

Area Profiles



Prepared for Birmingham City Council

Publication Date: February 2014

Update: June 2014

Version: 1.3

EXECUTIVE SUMMARY	2
INTRODUCTION	5
CASUALTIES	7
ALL CASUALTIES	7
CHILD CASUALTIES	17
PEDESTRIANS	22
HIGH RISK ROAD USERS	30
ALL DRIVERS INVOLVED IN INJURY COLLISIONS	30
YOUNG DRIVERS (16-24 YEAR OLDS)	33
VAN DRIVERS	37
MOTORCYCLISTS	41
PEDAL CYCLES	45
CASUALTIES INJURED IN COLLISIONS INVOLVING LORRIES	51
COLLISIONS	53
ALL ROADS	53
COLLISIONS INVOLVING LORRIES	61
CONTRIBUTORY FACTORS	63
ROAD SURFACE (FACTORS 101-103) 2008-2012	64
SPEED RELATED (FACTORS 306 AND/OR 307) 2008-2012	65
DRIVER BEHAVIOUR (FACTORS 601-603)	66
IMPAIRMENT (FACTORS 501-505)	67
IMPAIRMENT BY ALCOHOL (FACTOR 501)	68
OTHER KEY CONTRIBUTORY FACTORS 2008-2012	69
APPENDICES	72
APPENDIX 1 – DATA TABLES	72
APPENDIX 2 – MOSAIC	81
APPENDIX 3 – COMPLETE LIST OF MOSAIC PUBLIC SECTOR TYPES	83
APPENDIX 4 - 2013 DATA UPDATE FOR BIRMINGHAM’S ROADS	85

EXECUTIVE SUMMARY

This Area Profile presents a systematic overview of resident and road risk in Birmingham. The insight derived from this report can inform the design and development of road safety interventions, underpin local road safety strategies, and support local authorities and their stakeholders to secure safer roads and healthier communities across the area. Area Profiles are compiled using the latest in analytical tools and techniques, not only comparing long term trends but also using rate-based measures derived from a range of datasets. In particular, **road risk for Birmingham's residents has been systematically compared to eight Comparator authorities**, identified as being sufficiently similar to Birmingham to warrant such comparison. In order to provide local focus, most categories of road risk have also been examined individually for each of **Birmingham's parliamentary constituency areas**. Collision and casualty levels on Birmingham's road network have also been studied.

This revision of the Area Profile includes preliminary trend information for Birmingham's roads in 2013. This information is based on locally sourced data only; it will not be possible to perform national comparisons using these trends until full national data becomes available in late 2014. For this reason, analysis of trends in 2013 has been presented in a separate appendix.

Casualties per head of population for Birmingham residents are close to the national rate, but higher than most Comparators. **Hodge Hill** has the highest overall casualty rate of Birmingham's constituencies, with **Yardley** also exhibiting a high rate. **Sutton Coldfield** consistently has the lowest casualty rates per head of population. Birmingham's rate of killed and seriously injured (KSI) casualties per head of population is slightly below the national rate, and is typical of most Comparators. **Erdington** has the highest overall KSI casualty rate.

There has been a general reduction in overall casualties on Birmingham's roads, in keeping with the national trend. However **KSI casualty levels have remained stubbornly constant**, with slight increases in child KSI casualties in recent years. Child casualty rates for Birmingham residents aged under 16 are slightly higher than the national rate, and also those of most Comparators. However, **child casualties on Birmingham's roads have reduced significantly over the last five years**. **Hall Green** has a resident child casualty rate over 30% higher than the national norm.

The overall collision trend for Birmingham's roads in 2013 indicates a small increase compared to the previous year, although the figure remains lower than 2011 and the long term trend is still downwards. This increase is not reflected in child casualty figures, but is apparent in pedal cyclist, pedestrian and young driver trends. The experience of individual constituency areas in 2013 varied considerably, with some showing marked decreases in collisions while others exhibited higher levels than both the preceding two years.

Using Mosaic Public Sector socio-demographic classification¹, Birmingham resident casualties have been segmented; this highlights a number of community types that are exposed to higher levels of risk. **South Asian communities experiencing social deprivation (Mosaic Type I42) represent the highest absolute casualty numbers, and are also overrepresented** when indexed against the population of the city. Another community type with a high number of casualties and over representation is *Vulnerable young parents needing substantial state support* (Type O69). The profile of Birmingham resident drivers involved in collisions is broadly similar, although *Upwardly mobile South Asian families living in inter war suburbs* (Mosaic Type E20) are also noticeably over represented among involved resident drivers.

¹ <http://www.experian.co.uk/business-strategies/mosaic-public-sector.html>

16-24 year old Birmingham residents are the most vulnerable age group in terms of absolute casualty numbers, and also exhibit higher casualty rates relative to population than other age groups; however, **the young adult casualty rate compared to population is somewhat lower than the national norm** for this age group. This age group also experiences driver collision involvement rates which are higher than other groups, but below the national norm for their peers and typical across Comparators. As well as high levels of involved young drivers in *South Asian communities experiencing social deprivation, Middle aged families living in less fashionable inter war suburban semis* (Mosaic Type E21) and *Upwardly mobile South Asian families living in inter war suburbs* are also over represented: it is notable that households in both these communities very often contain adult children still living in a parental home. There is **significant local variation in distribution of young driver risk**, suggesting it may be effective to concentrate resources on areas such as **Yardley and Sutton Coldfield**.

Birmingham's resident pedestrian casualty rate is over 35% higher than the national rate. While it is not unusual for urban residents to experience higher levels of pedestrian risk, it is notable that **this rate is also well above all Comparators**. The child resident pedestrian casualty rate is the same as Sandwell, but higher than other Comparators; the corresponding adult rate is substantially higher than every Comparator. **Ladywood** has the highest resident pedestrian casualty rate among constituencies, with Hall Green and Hodge Hill also exhibiting high risk. While there have been reductions in the total number of pedestrians injured on Birmingham's roads since 2009, the **numbers of killed or seriously injured pedestrians has remained constant** and child pedestrian KSI casualties have increased slightly.

Resident motorcycle user casualty rates are lower than the national rate and those of most Comparators. Motorcycle user casualty numbers on Birmingham's roads have fallen since 2008, although severity ratios remain quite high with 27% of motorcycle casualties being killed or seriously injured. Residents of **Northfield** exhibit the highest motorcycle user risk levels, where the rate is slightly over the national norm.

The number of van drivers involved in collisions on Birmingham's roads has fallen in recent years. Resident van driver involvement is slightly lower than the national rate and typical of many Comparators. Residents of **Yardley** exhibit the highest van driver involvement levels, where the rate is higher the national norm. Crashes involving lorries have also been decreasing recently, and the lorry collision rate by road length is typical of Comparator networks, although above the national norm. Crashes involving lorries result in only 3% of KSI casualties, the majority of whom were users of motor vehicles.

Birmingham's resident pedal cyclist casualty rate is below the overall Great Britain rate and broadly typical of Comparators. However, residents of **Edgbaston and Hall Green** exhibit rates similar to the national norm. **Adult pedal cycle casualty numbers on Birmingham's roads have increased since 2009**, and these account for a large majority of all cyclist casualties. The child resident pedal cycle casualty rate is well below the national rate and Comparators, although Erdington has a rate similar to the national norm.

Overall collisions on Birmingham's roads have fallen by 37% in the last five years, though KSI collision rates have remained fairly stable. Birmingham's collision rate by road length is well above the overall Great Britain rate and similar to those of Derby and Leicester, but higher than other Comparators. Ladywood has the highest absolute collision levels for all classes of road, although Hodge Hill also has high collision numbers on unclassified roads.

Contributory factor (CF) analysis shows that collisions attributed by the attending officer to alcohol impairment, or to drivers disobeying signs or signals, are decreasing at a faster rate than collisions overall. However collisions related to road surface conditions, and those where driver distraction contributed, remain at levels similar to those of five years ago; collisions related to driver behaviour also dropped at a slower rate than collisions overall. It is also notable that **attending officers attributed the CF Pedestrian Failed to Look Properly much more**

frequently than is the case nationally, accounting for 16% of all officer attended collisions where at least one CF was recorded.

Road safety risk for Birmingham's residents is in most respects fairly similar to national norms. However, **pedestrian injury rates remain considerably higher than both the national average and Comparators**, despite a reported fall in pedestrian casualties of slight severity over the last three years. Adult pedestrian rates are particularly high, and KSI pedestrian casualty levels on Birmingham's roads have remained constant. This aspect of Birmingham's road risk would appear to be a high priority for more detailed study. There is also likely to be some value in focussing resource on issues relevant to specific communities within the city, such as driver risk among deprived communities and pedal cyclist risk in those areas where cycling is most common.

INTRODUCTION

BACKGROUND

The aim of this document is to provide a profile of road safety issues affecting Birmingham's roads and Birmingham's residents, primarily using the STATS 19 collision data and Experian's Mosaic Public Sector socio-demographic classification. Annual trends are presented and analysed for all key road user groups, predominantly using data from the last five full years of available statistics (2008-2012), but referring to older figures where appropriate.

Road Safety Analysis (RSA)'s MAST Online analysis tool has also been used to investigate trends for Birmingham's residents involved in road collisions anywhere in the country, including socio-demographic profiling of casualties and drivers, for the time period 2008-2012. Collisions on Birmingham's road network have also been analysed.

STRUCTURE

The Area Profile report had been divided into separate analyses of key road user groups. The aim is to allow each section to be used independently if required. Sections are listed as follows:

CASUALTIES – Birmingham resident casualties compared with neighbours, socio-demographics, and annual trends on Birmingham's roads; child casualty, pedestrian casualty, child pedestrian casualty and adult pedestrian casualty rates for residents and trends on Birmingham's roads.

HIGH RISK ROAD USERS – Birmingham resident drivers compared with comparators, socio-demographics, and annual trends on Birmingham's roads; equivalent analyses for young car drivers (16-24 years old) and for drivers of goods vehicles with a maximum gross weight of 3.5 tonnes or less (hereinafter referred to as 'van drivers').

HIGH RISK ROAD CASUALTIES – motorcycle and pedal cycle user casualty analyses, investigating resident casualties involved in collisions nationally and annual casualty trends for Birmingham's roads. Comparative analysis of child and adult pedal cycle casualties from Birmingham and casualties from those groups injured on Birmingham's roads as well as casualties injured in collisions involving goods vehicles over 3.5 tonnes maximum gross weight (hereinafter referred to as 'lorries').

COLLISIONS – collision rates and trends within Birmingham, subdivided by hour of the day and road class (M, A(M) and A roads; B roads and Unclassified roads) and a section on collisions involving lorries.

CONTRIBUTORY FACTORS – trends for collisions which involved key contributory factors within Birmingham.

All data provided in the charts are also tabulated in the attached appendices.

COMPARATIVE ANALYSIS

MAST Online has been used to allow comparison of Birmingham's key road safety issues with corresponding national trends. Analysis of data within Birmingham has also been subdivided on the basis of parliamentary constituency boundaries, in order to provide insight into trends in different parts of Birmingham. Constituencies were related to STATS19 data by means of Lower Layer Super Output Areas, which are defined by the Office of National Statistics and classified by the constituency in which they lie: this methodology provides an extremely

close approximation to constituency boundaries. However, because it is dependent on grid references recorded for collision locations, the number of collisions included may not be absolutely identical to figures in other published sources. In the last five years, 37 collisions assigned to other authority areas in STATS19 returns had grid references located within Birmingham, which represents a variation of less than 0.3%.

In order to allow Birmingham to assess progress compared to other parts of the country and work together with others who may share common issues, RSA have also identified eight Comparator Authorities. These are considered most comparable to Birmingham on the basis of a range of factors, including:

- Population size and density
- Road network similarity (based on RSA's HANCS classification, see below, and proportions of road class)
- Socio-demographic composition (according to Experian's Mosaic classification)
- Geographical proximity to Birmingham

Comparator Authorities for Birmingham

ONS Code	Authority	Reasons for inclusion as a Comparator Authority
E06000015	Derby City	Most socio-demographically similar authority in Britain (76%); network in the same HANCS subgroup; similar population and traffic densities
E06000016	Leicester City	Very socio-demographically similar (74%); similar population density and proportions of urban, A and strategic roads
E08000006	Salford City	Very socio-demographically similar (74%); network in the same HANCS subgroup; similar proportion of urban roads
E08000026	Coventry City	Network in the same HANCS subgroup; similar proportions of A and strategic roads; in West Midlands; fairly socio-demographically similar (66%)
E08000027	Dudley M.B.	Adjacent in West Midlands; similar population density and proportion of urban, A and strategic roads; fairly socio-demographically similar (60%)
E08000028	Sandwell M.B.	Adjacent in West Midlands; similar population and traffic densities; fairly socio-demographically similar (61%)
E08000030	Walsall	Adjacent in West Midlands; network in same HANCS subgroup with similar traffic density and proportions of A and strategic roads; fairly socio-demographically similar (59%)
E08000035	Leeds City	Very socio-demographically similar (74%); closest city unitary to Birmingham in terms of absolute population; similar traffic density

HANCS (the Highway Authority Network Classification System) classifies authorities based on their road network density and proportion of urban roads. It is designed to facilitate comparison between authorities' road risk. Authorities with very dense urban networks tend to exhibit high traffic flows and higher road risk, and comparisons are more meaningful when made between broadly similar networks. Birmingham falls into subgroup B3 of the HANCS system, which consists of densely networked urban authorities, including less dense London Boroughs. Authorities in this subgroup have between 10 and 16 km of roads per square kilometre of area, and at least 90% of their network consists of urban roads according to DfT statistics². Examples of other authorities whose networks fall into this subgroup include Newcastle, Stoke, Brighton and Hounslow.

² See <https://www.gov.uk/government/statistical-data-sets/rdl02-road-lengths-kms>, Table RDL0202a

CASUALTIES



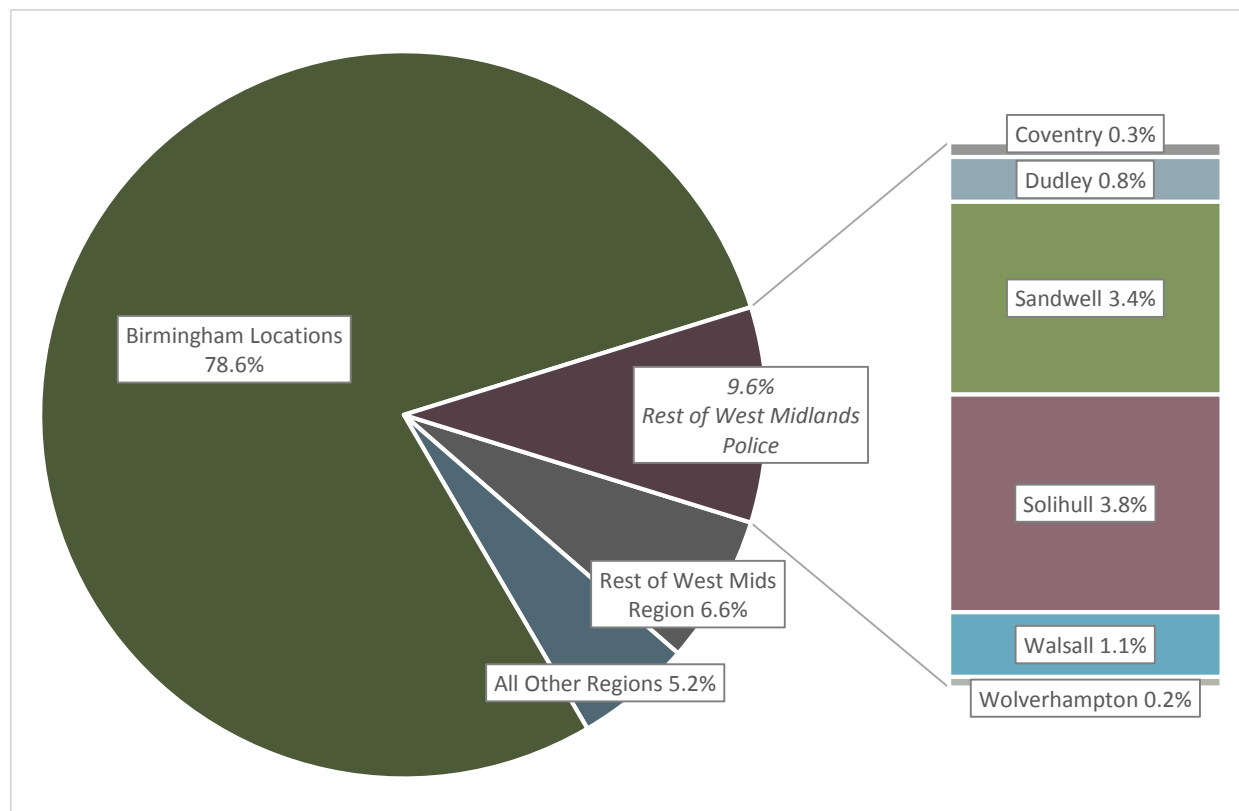
ALL CASUALTIES

ALL CASUALTIES – BIRMINGHAM RESIDENTS

MAST Online has been used to determine casualty figures for Birmingham’s residents injured in road collisions anywhere in Britain over the period 2008-2012. Using population figures from 2011, the casualty rate per 10,000 population has been calculated. For each section there will be two ‘tulip’ charts: one which compares the casualty rate (all severities) for Great Britain (light grey) with equivalent figures for Birmingham and its constituencies (pale blue); and a second chart which compares the Great Britain and Birmingham casualty rates (all severities) with equivalent figures for the eight Comparator authorities (beige).

Seventy-nine percent of residents are injured in Birmingham, with the remainder injured elsewhere, mainly in neighbouring areas. This compares to a national average of 64% of local residents being injured on local roads. The following chart shows the distribution of Birmingham resident casualties across Britain. Solihull and Sandwell are the only individual areas where more than 2.5% of Birmingham resident casualties occur.

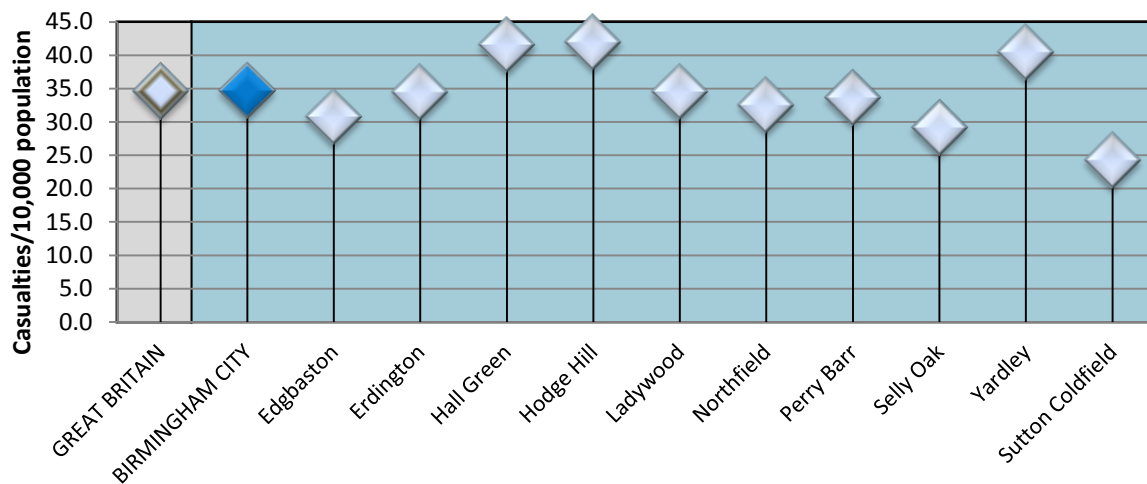
Birmingham resident casualties injured anywhere in Britain 2008-2012, by collision location



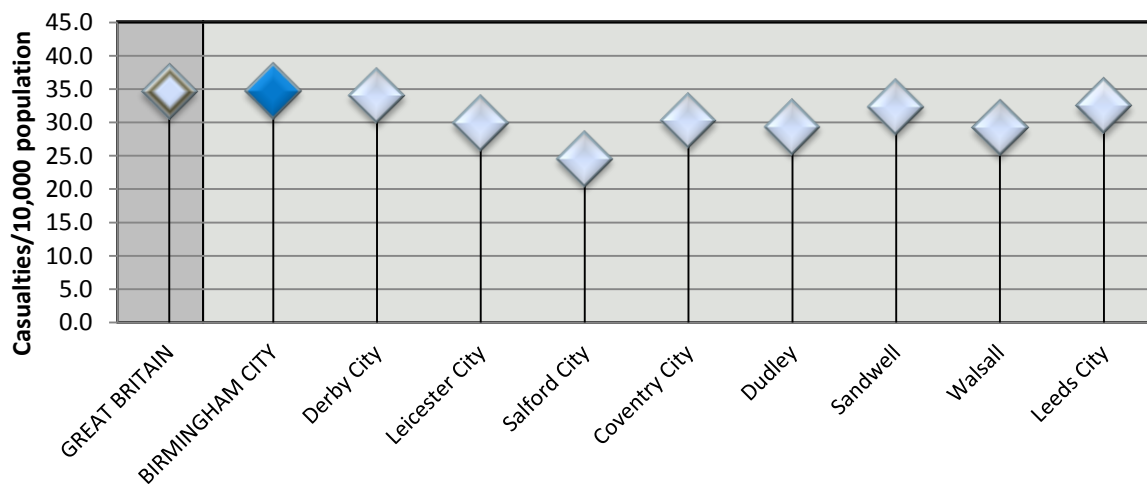
The first chart below shows the average annual casualty rate for Birmingham compared to the national rate and broken down by constituency. Of the Birmingham constituencies, Hall Green, Hodge Hill and Yardley have the

highest casualty rates. The overall Birmingham resident casualty rate is the same as the national level. Sutton Coldfield has the lowest casualty rate of the Birmingham constituencies.

Annual average resident casualty rate by population, Birmingham's constituencies (2008-2012)



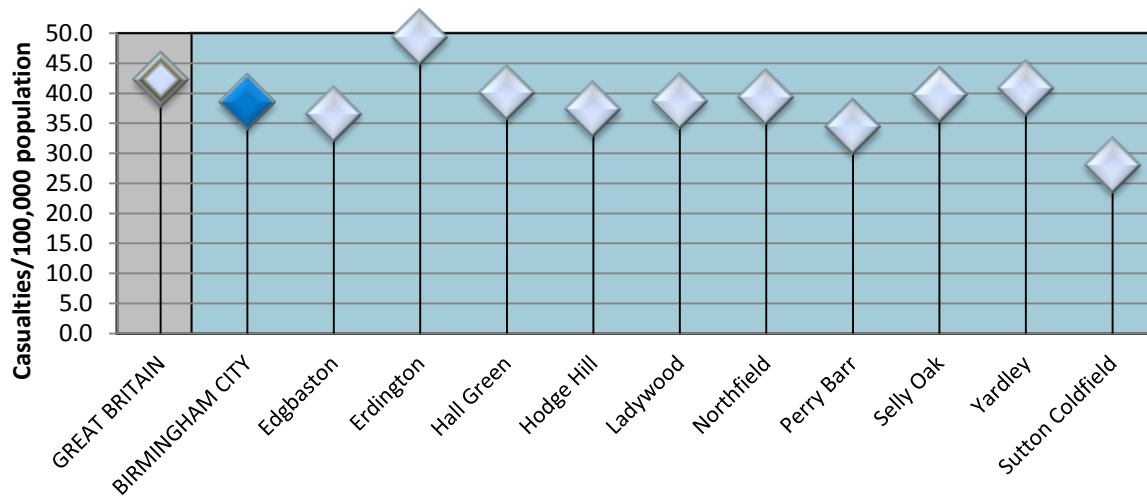
Annual average resident casualty rate by population, Birmingham's Comparators (2008-2012)



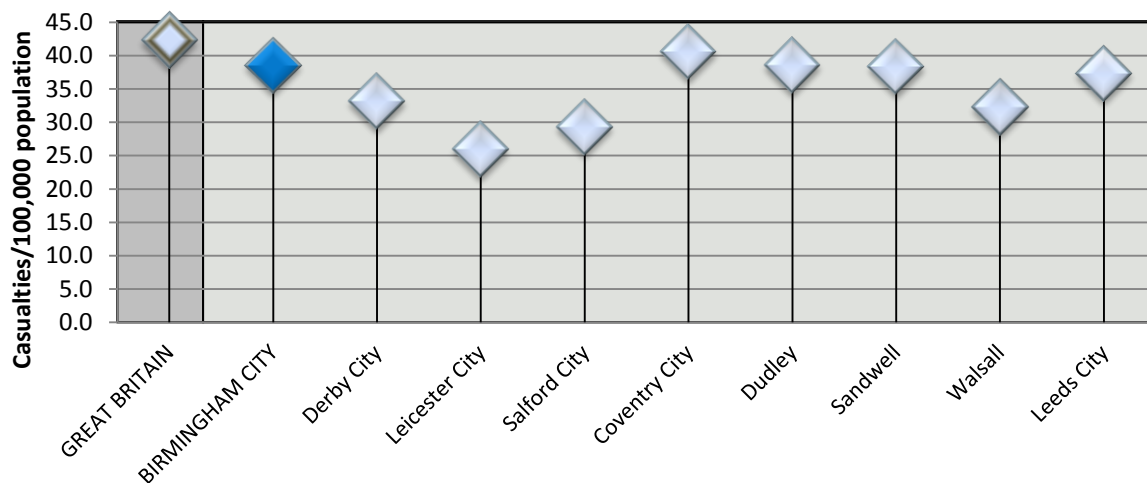
Birmingham has a similar casualty rate to Derby, and a higher rate than all the other Comparator Authorities. Salford City has the lowest casualty rate per head of population.

The KSI (casualties killed or seriously injured) rate per head of population for Birmingham and the Comparator Authorities is lower than the national rate. Within Birmingham, Erdington has the highest KSI rate lying well above the national norm, while Sutton Coldfield once again exhibits the lowest rate. The KSI rate is similar to the nearby Comparator Authorities of Coventry, Dudley and Sandwell. However Birmingham's rate is higher than those of Leicester, Salford, Derby, Leeds and Walsall.

Annual average resident KSI casualty rate by population, Birmingham's constituencies (2008-2012)



Annual average resident KSI casualty rate by population, Birmingham's Comparators (2008-2012)

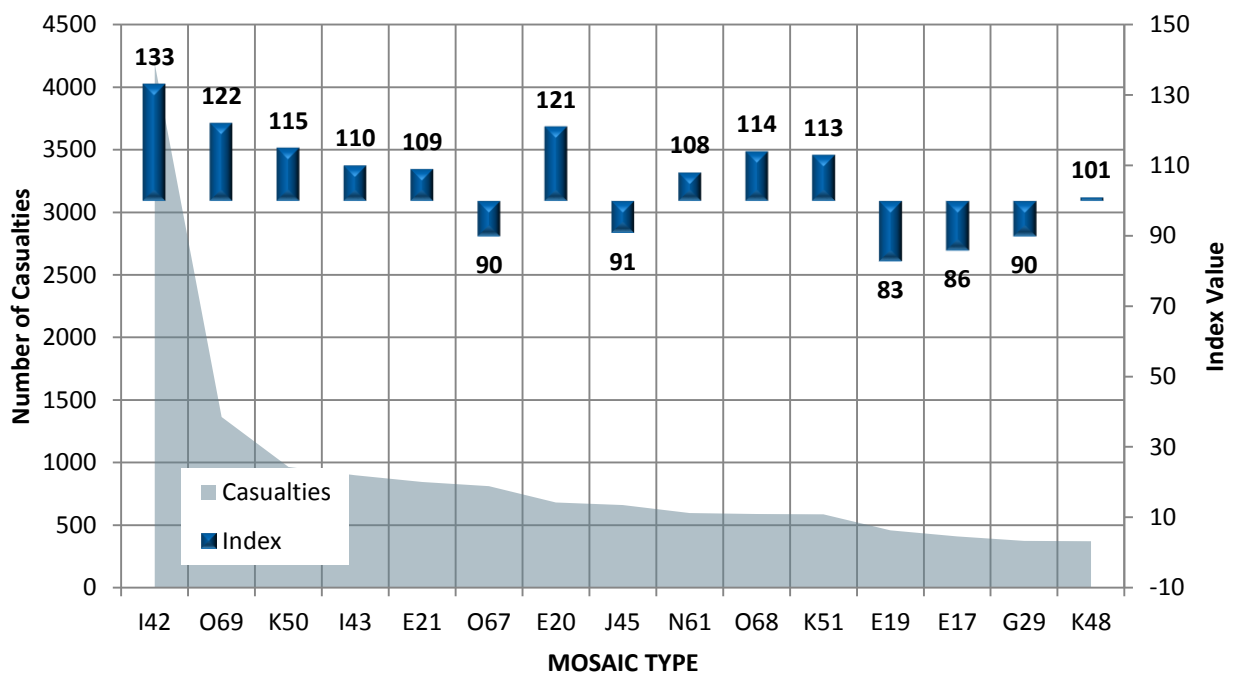


The chart overleaf shows Birmingham resident road casualties injured anywhere in the UK, grouped by the Mosaic Type of the community in which they live. Analysis has been carried out using MAST Online and uses casualty data from 2008-2012. The most frequently occurring 15 Types are illustrated. Mosaic classification is based on the individual postcodes provided in STATS 19 records for each casualty and uses Experian's Mosaic Public Sector socio-demographic classification system (for details see Appendix 2 of this document, and the Experian website³). Typically 85% of postcodes can be matched to a Mosaic Type, so this analysis is based on about five out of six of all Birmingham resident casualties.

³ <http://www.experian.co.uk/business-strategies/mosaic-public-sector.html>

The shaded area indicates the number of casualties in each Mosaic Type, with figures corresponding to the left hand vertical axis. The darker bars show the “index” for each Mosaic Type. An index value of 100 indicates that the number of casualties is in proportion to the population of Birmingham’s communities where that Type predominates. A value of 200 would mean that this Type is injured at twice the expected rate; a value of 50 would imply half the expected rate. Displaying the data overlaid on a single chart allows quick and easy analysis of total casualties and relative risk. The index value becomes less significant as the number of casualties decreases and random change lowers confidence levels.

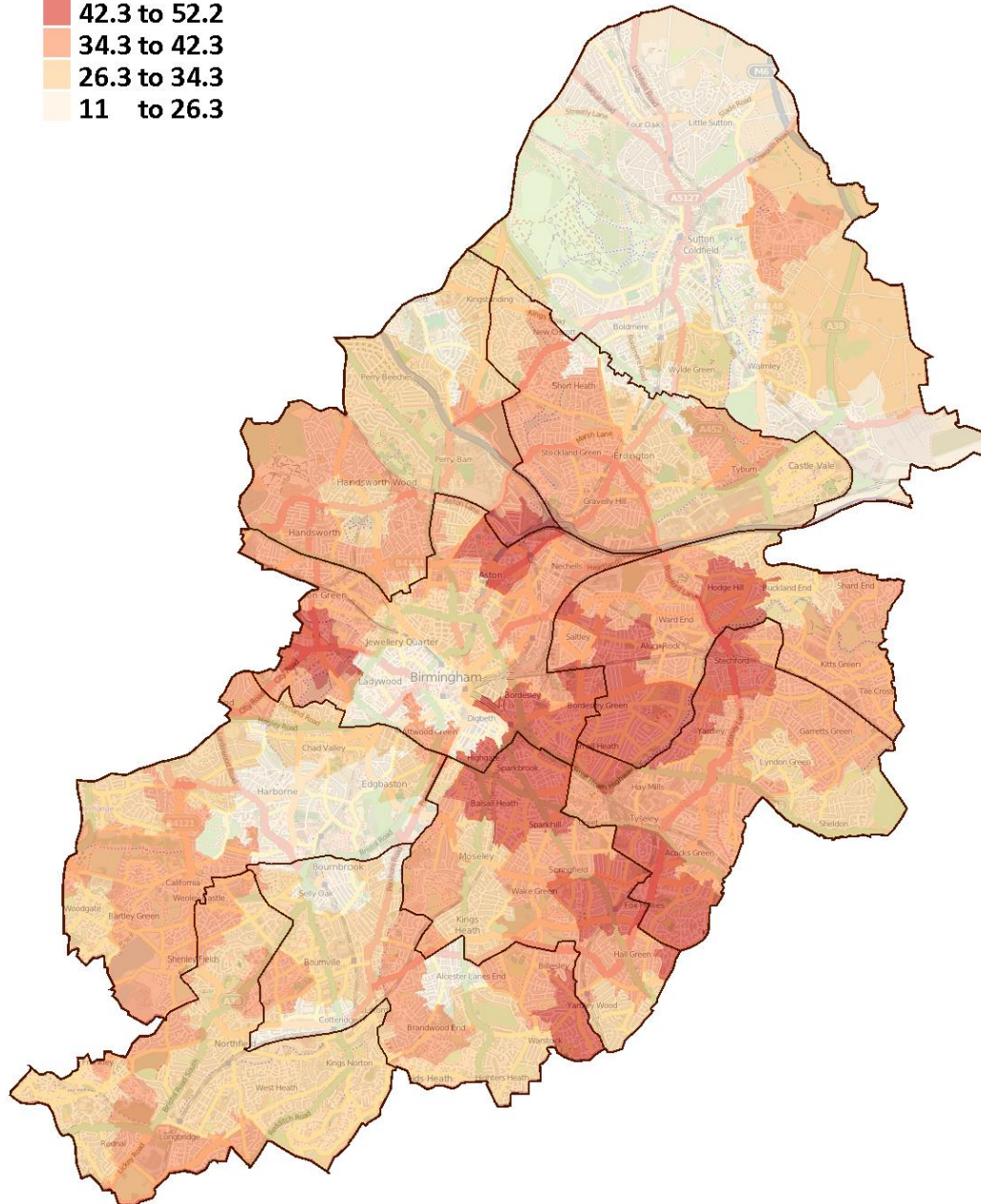
Birmingham resident casualties involved in UK collisions, grouped by Mosaic Type (2008-2012)



The Birmingham residents who overwhelmingly account for the highest levels of collision involvement as casualties are *South Asian communities experiencing social deprivation* (Mosaic Type I42). Communities from this Mosaic Type provide a high number of casualties and are also over-represented even when taking in to account the high number of residents from this Mosaic Type living in Birmingham. Communities where this Type predominates contain the highest concentration of recent migrants from South Asia, and in particular those living in the most overcrowded conditions in the poorest quality older terraced housing. Many of these residents have difficulty in their use of the English language, meaning they struggle to obtain employment other than in occupations which do not require them to interact to a significant degree with the others in English. Residents often live in terraced housing in extended families.

Other communities with a high number of casualties and an over representation based on population include *Vulnerable young parents needing substantial state support* (Type O69); *Older families in low value housing in traditional industrial areas* (Type K50); *Older town centre terraces with transient, single populations* (Type I43); *Middle aged families living in less fashionable inter war suburban semis* (Type E21); and *Upwardly mobile South Asian families living in inter war suburbs* (E20). People from these Types vary in their characteristics. The first three Types are often benefit claimants and unemployment and low incomes are common. Communities with Type O69 have a high concentration of young single parents with pre-school children, living in social housing. They are the second most deprived of all the Types. Type K50 contains many older people living on moderate incomes in better council estates. Many of these people have been employed in the manufacturing industry but demand

**Resident casualties per 10,000 population
Birmingham 2008-2012 annual average**



for their craft skills is now less than it used to be. Communities of Type I43 live close to town centres and consist of many young, transient single people on low incomes. They often live in terraced housing and whilst unemployment is high, residents often work in manual jobs. Types E20 and E21 differ from these other Types as these communities consist of lower middle class families, living in interwar houses. Many people in E21 communities work for local manufacturing companies in junior management and supervisory roles. Adults are typically in their 40s and 50s and have often moved to these neighbourhoods to meet the needs of larger than average families. Type E20 communities contain an increasingly large population of recent immigrants from

South Asia and East Africa who have worked hard to establish a successful financial position in their new country. They have high expectations for their children and value education and qualifications.

A map showing the lower super output areas where I42, O69, K50, I43 and E21 are the most dominant Types is provided in Appendix 2. The appendix provides information on the locations highlighted within the map and also provides a summary of some of the main characteristics of these Types.

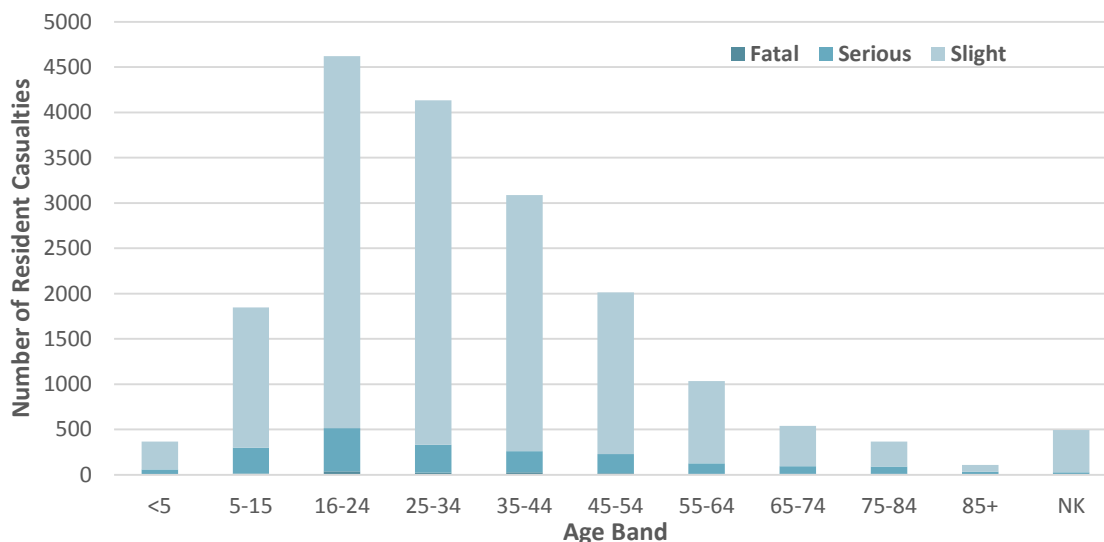
STATS 19 postcode data has been used to locate the home neighbourhoods of casualties who are known to be residents of Birmingham. The thematic map on page 10 illustrates the number of casualties per 10,000 population from each Middle Layer Super Output Area (MSOA) in Birmingham.

Higher casualty rates are found throughout the city including on the outskirts of the city centre; in and around the areas of Small Heath, Aston, Fox Hollies, Stechford and Hodge Hill. Lower rates are mainly found in Sutton Coldfield, Birmingham city centre and in the area around Harborne and Bournbrook.

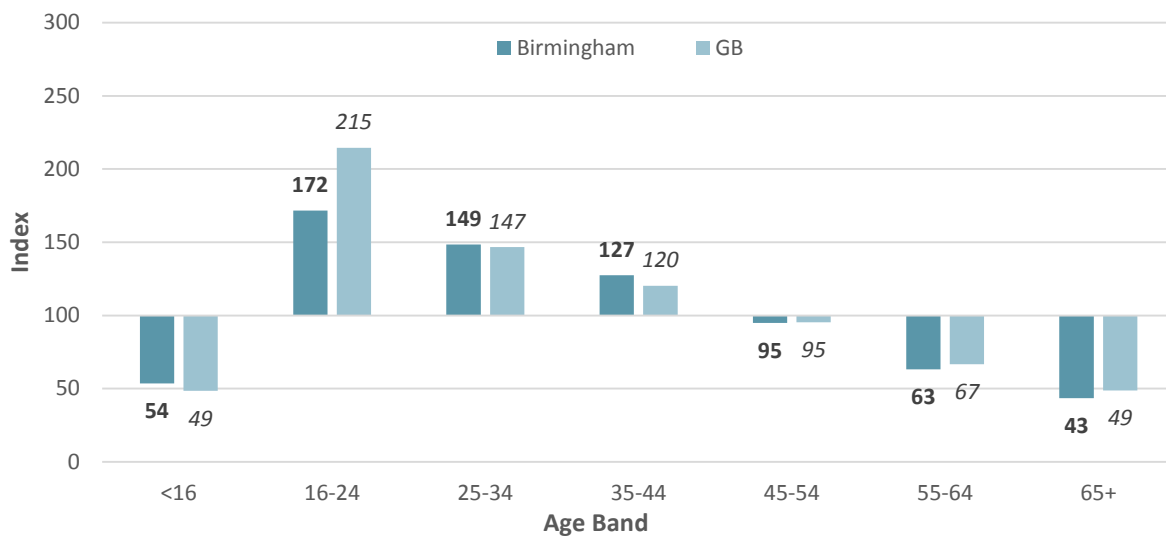
CASUALTY AGES

The following chart shows the ages of casualties from Birmingham who were injured anywhere in the country between 2008 and 2012. It shows that the age band with the highest incidence of casualties (of all severities) is between 16 and 24 years old. The second chart shows resident casualties by age, indexed by the population of those age groups living in Birmingham. An index value of above 100 indicates a higher than expected number of casualties and a value below 100 indicates a lower than expected number of casualties based on resident population. A comparison to the national norm has also been included. The index chart shows that residents of Birmingham aged less than 16 years old or more than 65 years old are at least risk of being injured in a collision based on the population of these age groups living in the city. It also shows that while 16-24 year olds are at much higher risk than other age groups, 16-24 year olds living in Birmingham are at less risk than 16-24 year olds nationally.

Birmingham resident casualties by age group (2008-2012)



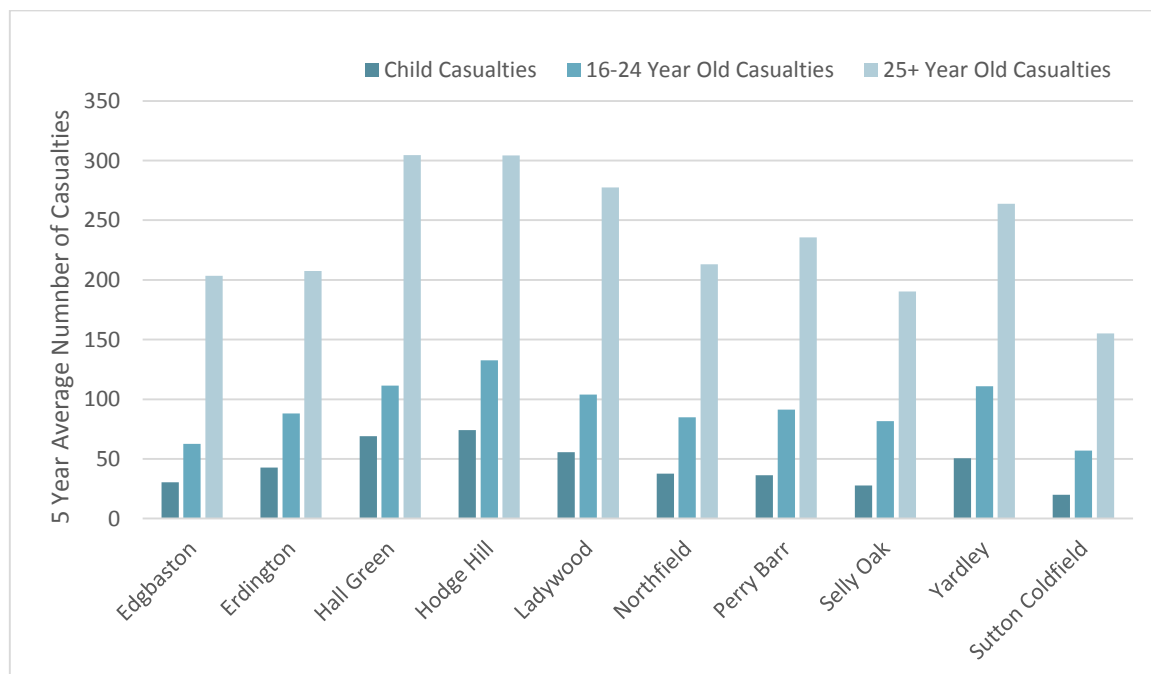
Birmingham resident casualties by age group indexed by population, compared to national norm (2008-2012)



CASUALTIES FROM EACH CONSTITUENCY

Analysis has been carried out at the Westminster constituency level for this Area Profile. The following chart shows the 5 year annual average number of casualties from each constituency in Birmingham. Population figures have not been used for this analysis so it is not adjusted to account for areas with more residents.

Average number of resident casualties each year by constituency and age group (2008-2012)



The constituencies with the highest annual average number of child casualty residents are Hodge Hill (74), Hall Green (69) and Ladywood (56). Hodge Hill has the highest average number of 16 to 24 year old resident casualties (133), followed by Hall Green (111) and Yardley (111). In terms of adult casualties (those aged 25 years or older), Hall Green has the highest average with 305 residents injured on the roads each year, followed by Hodge Hill

(304) and Yardley (264). Sutton Coldfield has the lowest average number of casualties injured each year in all three categories (20 children, 57 16-24 year olds and 155 residents aged 25 years or over).

The Hodge Hill constituency is in inner-city Birmingham and is “populated by skilled manual workers, with a large Pakistani community.”⁴ Hodge Hill has a higher percentage of resident 16 to 24 year olds than the West Midlands or England (20% compared to 14%), and also has a higher percentage of children than the West Midlands or England.⁵

The Hall Green constituency consists of outer Birmingham suburbs to the south and south-east of the city. According to the last census, 25% of the residents of Hall Green are aged under 16 years old (compared to 20% for the West Midlands and 19% for England). It also has a slightly higher percentage of 16 to 24 year olds than the West Midlands or England.⁶

The Yardley constituency is in the south east of Birmingham. Yardley has a higher percentage of child residents than the West Midlands or England but this is not reflected in the child casualty figures. The percentage of 16 to 24 year old residents of Yardley is slightly higher than the West Midlands and England.⁷

Ladywood constituency is an inner-city Birmingham seat, which has a higher percentage of child residents than the West Midlands and England. Ladywood has a higher percentage of 16 to 24 year old residents than West Midlands and England (24% compared to 14% for West Midlands and England).⁸

The Sutton Coldfield constituency is a middle-class Birmingham suburb. It has a slightly lower percentages of child residents and 16 to 24 year olds than West Midlands and England.⁹

ALL CASUALTIES –BIRMINGHAM ROADS

The chart overleaf shows casualties on Birmingham’s roads by severity for each year from 2008 to 2012. KSI casualties account for 10.7% of all casualties on Birmingham’s roads compared with 12.2% KSI casualties nationally.

Seventy-eight percent of the casualties with known postcodes injured on Birmingham’s roads are Birmingham residents, with the remaining casualties being from elsewhere, mainly in neighbouring areas. This compares to the national rate of 66% of casualties with known postcodes residing in the local authority area in which they were injured. Solihull and Sandwell are the only individual areas where more than 2.2% of Birmingham casualties reside. Casualties on Birmingham’s roads who reside outside Birmingham are most often middle aged adults, and are rarely children. The following charts show the residency and age distribution of casualties on Birmingham’s roads.

⁴ <http://www.theguardian.com/politics/constituency/717/birmingham-hodge-hill>

⁵ www.neighbourhood.statistics.gov.uk

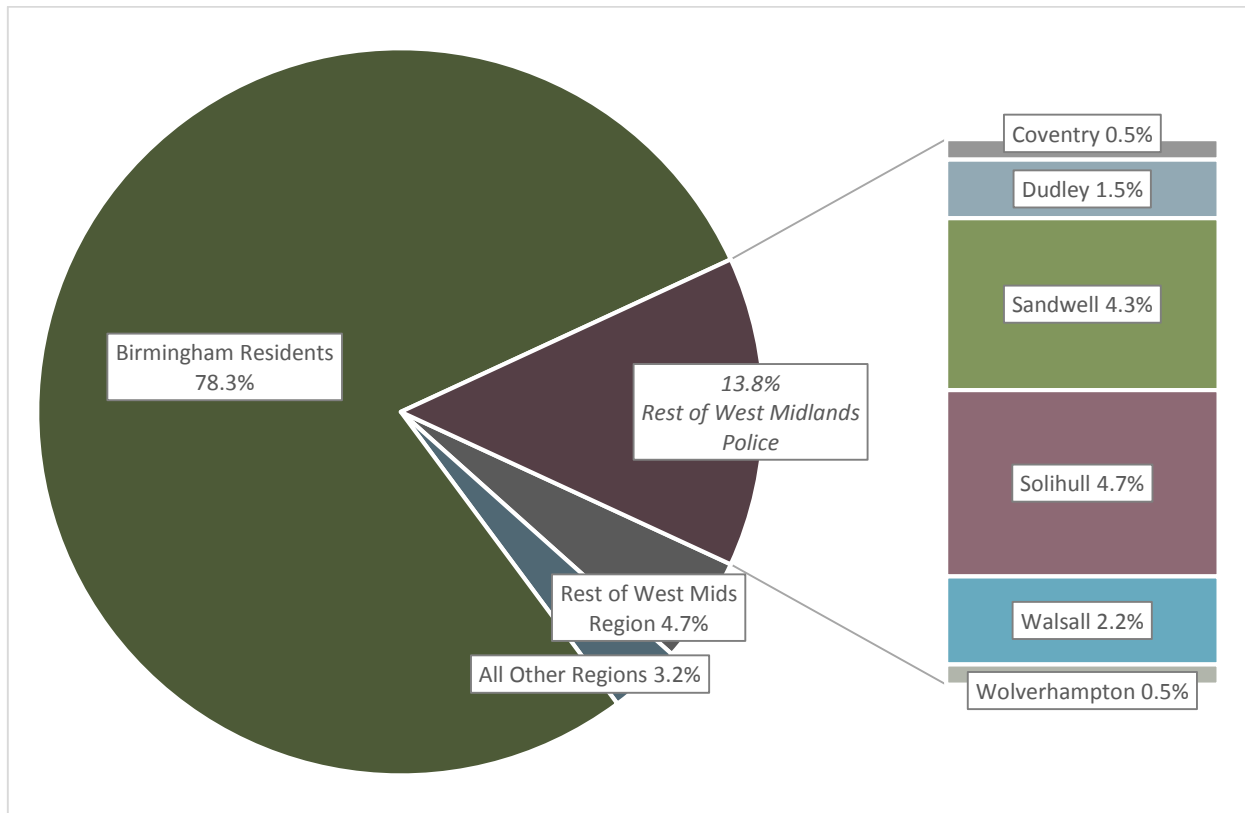
⁶ www.neighbourhood.statistics.gov.uk

⁷ www.neighbourhood.statistics.gov.uk

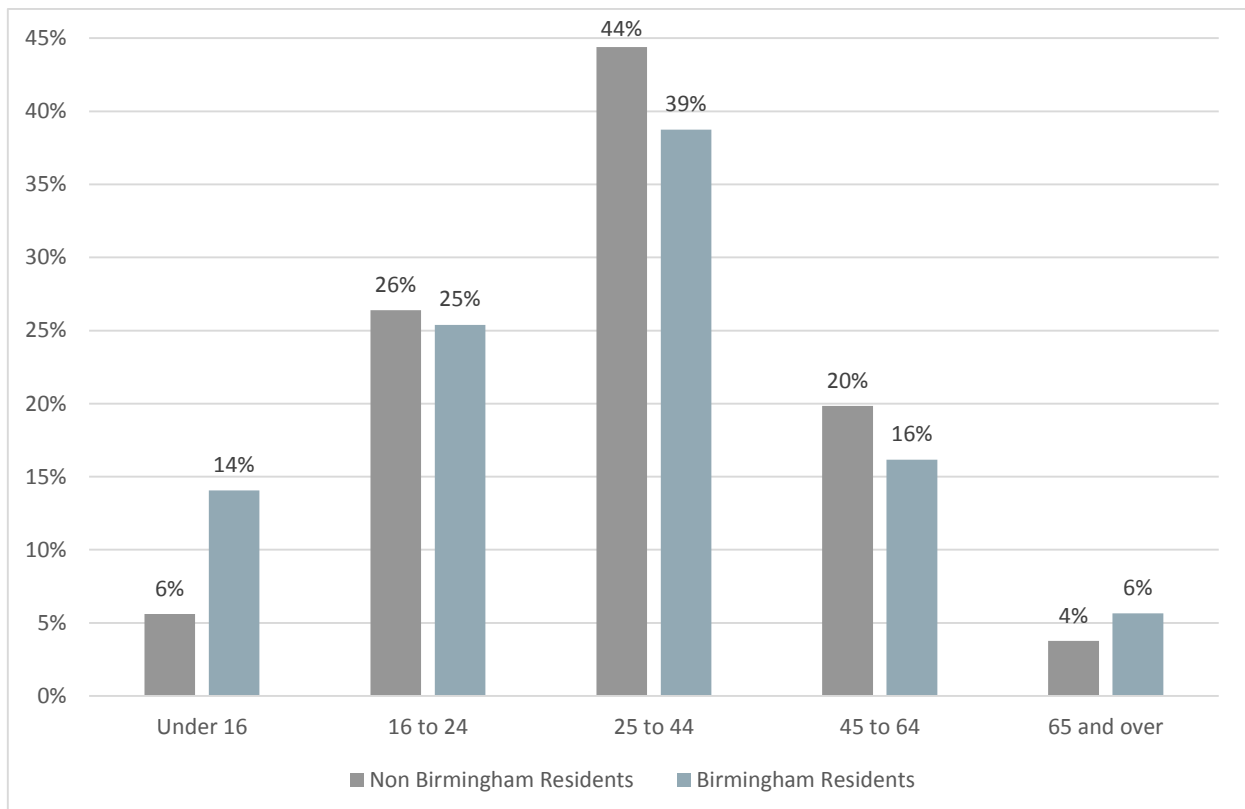
⁸ www.neighbourhood.statistics.gov.uk

⁹ www.neighbourhood.statistics.gov.uk

Casualties on Birmingham's roads by residency 2008-2012 (excluding casualties with unknown residency)

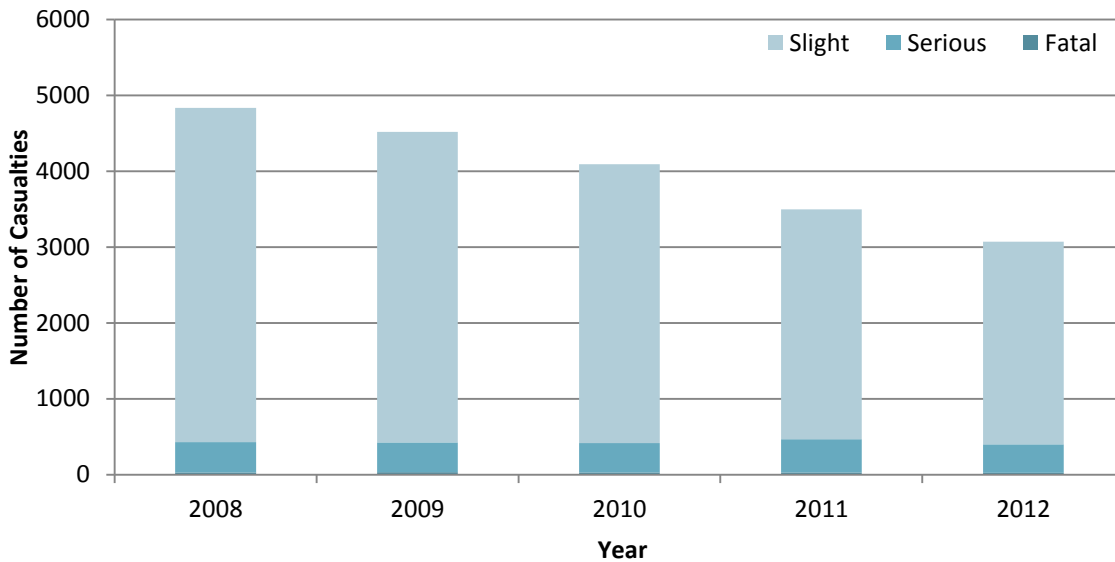


Casualties on Birmingham's roads by age and residency 2008-2012 (excludes unknown age and/or residency)



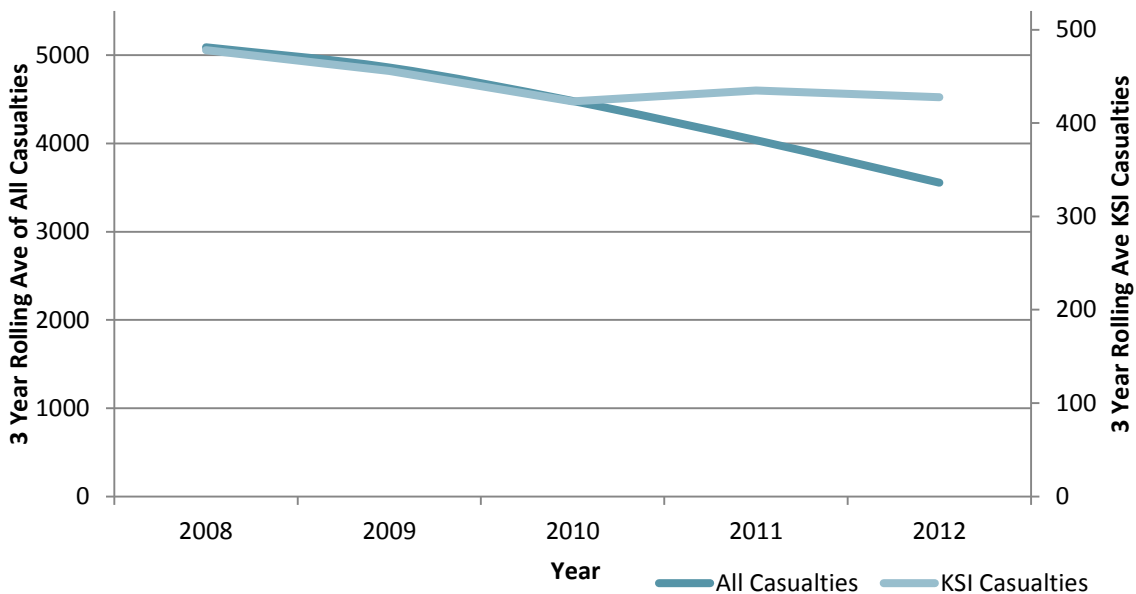
Casualty rates for collisions occurring on Birmingham’s roads have experienced a 36% reduction over the past 5 years. In 2012 there was a reduction of 12%, from 3,497 in 2011 to 3,071. In 2012 there were 24 fatal, 377 serious and 2,670 slight casualties injured on Birmingham’s roads. KSI casualties increased in 2011 to 465 but then returned to the lowest level of 401 in 2012.

Casualties on Birmingham’s roads by severity (2008-2012)



The line chart below puts figures into context by applying three year rolling averages to the casualty figures. It shows a continued downward trend since the 2006 to 2008 period for all severities although there has been less of a reduction in KSI casualties.

All casualty and KSI casualty trends, shown as 3 year rolling averages (2008-2012)



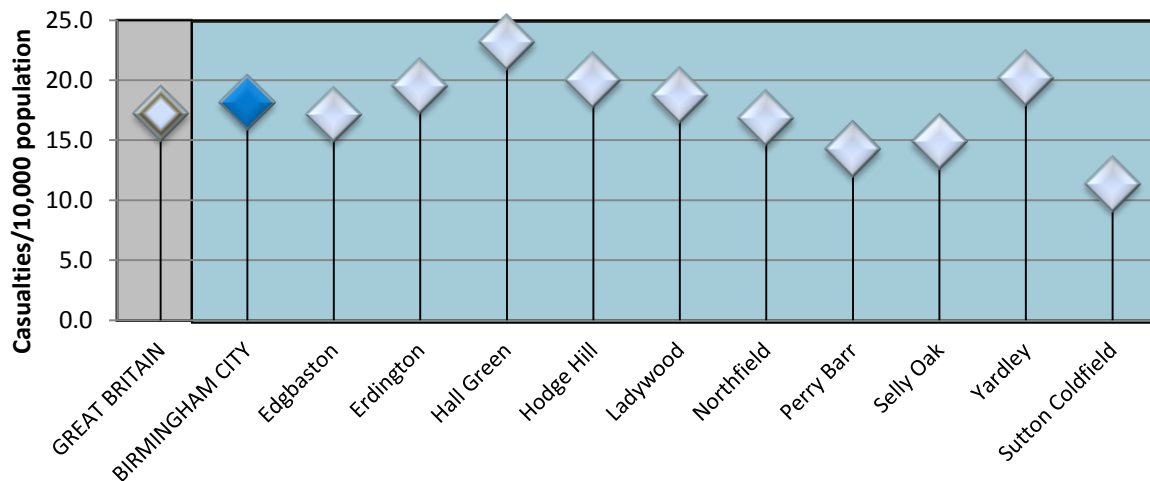


CHILD CASUALTIES

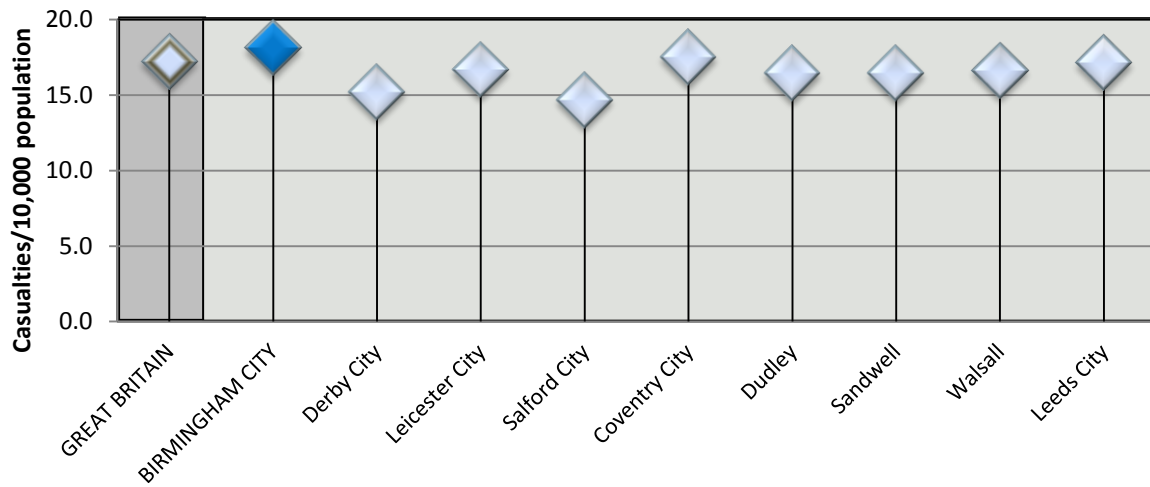
CHILD CASUALTIES – BIRMINGHAM RESIDENTS

MAST Online has been used to determine Birmingham resident child casualty rates in Britain. The charts below compare the annual average casualty rate for 0-15 year olds with equivalent figures for Great Britain and Comparators, using child population figures from 2011, to calculate the child casualty rate per 10,000 population. Child casualties amongst Birmingham residents are above the national rate and are also above all Comparators. Within Birmingham, Hall Green has the highest child casualty rate and Sutton Coldfield the lowest. Child casualties are investigated in more detail in the child pedestrian and child pedal cyclist sections later on in the report.

Annual average resident child casualty rate by child population, Birmingham's constituencies (2008-2012)

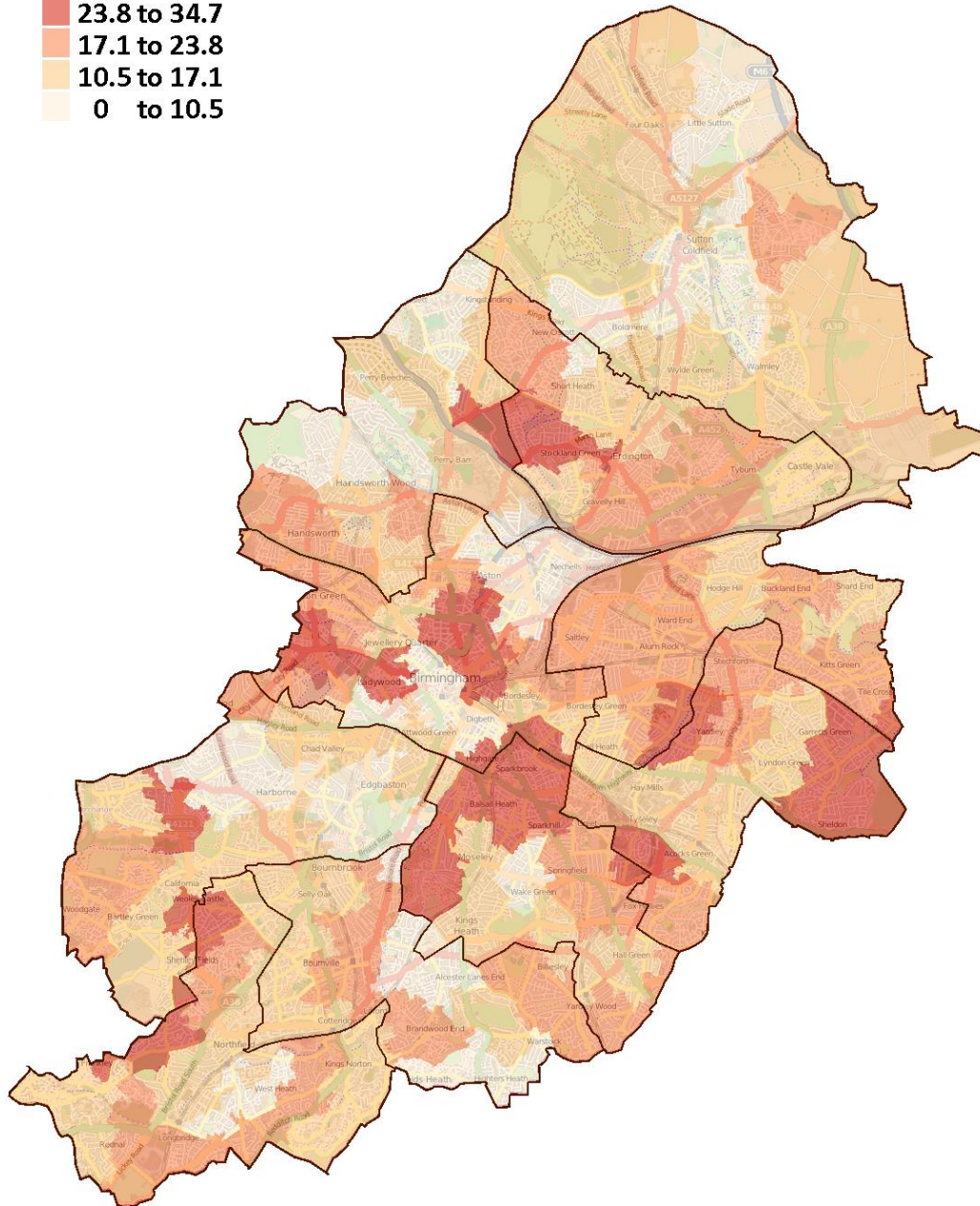
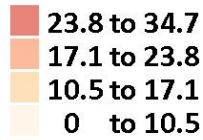


Annual average child resident casualty rate by child population, Birmingham's Comparators (2008-2012)



The thematic map overlaid highlights child casualties' home locations in Birmingham colour coded by the number of casualties per 10,000 child population (0-15 year olds) in each middle layer super output area (MSOA). Higher resident child casualty rates are found close to the city centre in the areas of Balsall Heath, Sparkbrook and Ladywood. There are also higher rates in Stockland Green and Sheldon. Lower rates are found in parts of Sutton Coldfield; Harborne and Edgbaston; Digbeth; Aston; and to the south of Birmingham (West Heath and Druids Heath).

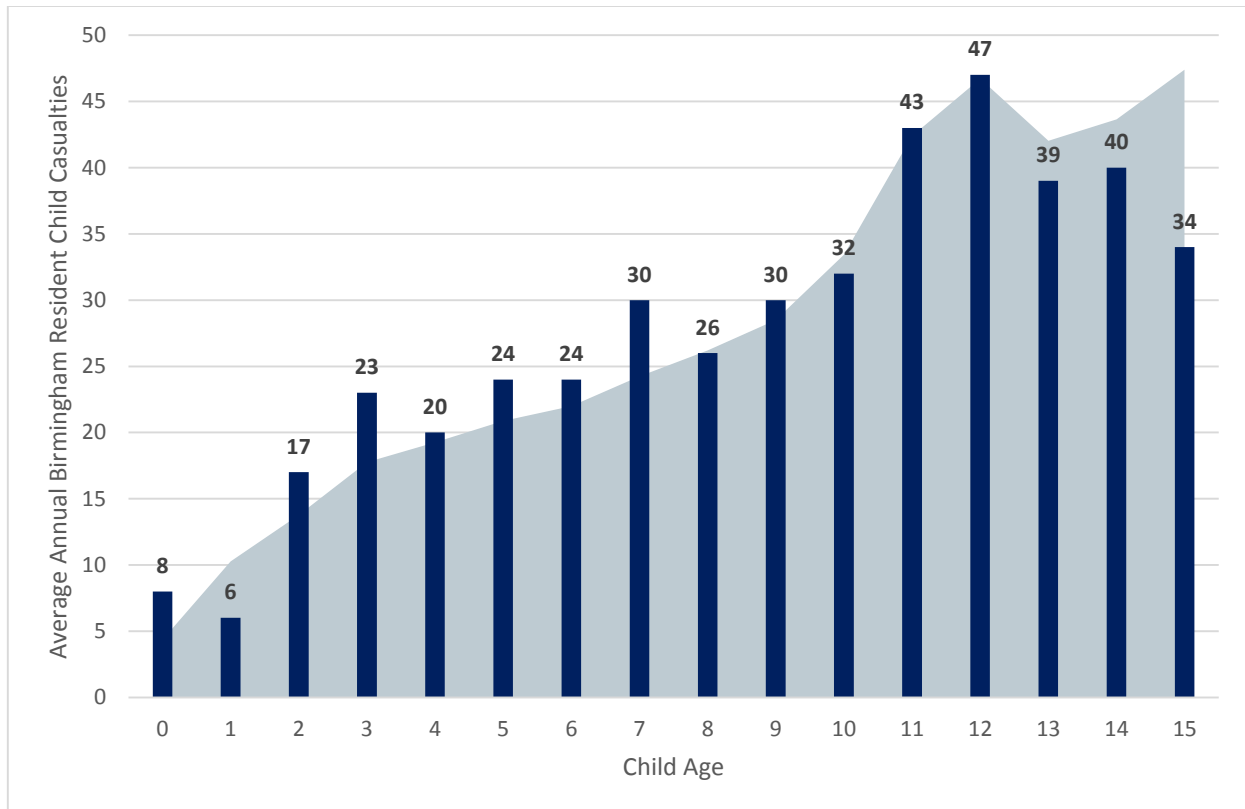
**Resident child casualties per 10,000 population (of 0-15 year olds)
Birmingham 2008-2012 annual average**



Child casualties are not distributed equally across all age groups. Children aged over 10 generally exhibit higher casualty rates, coinciding with an age when many begin attending secondary school: this trend is also apparent in Birmingham resident child casualty figures, although slightly less pronounced than the national trend. 34% of Birmingham’s child casualties occur on weekdays between either 8 AM and 9 AM or 3 PM and 5 PM. This is virtually identical to the equivalent national figure.

The following chart shows average annual Birmingham resident child casualties superimposed on the national trend; since the proportion of eight year olds in Birmingham’s child casualties is practically identical to the national equivalent, this chart has been scaled to match at age eight.

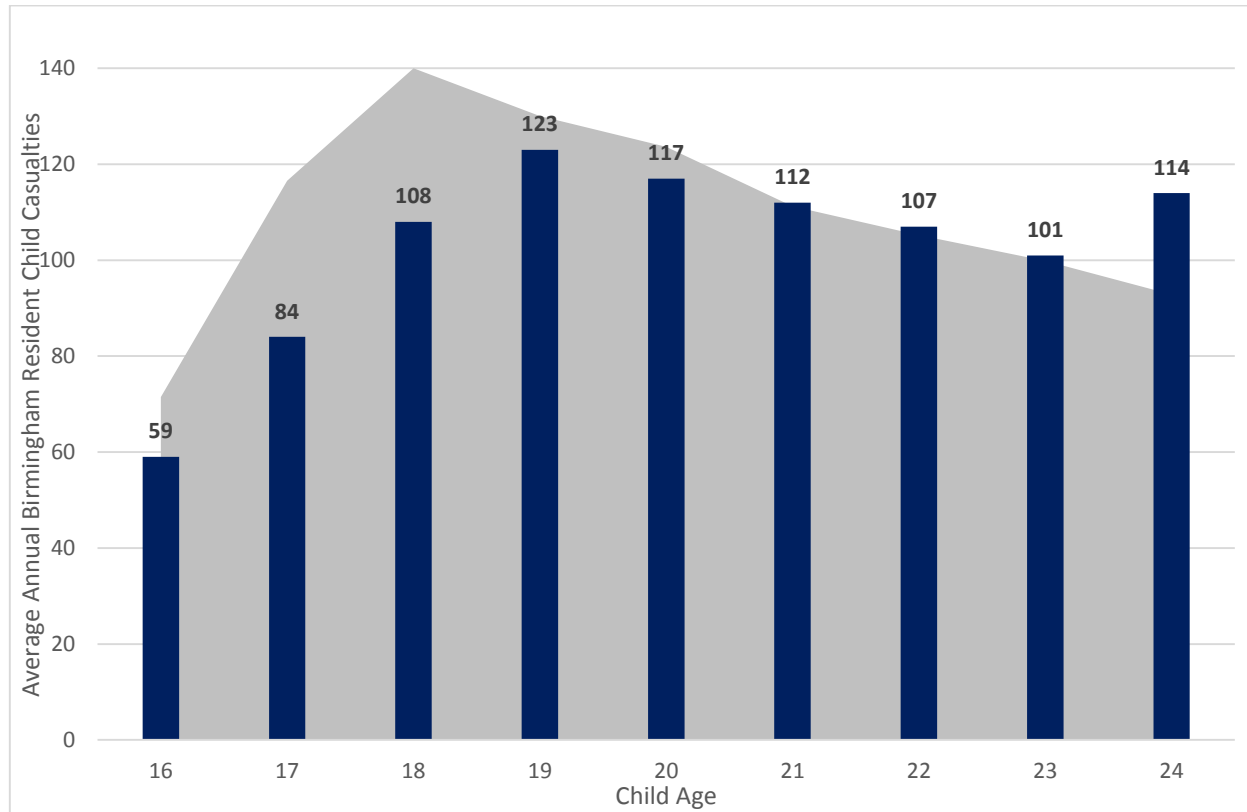
Annual average Birmingham resident child casualties by age, compared to national trend (2008-2012)



Since Birmingham resident young teenage casualty levels are below the national trend, this analysis has been expanded to cover young adult residents. It can be seen that the same trend continues among older teenagers, although rates for residents in their early twenties are much closer to national norms.

Casualty levels are significantly higher in young adult age groups owing to increased levels of vehicle use, so trends in this age group have been illustrated on a separate chart. This shows average annual Birmingham resident young adult casualties superimposed on the national trend; since the proportion of twenty-one year olds is practically identical to the national equivalent, this chart has been scaled to match at that age.

Annual average Birmingham resident young adult casualties by age, compared to national trend (2008-2012)

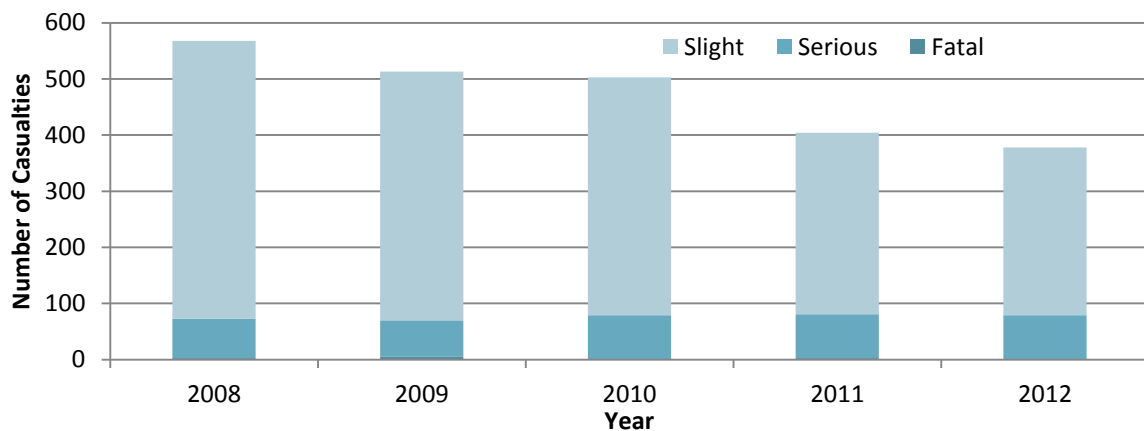


CHILD CASUALTIES – BIRMINGHAM ROADS

On Birmingham’s roads, there has been a strong sustained reduction in child casualties since 2008, although there have been small increases in KSI numbers. Over the past 5 years there has been an average of 3 fatal child casualties per year in Birmingham. KSI casualties account for 16% of all children injured on Birmingham’s roads.

There were 378 child casualties on the roads of Birmingham in 2012. This is a 33% reduction compared to 568 in 2008, and a 6% annual reduction compared to 2011.

Child casualties on Birmingham's roads by severity (2008-2012)



PEDESTRIANS

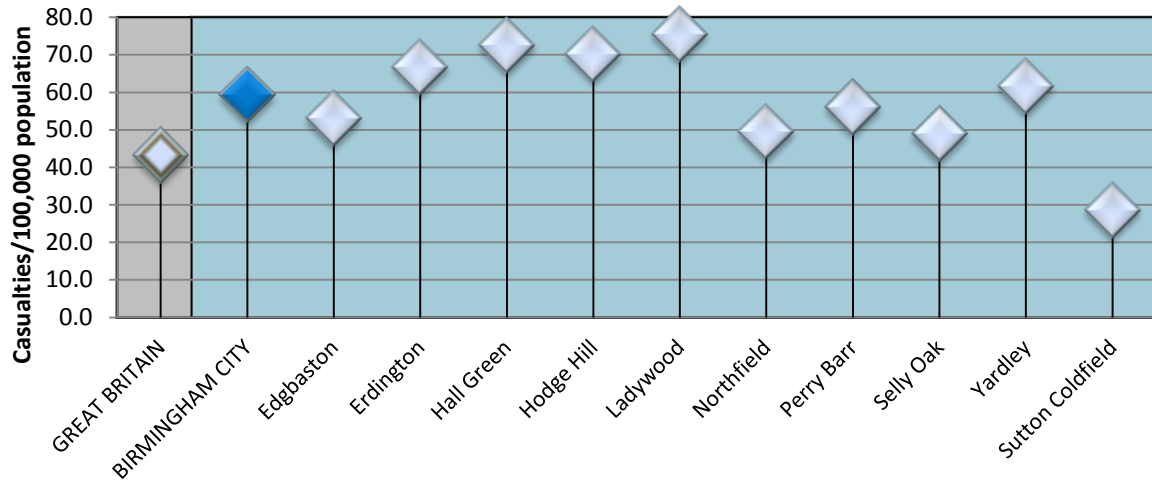
PEDESTRIAN CASUALTIES – BIRMINGHAM RESIDENTS

Pedestrian casualty comparisons for Birmingham, its constituencies and similar authorities are shown in the charts overleaf. As before, MAST Online was used to determine pedestrian casualty figures for Birmingham residents involved as pedestrians anywhere in the country. The chart shows pedestrian casualty rates per 100,000 population.

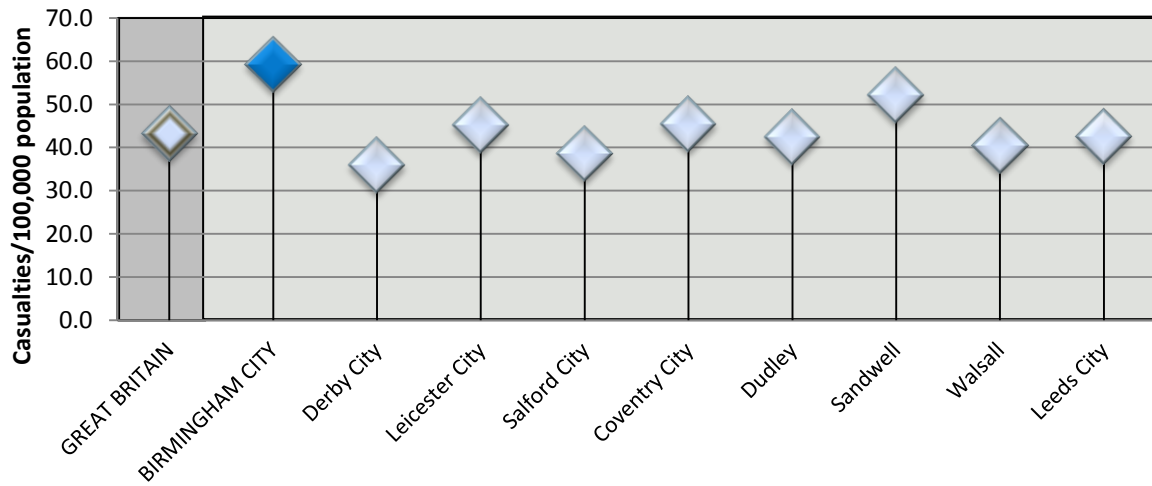
Birmingham's resident pedestrian rate is significantly higher than the national rate and rates in all the Comparator Authorities. Pedestrian casualty rates within Birmingham vary with Hall Green, Hodge Hill and Ladywood constituencies having the highest resident pedestrian rates and Sutton Coldfield having the lowest. Ninety-two percent of Birmingham's resident pedestrian casualties are injured on Birmingham's roads.

Reported Road Casualties Great Britain 2011 published by the Department for Transport reported an increase in KSI casualties amongst pedestrians and cyclists. In order to identify any emerging local trends, additional sections will look at these user groups by age. RSA's recent pedestrian report, 'Stepping Out', identified different trends between child and adult pedestrian casualties and therefore it makes sense to undertake local analysis for these age groups separately.

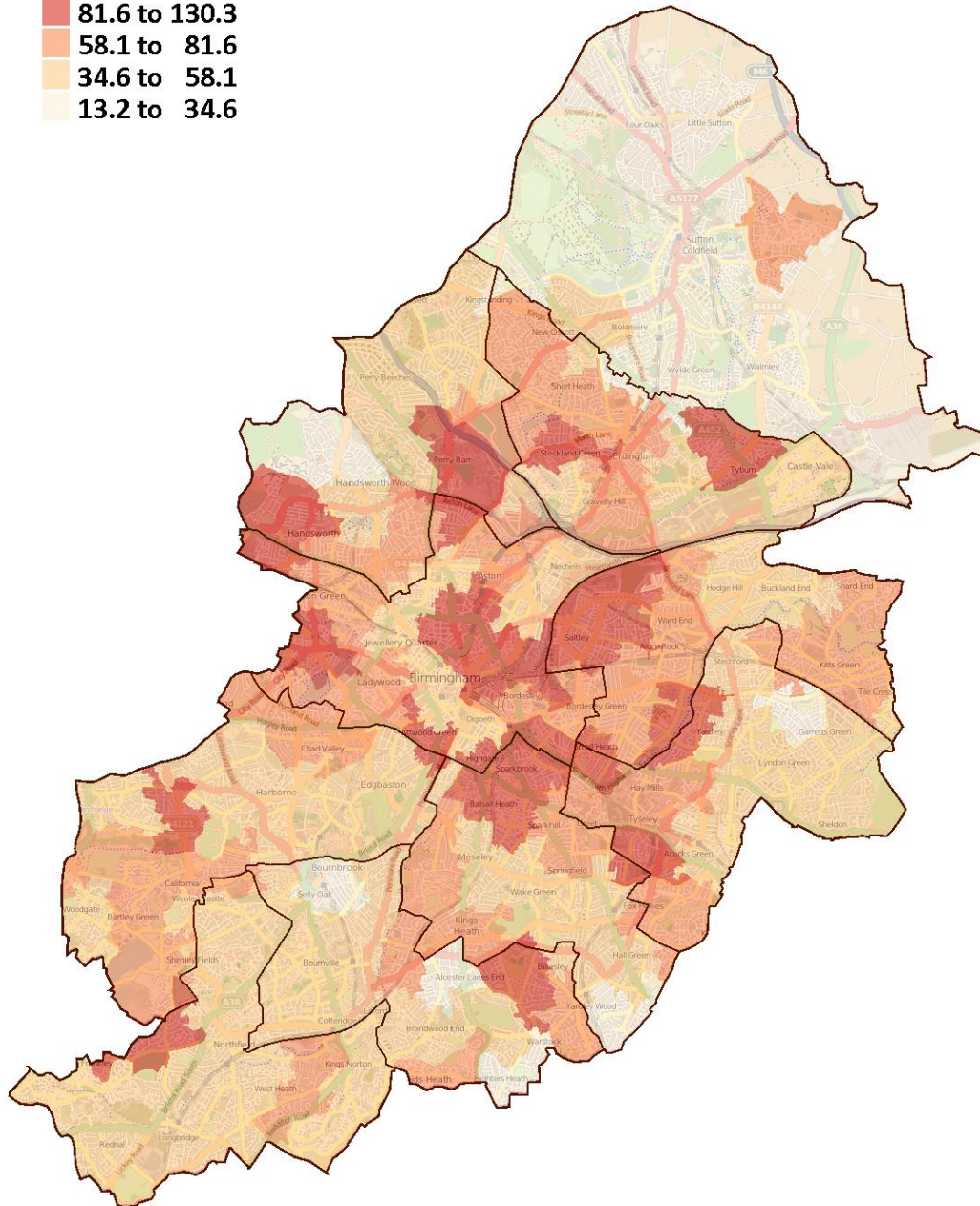
Annual average resident pedestrian casualty rate by population, Birmingham's constituencies (2008-2012)



Annual average resident pedestrian casualty rate by population, Birmingham's Comparators (2008-12)



**Resident pedestrian casualties per 100,000 population
Birmingham 2008-2012 annual average**

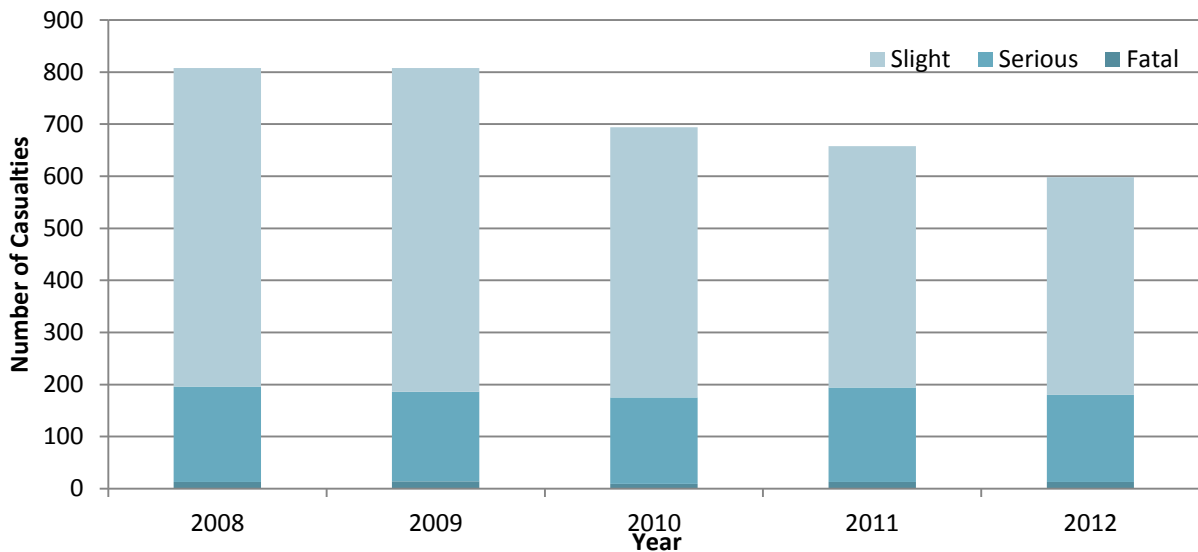


The thematic map above highlights the pedestrian casualties' home locations in Birmingham colour coded by the number of casualties per 100,000 population in each MSOA. Higher resident pedestrian casualty rates are scattered throughout the central area of Birmingham. High rates can be found in Saltley, Sparkbrook, Handsworth, Attwood Green, Stockland Green and Perry Barr. Lower rates are mainly to the north in and around Sutton Coldfield, Walmley and Four Oaks.

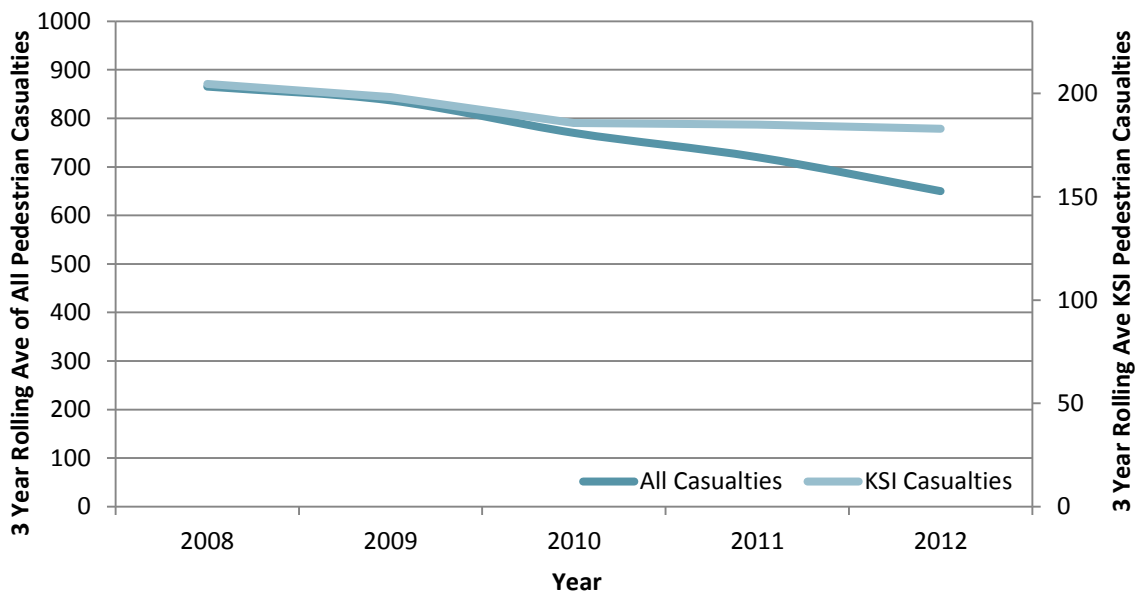
PEDESTRIAN CASUALTIES – BIRMINGHAM ROADS

Within Birmingham, the pedestrian casualty levels are generally dropping with a 26% reduction since 2008. However, KSI pedestrian casualties have fluctuated slightly over the last five years and exhibit only a very small downward trend. This is reflected in the rolling averages chart shown below, where reductions in KSI pedestrian casualties have been slower than all pedestrian casualty reductions. KSI casualties account for 26% of all pedestrians injured on Birmingham’s roads.

Pedestrian casualties on Birmingham’s roads by severity (2008-2012)



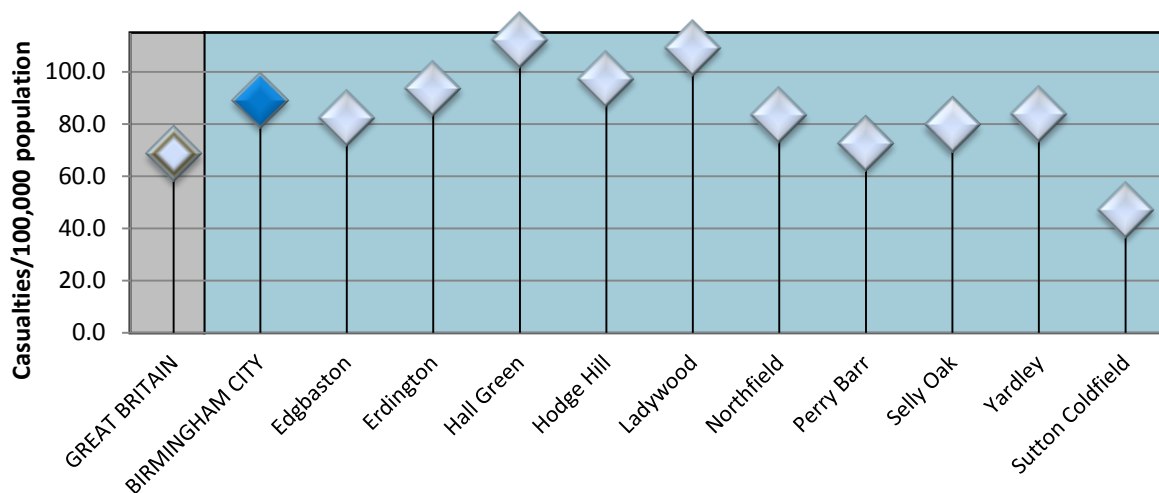
All pedestrian casualties and KSI pedestrian casualty trends, shown as 3 year rolling average (2008-2012)



CHILD PEDESTRIAN CASUALTIES – BIRMINGHAM RESIDENTS

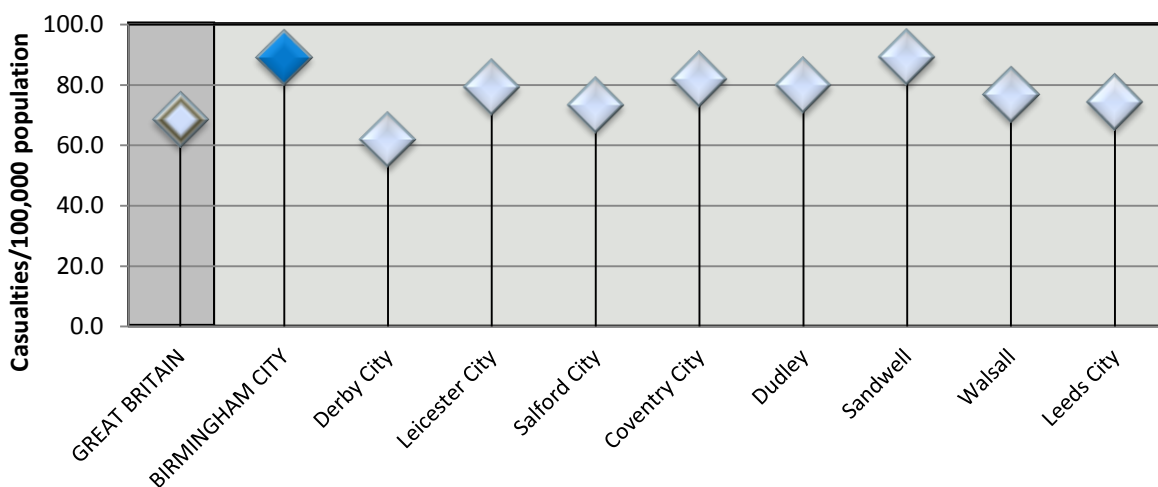
MAST Online has been used to determine child pedestrian casualty rates for Birmingham residents involved in injury collisions in Britain. The chart below compares the annual average pedestrian casualty rate (all severities) for 0-15 year olds with equivalent figures for Great Britain, using child population figures from 2011, to calculate the child pedestrian casualty rate per 100,000 population.

Annual average resident child pedestrian casualty rate by population, Birmingham's constituencies (2008-12)



Like most of the Comparator Authorities, Birmingham has a child pedestrian casualty rate which is higher than the national rate. However, Birmingham's rate is higher than all the Comparator Authorities apart from Sandwell, which is similar. Within the city, there is a wide variation in child pedestrian casualty rates, with Hall Green having 112 and Ladywood 109 child pedestrian casualties per 100,000 child residents. Conversely there were only 47 child pedestrian casualties per 100,000 child residents of Sutton Coldfield.

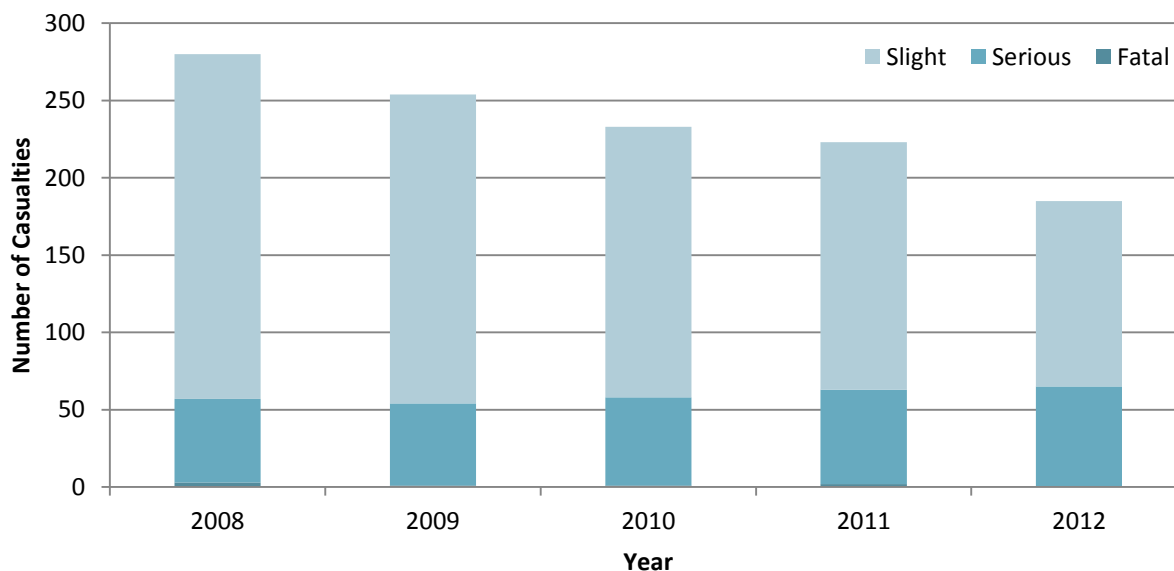
Annual average resident child pedestrian casualty rate by population, Birmingham's Comparators (2008-12)



CHILD PEDESTRIAN CASUALTIES – BIRMINGHAM ROADS

On the roads of Birmingham, child pedestrian casualty numbers have reduced significantly since 2008: there were 185 child pedestrian casualties in 2012, down from 280 in 2008. However, KSI casualty rates have increased over the same period. KSI casualties account for 25% of all child pedestrian casualties in Birmingham.

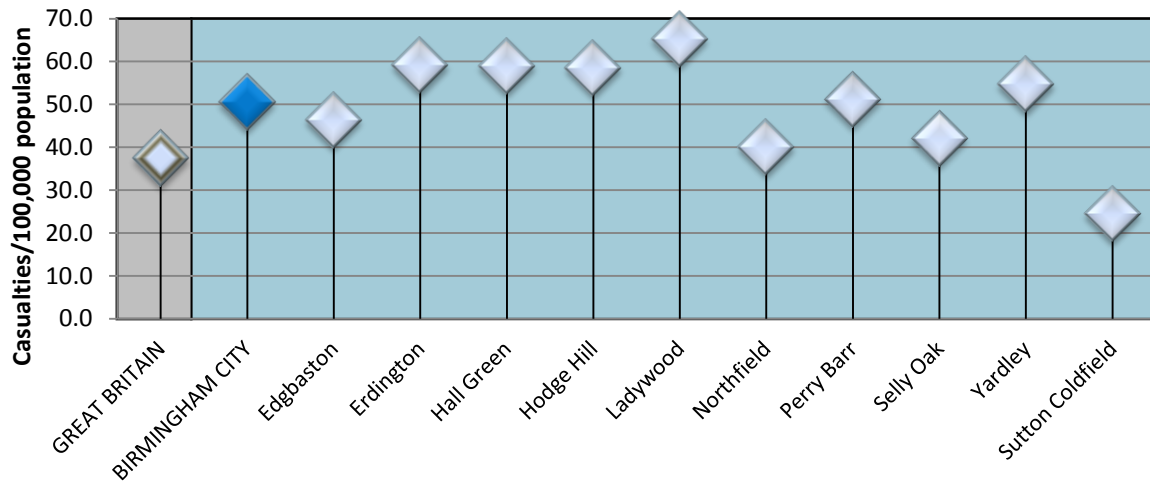
Child pedestrian casualties on Birmingham roads by severity (2008-2012)



ADULT PEDESTRIAN CASUALTIES –BIRMINGHAM RESIDENTS

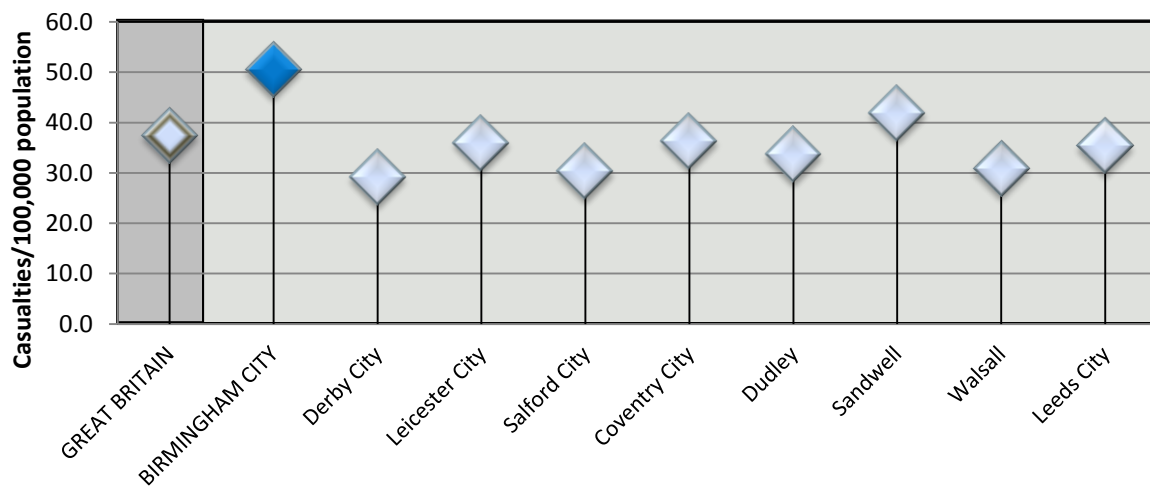
As a comparison to the child pedestrian casualty rates, adult pedestrian casualty rates have also been analysed. The chart below uses MAST Online data to compare the annual average pedestrian casualty rate (all severities) for Birmingham residents aged 16 and over with equivalent figures for Great Britain and Comparator Authorities, using adult population figures from 2011 to calculate the adult pedestrian casualty rate per 100,000 population.

Annual average resident adult pedestrian casualty rate by population, Birmingham’s constituencies (2008-12)



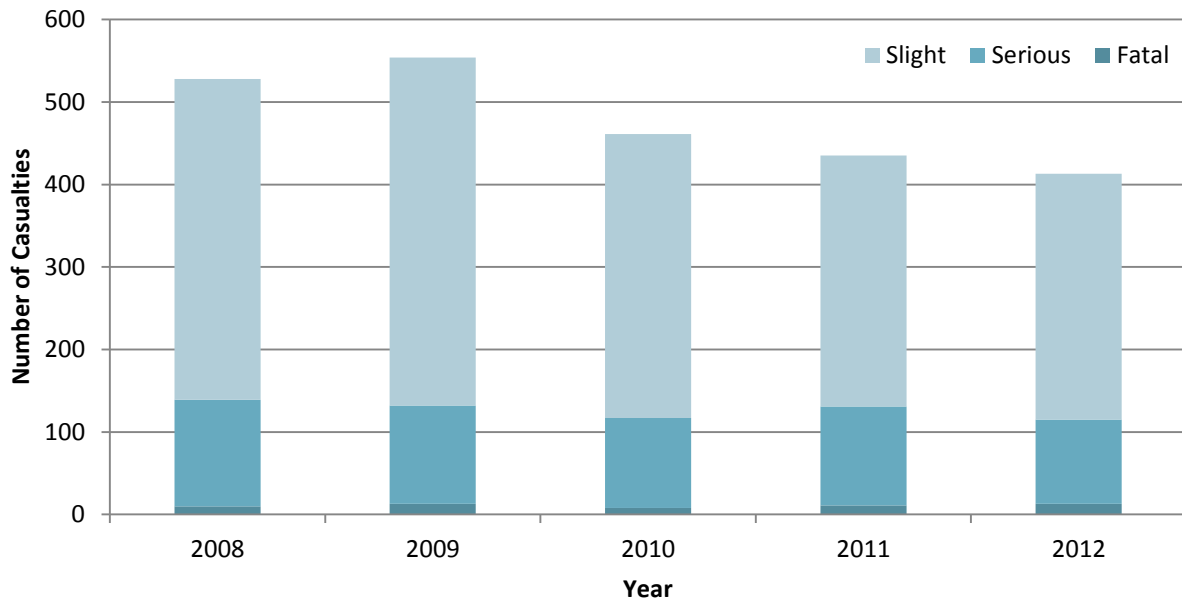
Birmingham has an adult pedestrian rate significantly higher than all the Comparator Authorities and it is also significantly higher than the national rate. The Birmingham constituency of Ladywood has the highest adult pedestrian casualty rate, with Sutton Coldfield having the lowest.

Annual average resident adult pedestrian casualty rate by population, Birmingham’s Comparators (2008-12)



ADULT PEDESTRIAN CASUALTIES –BIRMINGHAM ROADS

Adult pedestrian casualties on Birmingham's roads by severity (2008-2012)



In Birmingham, adult pedestrian casualty levels have reduced by 22% since 2009. KSI casualty rates have reduced slightly over the same period. Twenty-seven percent of adult pedestrian casualties in Birmingham are KSI casualties.

HIGH RISK ROAD USERS



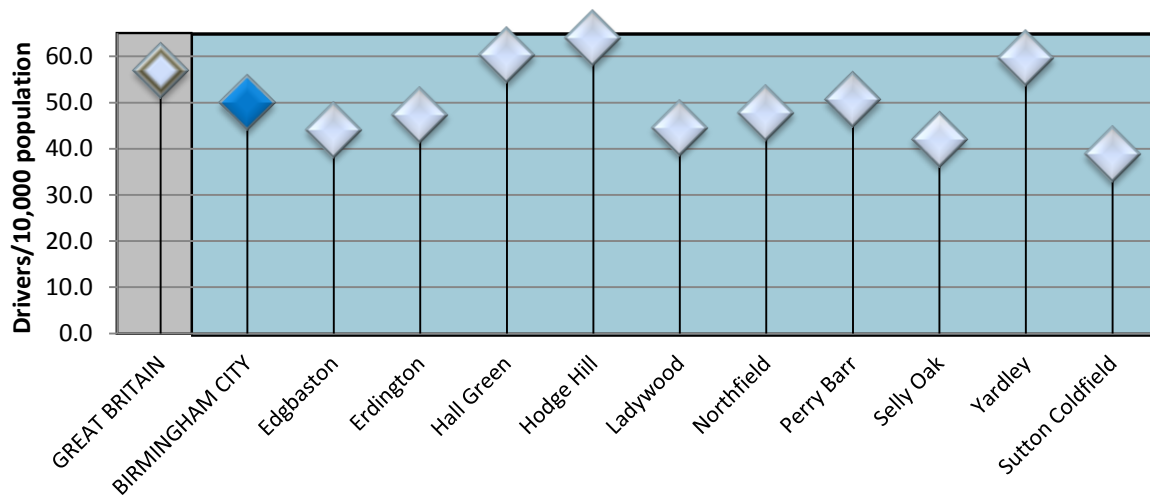
ALL DRIVERS INVOLVED IN INJURY COLLISIONS

ALL DRIVERS –BIRMINGHAM RESIDENTS

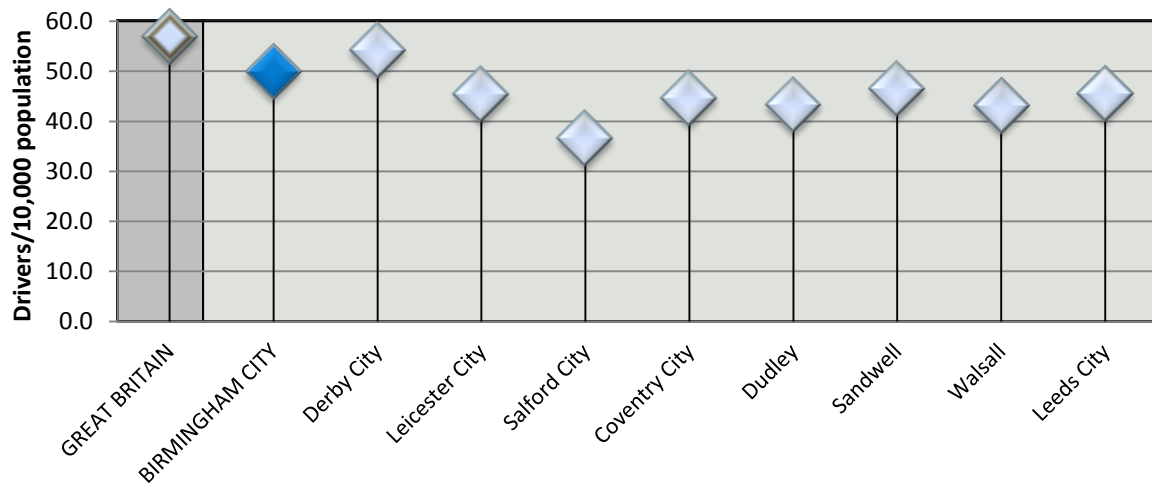
The analysis of Birmingham resident casualties described earlier has also been carried out using postcode data for Birmingham resident drivers. As before, it is estimated that roughly 80% of drivers can be matched to a valid postcode. Note that this analysis includes all drivers and riders involved in collisions, including those who were not injured.

The charts shows Birmingham residents who were vehicle drivers involved in injury collisions anywhere in the UK between 2008 and 2012. The first chart shows drivers from each Birmingham constituency and the second compares Birmingham residents with drivers resident in Comparator Authorities, normalised per head of adult population. Birmingham resident driver involvement is below the national rate, but higher than all Comparator Authorities except Derby. Hall Green, Hodge Hill and Yardley have the highest driver involvement rates, with Selly Oak and Sutton Coldfield exhibiting the lowest.

Annual average resident driver collision rate by adult population, Birmingham's constituencies (2008-2012)



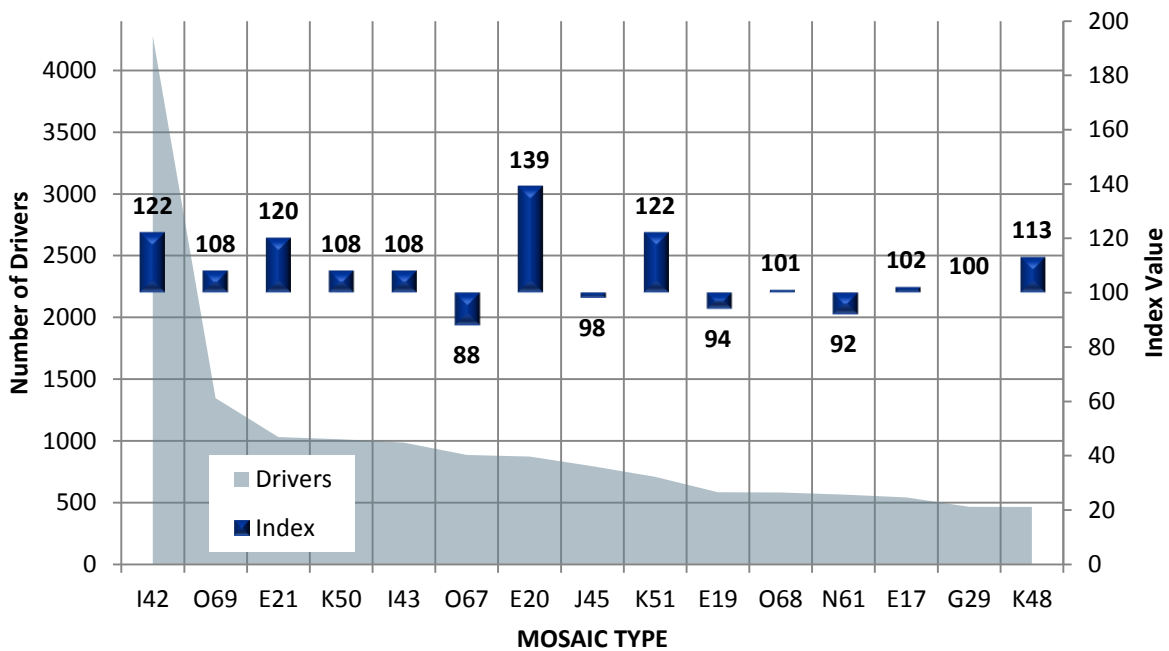
Annual average resident driver collision rate by adult population, Birmingham's Comparators (2008-2012)



The chart below shows Birmingham residents involved as drivers in injury collisions anywhere in the UK, grouped by their Mosaic Type, with the top 15 Types illustrated.

As before, the shaded area indicates the number of drivers in each Mosaic Type, with figures corresponding to the left hand vertical axis. The darker bars show the "index" for each Mosaic Type, where an index value of 100 indicates that the number of drivers is in proportion to the population of Birmingham communities where that Type predominates. Indices higher or lower represent figures above or below the expected rate respectively.

Birmingham resident drivers involved in UK collisions, grouped by Mosaic Type (2008-2012)



The socio-demographic trends amongst Birmingham drivers are fairly similar to that found for Birmingham casualties, although the numbers of drivers involved are higher than the number of casualties (e.g. 4,280 I42 drivers compared to 4,189 I42 casualties). There are significantly more E21 drivers from Birmingham involved in collisions than there are casualties and E21 has moved from representing the fifth largest group amongst casualties to the third largest amongst drivers. Refer to the Casualty section of this report for information on Types I42, O69, K50, I43, E21 and E20.

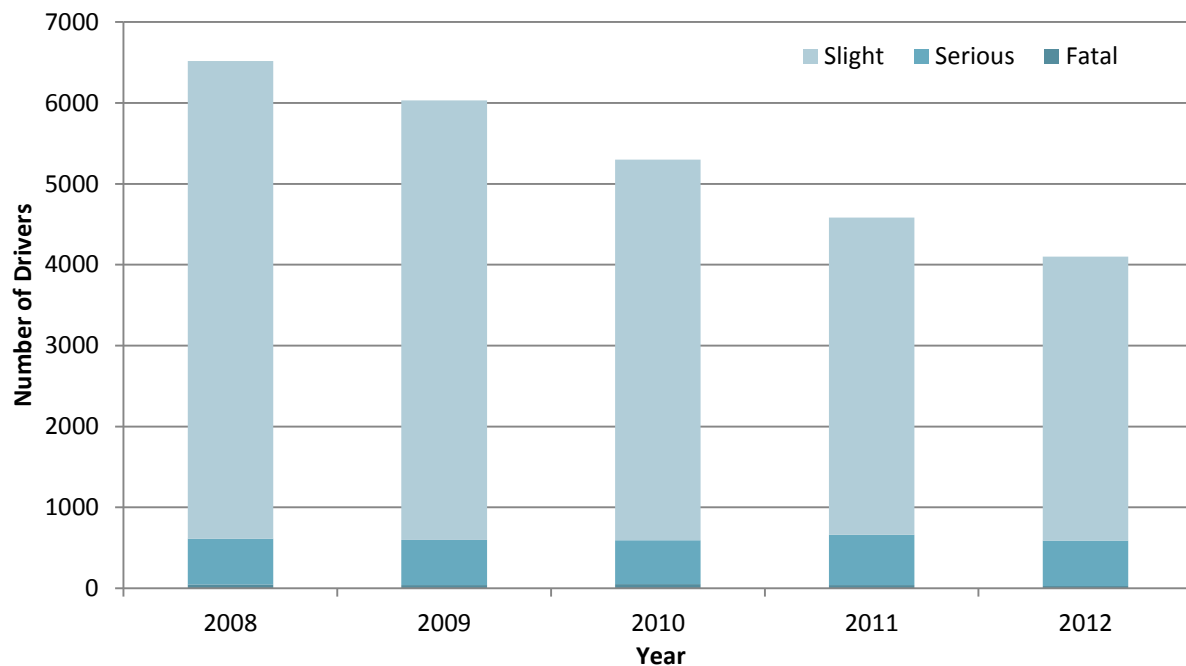
There are some variations in index values across the top 15 Mosaic Types when average annual mileage is used as the index base, instead of total population. Type E21 has a lower index compared to population, which indicates that high mileages typically driven by residents in this Type of community may contribute to the frequency with which they become involved in collisions. However, most Types have higher indices when indexed by mileage, in particular I42 and O69. This suggests that the over representation exhibited by drivers from these community Types occurs despite a tendency to drive relatively low mileage.

A map showing the lower layer super output areas where I42, O69, K50, I43 and E21 are the most dominant Types is provided in Appendix 2. The appendix provides information on the locations highlighted within the map and also provides a summary of some of the main characteristics of these Types.

ALL DRIVERS – BIRMINGHAM ROADS

For drivers involved in injury collisions within Birmingham, the annual figures are shown in the chart below. Driver numbers reduced annually from 2008, although there was a peak in drivers involved in KSI collisions in 2011. There has been a 37% reduction in driver collision involvement since 2008. In terms of severity, 11.5% of drivers involved in collisions on Birmingham's roads were in a crash that resulted in death or serious injury.

Drivers involved in injury collisions on Birmingham's roads by collision severity (2008-2012)





YOUNG DRIVERS (16-24 YEAR OLDS)

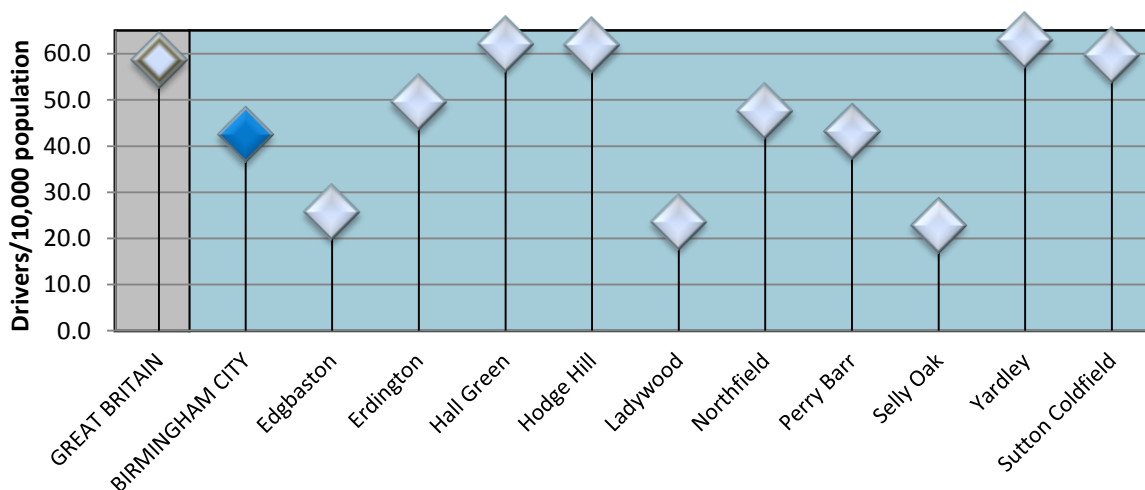
YOUNG DRIVERS – BIRMINGHAM RESIDENTS

The charts below compare young drivers involved in injury collisions based on the population of 16-24 year olds in each region. The vehicles involved do not include pedal cycles or motorcycles in order to avoid double counting with other sections of this report.

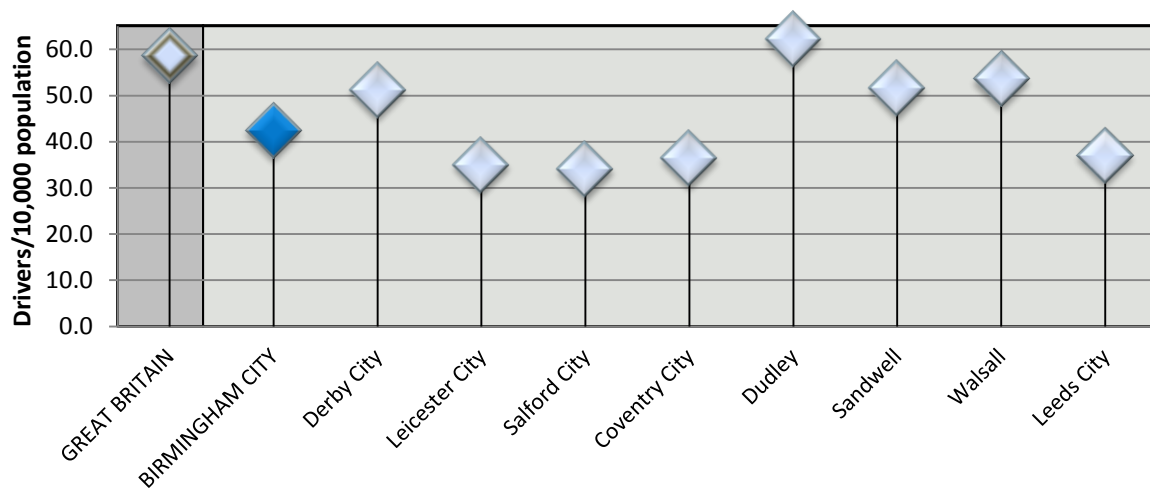
Birmingham has a rate of young car drivers involved in injury collisions which is 28% lower than the national rate and also substantially lower than the Comparator Authorities of Derby, Dudley, Sandwell and Walsall. Within Birmingham, there is great variation with Hall Green, Hodge Hill, Yardley and Sutton Coldfield having the highest young driver involvement rates and Edgbaston, Ladywood and Selly Oak having the lowest.

The charts also show that the average annual incidence of young drivers involved in injury collisions is 42.5 per 10,000 population of 16-24 year olds. When all vehicle types are examined for young drivers, the average annual rate increases to 50.6 per 10,000 population of 16-24 year olds. For all drivers, the average annual rate in Birmingham is 49.9 per 10,000 population, illustrating that young drivers are more likely to be involved in collisions. However, this difference is not as pronounced as at the national level, where 72.9 16-24 year olds are involved in collisions per 10,000 population compared to 56.9 drivers of any age.

Annual average resident young driver collision rate by population, Birmingham's constituencies (2008-12)



Annual average resident young driver collision rate by population, Birmingham's Comparators (2008-12)



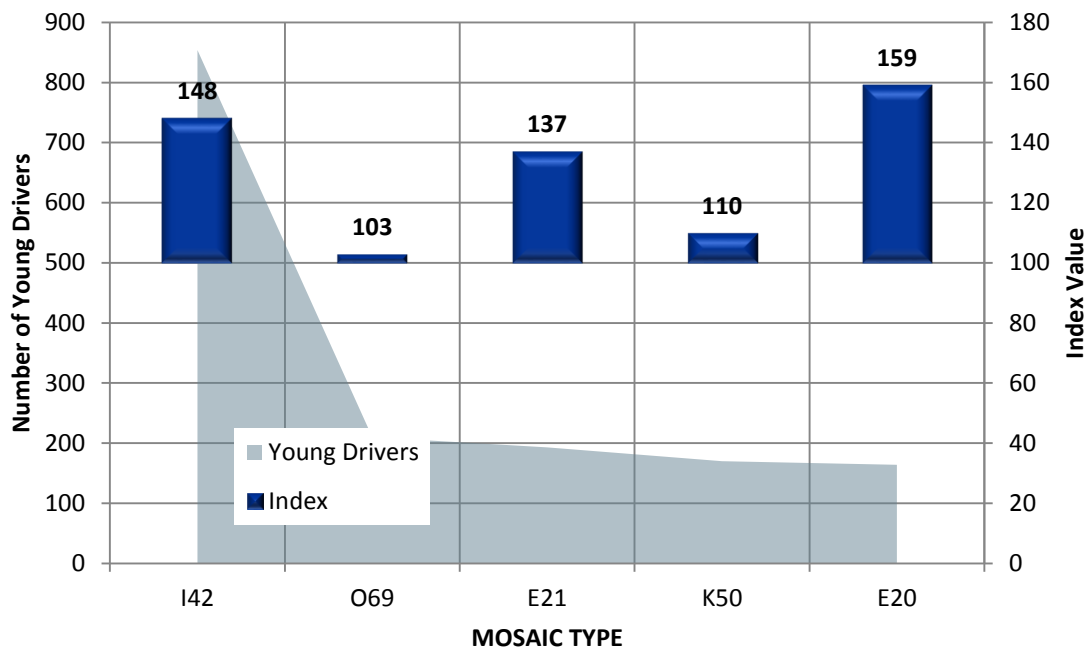
The socio-demographic profiles of Birmingham's young drivers are shown in the Mosaic chart below. Only the top 5 Mosaic Types have been presented, as the driver statistics become too low to be significant below this point.

Indices have also been supplied on the chart to indicate relative risk. Ideally the indices should be based on 16-24 year old driver numbers or population rates in Birmingham, but at this time, this is not available. The indices on the chart have therefore been generated using overall population figures for Mosaic Types in Birmingham. The indices are therefore only approximate, but should give some indication of relative risk to 16-24 year old Mosaic Types in Birmingham.

The young driver profile is similar to the overall Birmingham profile for drivers of all ages. They show that *South Asian communities experiencing social deprivation* (Mosaic Type I42) are involved in the highest number of collisions and are over-represented. *Middle aged families living in less fashionable inter war suburban semis* (Mosaic Type E21) and *Upwardly mobile South Asian families living in inter war suburbs* (Mosaic Type E20) also have high numbers of young drivers involved in injury collisions and also have high index values suggesting that these communities are at risk when taking in to account the numbers of people from these Types living in Birmingham. All of these Types have high instances of teenage/adult children living at home. Using mileage to calculate the index value produces the same over representation for Types I42, E21 and E20 although the index value is less for Type E21 when indexing using mileage instead of population.

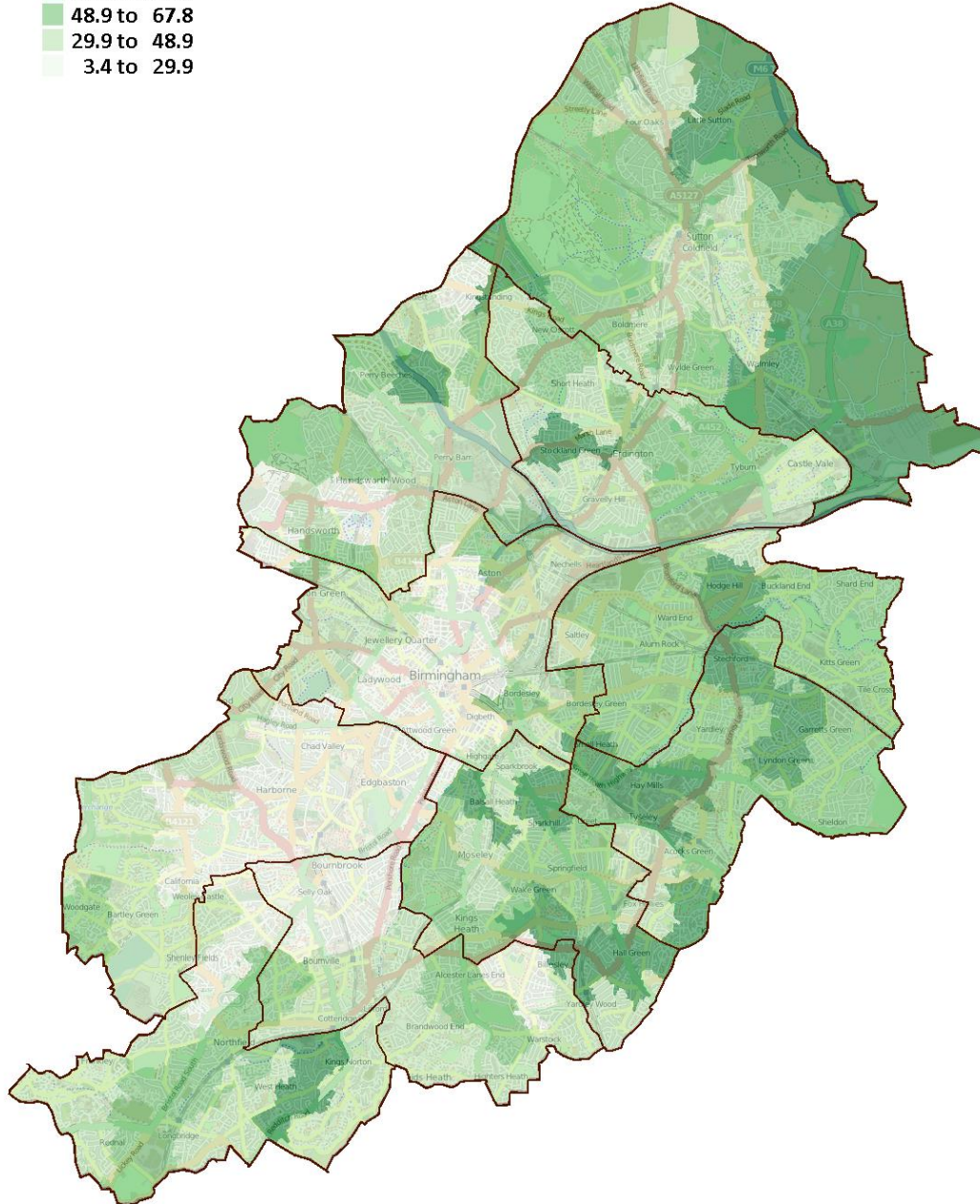
Young drivers from *Vulnerable young parents needing substantial state support* (Type O69) and *Older families in low value housing in traditional industrial areas* (Type K50) are also involved in a significant number of collisions but are not over-represented when taking in to account the population of these communities living in Birmingham or the mileage they drive.

Birmingham resident young drivers involved in UK collisions, grouped by Mosaic Type (2008-2012)



A map showing the lower super output areas where I42, O69, K50 and E21 are the most dominant Types is provided in Appendix 2. The appendix provides information on the locations highlighted within the map and also provides a summary of some of the main characteristics of these Types.

Resident young drivers involved in injury collisions per 10,000 population (of 16-24 year olds)
Birmingham 2008-2012 annual average

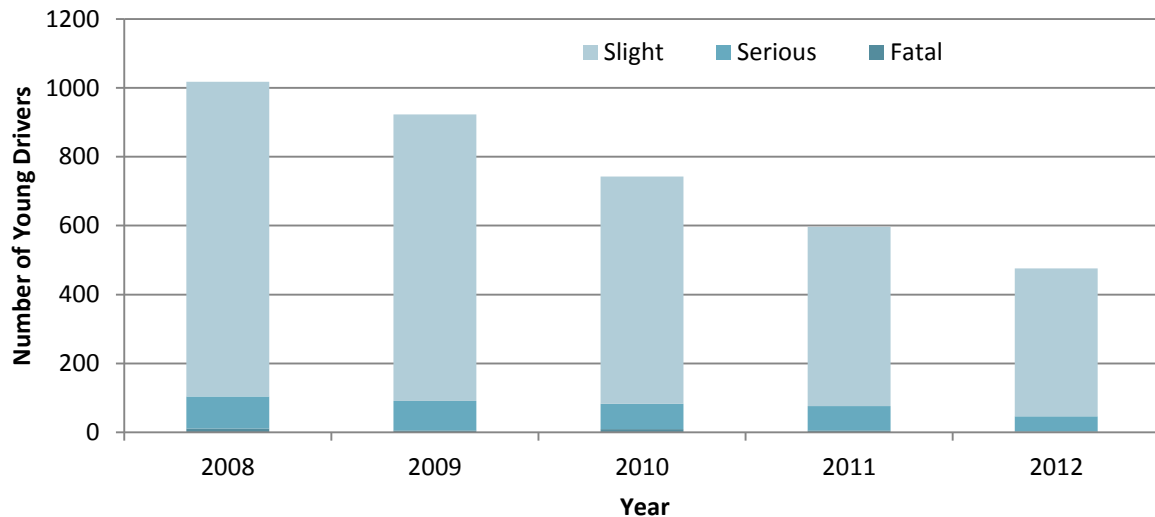


The thematic map shows young drivers from Birmingham involved in injury collisions in the UK based on their home MSOA. Figures have been normalised per 10,000 population (of 16-24 year olds). Higher rates of resident young drivers involved in injury collisions are found mostly to the north and east of Birmingham in the areas of Little Sutton, Walsley, Hay Mills and Hall Green. Lower rates are mainly found in the city centre and to the south of the city centre in the areas of Ladywood, Edgbaston, Harborne and Bournbrook.

YOUNG DRIVERS – BIRMINGHAM ROADS

The numbers of young drivers involved in injury collisions in Birmingham have reduced annually over the past 5 years with a 53% reduction since 2008. The number of young drivers involved in KSI collisions has also reduced by 56% since 2008. Eleven percent of young drivers involved in injury collisions on Birmingham’s roads were involved in collisions resulting in death or serious injury.

Young drivers involved in injury collisions on Birmingham’s roads by collision severity (2008-2012)



VAN DRIVERS

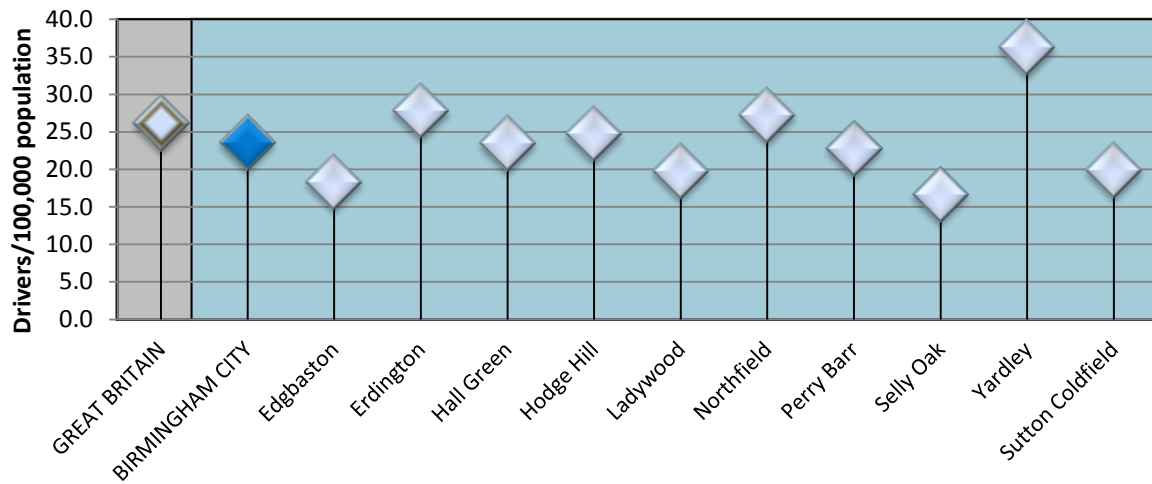
VAN DRIVERS – BIRMINGHAM RESIDENTS

The two charts overleaf show the involvement of Birmingham resident drivers of light commercial vehicles with a maximum gross weight of 3.5 tonnes or under (hereinafter referred to as ‘van drivers’) in injury collisions anywhere in the country. Rates are calculated per 100,000 adult population.

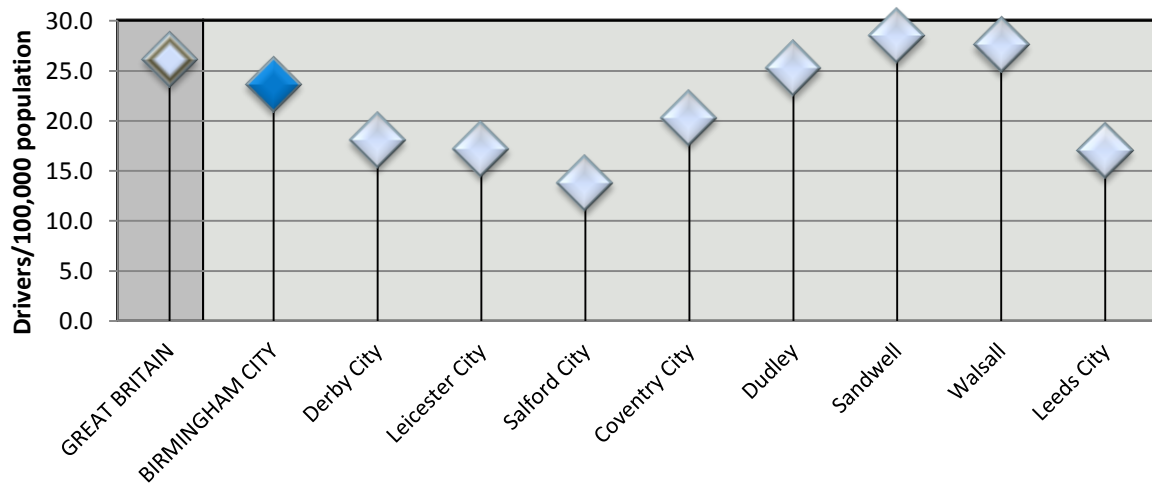
Within Birmingham, Yardley has the highest rate of van driver collision involvement whilst Edgbaston, Ladywood, Selly Oak and Sutton Coldfield have rates well below Birmingham as a whole.

The second chart shows that Birmingham has a van driver collision involvement below the national rate and also below rates in the adjacent Comparator Authorities of Dudley, Sandwell and Walsall. However, Birmingham rate is higher than Derby, Leicester, Salford and Leeds.

Annual average resident van driver collision rate by adult population, Birmingham's constituencies (2008-12)



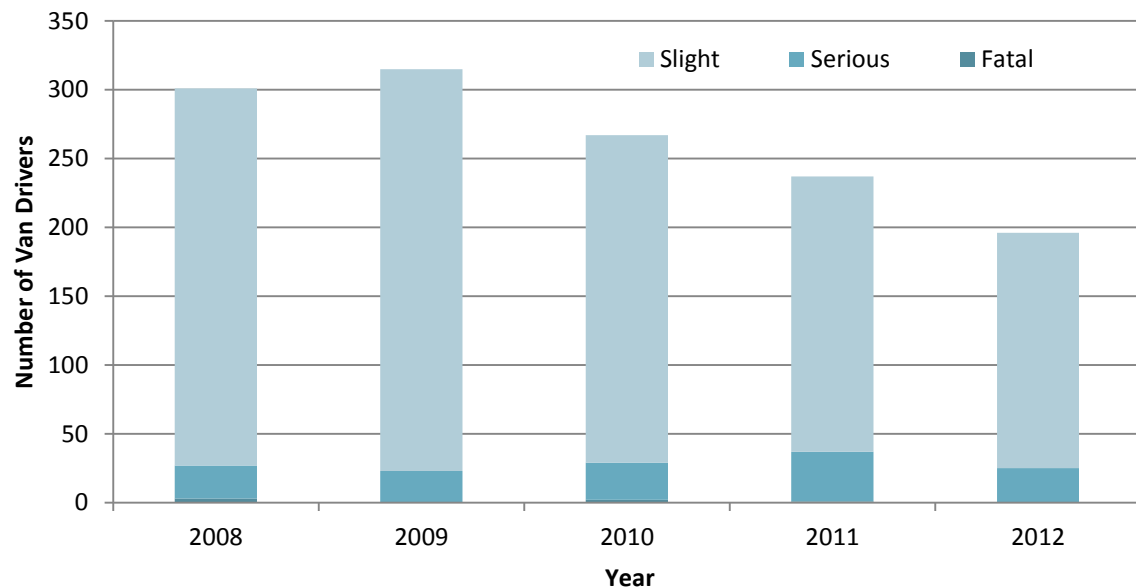
Annual average resident van driver collision rate by adult population, Birmingham's Comparators (2008-12)



VAN DRIVERS – BIRMINGHAM ROADS

The number of van drivers involved in injury collisions on Birmingham’s roads has reduced after a peak in 2009 of 315 drivers. There has been a 35% reduction in the number of van drivers involved in collisions since 2008. Of the van drivers involved in collisions on Birmingham’s roads, 10.7% are involved in crashes resulting in death or serious injury and this equates to an average of 28 van drivers involved in KSI collisions each year.

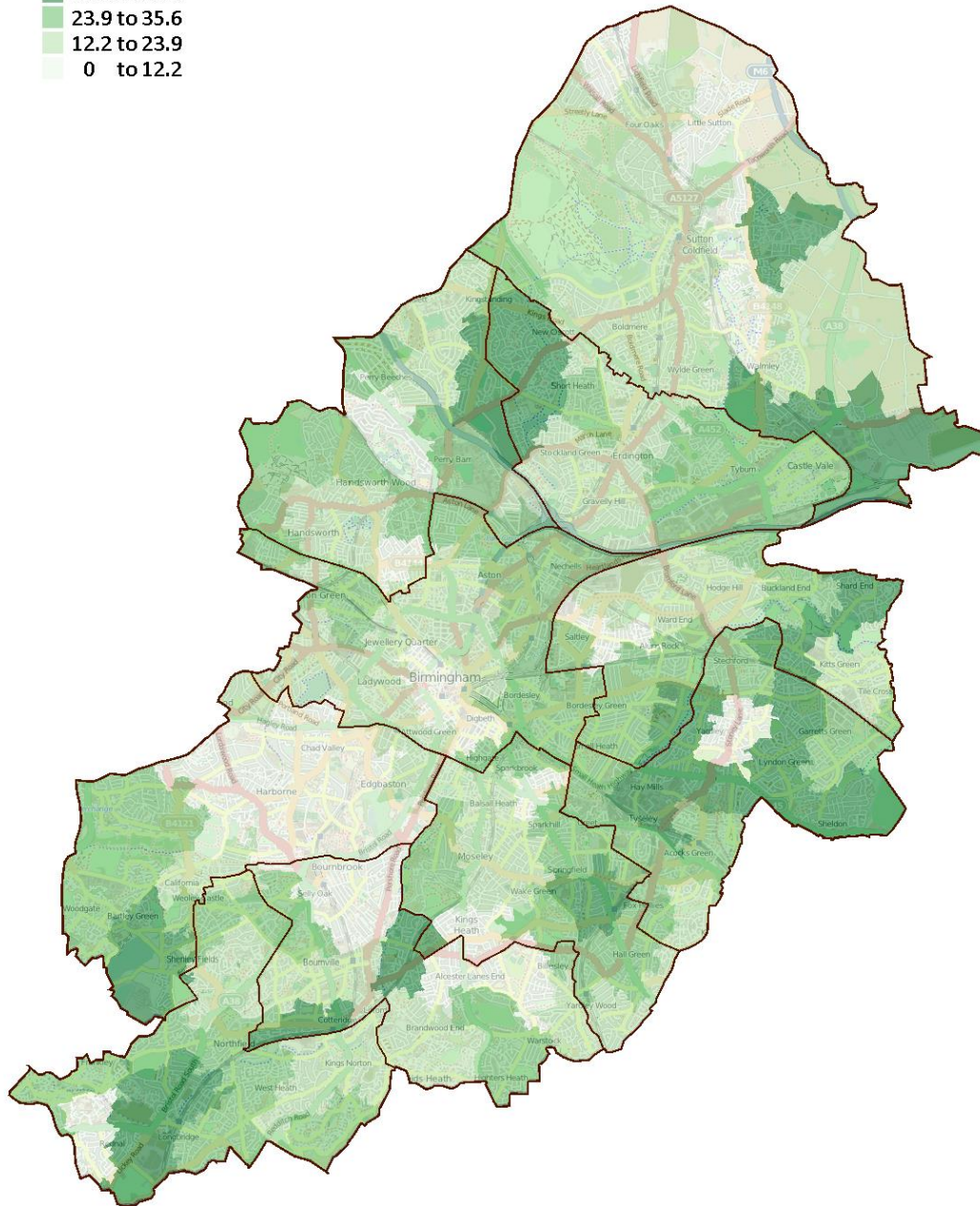
Van drivers involved in injury collisions on Birmingham’s roads by collision severity (2008-2012)



The thematic map shows van drivers from Birmingham involved in injury collisions in the UK based on their home MSOA. Figures have been normalised per 100,000 population. Higher rates of resident van drivers involved in injury collisions can be found to the east of Birmingham in the areas of Hay Mills, Lyndon Green, Sheldon and Shard End. There are also high rates to the north (east of Castle Vale and north of Perry Barr) and to the south (Longbridge and Cotteridge). Lower rates are mainly found to the south of the city centre around Harborne, Bournbrook and Edgbaston. There are also lower rates to the east and north of Sutton Coldfield.

**Resident van drivers involved in injury collisions per 100,000 adult population
Birmingham 2008-2012 annual average**

- 35.6 to 61.5
- 23.9 to 35.6
- 12.2 to 23.9
- 0 to 12.2



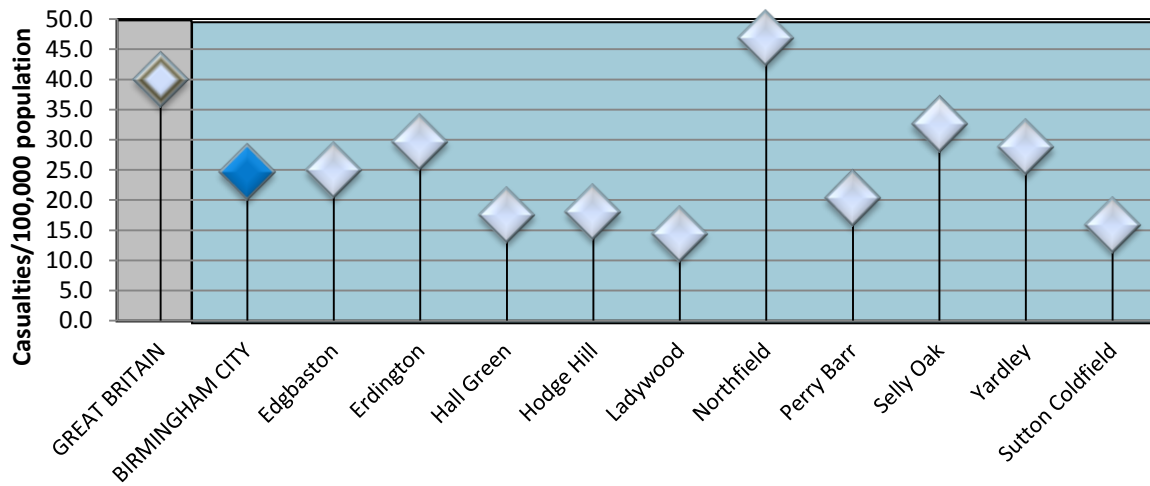


MOTORCYCLISTS

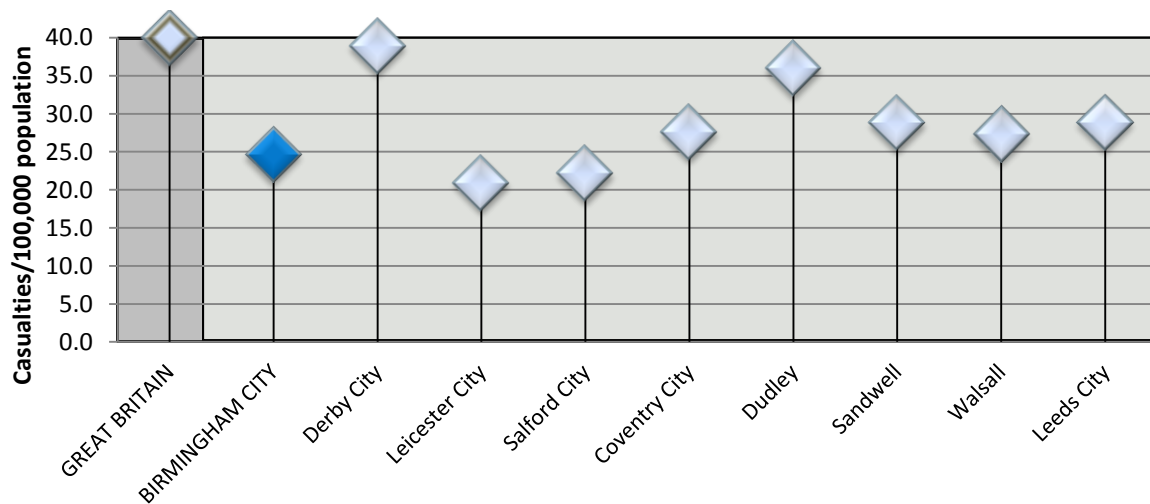
MOTORCYCLE USER CASUALTIES – BIRMINGHAM RESIDENTS

Birmingham residents injured as motorcycle riders or pillion passengers over the period 2008-2012 have been determined using MAST Online. The comparison with national and neighbouring regions has been carried out by comparing casualty rates per 100,000 population, using the adult (not just motorcyclist) population of each area.

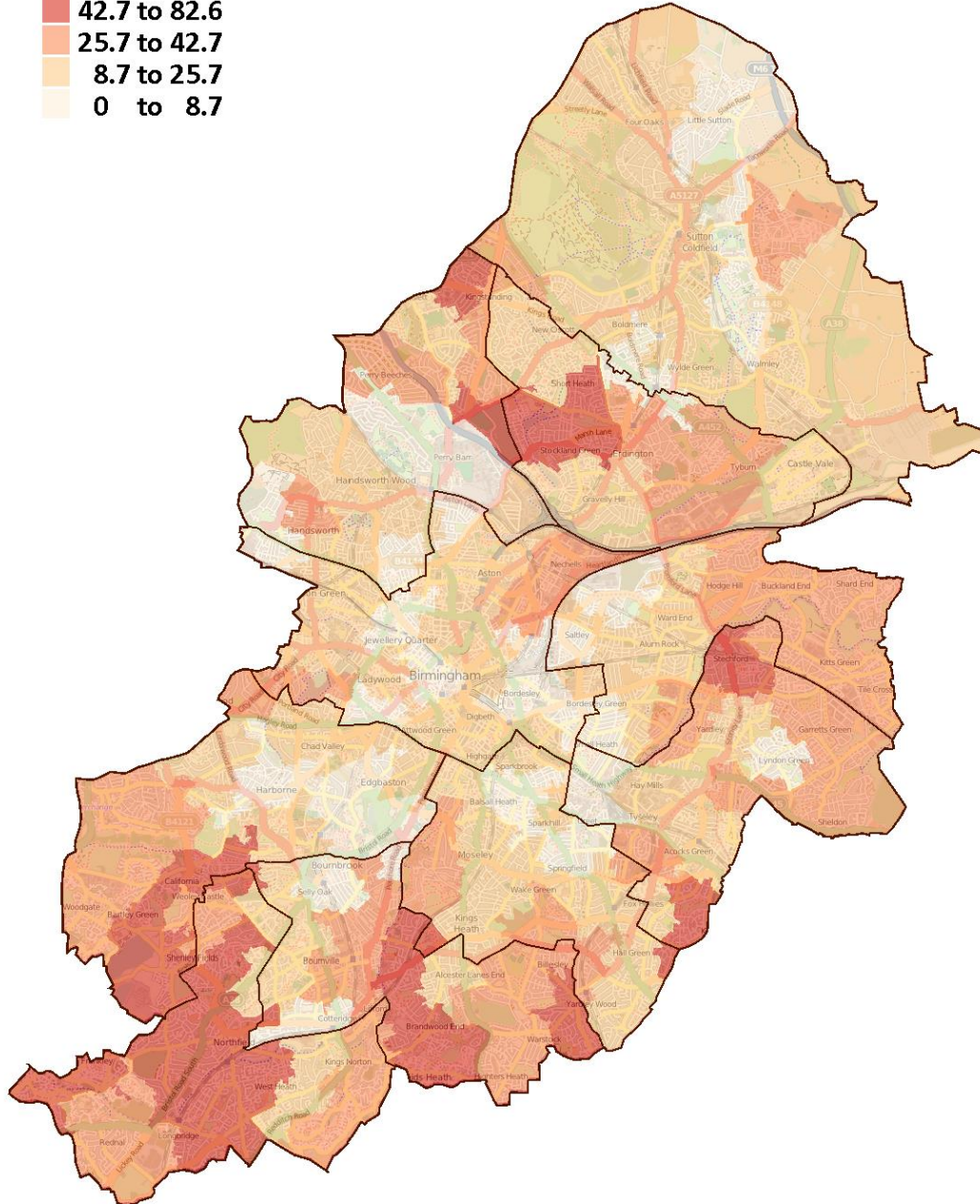
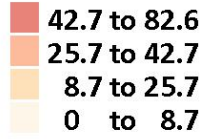
Annual average resident motorcycle user casualty rate by population, Birmingham's constituencies (2008-12)



Annual average resident motorcycle user casualty rate by population, Birmingham's Comparators (2008-12)



**Resident motorcycle user casualties per 100,000 adult population
Birmingham 2008-2012 annual average**



Birmingham has a lower motorcyclist casualty rate than the national rate (38% lower) and is also lower than most of its Comparator Authorities, apart from Leicester and Salford. The constituency of Northfield has a significantly higher motorcycle casualty rate than all of Birmingham’s other constituencies whilst Ladywood has the lowest.

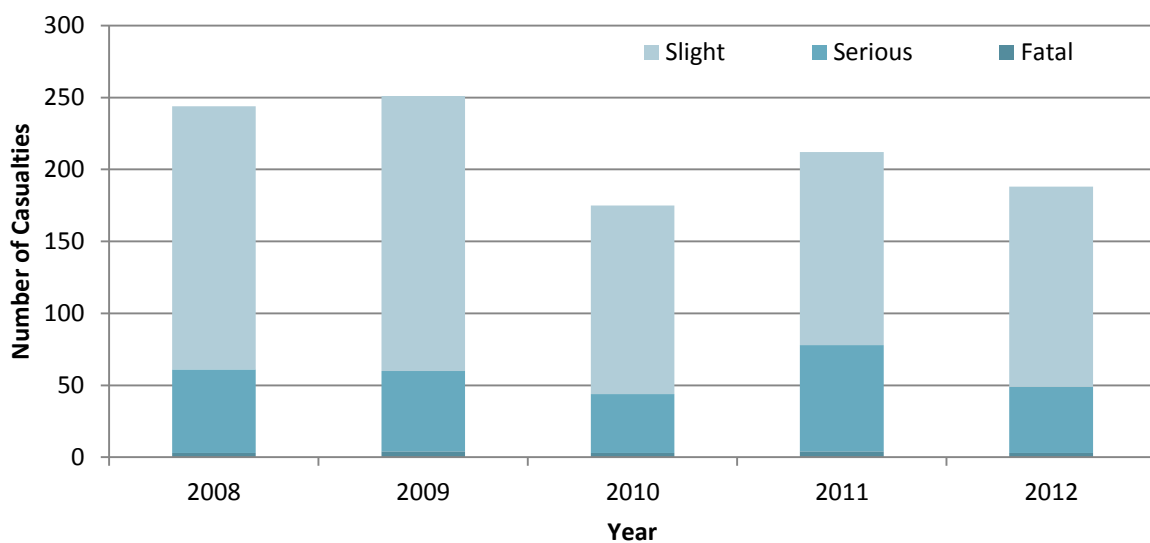
The thematic map above shows the motorcycle user casualties’ home locations in Birmingham colour coded by the number of casualties per 100,000 population in each MSOA. Higher resident motorcycle user casualty rates can be found mainly to the south of Birmingham in the areas of Northfield, Brandwood End and Shenley Fields.

There are also higher rates in Stechford and Stockland Green. Lower rates are found across large parts of central Birmingham and in parts of the north.

MOTORCYCLE USER CASUALTIES – BIRMINGHAM ROADS

In Birmingham, there has been a 23% reduction in motorcycle user casualties since 2008. In 2011, there was a slight increase in motorcycle user casualties but there has been a reduction from 251 to 188 in 2012. The chart shows that there are a significant number of KSI casualties amongst motorcyclists on Birmingham’s roads, representing 27% of all motorcycle casualties.

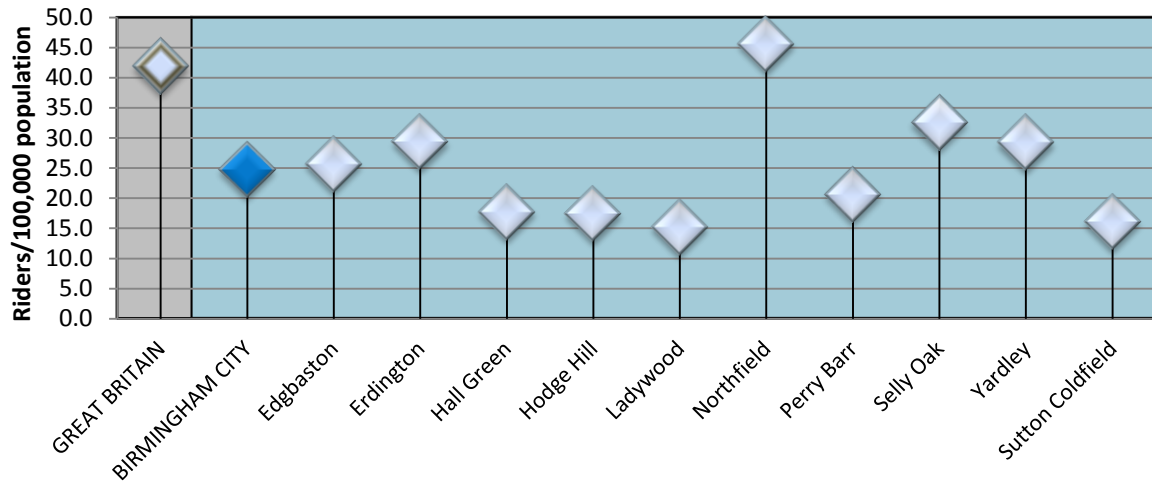
Motorcycle user casualties on Birmingham’s roads by severity (2008-2012)



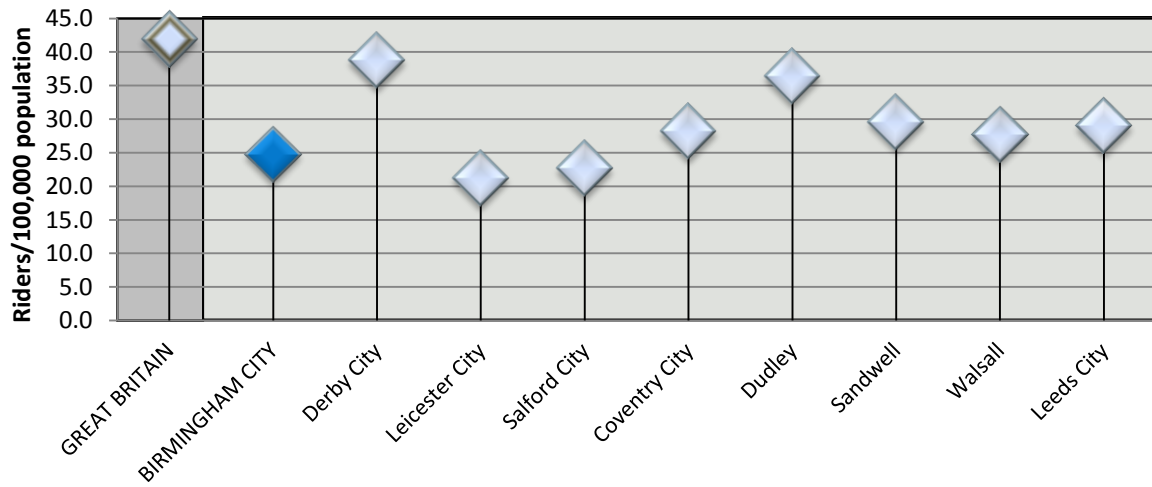
MOTORCYCLE RIDERS INVOLVED IN COLLISIONS

The next charts shows the average number of motorcycle riders involved in collisions per 100,000 adult population. The distribution is quite similar to the average annual motorcycle user casualty chart which indicates that firstly, riders are likely to be a casualty in the collision in which they were involved and that secondly, the casualty rate for pillion passengers is comparatively low.

Annual average resident motorcyclist involvement rate by population, Birmingham's constituencies (2008-12)



Annual average resident motorcyclist involvement rate by population, Birmingham's Comparators (2008-12)



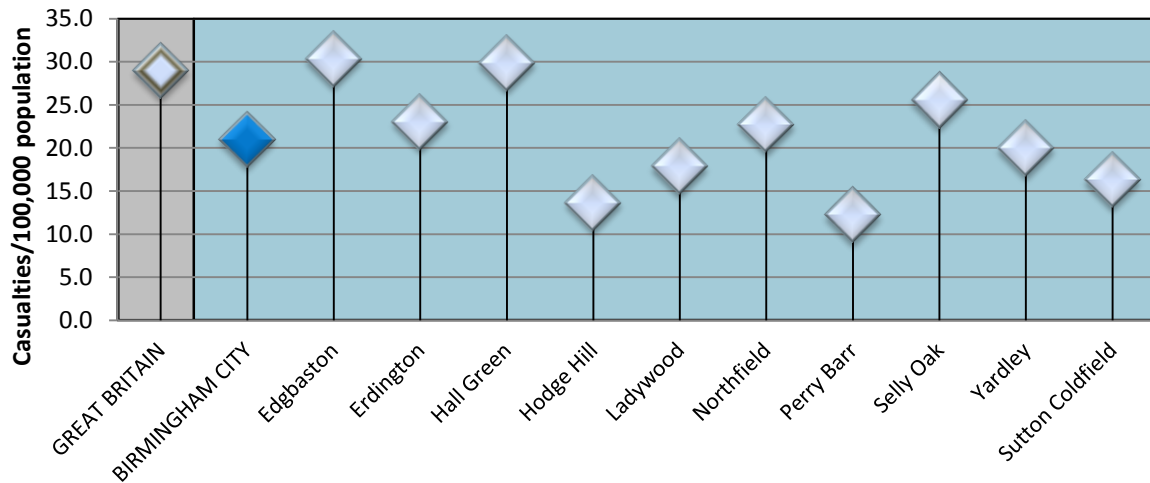


PEDAL CYCLES

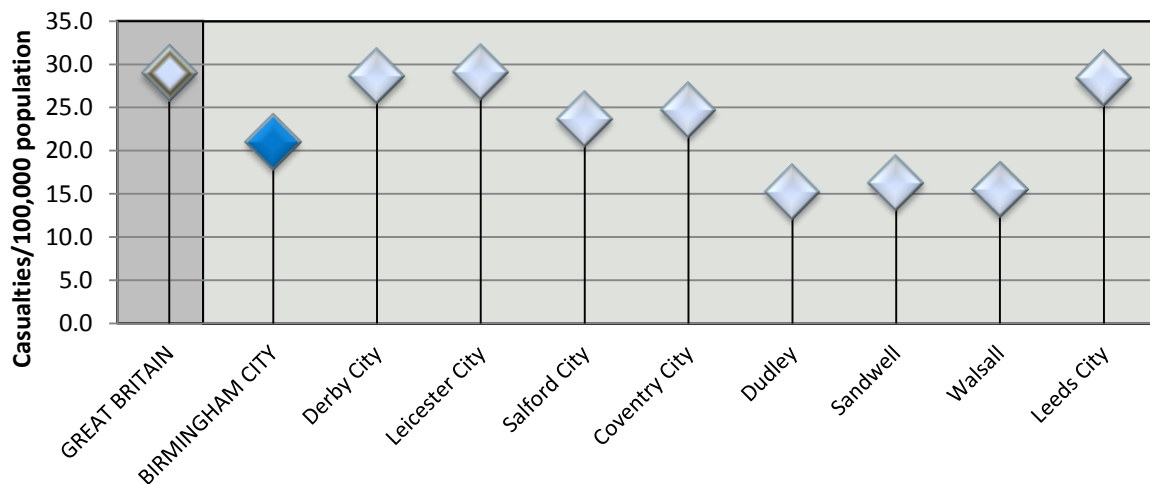
CYCLE USER CASUALTIES – BIRMINGHAM RESIDENTS

The first casualty rate chart below compares Birmingham’s pedal cycle user casualties by constituency of residence. The rates are for Birmingham residents as pedal cyclists injured anywhere in the UK over the period 2008-2012, and are normalised based on the entire population of each area. It shows variation in the rates of pedal cycle user casualties across Birmingham with Hodge Hill and Perry Barr having the lowest rates and Edgbaston and Hall Green having the highest rates.

Annual average resident pedal cyclist casualty rate by population, Birmingham’s constituencies (2008-12)

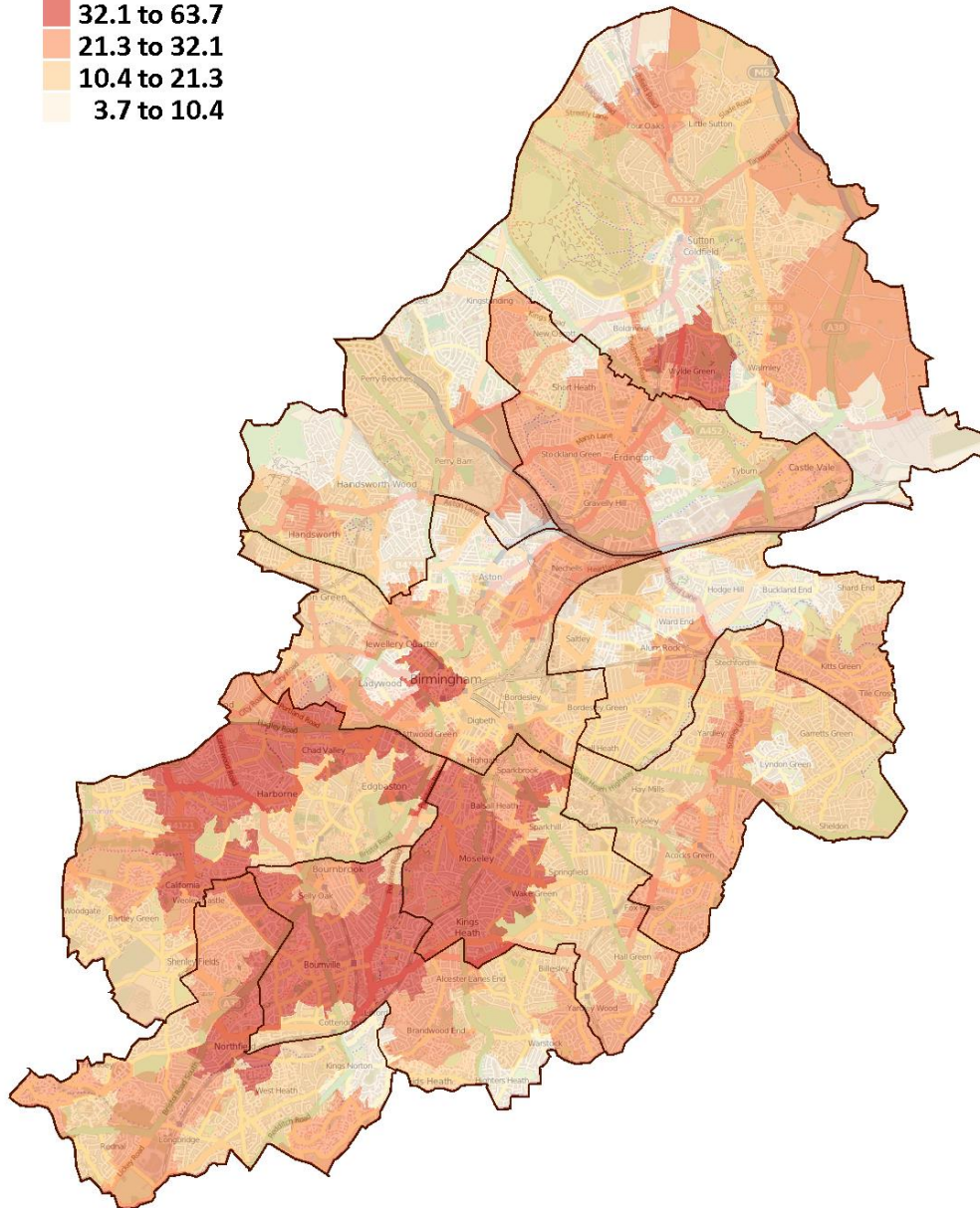
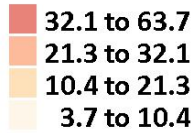


Annual average resident pedal cyclist casualty rate by population, Birmingham’s Comparators (2008-12)



The second chart compares Birmingham pedal cycle user casualties with national figures and those of its similar areas. Birmingham's pedal cyclist casualty rate is well below the overall Great Britain rate and lower than most Comparator Authorities, but higher than the neighbouring Comparators of Dudley, Sandwell and Walsall.

**Resident pedal cycle user casualties per 100,000 population
Birmingham 2008-2012 annual average**

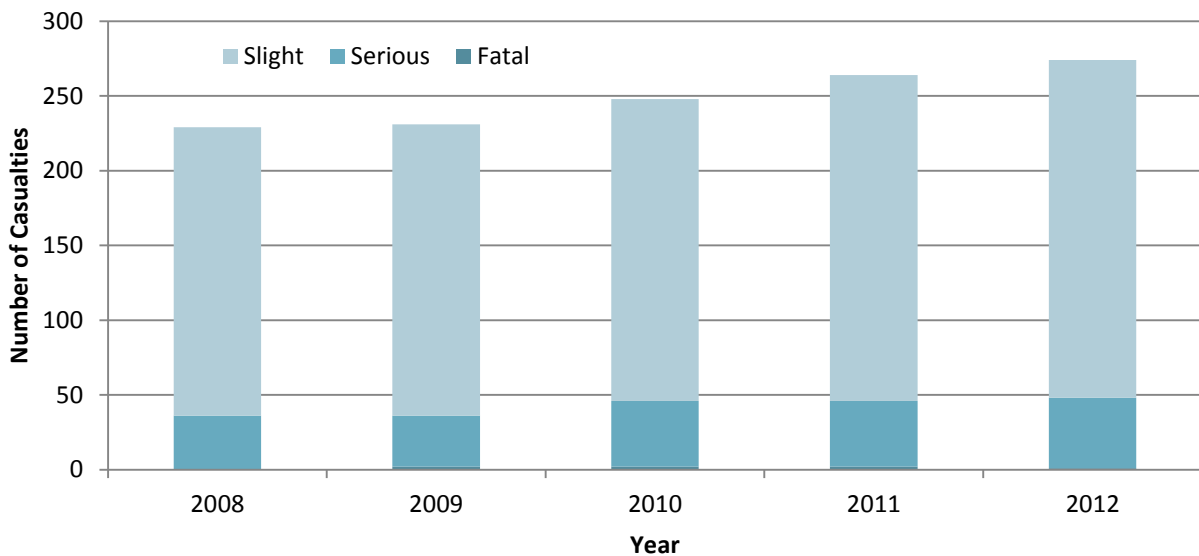


The thematic map above highlights the pedal cycle user casualties' home locations in Birmingham colour coded by the number of casualties per 100,000 population in each MSOA. Higher resident pedal cycle user casualty rates tend to be in the south of Birmingham in the areas of Bournville, Moseley, Kings Heath and Harborne, as well as in the city centre. Lower rates are mainly to the north of Birmingham in the areas of Hodge Hill, Handsworth Wood and Aston; and to the south of Sutton Coldfield.

CYCLE USER CASUALTIES – BIRMINGHAM ROADS

On the roads in Birmingham, pedal cycle user casualties have been increasing every year since 2008. The number of pedal cycle user casualties has increased by 19.7% in 2012 compared to 2008. There were 48 KSI casualties in 2012 which is the highest number of KSI pedal cycle user casualties since 2008. KSI casualties account for 17% of all pedal cycle user casualties in Birmingham.

Pedal cycle user casualties on Birmingham's roads by severity (2008-2012)

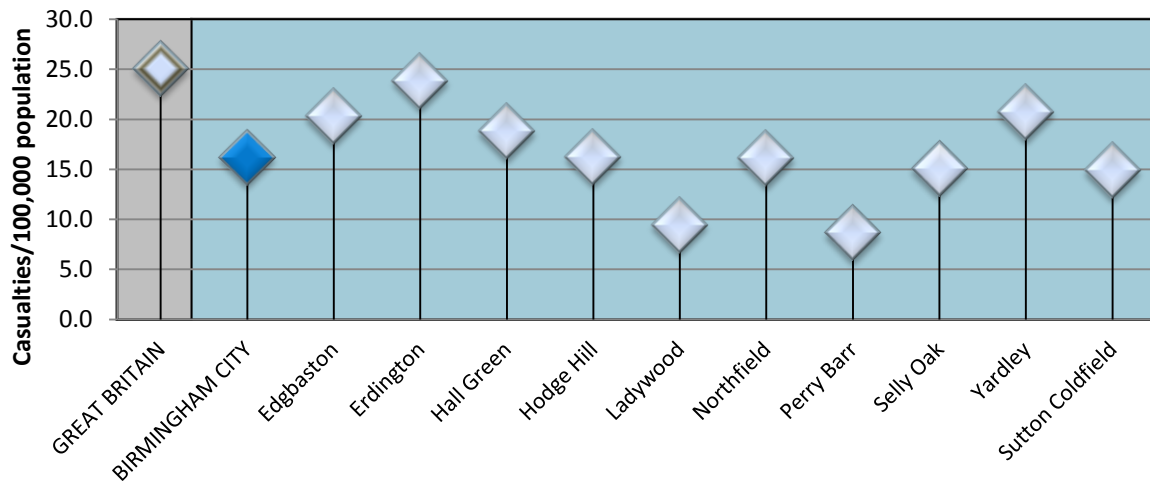


CHILD PEDAL CYCLIST CASUALTIES – BIRMINGHAM RESIDENTS

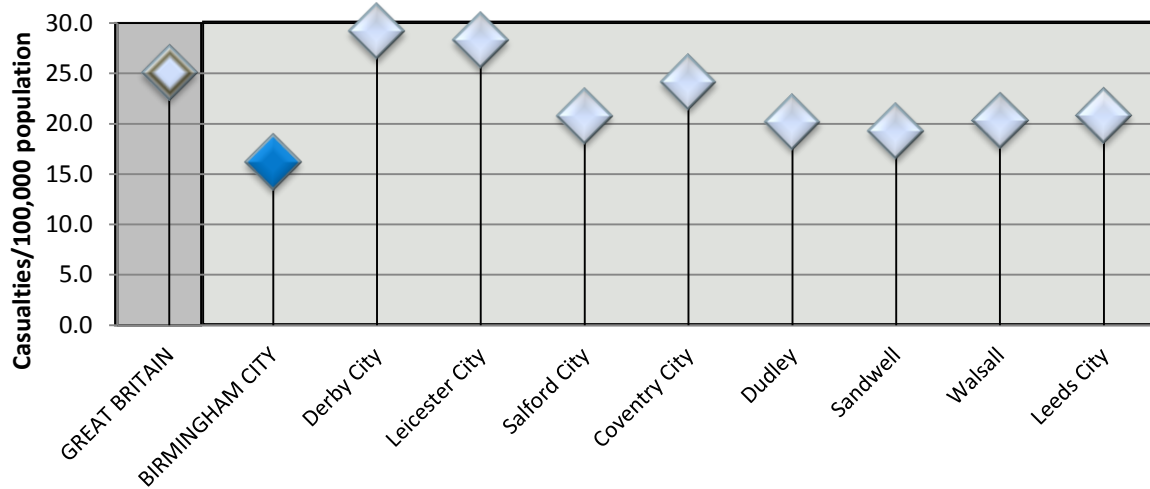
Child pedal cycle casualty rates have been calculated for Birmingham using MAST Online. 2011 child population figures have been used to determine annual average child pedal cyclist casualty rates for 0-15 year olds in Birmingham, its constituencies, similar authorities and Great Britain.

Birmingham's child pedal cycle casualty rate is 35% below the national rate. It has the lowest rate of all the similar authorities. Within Birmingham, Erdington has the highest rate with 23.9 pedal cycle casualties per 100,000 children living in the constituency. Ladywood and Perry Barr have the lowest child pedal cycle user casualty rates.

Annual average resident child pedal cyclist casualty rate by population, Birmingham's constituencies (2008-12)



Annual average resident child pedal cyclist casualty rate by population, Birmingham's Comparators (2008-12)



CHILD PEDAL CYCLE USER CASUALTIES – BIRMINGHAM ROADS

In Birmingham, child pedal cycle user casualties have generally reduced since 2008. There was a reduction from 46 in 2008 to 38 in 2012. There have been two fatal casualties in the past five year period in Birmingham.

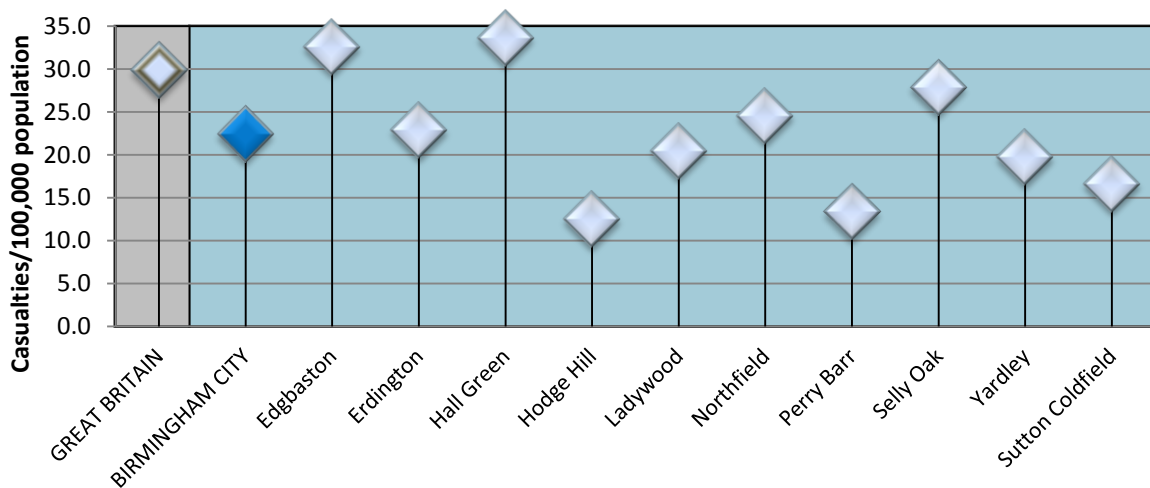
Child pedal cycle user casualties on Birmingham's roads by severity (2008-2012)



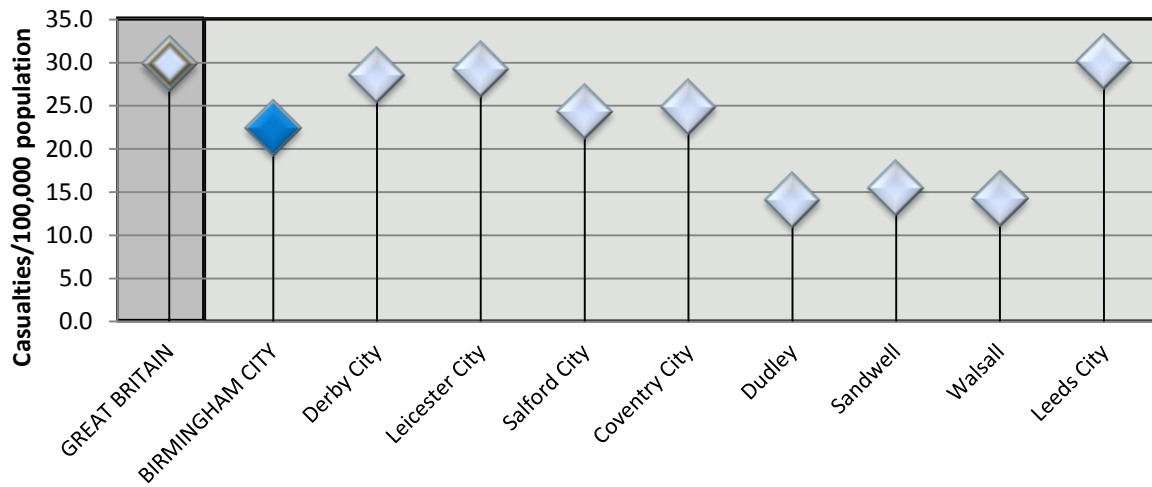
ADULT PEDAL CYCLIST CASUALTIES – BIRMINGHAM RESIDENTS

The last group of vulnerable road users to be analysed is adult pedal cyclist casualties. The same data source, MAST Online, and techniques of creating rates per 100,000 population have been used as before. Birmingham's adult pedal cyclist casualty rate is below the national level. The adult pedal cycle rates follow similar patterns to those of pedal cycle casualties of all ages.

Annual average resident adult pedal cyclist casualty rate by population, Birmingham's constituencies (2008-12)



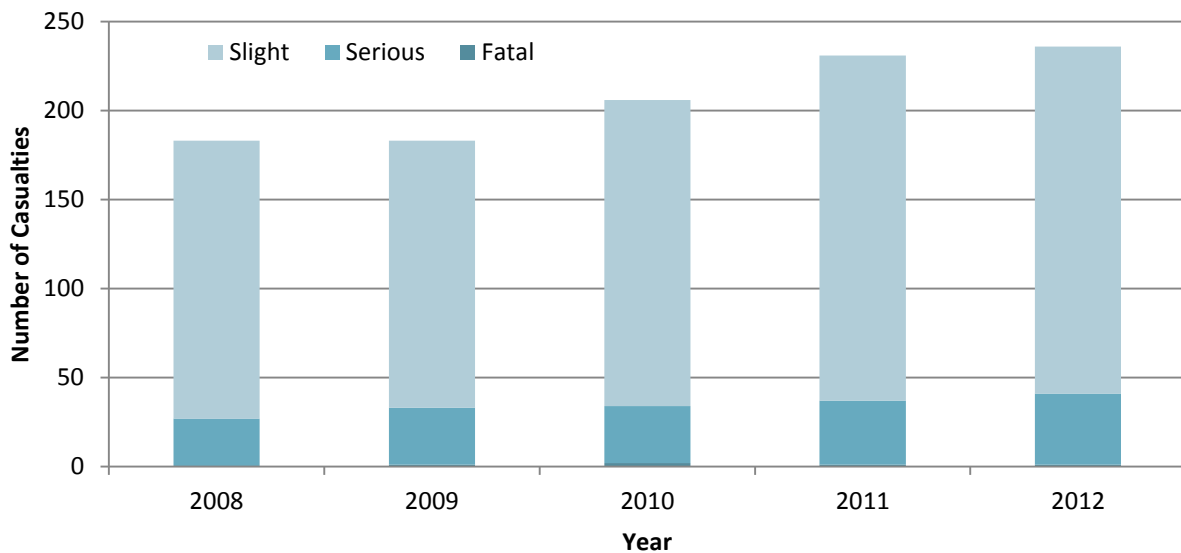
Annual average resident adult pedal cyclist casualty rate by population, Birmingham's Comparators (2008-12)



ADULT PEDAL CYCLE USER CASUALTIES – BIRMINGHAM ROADS

On the roads of Birmingham, there has been a general upward trend in adult pedal cycle user casualties since 2008. In 2012, adult pedal cycle user casualties increased from 183 in 2008 to 236. Levels have increased by 29% compared to 2008. KSI casualties have also increased in the past 5 years, from 27 in 2008 to 41 in 2012. KSI casualties account for 17% of all adult pedal cycle casualties over the past 5 year period.

Adult pedal cycle user casualties on Birmingham's roads by severity (2008-2012)



CASUALTIES INJURED IN COLLISIONS INVOLVING LORRIES

LORRY COLLISION CASUALTIES – BIRMINGHAM ROADS

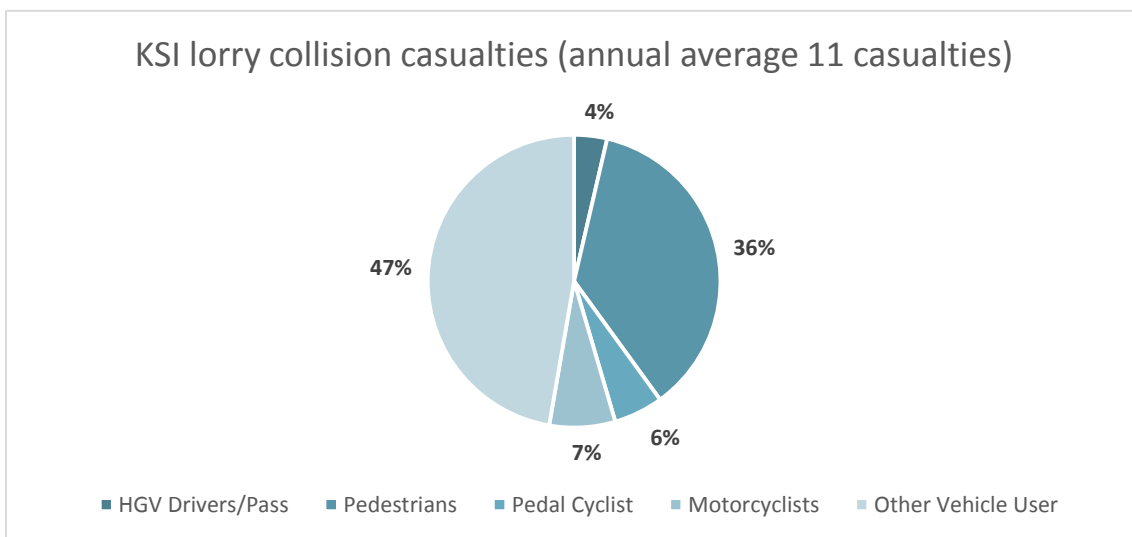
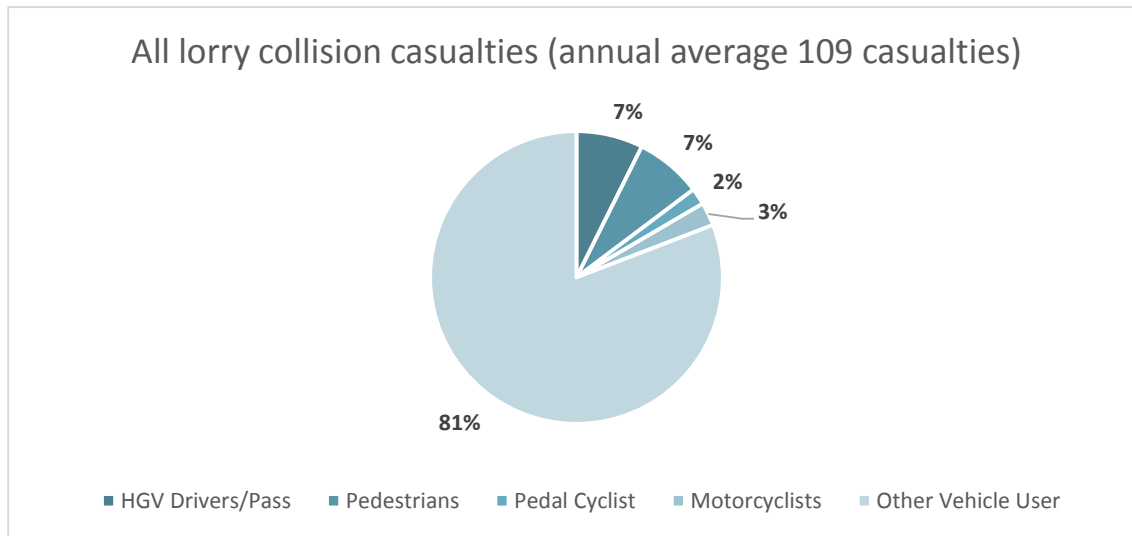
Number of casualties injured in lorry collisions on Birmingham's roads by severity (2008-2012)



The previous chart shows the number of casualties injured in collisions involving goods vehicles over 3.5 tonnes maximum gross weight (hereinafter referred to as 'lorries') on Birmingham's roads between 2008 and 2012. The analysis includes all casualties injured in collisions involving a lorry, including drivers, passengers and pedestrians. However, it cannot be determined if the casualty was in direct contact with the lorry. For example, a driver of one vehicle in a multi-vehicle collision could have been struck by another which in turn was struck by a lorry; alternatively, a pedestrian could have been hit by a motorcycle that was swerving to avoid a collision with a lorry. On average, there are 109 people injured in lorry collisions each year in Birmingham, although there has been a general reduction in casualties over the five years.

The following pie charts show the distribution of casualties by casualty group (based on five year annual averages). The top chart shows that overall, casualties injured in lorry collisions tend to be other vehicle users (especially car occupants). However, when high severity collisions are analysed, it shows that 36% of those killed or seriously injured in lorry crashes in Birmingham are pedestrians. The percentages of cyclists and motorcyclists increase with severity whilst the proportion of lorry drivers and passengers and other vehicle users decreases.

Distribution of casualty groups injured in lorry collisions on Birmingham's roads by severity (2008-2012)



COLLISIONS



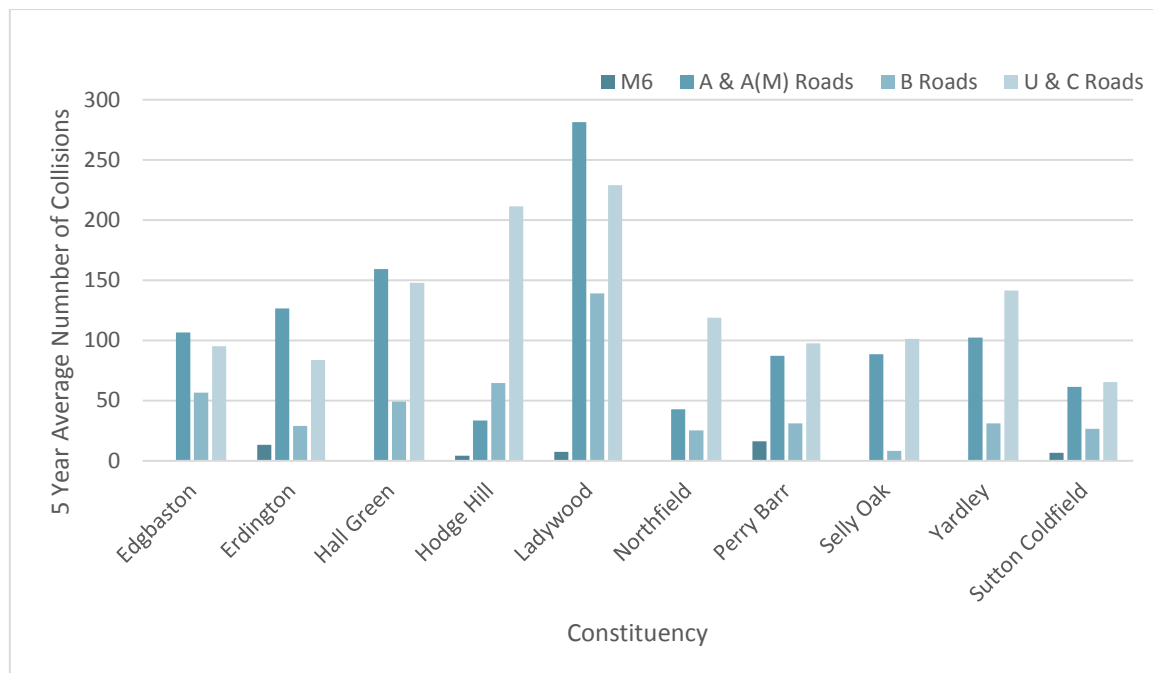
ALL ROADS

COLLISIONS BY CONSTITUENCY

The average number of collisions over the five years between 2008 and 2012 which occurred on Birmingham's roads are shown by constituency and road class in the following chart. The analysis includes collisions of all severity. The constituency of Ladywood has the highest annual average number of collisions for all non-motorway road classes. Hall Green has the second highest annual average of collisions on A and A(M) roads. Hodge Hill has the lowest annual average on these roads, but exhibits the second highest level on other classes of road. Selly Oak has the lowest annual average of collisions on B roads, and Sutton Coldfield has the lowest annual average of collisions which occurred on unclassified or C roads. There is no information available on the lengths of each class of road by constituency.

Between 2008 and 2012 there have been reductions in collision numbers on A and A(M) roads in all constituencies apart from Selly Oak, which experienced a 13% increase from 77 collisions in 2008 to 87 in 2012. Selly Oak also experienced no reduction in collision levels on B roads from 2008 to 2012, although the numbers of collisions were particularly small with an average of only 8 per year. Northfield saw a small increase in collisions on unclassified and C roads between 2008 and 2012 (from 118 to 120).

5 year average annual collision levels in Birmingham by constituency and road class (2008-2012)

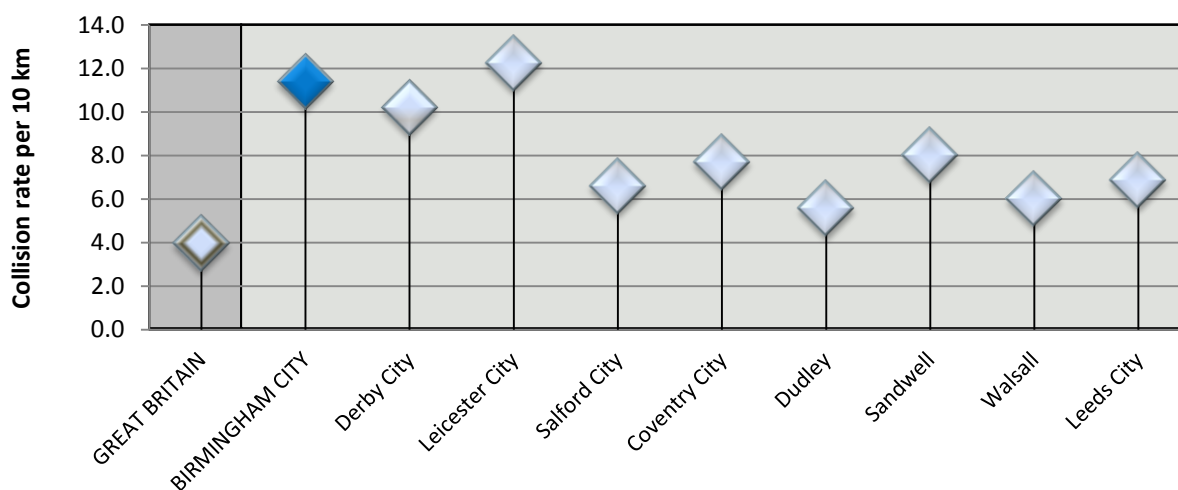


COLLISIONS PER KM

MAST Online has been used to determine average annual road injury collision levels over the 5 year period 2008 to 2012 for Birmingham and similar areas. Dividing the annual rate by the number of kilometres of roads in each area allows direct comparisons to be made between authorities. The road length data has been taken from central government figures¹⁰.

Birmingham has a collision rate well above the overall Great Britain rate (at 186% higher). This is a higher rate than most of the Comparator Authorities, although similar to Leicester and Derby. Given that these authorities were selected partly because of similar traffic density and network composition, it is perhaps surprising that Birmingham's rates are so much higher than other comparable networks, while having similar rates to two authorities where the most pronounced similarities are socio-demographic in nature.

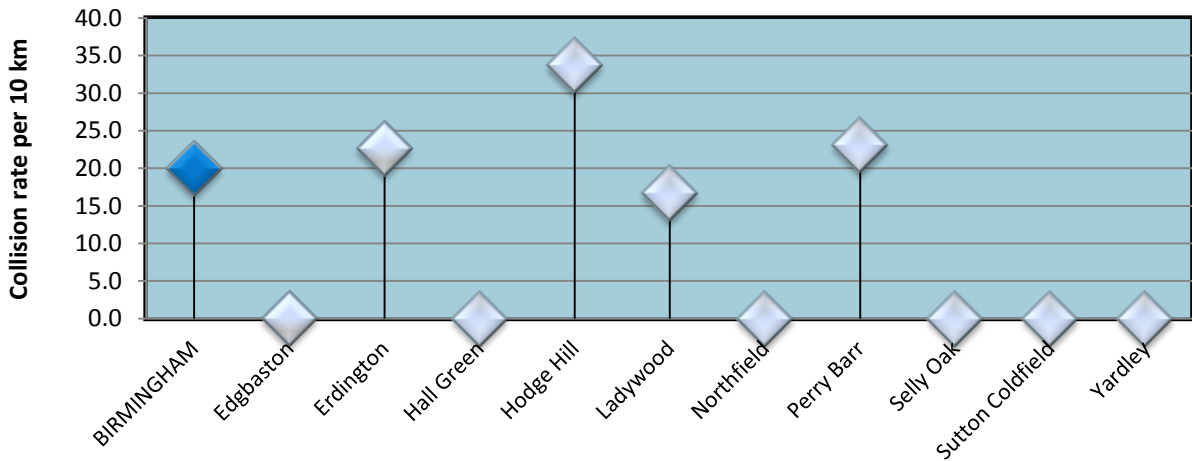
Annual average collision rates per 10 km of road, Birmingham's Comparators (2008-2012)



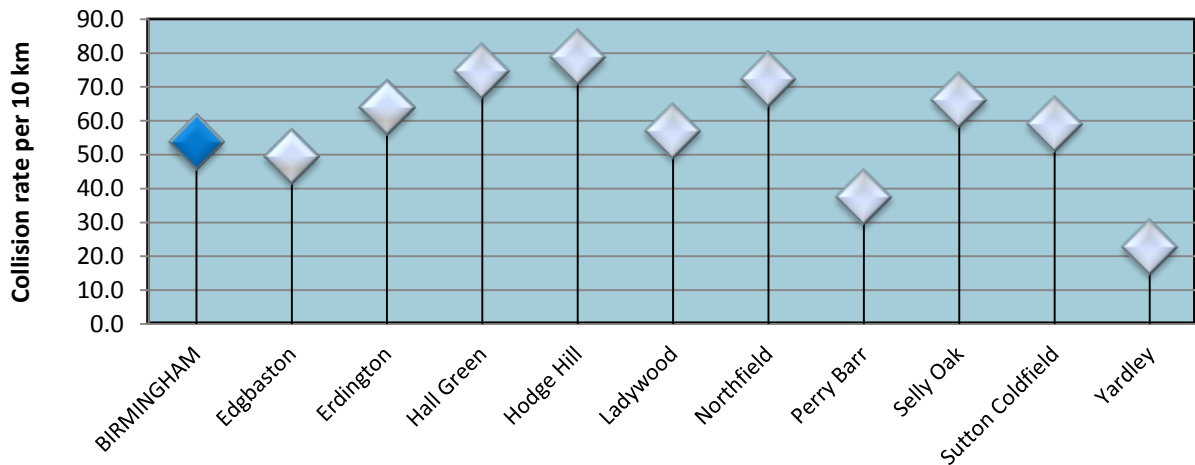
¹⁰ <https://www.gov.uk/government/collections/road-network-size-and-condition>

Collision rates for Birmingham’s constituencies have been calculated separately, using local road length data provided by Birmingham City Council. This has made it possible to examine collision rates by constituency and road class. It is noticeable that Hodge Hill and Hall Green have higher high collision rates for all classes of road than other areas in Birmingham. However, collision rates on A and A(M) roads exhibit a different trend, where Perry Barr and Yardley have significantly lower rates than most other areas.

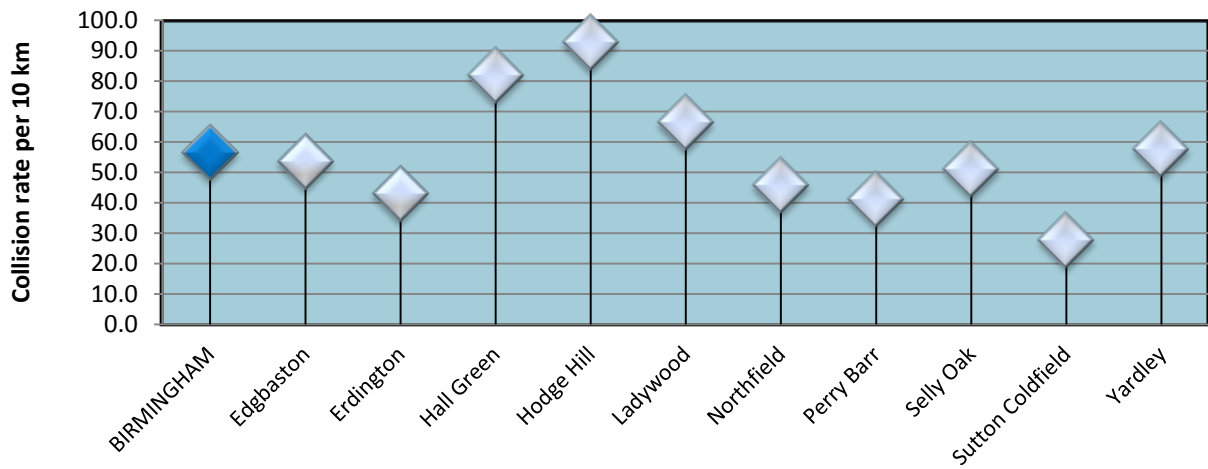
Annual average collision rates per 10 km of the M6, by constituency (2008-2012)



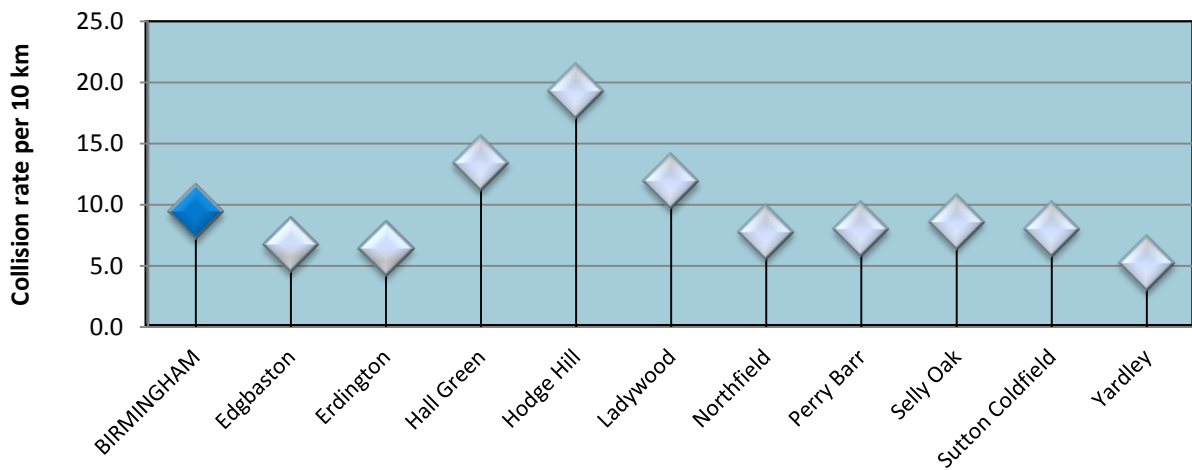
Annual average collision rates per 10 km of A and A(M) road, by constituency (2008-2012)



Annual average collision rates per 10 km of B road, by constituency (2008-2012)



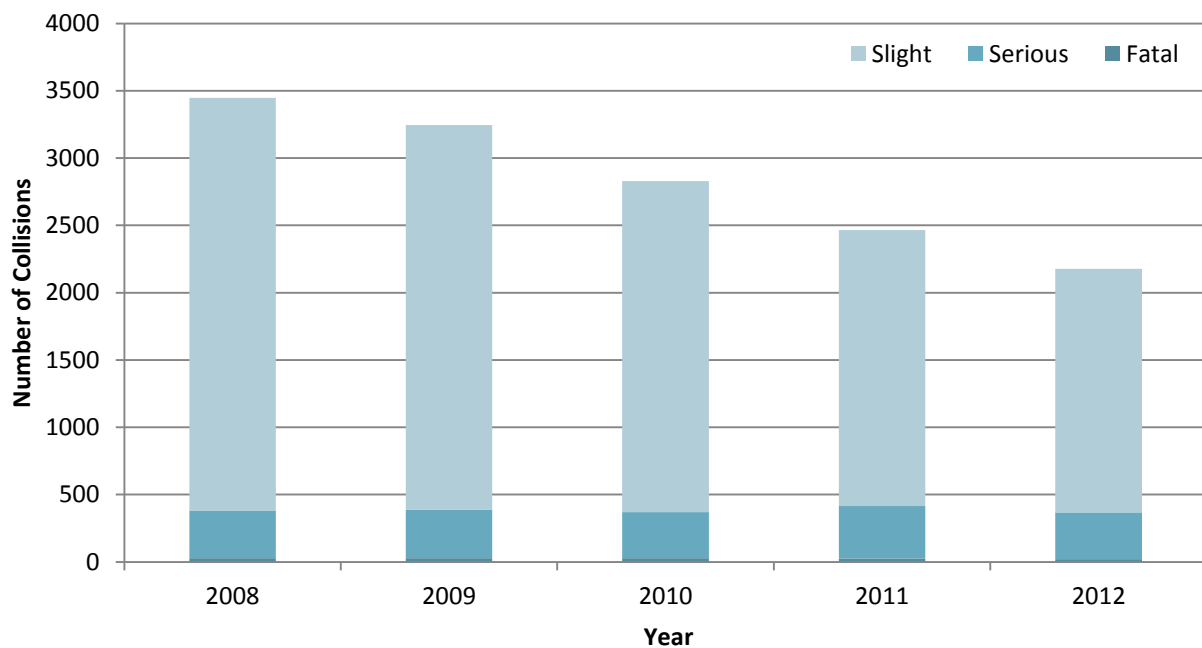
Annual average collision rates per 10 km of unclassified road, by constituency (2008-2012)



COLLISIONS ON BIRMINGHAM'S ROADS (EXCLUDING MOTORWAY)

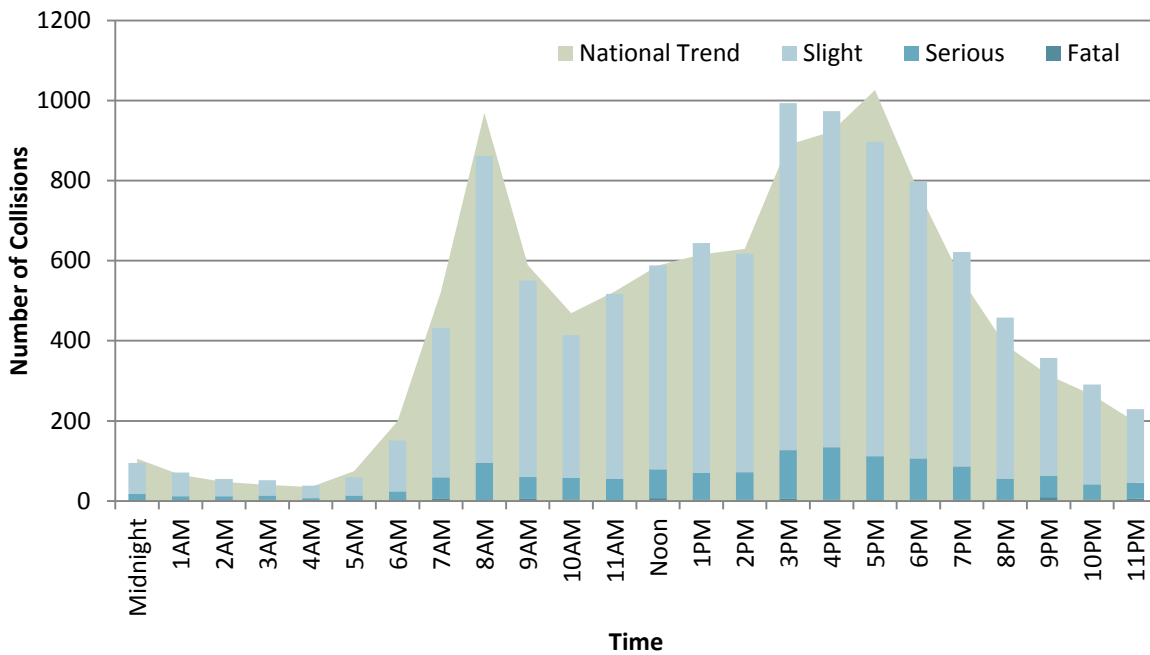
The annual level of collisions on Birmingham's roads is shown below, by severity of collision. All figures in this section completely exclude the M6, and also a small part of the M6 Toll which falls within the boundaries of Sutton Coldfield. There has been general downward trend in collision numbers over the past 5 years, with a 37% reduction since 2008. In 2012 there was a fall to 2,177 collisions, from 2,465 in 2011. KSI collisions have remained stable over the last five years, although there was an increase in 2011 to 415 followed by a return to the longer term trend in 2012. Overall there has been a reduction of 4% in KSI collision numbers since 2008.

Annual collision levels by severity in Birmingham, excluding the M6 (2008-2012)



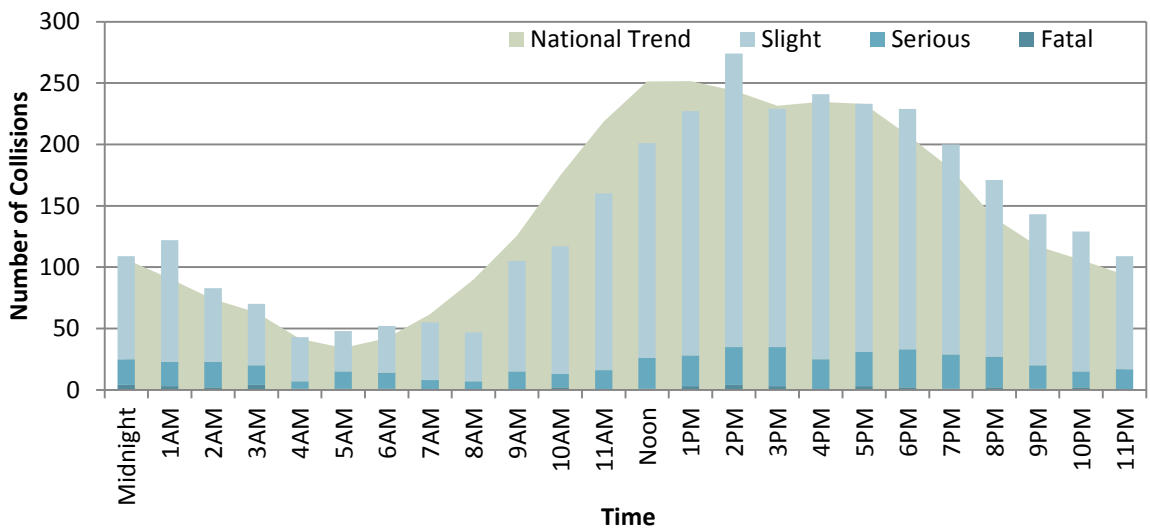
The chart below shows Birmingham collisions over the last 5 years (2008-2012) by hour of the day for weekday collisions, superimposed on the national trend. Again, collisions on the M6 are excluded. Since the proportion of collisions occurring in Birmingham between 11 AM and noon is practically identical to the national equivalent, this chart has been scaled to match at 11 AM. This chart shows a typical weekday distribution with a morning peak then a broader peak spread over mid-afternoon and early evening. However the afternoon peak starts at 3pm, earlier than the national norm, and both the 8 AM peak and declines during evening hours are slightly less pronounced.

Birmingham collisions by hour of the day: Weekdays, excluding the M6 (2008-2012)

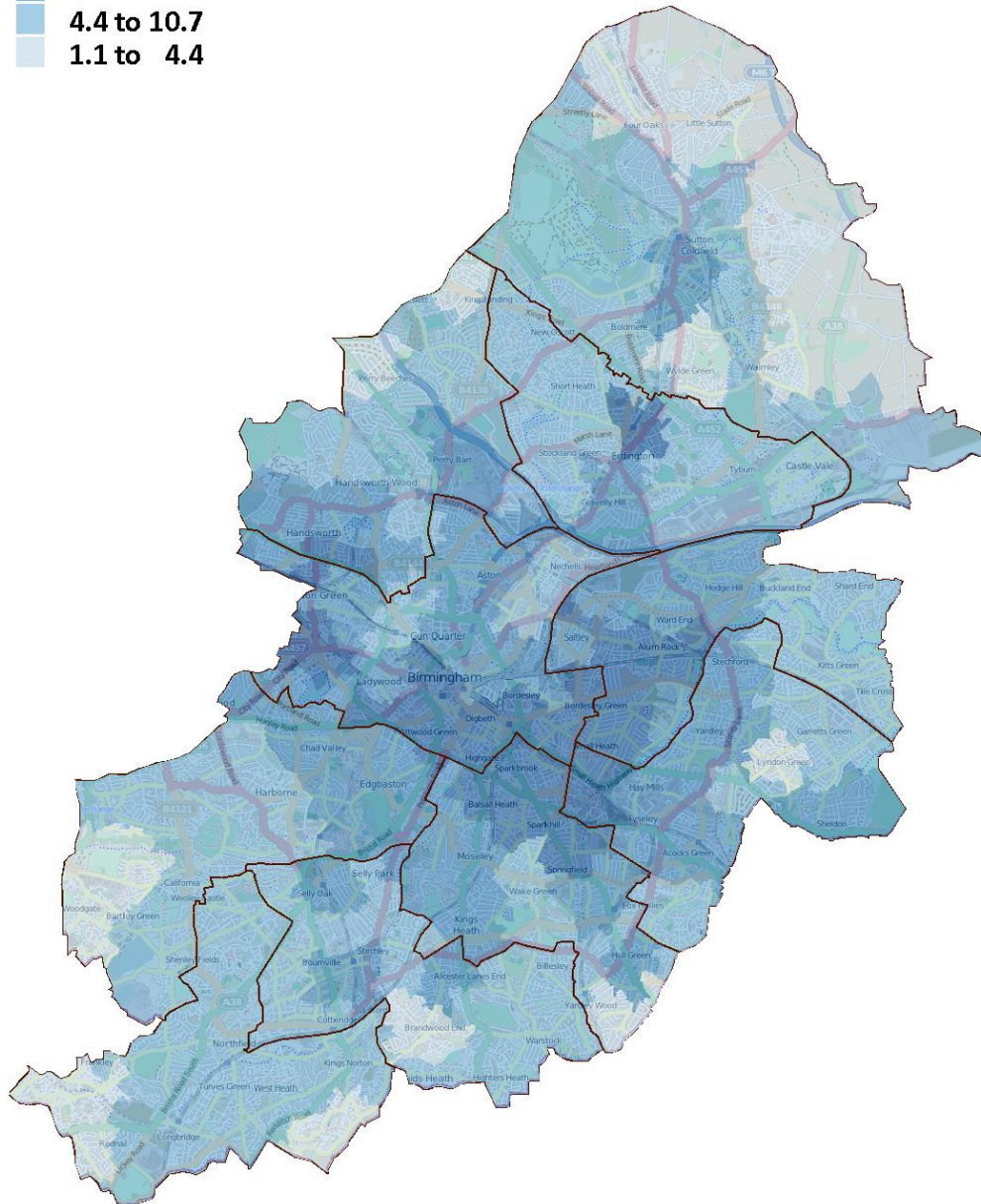


The chart below shows Birmingham collisions over the last 5 years by hour of the day for weekend collisions, superimposed on the national trend. This chart has been scaled to match at 5 PM, when proportions of Birmingham and national collisions are similar. The national trend for collisions to peak around weekend lunchtimes emerges more gradually in Birmingham, and the high point occurs slightly later. Conversely, the decrease in collisions through weekend evenings occurs a little more slowly than the national norm.

Birmingham collisions by hour of the day: Weekends, excluding the M6 (2008-2012)



**Average annual collisions per 10km of road (excluding M6)
Birmingham 2008-2012**

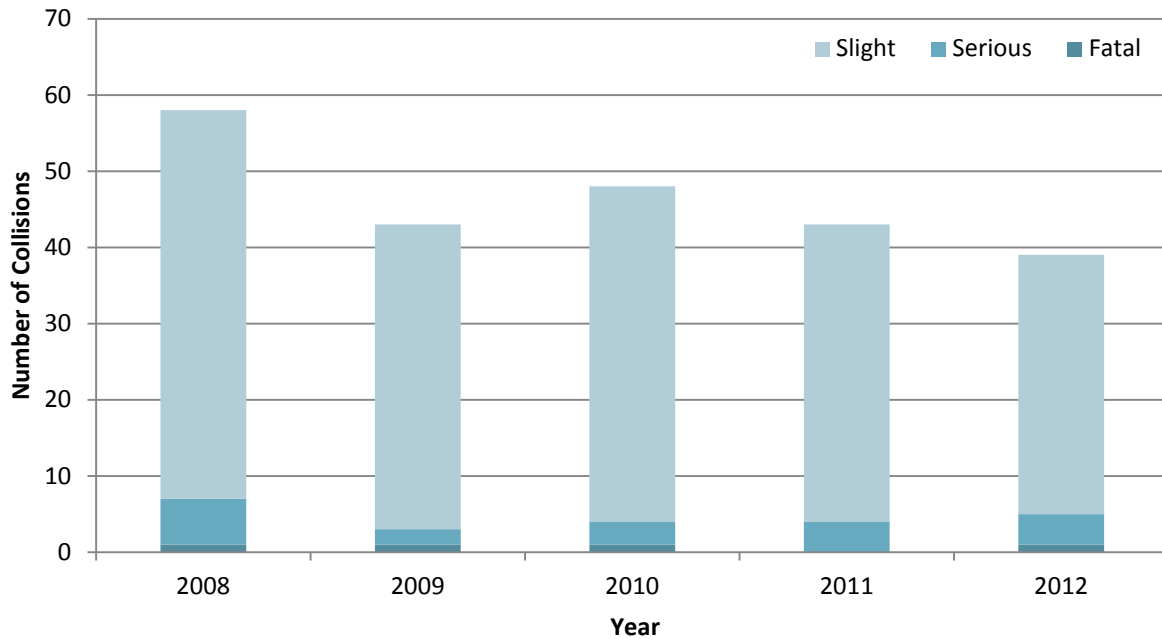


This map shows collision distribution within Birmingham, expressed as the number of collisions in each MSOA in the city between 2008 and 2012, relative to its total road length (in kilometres). Collisions on the M6 are excluded, and the M6 has also been excluded from road length calculations. Increasing collision rates are shown from light blue (lowest) through to dark blue (highest) on the map. High collision rates are mainly found in the centre of Birmingham where there are higher traffic volumes. There are higher rates in Bordesley Green, Small Heath, Highgate and Digbeth. Lower rates are found to the north and east of Sutton Coldfield and in the south of Birmingham in the areas of Bartley Green, Brandwood End and Yardley Wood.

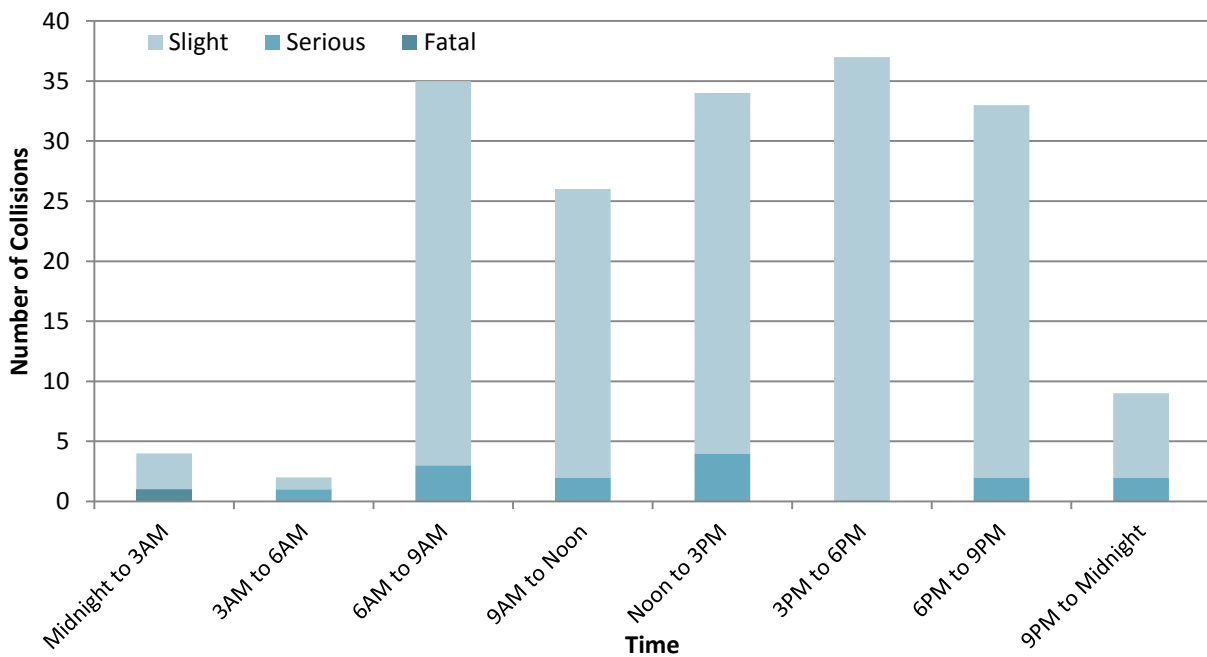
COLLISIONS – M6 AND M6 TOLL THROUGH BIRMINGHAM

For completeness, annual collision levels on the M6 and the M6 Toll within the boundaries of Birmingham are shown below, by severity of collision. There has been a downward trend in collisions on the M6 over the past 4 years with the five year moving average falling from 57 in 2004-8 to 46 by 2008-12.

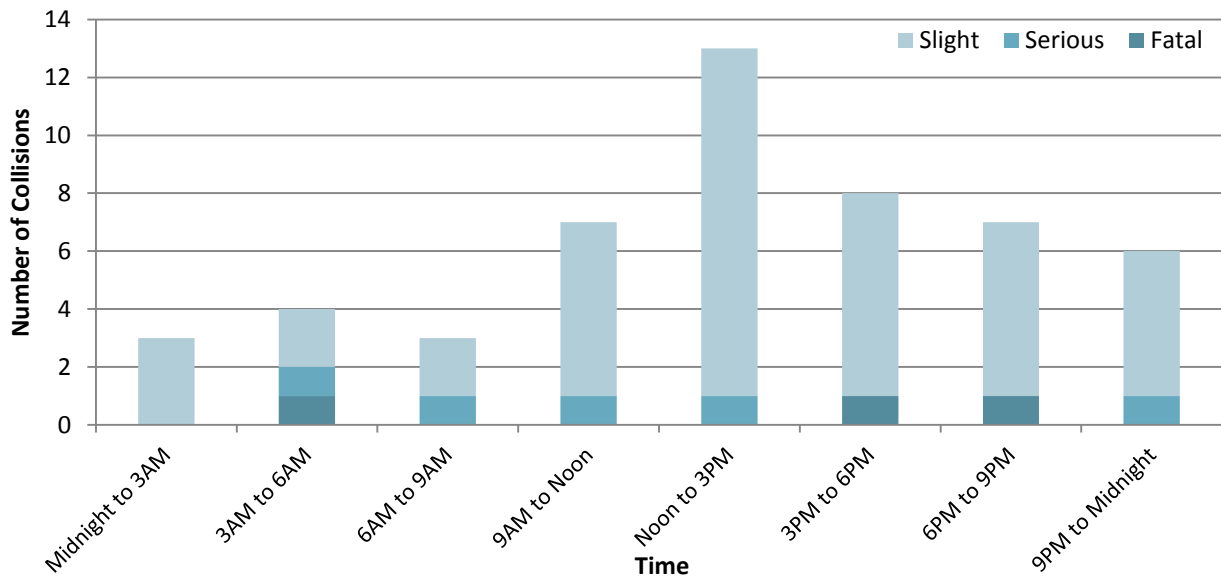
Annual collision levels by severity in Birmingham, M6 only (2008-2012)



Birmingham collisions by hour of the day: Weekdays, on the M6 (2008-2012)



Birmingham collisions by hour of the day: Weekends, on the M6 (2008-2012)

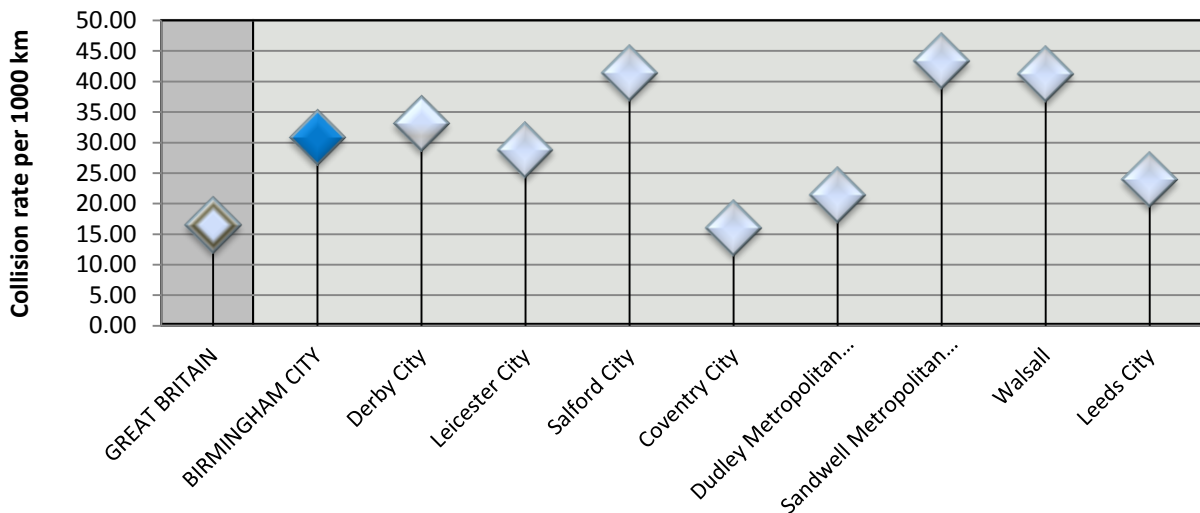


COLLISIONS INVOLVING LORRIES

COLLISIONS PER KM

The chart below shows the rate of collisions involving lorries per kilometre for Birmingham and similar authorities per 1,000 kilometres of road. Almost all of the Comparator Authorities have a higher lorry collision rate than the national norm, suggesting shared characteristics between several of these authorities. Birmingham has a rate in the middle of the Comparators: Sandwell, Salford and Walsall all have higher lorry rates per 1,000 KM, whilst Leeds, Dudley and Coventry have lower rates.

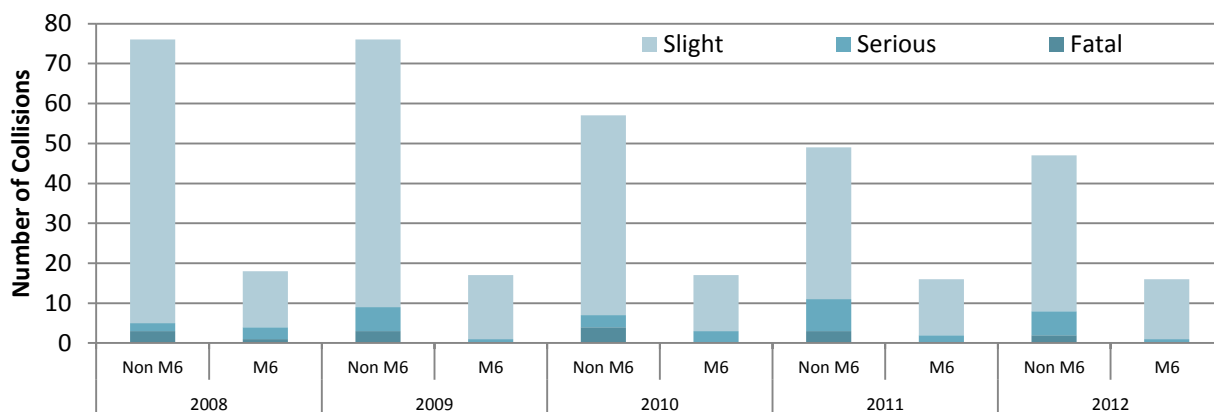
Average annual lorry collision rates per 1,000 km of road (2008-2012)



LORRY COLLISIONS – BIRMINGHAM ROADS

The annual lorry collision trend on Birmingham’s roads is shown in the following chart, with lorry collisions on the M6 shown separately. There has been a marked downward trend over the past 5 years, with a 38% reduction compared to 2008. In 2012, lorry collisions on roads in Birmingham have remained at a similar level to 2011 (although the number of KSI collisions has reduced from 11 to 8). Collisions involving lorries on the M6 have also reduced over this period, although the downward trend is less marked.

Annual lorry collision levels on Birmingham’s roads by severity (2008-2012)



CONTRIBUTORY FACTORS

The following sections investigate collisions in Birmingham where a reporting police officer has chosen to record certain key contributory factors (CFs) related to the incident. Up to six CFs can be recorded for each collision. CFs reflect the officer's opinion at the time of reporting but may not be the result of extensive investigation. Consequently, CFs should be regarded only as a general guide for identifying factors as possible concerns.

In all CF analysis, only collisions which were both attended by a police officer and for which at least one factor was recorded are included. Since multiple CFs can be recorded for a single collision, the same incidents may be included in more than one of the charts presented below. In order to set CF related trends in a meaningful context, each chart in this section also shows the three year average of all collisions in Birmingham which were attended by a police officer who recorded at least one CF. The three year average number of attended collisions in Birmingham where at least one CF was recorded was 2,666 between 2006 and 2008, compared to 1,986 between 2010 and 2012.

CF data has recently become available in MAST Online, so this is the first Area Profile to contain some national comparative analysis. For each CF, the total number of collisions in which the CF was recorded has been determined for the period 2008-2012. This has been expressed as a percentage of all officer attended collisions in the authority in which at least one CF was recorded.

The CF most commonly attributed to collisions in Birmingham is 405 (*Failed to look properly*): 39% of collisions had this CF attributed to at least one participant. This is similar to the national frequency with which this CF is assigned. A high percentage of collisions were also attributed 406 (*Failed to judge other person's path or speed*) (18%), which is also similar to the national percentage. The next most commonly assigned CF in Birmingham is 802 (*Pedestrian Failed to Look Properly*), which is attributed in 16% of collisions. This is the seventh most common CF nationally, used in 10% of collisions, so it is attributed more often in Birmingham. The fourth most common CF in Birmingham is 403 (*Poor turn or manoeuvre*) which was attributed in 15% of collisions: nationally it is the fifth most commonly used, in 14% of collisions. The other most often attributed CF is 602 (*Careless, reckless or in a hurry*), used in 13% of collisions, which is lower than the national percentage of 16% making it the third most commonly attributed CF.

Five most common CFs attributed to collisions in Birmingham between 2008 and 2012

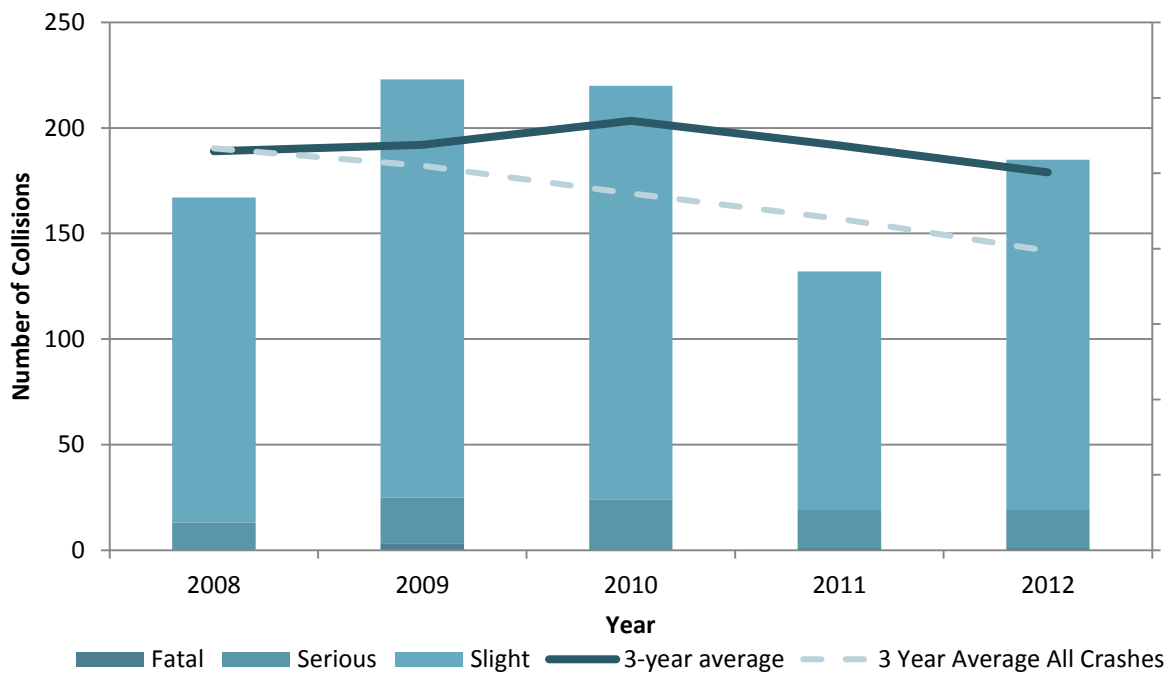
Contributory Factor	Percentage of collisions attributed to (Birmingham 2008-2012)	Percentage of collisions attributed to (GB 2008-2012)
405 – <i>Failed to look properly.</i>	39.4%	39.5%
406 – <i>Failed to judge other person's path or speed.</i>	17.5%	20.8%
802 – <i>Pedestrian Failed to Look Properly</i>	15.6%	9.6%
403 – <i>Poor turn or manoeuvre</i>	14.9%	13.8%
602 – <i>Careless, reckless or in a hurry.</i>	13.4%	15.6%



ROAD SURFACE (FACTORS 101-103) 2008-2012

The chart below shows the number of collisions, by severity, where at least one of the contributory factors 101 (*Poor or defective road surface*), 102 (*Deposit on road (e.g. oil, mud, chippings)*) or 103 (*Slippery road (due to weather)*) was recorded. There were instances where more than one of these factors was applied to the same collision. There is fluctuation in the number of road surface related collisions in Birmingham, with peaks in 2009 and 2010. Road surface related collisions in Birmingham have reduced by 17% since the peak in 2009; however, road surface related collisions have not fallen as sharply as all attended collisions where at least one CF was recorded (shown by the dashed line). Of all officer attended collisions where at least one contributory factor was recorded there were 8.5% attributed a road surface-related CF. Of these three CF's, CF 103 (*Slippery road (due to weather)*) was the most common as it was attributed to 8.1% of collisions.

Road surface related collisions in Birmingham (with CFs 101, 102 and/or 103 recorded) (2008-2012)

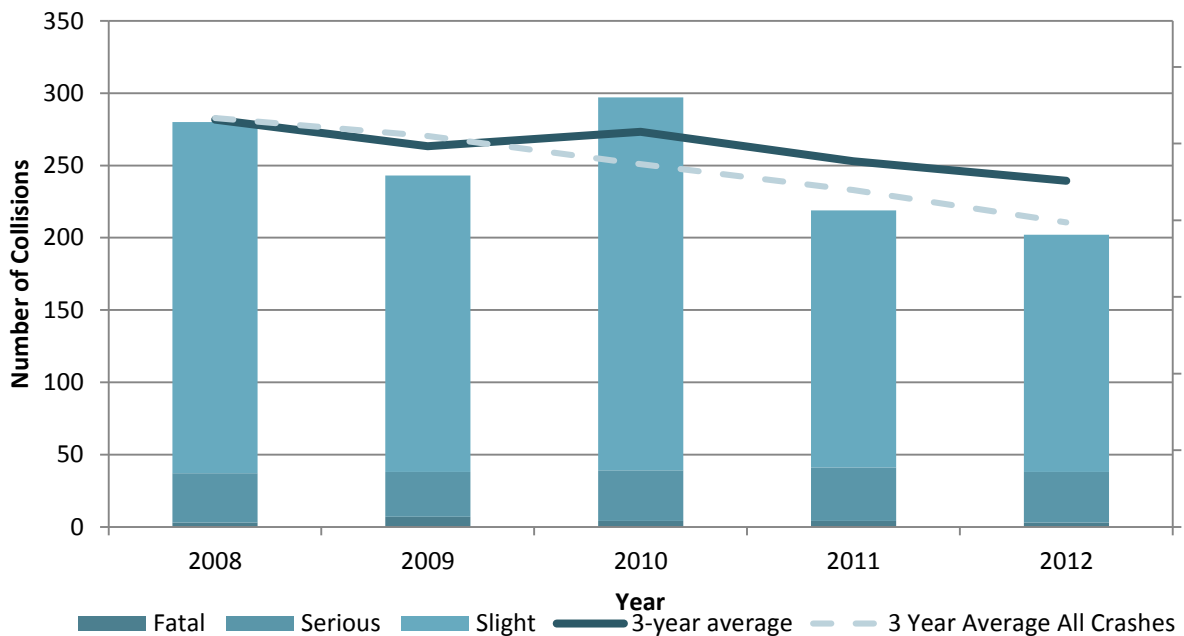




SPEED RELATED (FACTORS 306 AND/OR 307) 2008-2012

The chart below shows the total number of speed related collisions, where either factor 306 (*Exceeding speed limit*) and/or 307 (*Travelling too fast for conditions*) was attributed to one or more vehicles in a collision on Birmingham's roads, per year. It shows fluctuations in the past 5 years with a 28% reduction from 2008 to 2012. The dark blue line shows the 3 year averages. It shows a general downward trend for speed related collisions over recent years, which follows a trend similar to all attended collisions where at least one CF was recorded (shown by the dashed line). Sixteen percent of speed related collisions result in at least one fatal or serious casualty. Of all officer attended collisions where at least one CF was recorded, 11% had speed-related CFs attributed.

Speed related collisions in Birmingham (with CFs 306 and/or 307 recorded) (2008-2012)

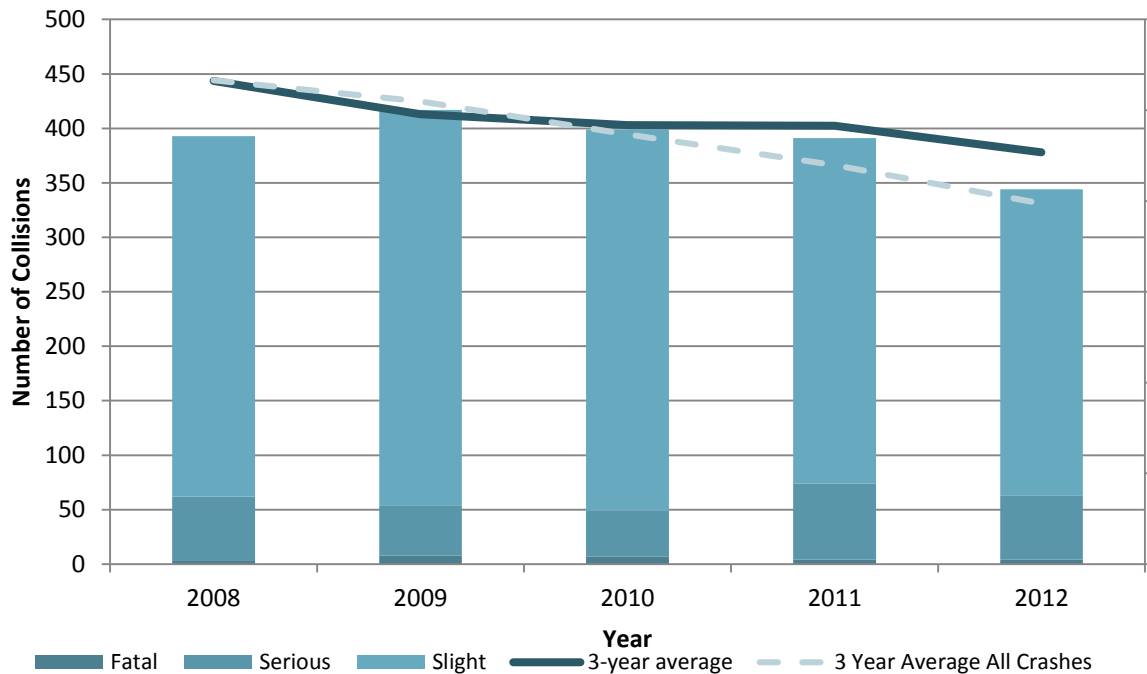




DRIVER BEHAVIOUR (FACTORS 601-603)

Collisions involving one or more of the driver behaviour CFs 601 (*Aggressive driving*), 602 (*Careless, reckless or in a hurry*) and 603 (*Nervous, uncertain or panic*) accounted for 17.9% of Birmingham's collisions where a contributory factor was recorded. Of these CF's, CF 602 (*Careless, reckless or in a hurry*) was attributed to the most collisions (13.4%). The chart below shows a slight reduction in the reporting of these factors over the past five years as shown by the 3 year average line. Driver Behaviour-related crashes have fallen slightly more slowly than all attended collisions where at least one CF was recorded (shown by the dashed line).

Collisions in Birmingham with CF 601, 602 and/or 603 recorded (2008-2012)



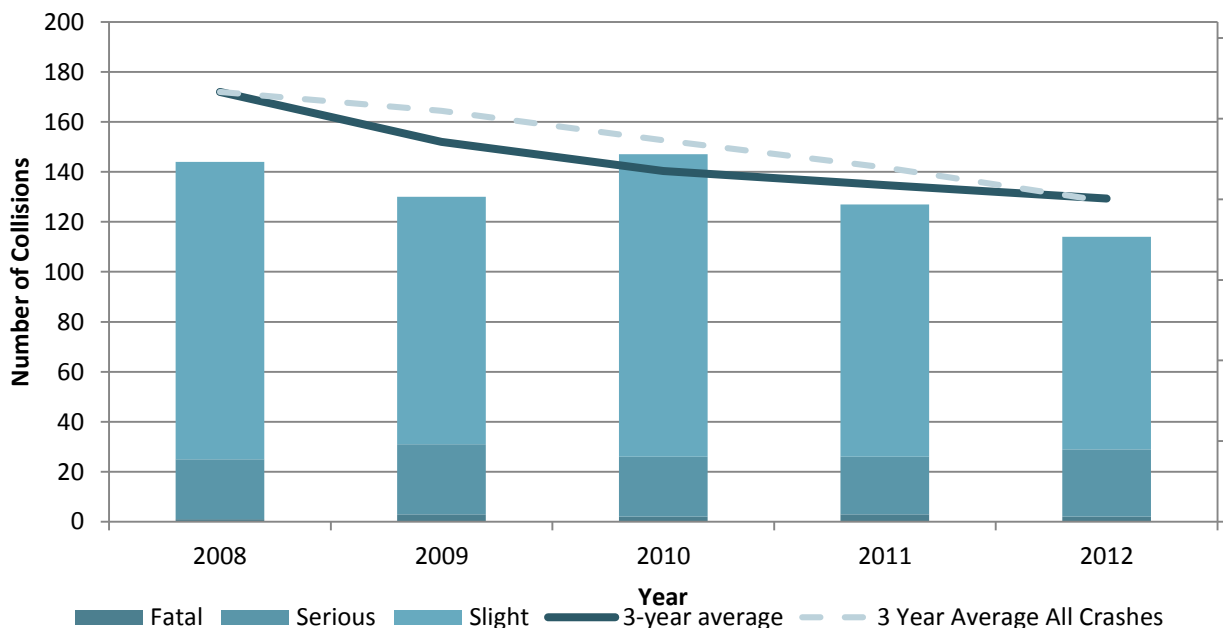


IMPAIRMENT (FACTORS 501-505)

There are several contributory factors which are express a judgement on the driver's fitness to drive. These include 501 (*Impaired by alcohol*); 502 (*Impaired by drugs (illicit or medicinal)*); 503 (*Fatigue*); 504 (*Uncorrected, defective eyesight*); and 505 (*Illness or disability, mental or physical*). As before, there could be cases where more than one of these factors were used in the same collision therefore the analysis includes all instances where one or more of these factors was applied. The chart below shows the number of collisions where any or some of the impairment CFs were recorded in Birmingham between 2008 and 2012, by severity. It shows that there has been variation in the data over recent years but there is a general reducing trend as shown by the 3 year average line. The impairment trend shows that these collisions reduced slightly more quickly than all attended collisions where at least one CF was recorded (shown by the dashed line). It also shows that there is a high severity ratio with impairment related collisions in Birmingham; 21% of the impairment related collisions which occurred between 2008 and 2012 resulted in death or serious injury.

Of the 6.1% of collisions that had an impairment related CF attributed to it, 68% of these had CF 501 (*Impaired by alcohol*) and 16% had CF 505 (*Illness or disability, mental or physical*) recorded. Alcohol-related collisions are investigated separately in the following section.

Impairment related collisions in Birmingham (with CFs 501, 502, 503, 504 and/or 505 recorded) (2008-2012)

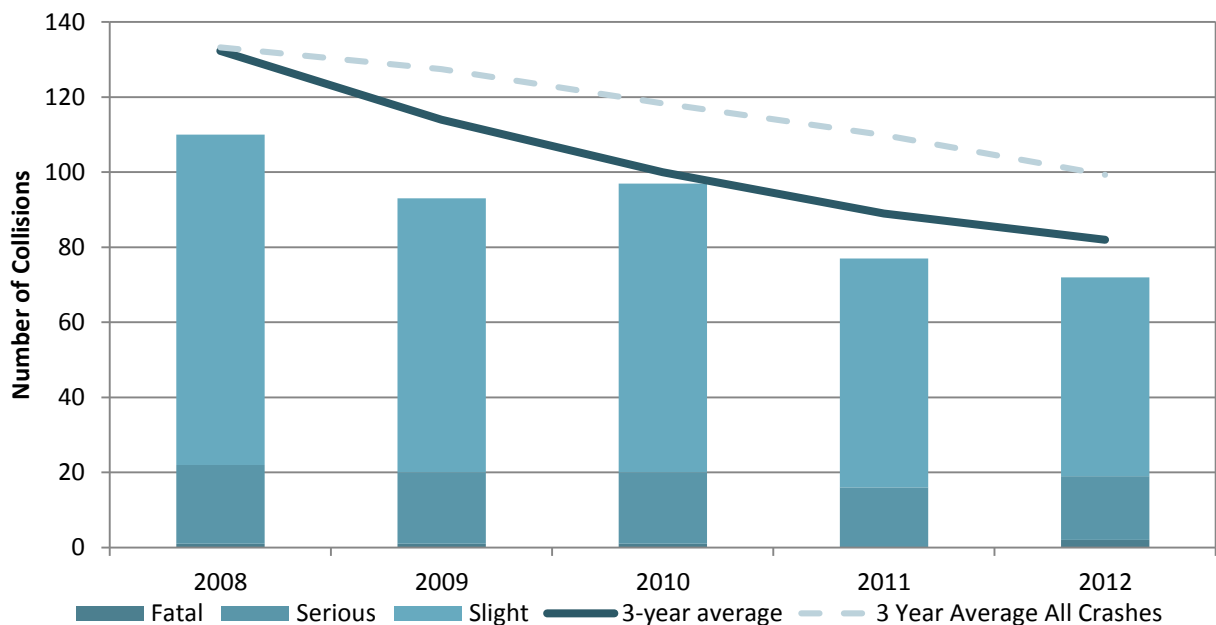




IMPAIRMENT BY ALCOHOL (FACTOR 501)

The chart below shows the number of collisions where impaired by alcohol was recorded as a CF in Birmingham between 2008 and 2012, by severity. It shows that there have been general reductions in alcohol related collisions, although there was an increase in 2010. Since 2008 there has been a 21% reduction in collisions. Alcohol-related collisions have been falling more quickly than all attended collisions where at least one CF was recorded (shown by the dashed line). The chart also shows that there is a high severity ratio for impaired by alcohol related collisions in Birmingham, with 22% of collisions occurring between 2008 and 2012 resulting in death or serious injury.

Impaired by alcohol related collisions in Birmingham (CF 501) (2008-2012)



BREATH TEST RESULTS

In the period 2008 to 2011, attending officers administered a total of 8,600 breath tests to drivers involved in collisions where at least one CF was recorded, representing 51% of all involved motor vehicle drivers. A total of 279 drivers either tested positive or refused to provide a sample. Of drivers who were not tested, 26% were not contacted at the time and a further 8% could not provide a sample for medical reasons.

66% of drivers to whom CF 501 was attributed either tested positive or refused to provide a sample; only 1% tested negative. 14% of drivers to whom CF 501 was attributed were not asked to provide a sample; the remainder were not contacted, unable to provide a sample for medical reasons or using a non-motor vehicle.

29 out of 279 positive breath tests were provided by drivers to whom CF 501 was not attributed.

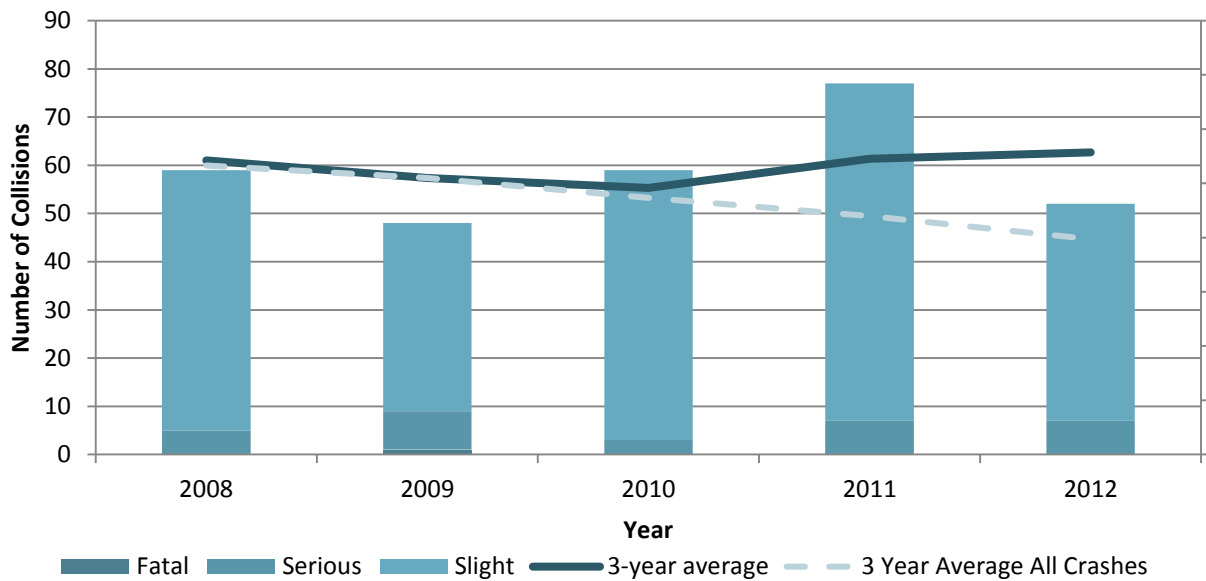


OTHER KEY CONTRIBUTORY FACTORS 2008-2012

DISTRACTION (FACTORS 508-510)

The below chart shows collisions where the distraction CFs 508 (*Driver using mobile phone*), 509 (*Distraction in vehicle*) and/or 510 (*Distraction outside vehicle*) was applied, by severity, between 2008 and 2012. In Birmingham, a distraction CF was recorded against 2.7% of officer attended collisions. Of these CFs, CF 509 (*Distraction in vehicle*) was the most common as it was recorded against 1.6% of collisions. The chart below shows scatter in the data with a large increase in 2011. Despite a reduction in 2012, the overall trend shows a general increase over recent years. To put this in context, the difference between the 2006-2008 average and the 2010-2012 average is only 2 collisions. However, this is still an increase since 2010 compared to the trend in all attended collisions where at least one CF was recorded (shown by the dashed line).

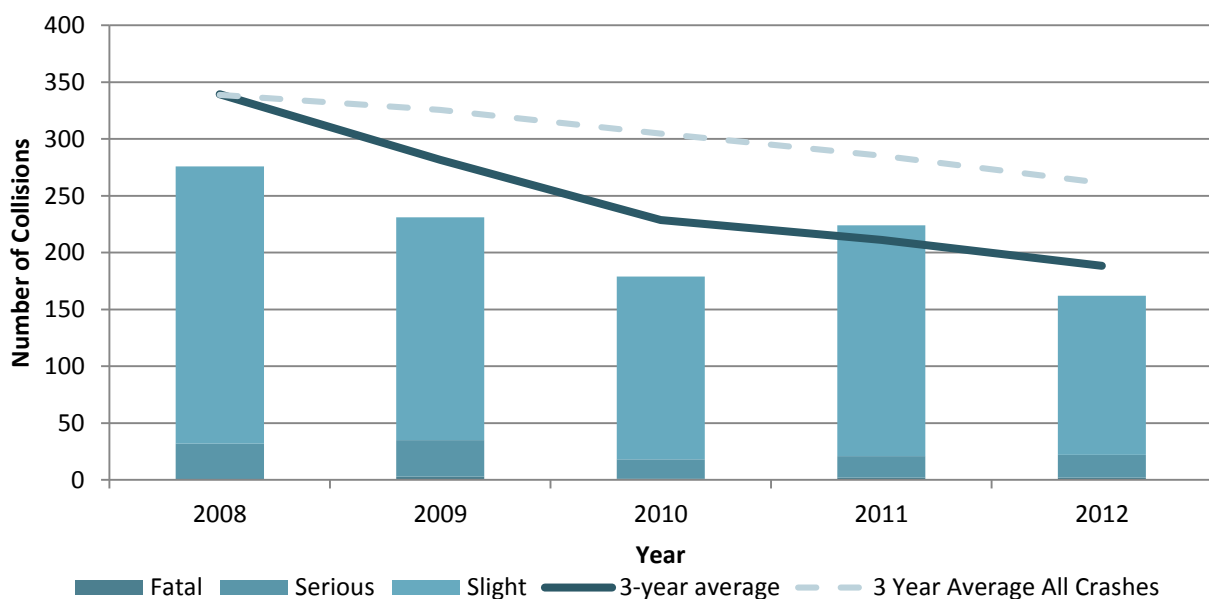
Collisions in Birmingham with CF 508, 509 and/or 510 recorded (2008-2012)



DISOBEYED TRAFFIC SIGNS/SIGNALS (FACTORS 301-305) 2008-2012

The below chart shows collisions where the disobeyed traffic signs/signals CFs 301 (*Disobeyed automatic traffic signal*), 302 (*Disobeyed 'Give Way' or 'Stop' sign or markings*), 303 (*Disobeyed double white lines*), 304 (*Disobeyed pedestrian crossing facility*) and/or 305 (*Illegal turn or direction of travel*) was applied, by severity, between 2008 and 2012. In Birmingham, a disobeyed traffic signs/signals CF was recorded against 9.8% of officer attended collisions. There is a general reducing trend in disobeyed traffic sign/signal related collisions as shown by the 3-year average line and compared to the reductions in all attended collisions where at least one CF was recorded (shown by the dashed line)

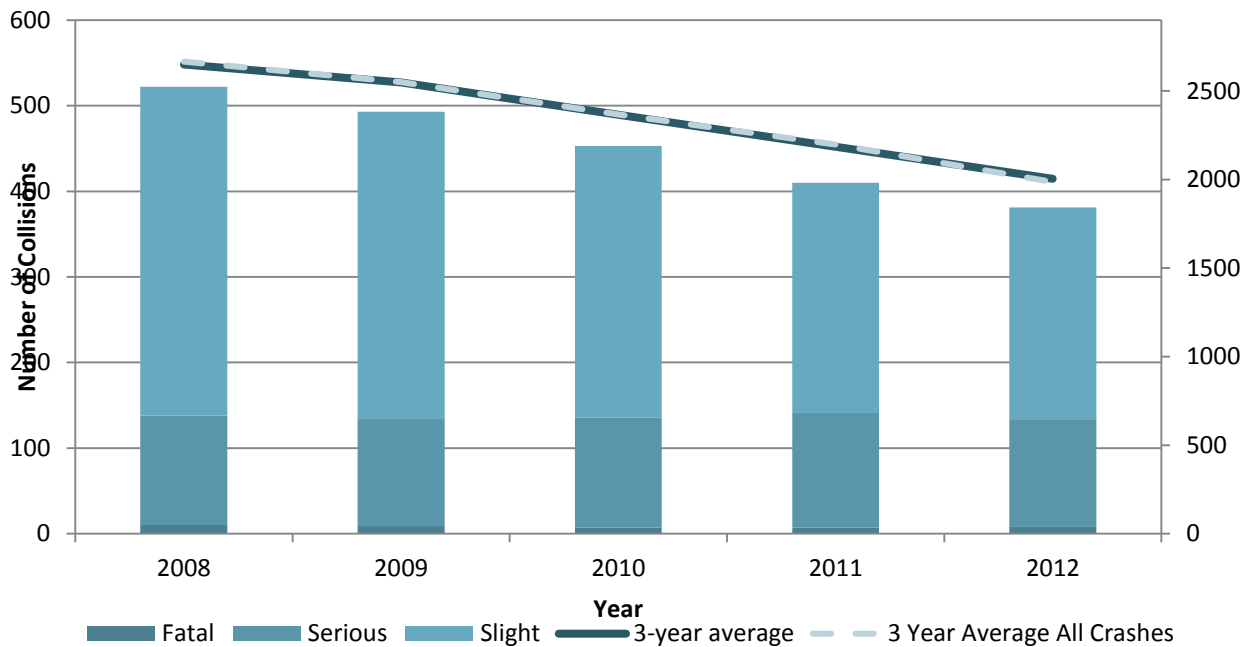
Collisions in Birmingham with CF 301, 302, 303, 304 and/or 305 recorded (2008-2012)



PEDESTRIAN ONLY (FACTORS 801-810) 2008-2012

The below chart shows collisions where the pedestrian only CFs 801 (*Crossed road masked by stationary or parked vehicle*); 802 (*Failed to look properly*); 803 (*Failed to judge vehicle's path or speed*); 804 (*Wrong use of pedestrian crossing facility*); 805 (*Dangerous action in carriageway (e.g. playing)*); 806 (*Impaired by alcohol*); 807 (*Impaired by drugs (illicit or medicinal)*); 808 (*Careless, reckless or in a hurry*); 809 (*Pedestrian wearing dark clothing at night*) and/or 810 (*Disability or illness, mental or physical*) was applied, by severity, between 2008 and 2012. In Birmingham, a pedestrian only CF was recorded against 20.8% of officer attended collisions. Of the ten pedestrian only CF's, 802 (*Failed to look properly*) was the most common, being attributed to 15.6% of collisions. The chart below shows a general reducing trend in collisions attributed at least one pedestrian only CF as shown by the 3-year average line. The trend exactly matches that of all attended collisions where at least one CF was recorded (shown by the dashed line). There has been a 27% reduction in pedestrian CF collisions since 2008.

Collisions in Birmingham with CF 801, 802, 803, 804, 805, 806, 807, 808, 809 and/or 810 recorded (2008-2012)



APPENDICES



APPENDIX 1 – DATA TABLES

NOTE: all figures for Birmingham's roads marked with an asterisk (*) are derived from local STATS19 data for 2013. These may not coincide exactly with finalised national data when this becomes available.

ALL CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	29	401	430	4,402	4,832
2009	33	390	423	4,096	4,519
2010	28	389	417	3,675	4,092
2011	27	438	465	3,032	3,497
2012	24	377	401	2,670	3,071
2013*	29	373	402	2,913	3,315
Overall Total	170	2,368	2,538	20,788	23,326

CHILD CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	3	70	73	495	568
2009	5	65	70	443	513
2010	1	78	79	424	503
2011	3	78	81	323	404
2012	1	78	79	299	378
2013*	2	71	73	303	376
Overall Total	15	440	455	2,287	2,742

PEDESTRIAN CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	13	183	196	612	808
2009	14	172	186	622	808
2010	9	166	175	519	694
2011	13	181	194	464	658
2012	13	167	180	418	598
2013*	14	171	185	470	655
Overall Total	76	1,040	1,116	3,105	4,221

ALL DRIVERS INVOLVED IN COLLISIONS BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	46	567	613	5,905	6,518
2009	41	556	597	5,435	6,032
2010	51	541	592	4,707	5,299
2011	40	620	660	3,922	4,582
2012	29	559	588	3,512	4,100
2013*	52	537	589	3,872	4,461
Overall Total	259	3,380	3,639	27,353	30,992

YOUNG DRIVERS (NOT PEDAL CYCLES OR MOTORCYCLES) INVOLVED IN COLLISIONS – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	11	93	104	914	1,018
2009	5	86	91	832	923
2010	9	74	83	660	743
2011	5	71	76	521	597
2012	2	44	46	430	476
2013*	9	73	82	459	541
Overall Total	41	441	482	3,816	4,298

VAN DRIVERS INVOLVED IN COLLISIONS – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	3	24	27	274	301
2009	0	23	23	292	315
2010	2	27	29	238	267
2011	1	36	37	200	237
2012	0	25	25	171	196
2013*	3	20	23	202	225
Overall Total	9	155	164	1,377	1,541

CASUALTIES IN LORRY COLLISIONS – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	4	8	12	115	127
2009	3	8	11	120	131
2010	4	6	10	93	103
2011	3	10	13	85	98
2012	2	7	9	75	84
Overall Total	16	39	55	488	543

MOTORCYCLE USER CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	3	58	61	183	244
2009	4	56	60	191	251
2010	3	41	44	131	175
2011	4	74	78	134	212
2012	3	46	49	139	188
2013*	4	65	69	150	219
Overall Total	21	340	361	928	1,289

PEDAL CYCLE USER CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	0	36	36	193	229
2009	2	34	36	195	231
2010	2	44	46	202	248
2011	2	44	46	218	264
2012	1	47	48	226	274
2013*	2	37	39	223	262
Overall Total	9	242	251	1,257	1,508

CHILD PEDESTRIAN CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	3	54	57	223	280
2009	1	53	54	200	254
2010	1	57	58	175	233
2011	2	61	63	160	223
2012	0	65	65	120	185
2013*	1	57	58	160	218
Overall Total	8	347	355	1,038	1,393

ADULT PEDESTRIAN CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	10	129	139	389	528
2009	13	119	132	422	554
2010	8	109	117	344	461
2011	11	120	131	304	435
2012	13	102	115	298	413
2013*	13	114	127	310	437
Overall Total	68	693	761	2,067	2,828

CHILD PEDAL CYCLE USER CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	0	9	9	37	46
2009	1	2	3	45	48
2010	0	12	12	30	42
2011	1	8	9	24	33
2012	0	7	7	31	38
2013*	1	6	7	23	30
Overall Total	3	44	47	190	237

ADULT PEDAL CYCLE USER CASUALTIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	0	27	27	156	183
2009	1	32	33	150	183
2010	2	32	34	172	206
2011	1	36	37	194	231
2012	1	40	41	195	236
2013*	1	31	32	200	232
Overall Total	6	198	204	1,067	1,271

ALL COLLISIONS – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	28	361	389	3,117	3,506
2009	29	360	389	2,900	3,289
2010	28	346	374	2,502	2,876
2011	24	395	419	2,089	2,508
2012	22	351	373	1,843	2,216
2013*	28	347	375	2,070	2,445
Overall Total	159	2,160	2,319	14,521	16,840

COLLISIONS INVOLVING LORRIES – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	4	5	9	85	94
2009	3	7	10	83	93
2010	4	6	10	64	74
2011	3	10	13	52	65
2012	2	7	9	54	63
2013*	2	4	6	68	74
Overall Total	18	39	57	406	463

COLLISIONS BY HOUR OF THE DAY (WEEKDAYS) – BIRMINGHAM ROADS (2008-2012)

Hour	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
Midnight	2	15	17	78	95
1AM	2	10	12	59	71
2AM	0	12	12	43	55
3AM	3	10	13	39	52
4AM	2	5	7	31	38
5AM	2	11	13	46	59
6AM	2	22	24	127	151
7AM	6	53	59	373	432
8AM	1	94	95	767	862
9AM	5	55	60	491	551
10AM	4	53	57	357	414
11AM	2	53	55	462	517
Noon	7	72	79	509	588
1PM	4	66	70	574	644
2PM	4	68	72	546	618
3PM	5	122	127	867	994
4PM	4	130	134	840	974
5PM	2	110	112	785	897
6PM	4	102	106	692	798
7PM	4	82	86	536	622
8PM	4	51	55	403	458
9PM	9	54	63	294	357
10PM	4	37	41	250	291
11PM	5	40	45	184	229
Overall Total	87	1,327	1,414	9,353	10,767

COLLISIONS BY HOUR OF THE DAY (WEEKENDS) – BIRMINGHAM ROADS (2008-2012)

Hour	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
Midnight	4	21	25	84	109
1AM	3	20	23	99	122
2AM	2	21	23	60	83
3AM	4	16	20	50	70
4AM	1	6	7	36	43
5AM	1	14	15	33	48
6AM	1	13	14	38	52
7AM	0	8	8	47	55
8AM	0	7	7	40	47
9AM	0	15	15	90	105
10AM	2	11	13	104	117
11AM	0	16	16	144	160
Noon	1	25	26	175	201
1PM	3	25	28	199	227
2PM	4	31	35	239	274
3PM	3	32	35	194	229

Hour	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
4PM	0	25	25	216	241
5PM	3	28	31	202	233
6PM	2	31	33	196	229
7PM	1	28	29	171	200
8PM	2	25	27	144	171
9PM	1	19	20	123	143
10PM	2	13	15	114	129
11PM	0	17	17	92	109
Overall Total	40	467	507	2,890	3,397

COLLISIONS BY HOUR OF THE DAY (WEEKDAYS) –BIRMINGHAM ROADS (2009-2013*)

Hour	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
Midnight	2	14	16	75	91
1AM	3	10	13	52	65
2AM	1	13	14	35	49
3AM	2	12	14	32	46
4AM	2	6	8	27	35
5AM	1	11	12	45	57
6AM	4	26	30	124	154
7AM	4	61	65	374	439
8AM	1	97	98	702	800
9AM	5	47	52	444	496
10AM	3	54	57	324	381
11AM	2	47	49	423	472
Noon	8	62	70	468	538
1PM	3	62	65	511	576
2PM	7	70	77	492	569
3PM	4	121	125	777	902
4PM	4	133	137	783	920
5PM	2	125	127	748	875
6PM	4	103	107	676	783
7PM	3	84	87	504	591
8PM	3	52	55	369	424
9PM	10	45	55	276	331
10PM	4	41	45	220	265
11PM	5	39	44	169	213
Overall Total	87	1,335	1,422	8,650	10,072

COLLISIONS BY HOUR OF THE DAY (WEEKENDS) –BIRMINGHAM ROADS (2009-2013*)

Hour	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
Midnight	3	22	25	76	101
1AM	3	15	18	75	93
2AM	2	22	24	48	72
3AM	4	15	19	42	61
4AM	1	5	6	30	36
5AM	2	10	12	27	39
6AM	0	13	13	36	49
7AM	0	8	8	44	52
8AM	0	5	5	40	45
9AM	0	11	11	78	89
10AM	1	12	13	93	106
11AM	2	19	21	136	157
Noon	1	22	23	149	172
1PM	4	28	32	185	217
2PM	3	30	33	200	233
3PM	2	28	30	162	192
4PM	0	27	27	192	219
5PM	3	27	30	181	211
6PM	3	24	27	181	208
7PM	4	30	34	148	182
8PM	1	26	27	127	154
9PM	0	21	21	114	135
10PM	2	15	17	97	114
11PM	0	15	15	88	103
Overall Total	41	450	491	2,549	3,040

COLLISIONS INVOLVING FACTORS 101, 102 AND/OR 103 (ROAD SURFACE RELATED) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	0	13	13	154	167
2009	3	22	25	198	223
2010	0	24	24	196	220
2011	1	18	19	113	132
2012	1	18	19	166	185
2013*	1	22	23	134	157
Overall Total	6	117	123	961	1,084

COLLISIONS INVOLVING FACTORS 306 AND/OR 307 (SPEED RELATED) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	3	34	37	243	280
2009	7	31	38	205	243
2010	4	35	39	258	297
2011	4	37	41	178	219
2012	3	35	38	164	202
2013*	8	41	49	194	243
Overall Total	29	213	242	1,242	1,484

COLLISIONS INVOLVING FACTORS 601, 602 AND/OR 603 (DRIVER BEHAVIOUR RELATED) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	3	59	62	331	393
2009	8	46	54	363	417
2010	7	42	49	350	399
2011	4	70	74	317	391
2012	4	59	63	281	344
2013*	8	58	66	301	367
Overall Total	34	334	368	1,943	2,311

COLLISIONS INVOLVING FACTORS 501, 502, 503, 504 AND/OR 505 (IMPAIRMENT RELATED) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	1	24	25	119	144
2009	3	28	31	99	130
2010	2	24	26	121	147
2011	3	23	26	100	126
2012	2	27	29	85	114
2013*	4	20	24	88	112
Overall Total	15	146	161	612	773

COLLISIONS INVOLVING FACTOR 501 (IMPAIRED BY ALCOHOL) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	1	21	22	88	110
2009	1	19	20	73	93
2010	1	19	20	77	97
2011	0	16	16	61	77
2012	2	17	19	53	72
2013*	3	16	19	64	83
Overall Total	8	108	116	416	532

COLLISIONS INVOLVING FACTORS 508, 509 AND/OR 510 (DISTRACTION) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	0	5	5	54	59
2009	1	8	9	39	48
2010	0	3	3	56	59
2011	0	7	7	70	77
2012	0	7	7	45	52
2013*	2	14	16	71	87
Overall Total	3	44	47	335	382

COLLISIONS INVOLVING FACTORS 301, 302, 303, 304 AND/OR 305 (DISOBEYED TRAFFIC SIGNS/SIGNALS) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	0	32	32	244	276
2009	3	32	35	196	231
2010	1	17	18	161	179
2011	2	19	21	203	224
2012	2	20	22	140	162
2013*	1	18	19	124	143
Overall Total	9	138	147	1,068	1,215

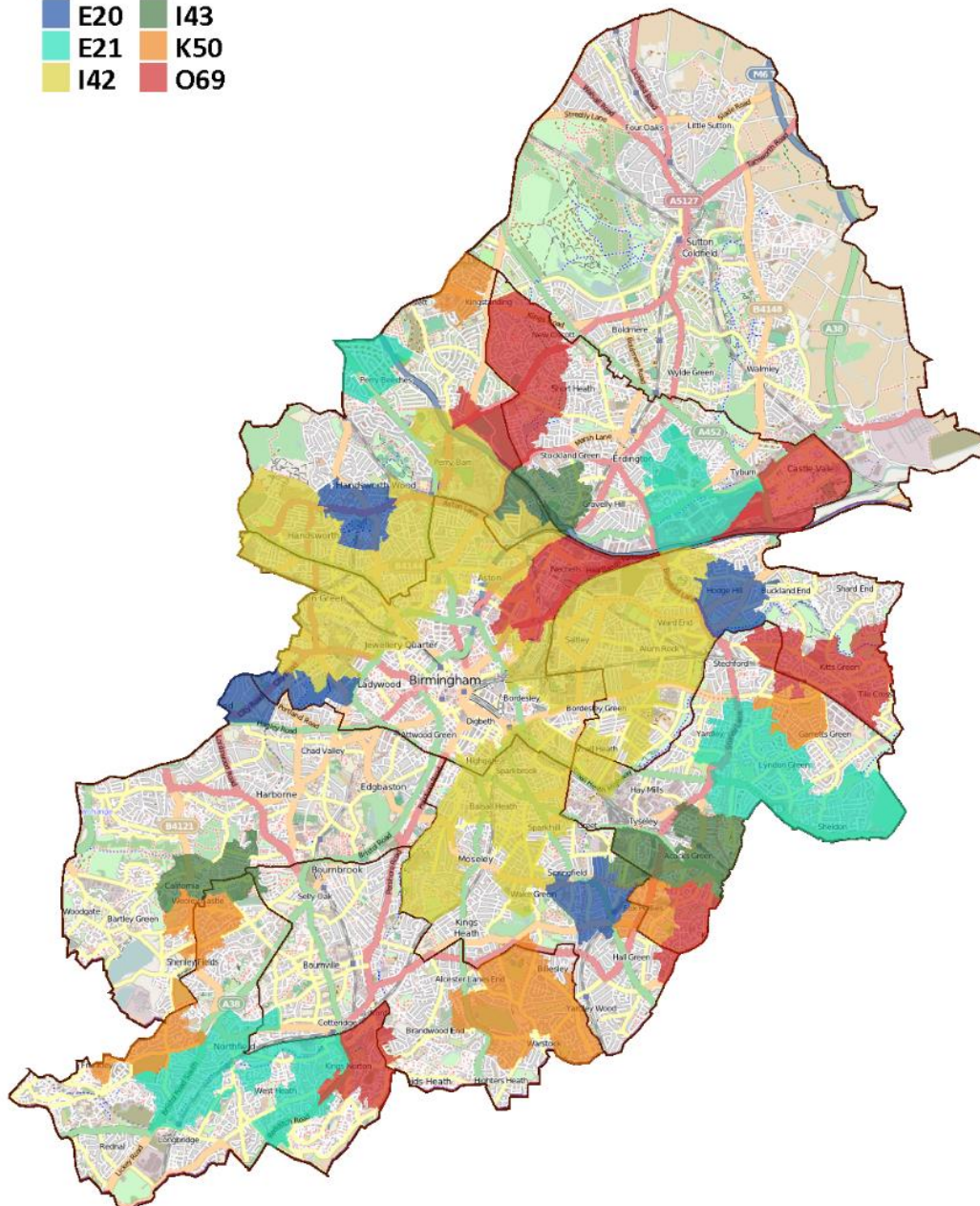
COLLISIONS INVOLVING FACTORS 801, 802, 803, 804, 805, 806, 807, 808, 809 AND/OR 810 (PEDESTRIAN ONLY) – BIRMINGHAM ROADS

Year	KSI		KSI Total	Slight	Overall Total
	Fatal	Serious			
2008	10	128	138	384	522
2009	9	125	134	359	493
2010	7	129	136	317	453
2011	7	134	141	270	411
2012	8	125	133	249	382
2013*	8	108	116	243	359
Overall Total	49	749	798	1,822	2,620

APPENDIX 2 – MOSAIC

The following map shows the middle super output areas within Birmingham where the six main Mosaic Types identified within this report are the dominant Types. For further information about super output areas, refer to: <http://neighbourhood.statistics.gov.uk/dissemination/Info.do?page=aboutneighbourhood/geography/superoutp>

Dominant Mosaic Type by MSOA Birmingham 2013



Upwardly mobile South Asian families living in inter war suburbs (Type E20) are dominant in parts of Handsworth Wood, Hodge Hill, Springfield and east of Bearwood. Middle aged families living in less fashionable inter war suburban semis (Type E21) are dominant in areas such as Perry Beeches, Lyndon Green, Northfield and to the southeast of Erdington. South Asian communities experiencing social deprivation (Type I42) are dominant in a large area to the north and east of Birmingham city centre in and around the areas of Aston, Small Heath, Handsworth and Sparkhill. Older town centre terraces with transient, single populations (Type I43) dominate around Acocks Green and California. Older families in low value housing in industrial areas (Type K50) are dominant in parts of south Birmingham, including Billesley and Weoley Castle. Vulnerable young parents needing substantial state support (Type O69) are dominant in parts of Castle Vale, Kitts Green and Nechells.

The table below provides a summary of some main characteristics of these over-represented Types and these can be used to create a picture of the target audience in terms of economic and educational position, family life, and transport preferences (including mileage and car ownership). This information is invaluable for understanding target audiences and knowing how to communicate with them.

I42	O69	K50
South Asian communities experiencing social deprivation	Vulnerable young parents needing substantial state support	Older families in low value housing in traditional industrial areas
These communities contain the highest concentration of recent migrants from South Asia, and in particular those living in the most overcrowded conditions in the poorest quality older terraced housing. These neighbourhoods have a distinctively young population and the number of children per family is significantly above the national average. Residents of these communities often have low incomes and low qualifications and limited car access.	These communities have a high concentration of young parents with pre-school age children who have been given priority for social housing and live in some of the least desirable council estates. Many of the country's most vulnerable young children live in these neighbourhoods. Many of these properties are occupied by people who have been raised in homes which have relied on welfare benefits rather than employment income for multiple generations.	These communities tend to consist of middle aged couples with older children. They tend to have low incomes and live in small houses. They have some problems with debt and prefer budget brands. Residents from this Type tend to be conservative in their social attitudes. They are most receptive to face to face contact and local newspapers. They have a poor opinion of the police and a proportion of have been stopped for speeding.
I43	E21	E20
Older town centre terraces with transient, single populations	Middle aged families in less fashionable inter war suburban semis	Upwardly mobile South Asian families living in inter war suburbs
These communities contain many young, transient single people who live on low incomes in small terraced houses close to town centres. There is high unemployment and low incomes in these areas and who do work are often in manual and service jobs. There is limited car and technology access and communication preferences are local newspapers and face-to-face contact.	These communities consist of lower middle class families, with children who are now at the stage of life where they are choosing trades to study at technical college or are entering the workforce for the first time. Many people work for local manufacturing companies in junior management and supervisory roles and many households seek to have second incomes. Adults are typically in their 40s and 50s and have often moved to these neighbourhoods to meet the needs of larger than average families.	These communities contain an increasingly large population of recent immigrants from South Asia and East Africa who have worked hard to establish a successful financial position in their new country. The older residents are likely to be first generation immigrants who have accumulated money from the small businesses they manage. Their communication preferences including national and local newspapers and SMS text.

APPENDIX 3 – COMPLETE LIST OF MOSAIC PUBLIC SECTOR TYPES

Mosaic Type	Description
A1	Rural families with high incomes, often from city jobs
A2	Retirees electing to settle in environmentally attractive localities
A3	Remote communities with poor access to public and commercial services
A4	Villagers with few well paid alternatives to agricultural employment
B5	Better off empty nesters in low density estates on town fringes
B6	Self employed trades people living in smaller communities
B7	Empty nester owner occupiers making little use of public services
B8	Mixed communities with many single people in the centres of small towns
C9	Successful older business leaders living in sought-after suburbs
C10	Wealthy families in substantial houses with little community involvement
C11	Creative professionals seeking involvement in local communities
C12	Residents in smart city centre flats who make little use of public services
D13	Higher income older champions of village communities
D14	Older people living in large houses in mature suburbs
D15	Well off commuters living in spacious houses in semi rural settings
D16	Higher income families concerned with education and careers
E17	Comfortably off suburban families weakly tied to their local community
E18	Industrial workers living comfortably in owner occupied semis
E19	Self reliant older families in suburban semis in industrial towns
E20	Upwardly mobile South Asian families living in inter war suburbs
E21	Middle aged families living in less fashionable inter war suburban semis
F22	Busy executives in town houses in dormitory settlements
F23	Early middle aged parents likely to be involved in their children's education
F24	Young parents new to their neighbourhood, keen to put down roots
F25	Personnel reliant on the Ministry of Defence for public services
G26	Well educated singles living in purpose built flats
G27	City dwellers owning houses in older neighbourhoods
G28	Singles and sharers occupying converted Victorian houses
G29	Young professional families settling in better quality older terraces
G30	Diverse communities of well educated singles living in smart, small flats
G31	Owners in smart purpose built flats in prestige locations, many newly built
G32	Students and other transient singles in multi-let houses
G33	Transient singles, poorly supported by family and neighbours
G34	Students involved in college and university communities
H35	Childless new owner occupiers in cramped new homes
H36	Young singles and sharers renting small purpose built flats
H37	Young owners and rented developments of mixed tenure
H38	People living in brand new residential developments
I39	Young owners and private renters in inner city terraces
I40	Multi-ethnic communities in newer suburbs away from the inner city
I41	Renters of older terraces in ethnically diverse communities
I42	South Asian communities experiencing social deprivation
I43	Older town centre terraces with transient, single populations
I44	Low income families occupying poor quality older terraces
I45	Low income communities reliant on low skill industrial jobs

Mosaic Type	Description
J46	Residents in blue collar communities revitalised by commuters
J47	Comfortably off industrial workers owning their own homes
K48	Middle aged couples and families in right-to-buy homes
K49	Low income older couples long established in former council estates
K50	Older families in low value housing in traditional industrial areas
K51	Often indebted families living in low rise estates
L52	Communities of wealthy older people living in large seaside houses
L53	Residents in retirement, second home and tourist communities
L54	Retired people of modest means commonly living in seaside bungalows
L55	Capable older people leasing / owning flats in purpose built blocks
M56	Older people living on council estates with limited budgets
M57	Old people in flats subsisting on welfare payments
M58	Less mobile older people requiring a degree of care
M59	People living in social accommodation designed for older people
N60	Tenants in council flats on estates at risk of serious social problems
N61	Childless tenants in council flats with modest social needs
N62	Young renters in flats with a cosmopolitan mix
N63	Multicultural tenants renting flats in areas of social housing
N64	Diverse home sharers renting small flats in densely populated areas
N65	Young singles in multi-ethnic communities, many in high rise flats
N66	Childless, low income tenants in high rise flats
O67	Older tenants on low rise social housing estates where jobs are scarce
O68	Families with varied structures living on low rise social housing estates
O69	Vulnerable young parents needing substantial state support

APPENDIX 4 - 2013 DATA UPDATE FOR BIRMINGHAM'S ROADS

This data update shows headline trends on Birmingham's roads in 2013, derived from local STATS19 data provided by Birmingham City Council. In each chart, an annual average baseline figure for 2004-2008 is shown in green, and the 2013 bar is lightly shaded; a 3 year moving average trend line is also shown.

The chart below (Fig.1) shows overall casualty figures on Birmingham's roads, including the M6. Casualty numbers steadily reduced from the baseline period up to 2012 but have increased in 2013. Despite an 8% increase in 2013, casualty numbers are still below the 2011 level and the overall trend remains a downward one.

Fig. 1 - Casualties by year, Birmingham roads (2004-2013)

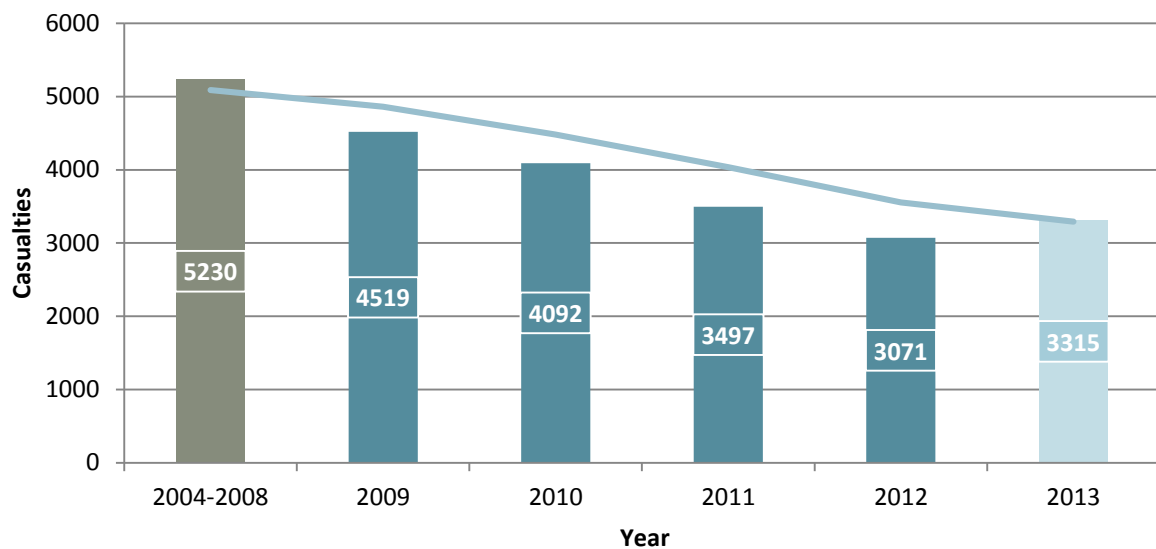


Fig.2 below shows child casualty figures for Birmingham by year. There has been a downward trend from the baseline period with a 43% reduction from the 2004-2008 annual average. Casualty figures in 2013 are similar to those of 2012.

Fig. 2 – Child casualties by year, Birmingham roads (2004-2013)

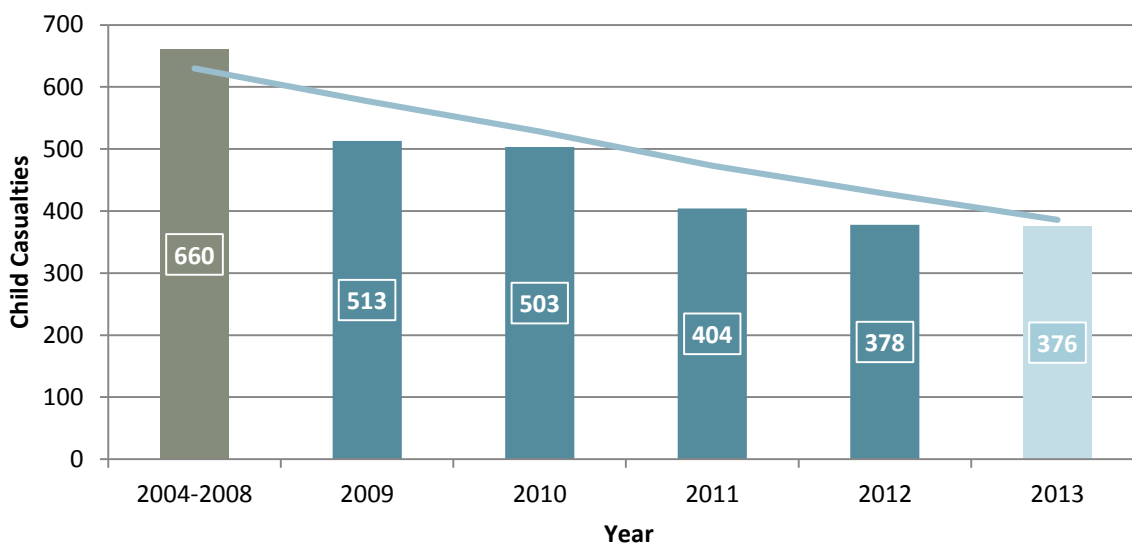
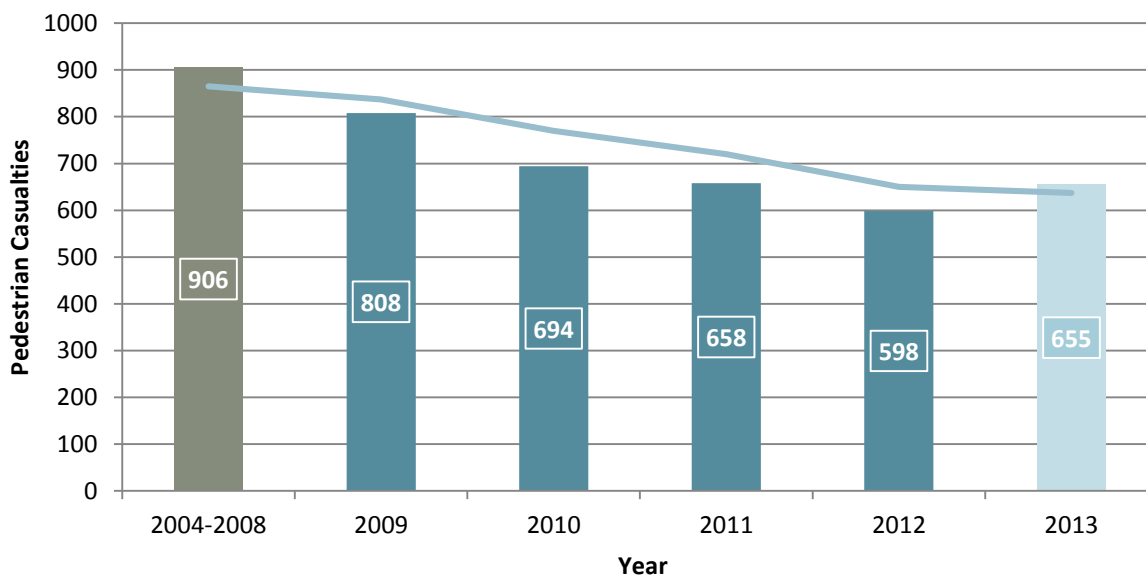


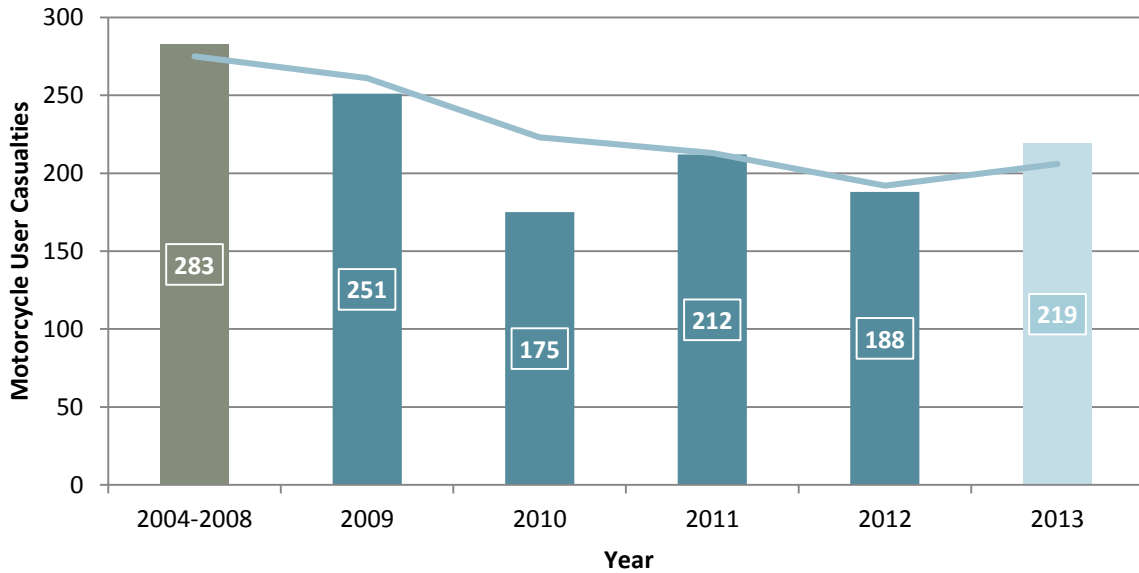
Figure 3 shows pedestrian casualty numbers by year. Pedestrian casualty numbers in Birmingham have reduced significantly from the 2004-2008 baseline period (28%). There have been annual reductions up to 2013 when there was an increase, although the level is the same as it was in 2011. As with overall pedestrian casualties, child pedestrian casualties and adult pedestrian casualties have both reduced significantly from the baseline period but have increased slightly from 2012.

Fig. 3 – Pedestrian casualties by year, Birmingham roads (2004-2013)



Motorcycle user casualties in Birmingham have reduced by 23% from the baseline period of 2004-2008 as shown in Fig.4. There have been fluctuations in the data since 2009 with an increase in 2013 compared to 2012.

Fig. 4 – Motorcycle user casualties by year, Birmingham roads (2004-2013)



Pedal Cycle user casualties have risen in recent years, as shown below in Fig.5. However, there has been a small reduction in 2013 compared to the previous year. Figures 6 and 7 show child and adult pedal cycle user casualty numbers. Child pedal cycle user casualties have reduced significantly from the baseline. The downward trend has continued in 2013 with a further reduction from 2012. Adult pedal cycle user casualties have increased from the 2004-2008 period and have remained at a similar level over the past three years.

Fig. 5 – Pedal Cycle user casualties by year, Birmingham roads (2004-2013)

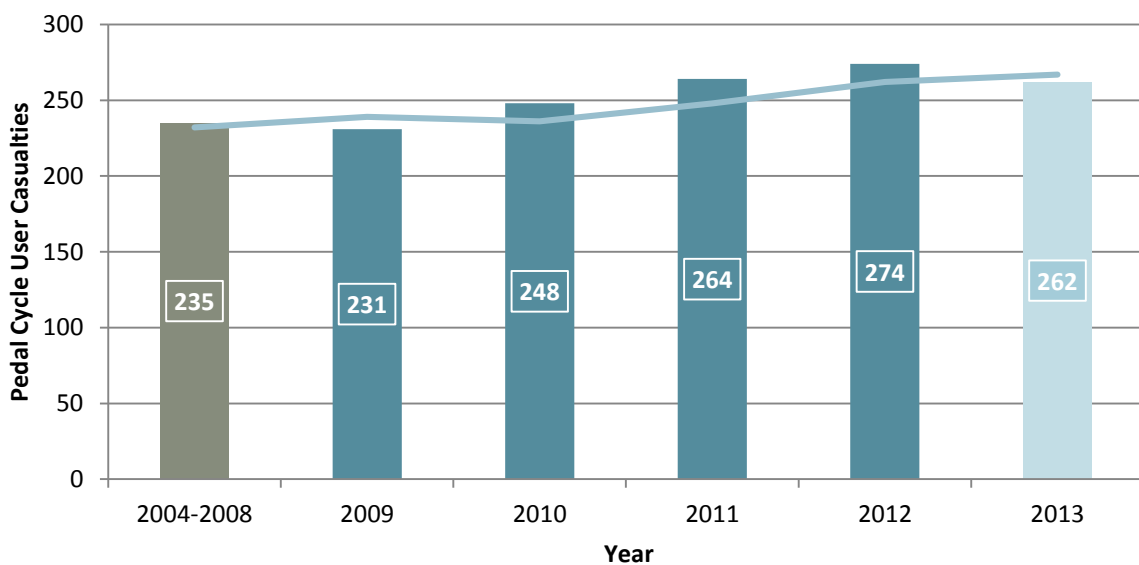


Fig. 6 – Child Pedal Cycle user casualties by year, Birmingham roads (2004-2013)

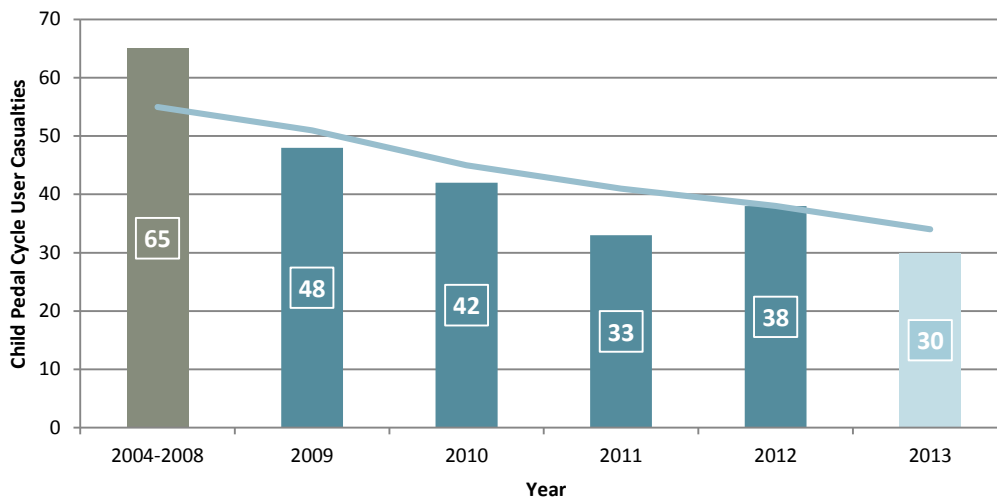


Fig. 7 – Adult Pedal Cycle user casualties by year, Birmingham roads (2004-2013)

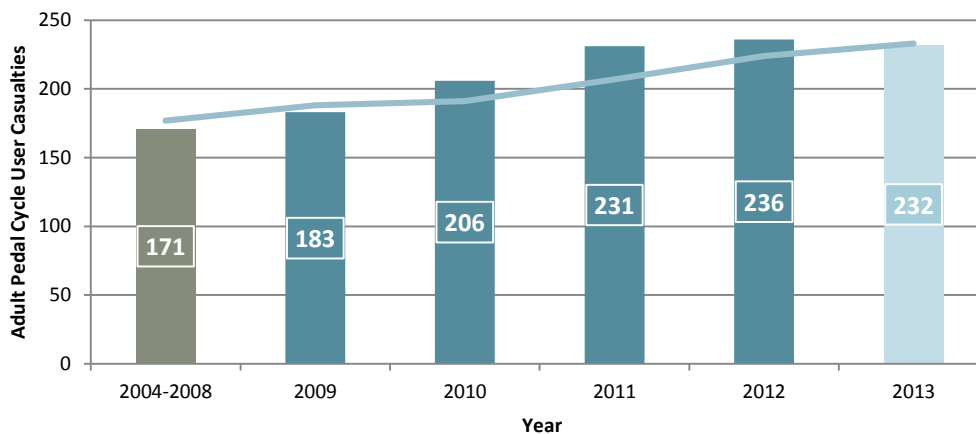
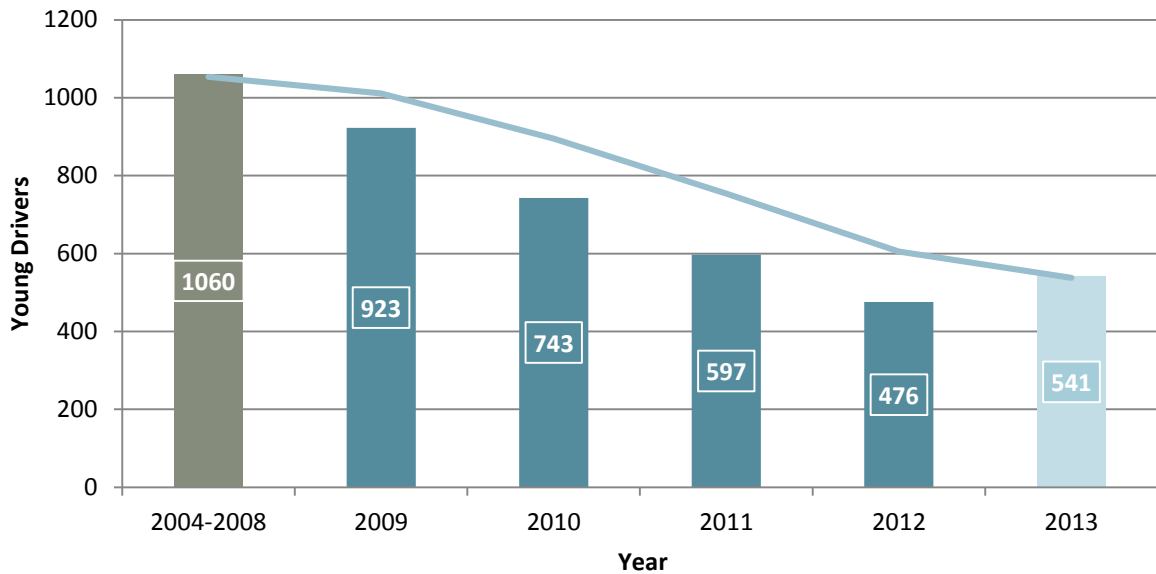


Figure 8 shows numbers of young drivers involved in injury collisions by year. Young riders of pedal cycles and motorcycles are excluded as these are covered in other sections of the report. Young driver collision numbers have decreased by nearly half from the 2004-2008 baseline period with a downward trend over the past decade. There has been an increase in 2013 compared to 2012 but young driver collision numbers are still following the overall downward trend.

Fig. 8 – Young Driver collision involvement by year, Birmingham roads (2004-2013)



Collision numbers on Birmingham’s roads, excluding the M6 are shown in Fig.9. It shows a large reduction from the 2004-2008 period and a steady downward trend. Despite an increase in 2013 compared to the previous year this trend has continued. Fig.10 shows collision numbers on the M6 in Birmingham. It shows that there has been a reduction from the baseline period with little overall change in recent years.

Fig. 9 – All collisions by year, excluding the M6, Birmingham roads (2004-2013)

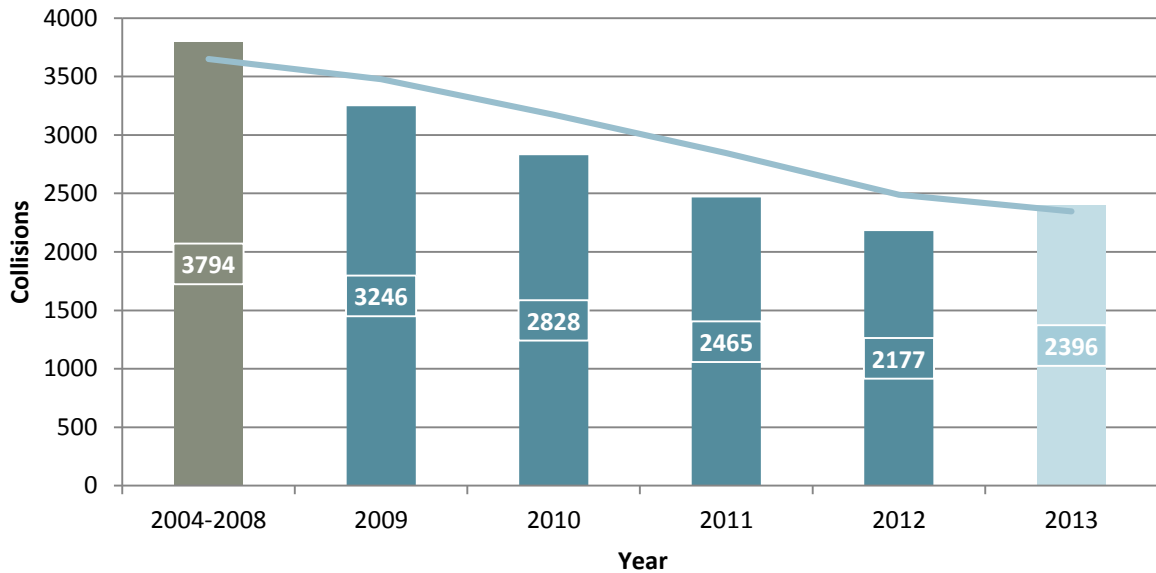
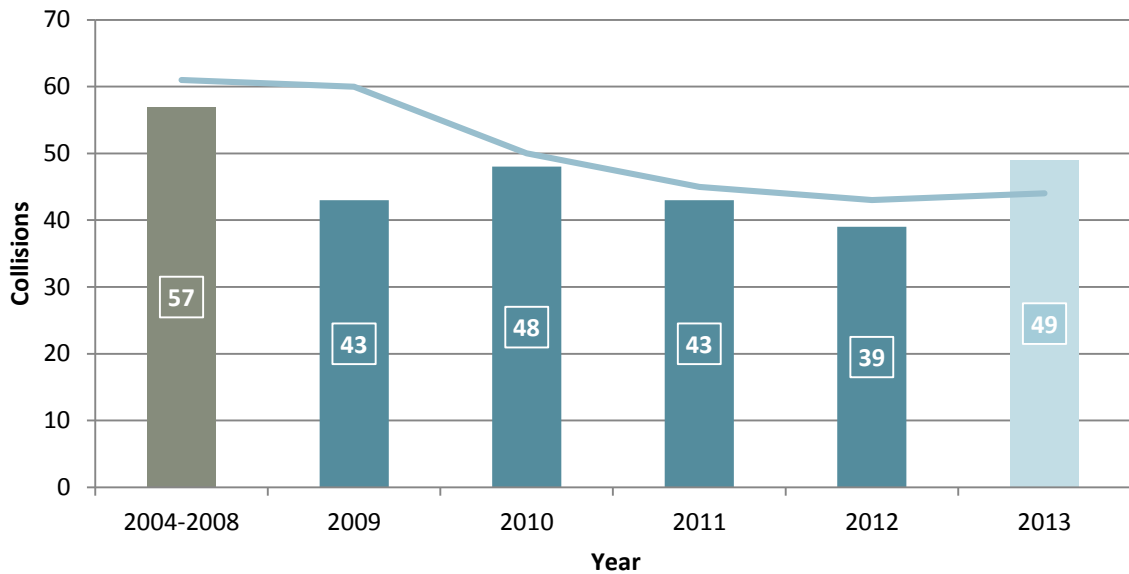


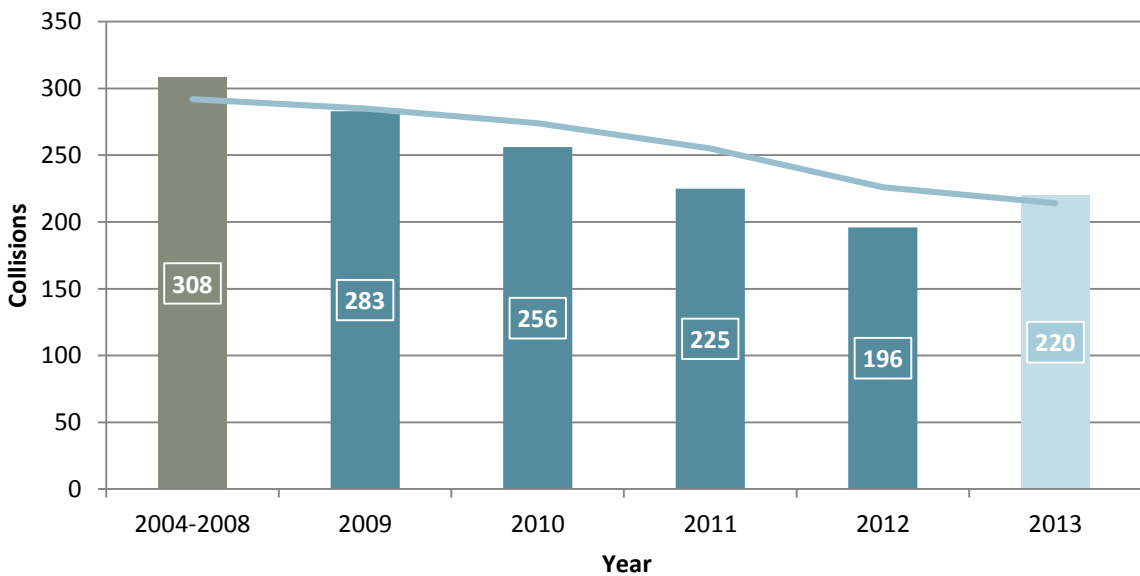
Fig. 10 – All collisions by year, M6 only, Birmingham roads (2004-2013)



The following charts (Figs.11-20) show collision numbers on Birmingham’s roads by constituency. The M6 has been excluded although some constituencies contain no sections of the M6. It should be noted that collisions by constituency figures in this appendix vary slightly from those shown elsewhere in this report. This is because the Lower Layer Super Output Area (LSOA) field used to match collisions to constituencies in the main report was that defined by DfT; while LSOAs used for this appendix are defined spatially by Eastings and Northings from local data.

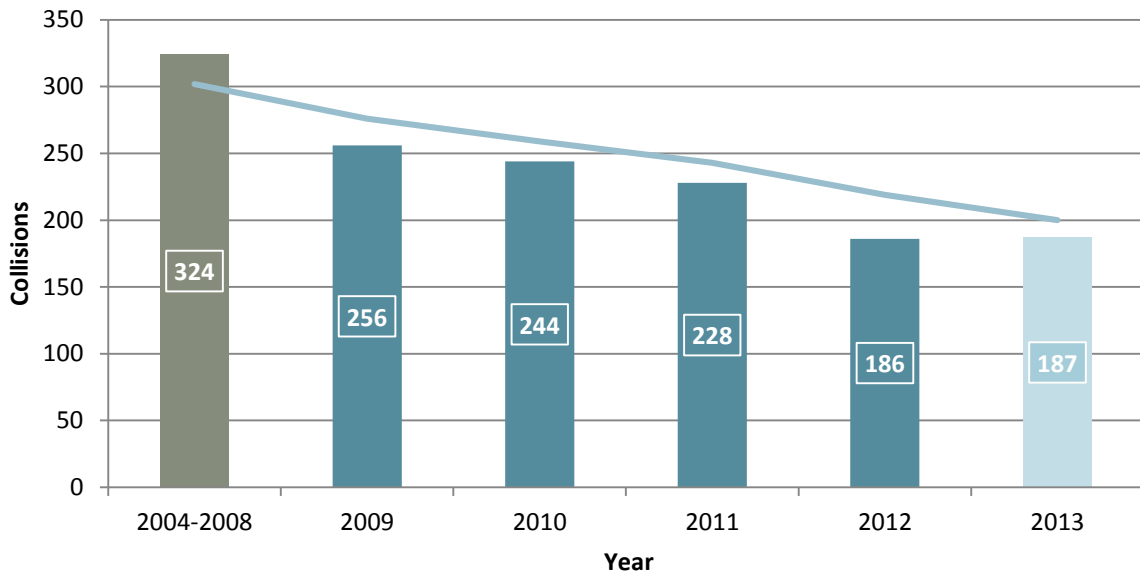
Fig.11 shows collisions on the roads of Edgbaston. It shows a similar trend to the overall Birmingham trend with a reduction from the baseline period and a slight increase in 2013 compared to the previous year but still continuing the general downward trend.

Fig. 11 – All collisions by year, excluding the M6, Edgbaston constituency (2004-2013)



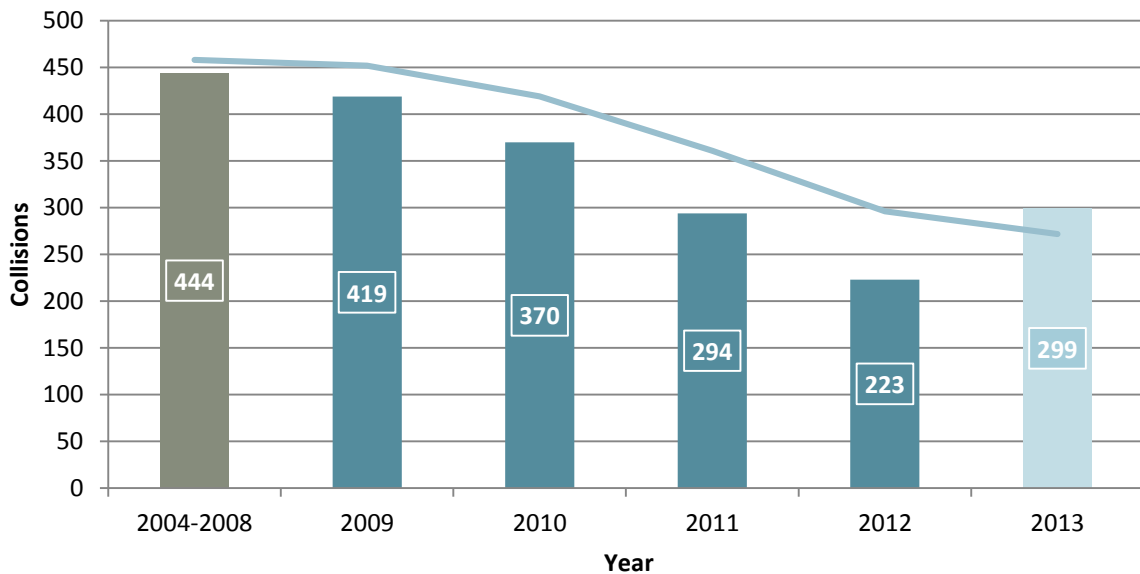
Collisions on the roads of Erdington have reduced by 42% from the 2004-2008 average. There has been a downward trend from the baseline period and annual reductions. This is shown in Fig.12. In 2013 there was very little change in collision numbers with an increase from 186 to 187.

Fig. 12 – All collisions by year, excluding the M6, Erdington constituency (2004-2013)



In the Hall Green constituency, collisions have reduced from the baseline period (Fig.13). There were annual reductions to 2012 when there were 223 collisions. There has been an increase to 299 in 2013 although this is still in line with the overall downward trend.

Fig. 13 – All collisions by year, excluding the M6, Hall Green constituency (2004-2013)



Collision numbers in Hodge Hill are shown in Fig.14. Collision levels have reduced by 44% compared to the 2004-2008 average. Collision numbers reduced to 229 in 2012 and this has remained the same in 2013.

Fig. 14 – All collisions by year, excluding the M6, Hodge Hill constituency (2004-2013)

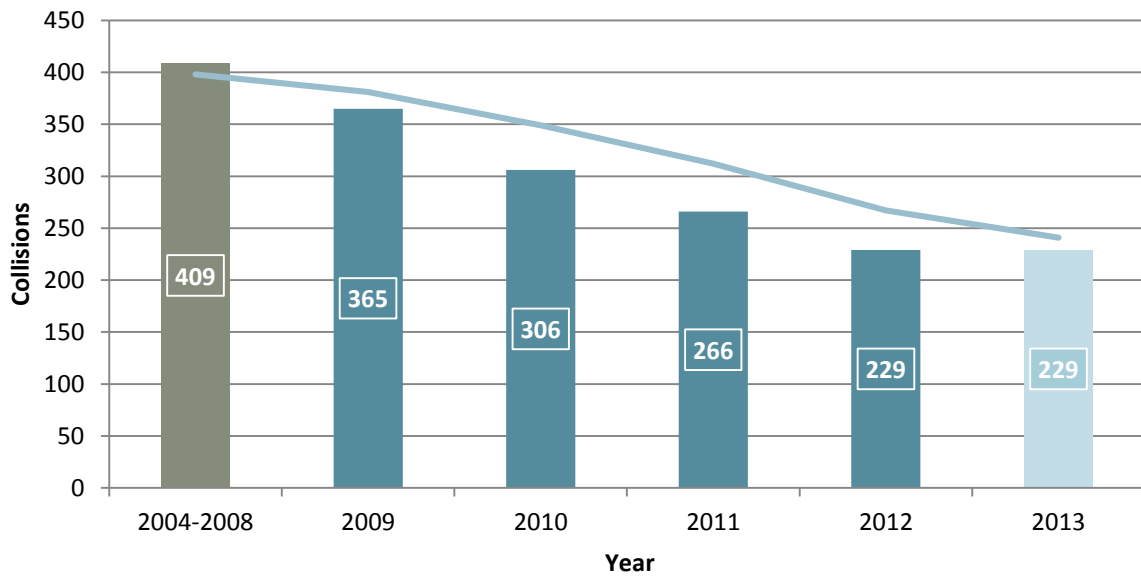
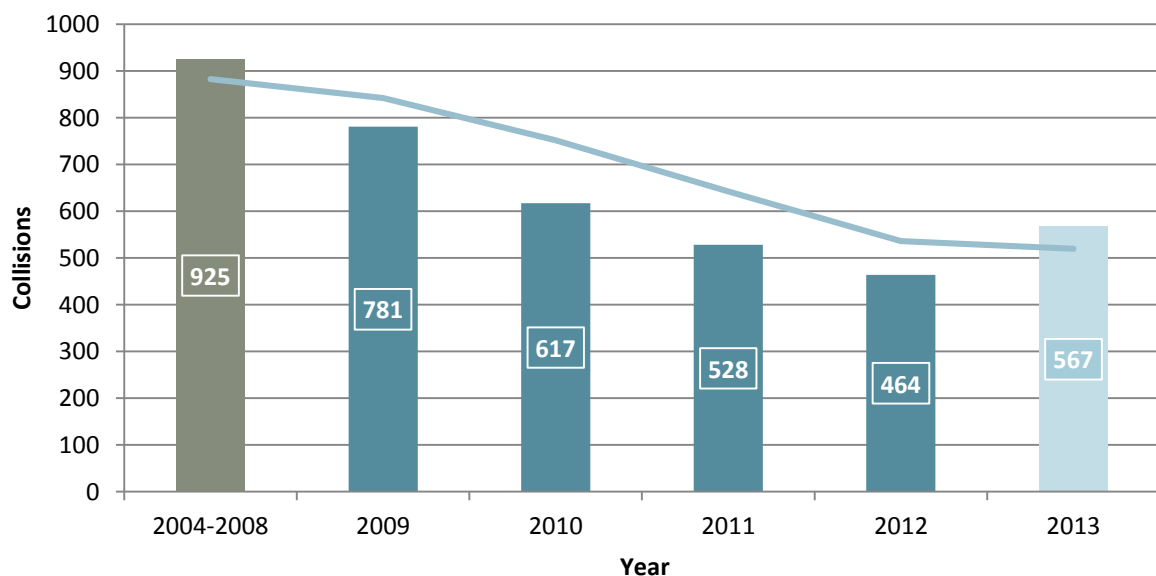


Fig.15 shows collisions by year in the Ladywood constituency. It follows a similar pattern to the overall Birmingham collision trend with a downward trend from the baseline period; however, there has been an increase in 2013 compared to 2012.

Fig. 15 – All collisions by year, excluding the M6, Ladywood constituency (2004-2013)



Collisions in Northfield have reduced by 26% from the baseline period but there has been little overall change in collision numbers since 2009 with a slight downward trend, as shown in Fig.16.

Fig. 16 – All collisions by year, excluding the M6, Northfield constituency (2004-2013)

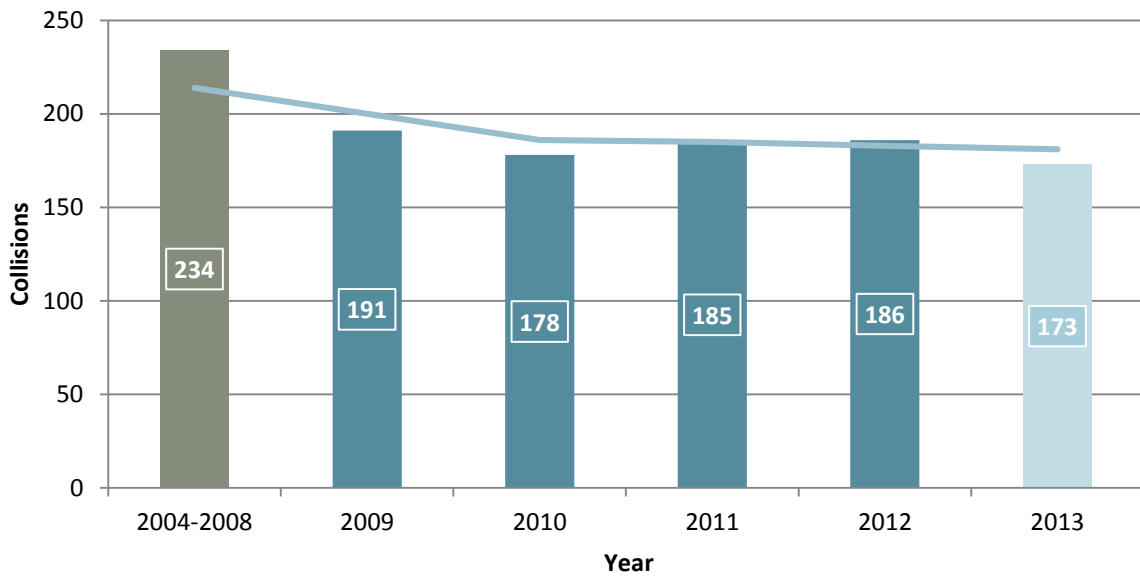
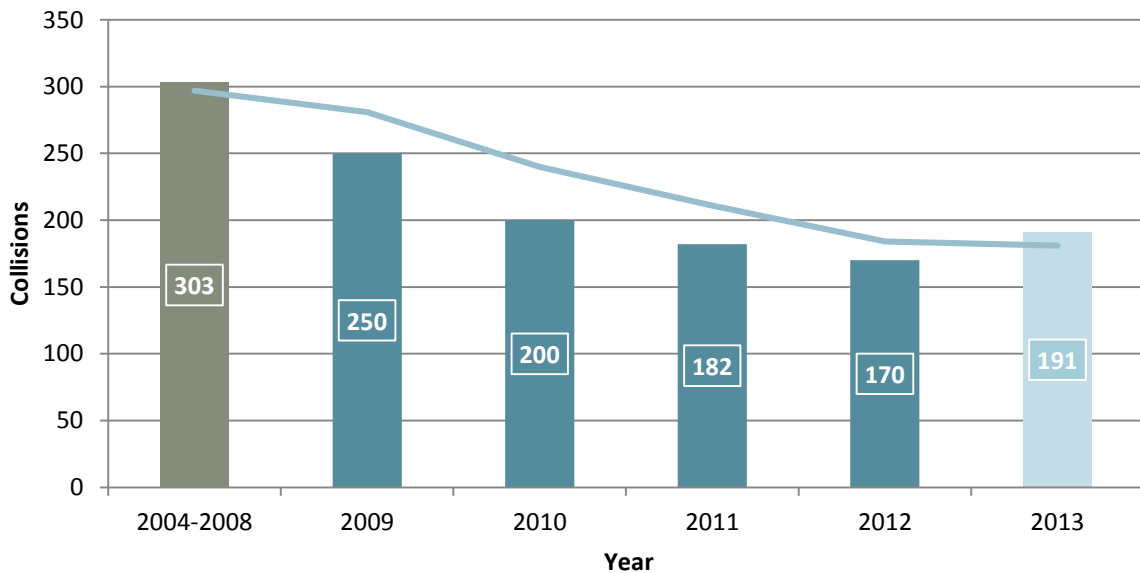


Fig.17 shows the collision trend for Perry Barr. Collision numbers reduced annually from the 2004-2008 average up to 2012. There has been an increase in 2013 from 170 to 191.

Fig. 17 – All collisions by year, excluding the M6, Perry Barr constituency (2004-2013)



Collisions in Selly Oak have reduced from the 2004-2008 average (Fig.18). An increase from 2011 to 2012 has been followed by a reduction in 2013. There were 177 collisions on the roads of Selly Oak in 2013 compared to 191 in 2012.

Fig. 18 – All collisions by year, excluding the M6, Selly Oak constituency (2004-2013)

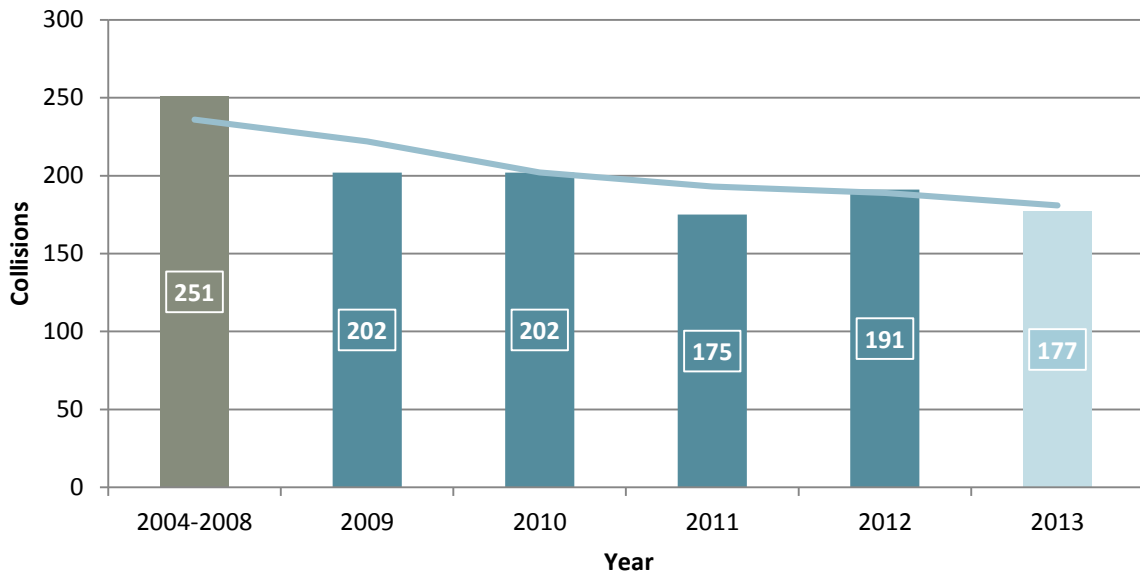
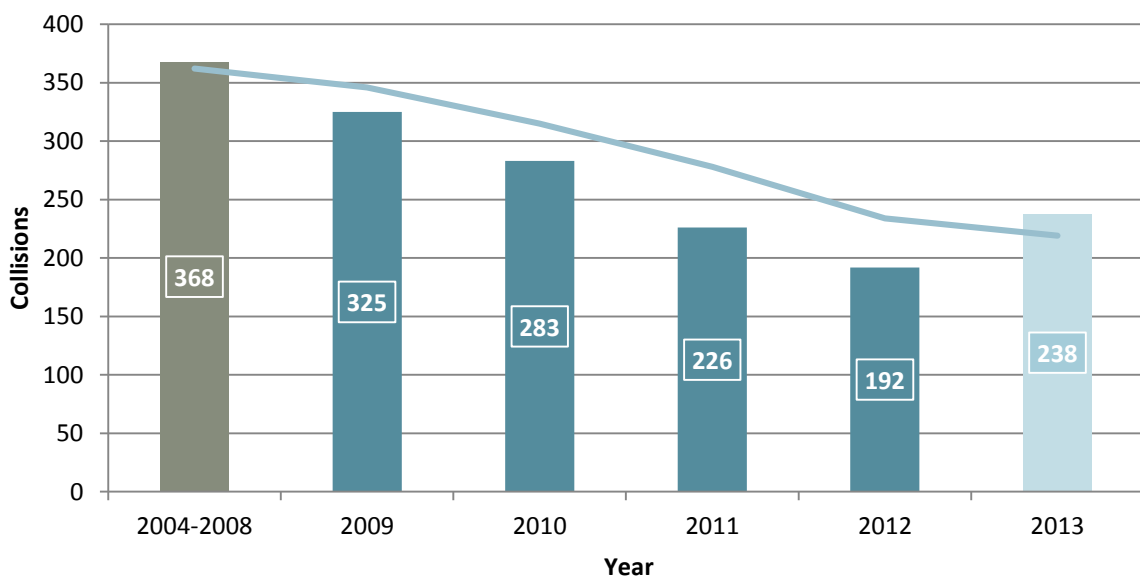


Fig.19 shows collisions by year in Yardley. Collisions have reduced annually from the 2004-2008 average. There were 192 collisions in 2012. This has increased to 238 in 2013 but the overall trend is still downward.

Fig. 19 – All collisions by year, excluding the M6, Yardley constituency (2004-2013)



Collisions in Sutton Coldfield are relatively low compared to other constituencies in Birmingham. Fig.20 shows a reduction from the baseline period and a downward trend. This downward trend has continued in 2013. There were 110 collisions in Sutton Coldfield in 2013 compared to 129 in 2012.

Fig. 20 – All collisions by year, excluding the M6, Sutton Coldfield constituency (2004-2013)

