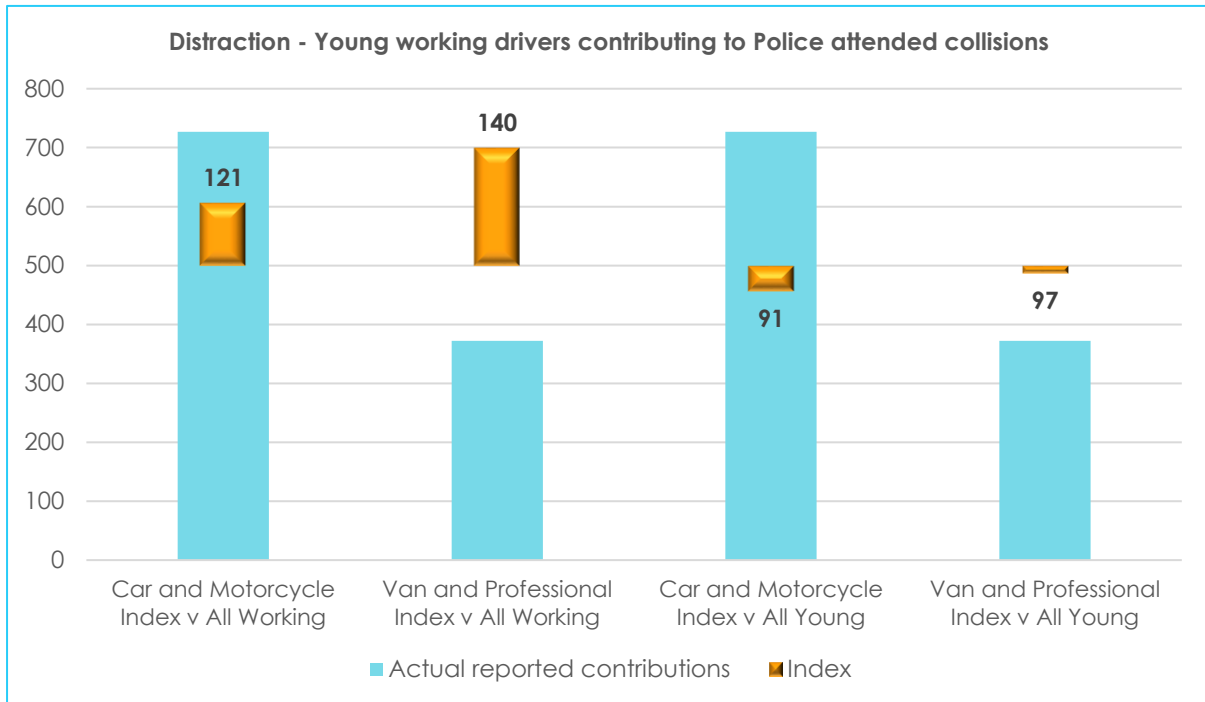
Control errors in car and motorcycle young working drivers are significantly over-represented, with van and professional young working drivers also over-represented when compared to working drivers of all ages. When compared to young drivers with any journey purpose, car and motorcycle young working drivers are slightly under-represented with van and professional young working drivers represented as expected.



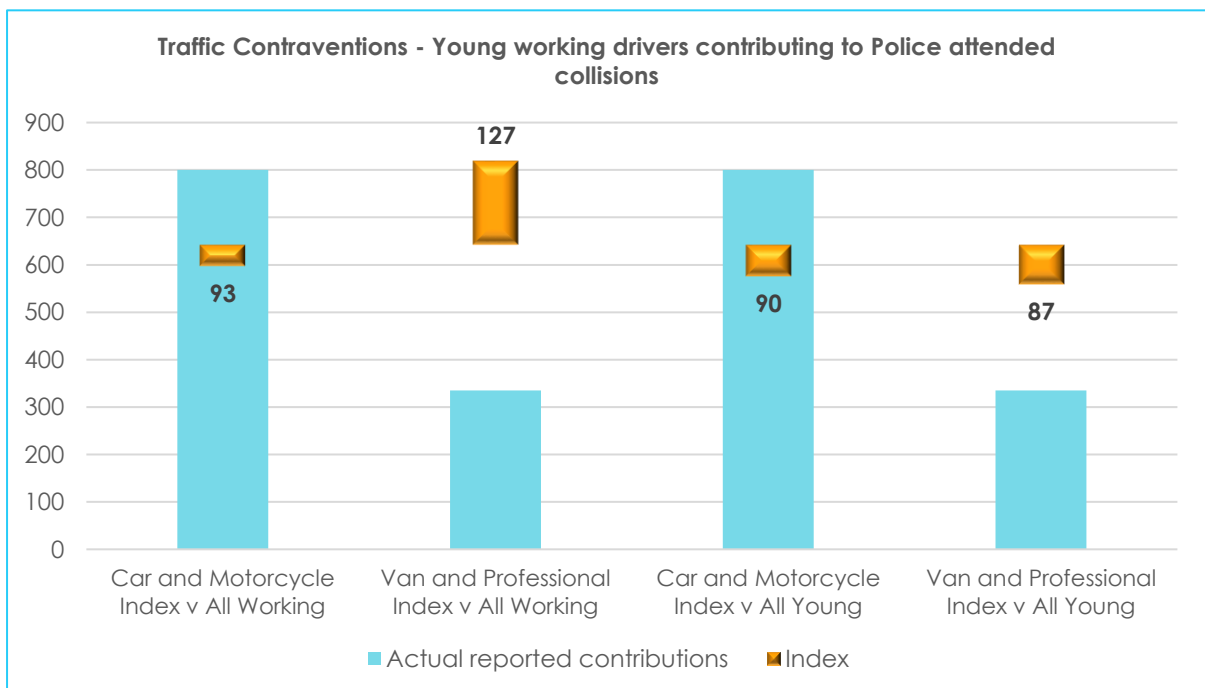
Fatigue impairment in van and professional young drivers with an index of 126 is over-represented when compared to van and professional drivers of all ages. Car and motorcycle young working drivers are generally represented as expected compared to car and motorcycle drivers of all ages and car and motorcycle young drivers with any journey purpose.



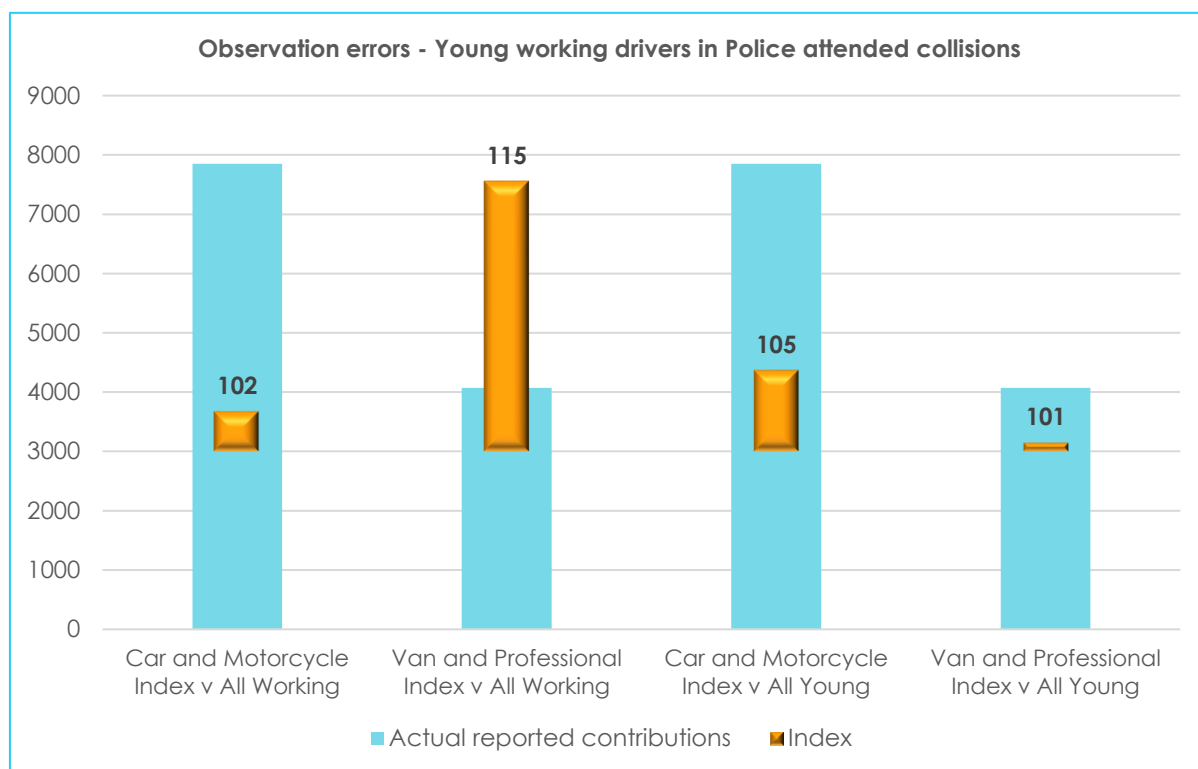
Distraction is over-represented for both van and professional and car and motorcycle young working drivers when compared to working drivers of all ages. Distraction is marginally under-represented for car and motorcycle young working drivers when compared to car and motorcycle young drivers with any journey purpose.



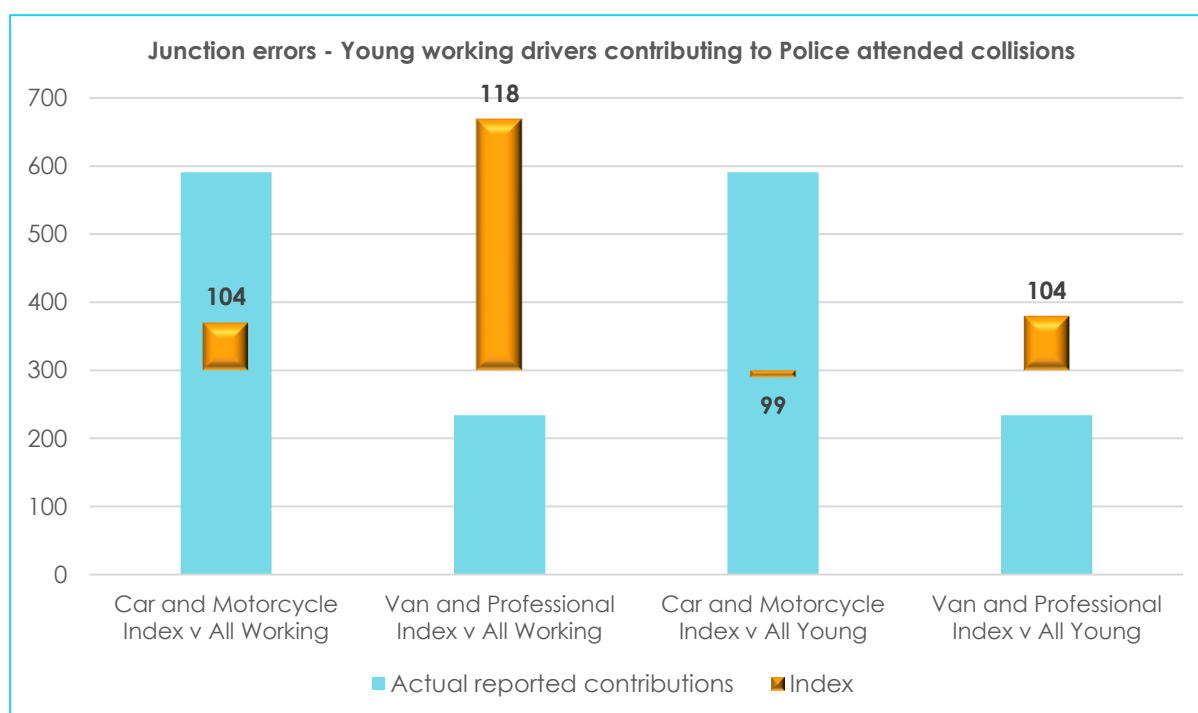
Traffic contraventions is over-represented for young working van and professional drivers when indexed against van and professional drivers of all ages. When indexed against young drivers with any journey purpose both car and motorcycle and van and professional young working drivers are marginally under-represented.



Observation errors are over-represented for van and professional working drivers when indexed against drivers of all ages. Car and motorcycle young drivers and van and professional young drivers are represented as expected when compared to young drivers with any journey purpose.



Junction errors are over-represented for van and professional working drivers when indexed against drivers of all ages. Car and motorcycle young drivers and van and professional young drivers are represented as expected when compared to young drivers with any journey purpose.



The remaining contributory factor categories including: Manoeuvre errors, Substance impairments and Health impairments, can be found in the appendix.



Conclusions

The contributory factor analysis for working drivers revealed some clear behavioural trends which, in the opinions of attending police officers, contributed to injury collisions. Young working van and professional vehicle drivers involved in collisions, were more likely than the national norm for van and professional vehicles drivers of all ages, to have contributed to their collision through all contributory factor groupings apart from health impairment.

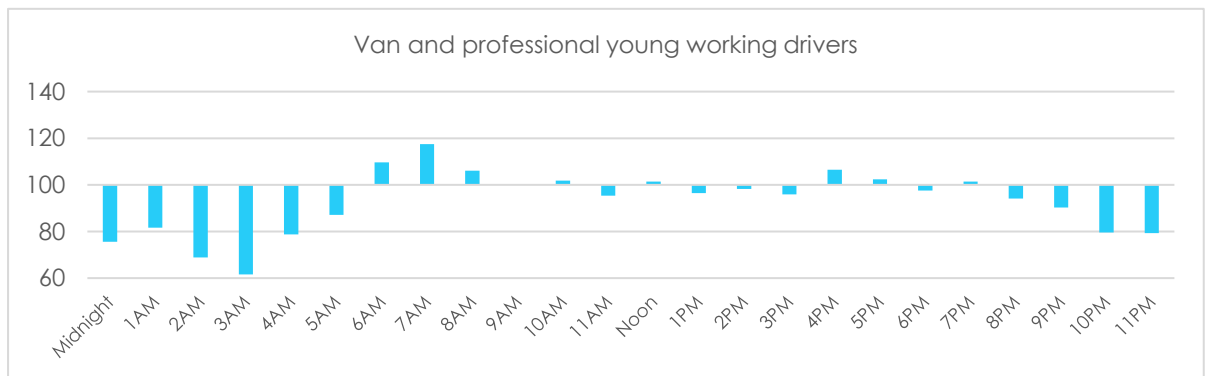
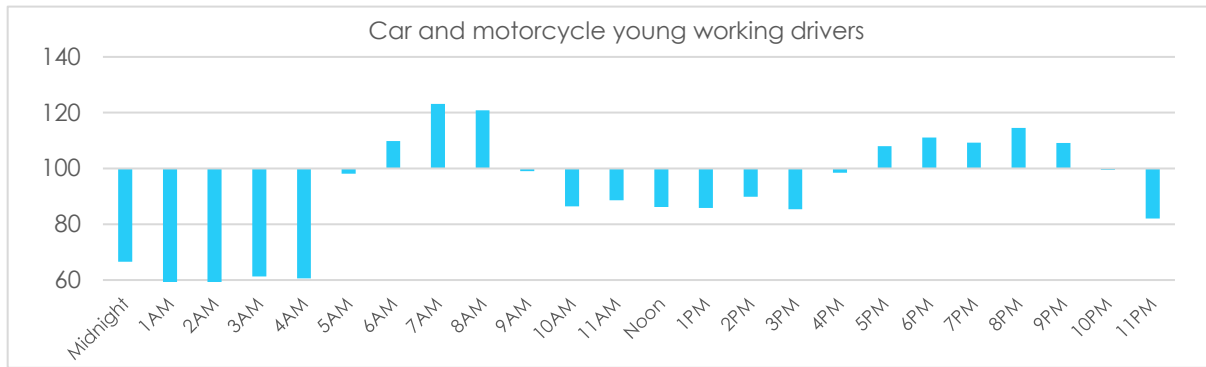
Car and motorcycle young working drivers contributed more frequently than the national norm for car and motorcycle working drivers of all ages through: nervous behaviour, close following, speed choices, unsafe behaviour and control errors, as well as through substance impairment and distraction. However, it is encouraging that when compared to van and professional and car and motorcycle young drivers with any journey purpose, both van and professional and car and motorcycle young working drivers are either represented as expected or underrepresented in all contributory factor groupings except Fatigue.



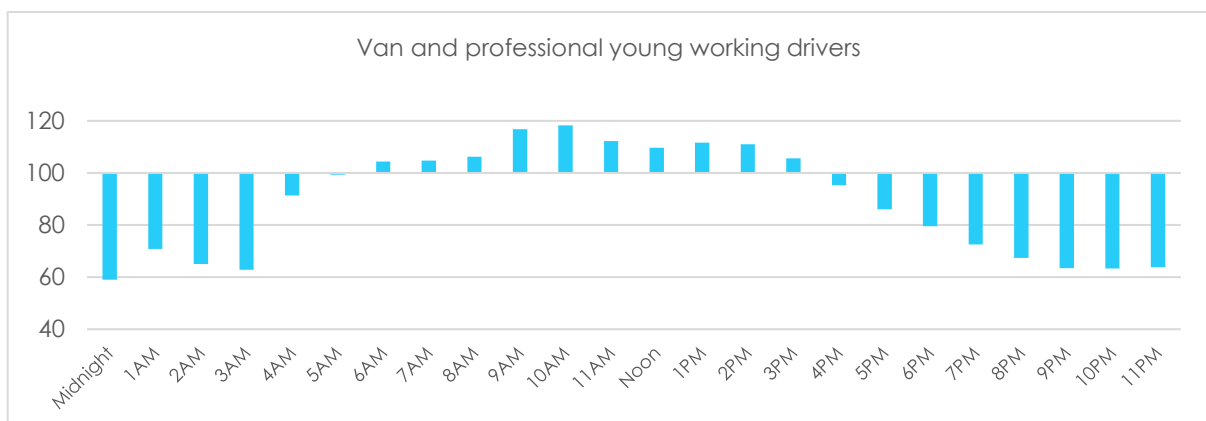
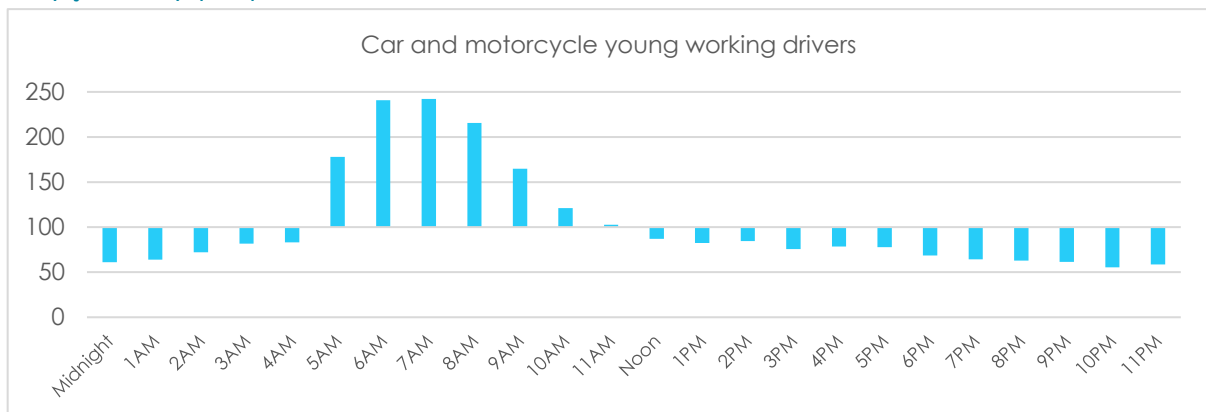
APPENDIX

When Analysis

Times by hour of day and driver category, indexed against all working drivers



Times by hour of day and driver category, indexed against young drivers with any journey purpose



Contributory Factors

