6 Safety, Health and Security

Introduction

This chapter is aimed at understanding transport's negative effects as well as bringing about positive behavioural changes to transport use. Under the theme of safety, health and security, DaSTS states that good transport planning should reduce the risk of death, injury or illness arising from transport, promote ways of travelling that are beneficial to people's health[1] and, at the same time, reduce anxieties around crime on the transport network. The motivation here is not merely social. Road deaths and injuries are estimated to cost the UK £19 billion a year. Additionally there are welfare costs associated with health problems caused by obesity, which alternative transport choices such as walking and cycling could help to reduce[1]. If local transport planning is to achieve these goals - to reduce deaths/injury resulting from travelling, allay fears about crime whilst travelling and effect change in transport behaviours - then it makes sense to understand these three theme areas. This chapter therefore considers safety in the sense of road traffic accidents; the beneficial effects of physical activity through improved travel choice; and security in terms of crime and anti-social behaviour mainly around public transport.

6.1 Safety

Transport safety is a particularly emotive subject. Where there are serious incidents - the landing of Airbus A320 into the Hudson River in January 2009 or the Ladbrooke Grove/Paddington rail crash in 1999 - they regularly attract media attention. Rail and aviation-related accidents such as these can clearly be horrific. However, due to their frequency and severity (50 deaths are caused by road accidents in Leicestershire each year), the issue of road safety will be the key focus of this section. Drawing on national research and local data sets, it seeks to firstly understand how road casualties have changed over time, the conditions which give rise to serious casualties and, perhaps more crucially, how accidents are experienced differently by different social-demographic groups.

Data Sets

This section largely uses a data set called STATS 19. The data are generated from Police reports made either at casualty sites or up to 30 days after an accident. It is worth noting that definitions of casualty severity from these reports are at least partially subjective and there is some under-reporting around less severe casualties. Where possible, mosaic plots (Chapter 10) have been used to identify statistically significant differences between variables. For purposes of clarity, then, whenever the term 'significant' is used before a variable, such as age or vehicle type, it is always *statistically* significant.

The STATS 19 data set is relatively comprehensive. Ideally, and as with most other chapters of this evidence base, we would have done further analysis to show how casualties are 'experienced' differently by different geo-demographic groups (using OAC and the IMD). This information, however, was not made available and instead we refer to extensive academic and DfT commissioned research on the subject.

Whilst this section attempts to understand the personal circumstances and physical conditions which give rise to road casualties, Leicestershire's Annual Road Casualty Survey provides more of a benchmark of road casualties over time. The most recent report is available at: http://www.leics.gov.uk/index/highways/road_safety/casualtyreport.htm.

Road Safety in the UK

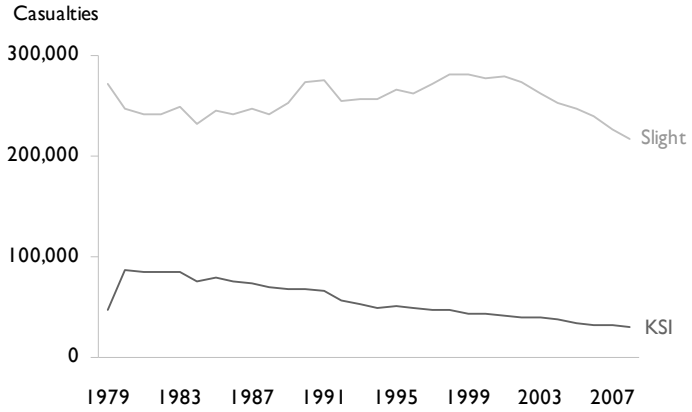
British roads are among the safest in the world[2]. Over recent years the UK has consistently been amongst a group of five top performing nations including the Netherlands, Norway, Sweden and Switzerland, on road deaths per 100,000 population[2]. Casualty statistics also suggest considerable improvements in safety over the last 30 years. The rate of road casualties (the number of road casualties per 100million vehicle miles) has reduced year-on-year since 1979. The 10 years between 1997 and 2007 saw rates continue to fall and road casualties reduce in real terms by 24 percent (Figure 6.1a). The DfT's most recent road safety strategy, '*A Safer Way*', reports that casualty reduction targets set in 2000 for 2010 have either already been met or are at least in line with targets[3]. Genuine progress has been made around the number of Killed or Seriously Injured (KSI) casualties, child KSIs in the 0–15 age group and slight injury rates.

According to the DfT, improved vehicle safety has been significant in effecting these reductions. The widespread introduction of car air bags, better braking systems and vehicle structures have been particularly important. Beyond improvements to vehicles, road safety engineering projects and speed management initiatives have also contributed and, more anecdotally, social marketing aimed at improving driver behaviour might have had some effect[3].

...and Leicestershire

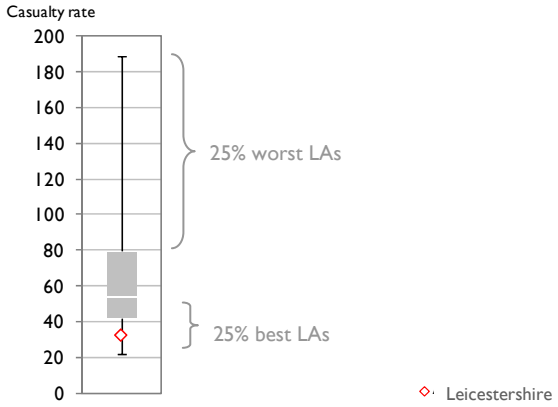
Leicestershire has one of the lowest casualty rates of all English county and unitary authorities. Its casualty rate per 100million vehicle kilometres in 2007 was within the best performing quartile of authorities in England (Figure 6.1b). The county's road casualty rate has also improved in the last 10 years. In 2007 the rate was 36 percent below the 1994-1998 rate, whilst its KSI casualty rate in 2007 was 45 percent below the 1994-1998 rate.

Figure 6.1a Road Casualties in GB



Source: DfT, 2008

Figure 6.1b Road Casualty Rate/million km 2007, England LAs



Source: DfT, 2008

These data show substantial progress. Despite this, in its most recent road safety strategy the DfT admits that, based on what has been achieved since 2000 on reducing serious and slight injuries in the UK, the performance on fatal casualties needs to be better[3]. This is especially true of Leicestershire where, between 2000 and 2008, the number of fatally injured casualties has not reduced. Moreover, the DfT's strategy stresses that, for the UK, casualties are not spread evenly in terms of road type, geography or demographic groups. Drink-drive deaths and young driver casualties in particular have fallen more slowly than all casualties[3], a trend that is also reflected in Leicestershire's figures.

The rest of this section will therefore attend to the physical conditions which give rise to road accidents and behaviours, before identifying differences in casualty groups by age and social-economic groups. Where possible, data specific to Leicestershire are used.

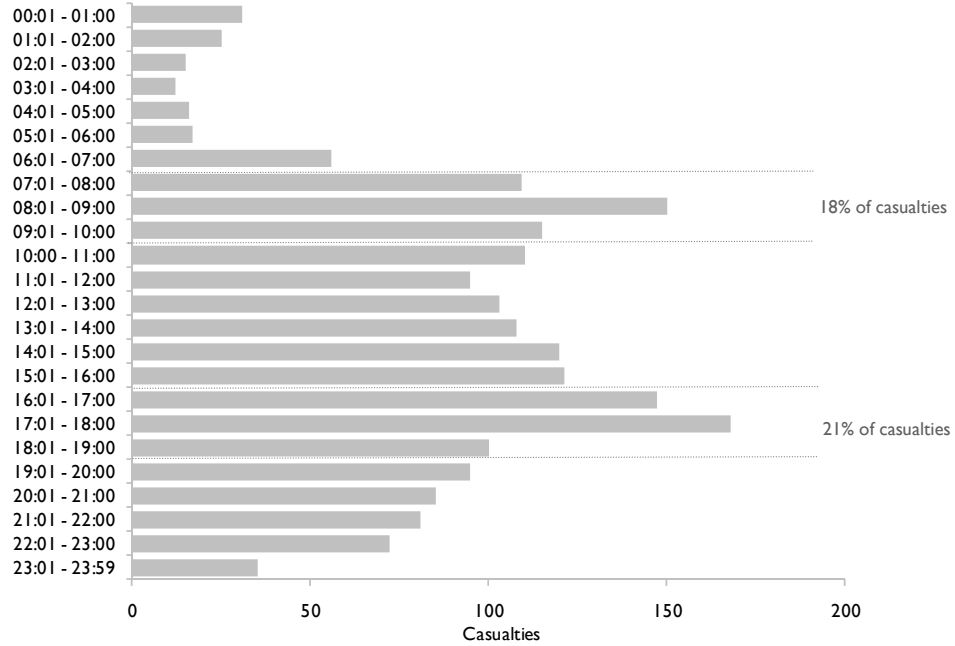
When, where and under what conditions, do road casualties take place?

Time of Day

Road casualties are most likely to take place in Leicestershire during the day and particularly at peak travel times (Figure 6.1c). This makes sense since this is when traffic volumes are at their highest. There is, however, some evidence that the relationship between traffic volumes, road casualties and time of day is not perfect. According to local traffic count data, for example, 82 percent of all traffic goes through Leicestershire during day time hours (between 07.00 and 19.00), which is when 72 percent of all casualties occur. The night-time (between 19.00 and 07.00) sees just 18 percent of all traffic flows, but 28 percent of all casualties are recorded during this period. In addition, although data on traffic flows are not available for every hour of the day, it is interesting that a number of casualties (5 percent) are still caused between midnight and 04.00, presumably when traffic volumes are especially low.

The relatively high numbers of casualties recorded at night, when recorded traffic volumes are low, is therefore a concern. National research confirms that a disproportionate number of road deaths occur as a result of night-time accidents[4]. It has been argued that reduced lighting, in addition to factors such as driver fatigue and alcohol consumption, may contribute to the inflated numbers[4]. Further interrogation of the STATS 19 data set would be required before claiming whether or not this is also the case for Leicestershire.

Figure 6.1c Casualties by Time of Day in Leicestershire, 2008



Source: STATS 19, Leicestershire

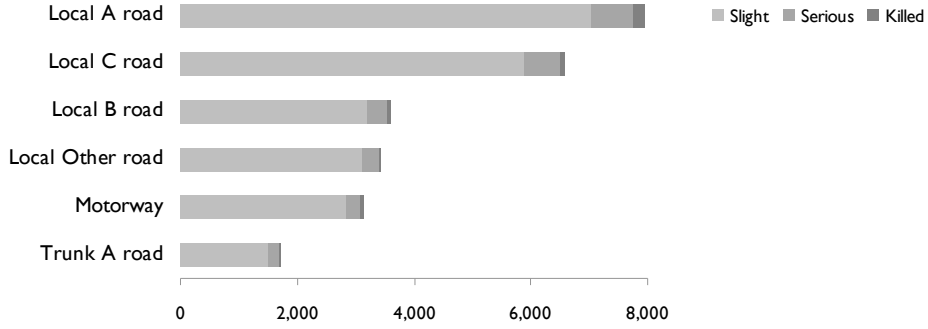
Road Type

Certain roads are safer than others and, using road casualty data, it is possible to make generalisations here. Figure 6.1d shows the number of accidents in Leicestershire combined over the last 9 years by road classification. Around 30 percent of all casualties take place on local A roads and a quarter on local C roads. What is perhaps more interesting is that, compared to casualties on all roads, the proportions of fatal and serious injuries is higher on local A roads and trunk A roads with 60mph limits. For fatal injuries, the difference on A roads is statistically significant. For local trunk A roads, serious injuries are also significantly higher than for all roads.

That fatal and serious injuries are more common on A roads than smaller roads is plausible since speed radically affects injury severity[5]. However, for motorways in Leicestershire, whilst the proportion of fatally injured casualties is marginally higher than that of all roads, slight casualties are overrepresented and fatal casualties are significantly underrepresented. There also appears to be a rural bias to casualty severity. Compared to all roads, very significantly higher incidences of serious injuries can be found on rural B and C roads and very significantly higher incidences of fatal accidents are experienced on rural A roads. The corollary is that slight injuries are significantly underrepresented on rural roads (Figure 6.1e).

These figures are not at odds with national research. Although rural roads account for only 40 percent of all traffic, around 60 percent of road deaths in England occur on rural roads. DfT commissioned research has found that many of these roads are single carriageways - rural A roads where the national speed limit of 60mph applies. Although inappropriate speed has been reported as a factor in the majority of these fatalities, examination of the STATS 19 data set has found that speeds in many of these fatalities did not exceed the local 60mph speed limit[3]. The implication here, then, is that setting appropriate speed limits on these types of roads is extremely important.

Figure 6.1d Casualties by road classification in Leicestershire, 2000-2008



Source: STATS 19, Leicestershire

Figure 6.1e Casualties by rural/urban in Leicestershire compared to all roads, 2000-2008

Source: STATS 19, Leicestershire

Vehicle Type

Earlier it was mentioned that reductions in the number of road casualties over the last 30 years are partly credited to innovations in vehicle safety. The risk of death for drivers of newer cars (post 2000), for example, has been estimated to be half that of older cars (1988-91)[5]. Notwithstanding the importance of technology, injury severity still has a lot to do with the weight and size of vehicles that are involved in collisions: certain vehicles can be regarded to be safer than others.

Using local STATS 19 data it is possible to see this for road casualties in Leicestershire. Most casualties, 71 percent in total and 60 percent of all deaths, are experienced amongst car drivers or passengers (Figure 6.1f). This is not surprising since we would expect the majority of journeys to be taken by car; nationally around 78 percent are made by car. Nevertheless, compared to all vehicles, a significantly higher proportion of injuries experienced by car users are slight and very significantly fewer are serious.

Although they account for just one percent of all traffic flows in England, it is motorcycles which stand out as the most unsafe vehicle, based on national and Leicestershire's casualty data. There are very significantly more deaths and serious injuries experienced amongst riders of motorcycles than for all vehicles (figure 6.1g) and motorcycles account for around 19 percent of all deaths on Leicestershire's roads. Despite this, Leicestershire's recent record on motorcycle casualties is encouraging, with a 31 percent reduction between 2000 and 2008.

Figure 6.1f: Casualties by vehicle type in Leicestershire, 2000-2008

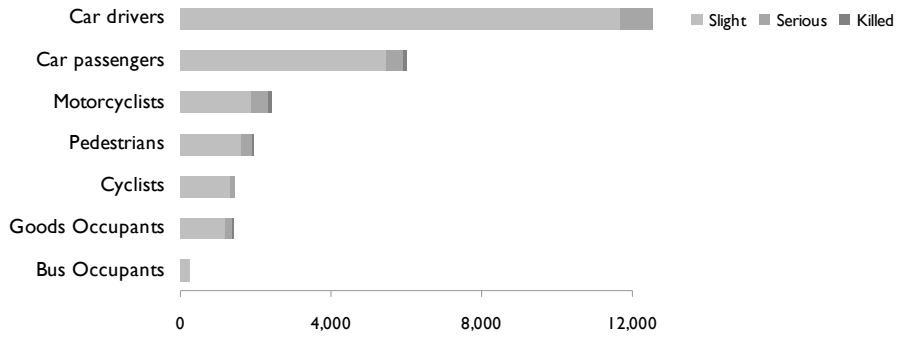


Figure 6.1g Casualties by vehicle type in Leicestershire compared to all vehicles, 2000-2008

Source: STATS 19, Leicestershire

Motorcyclists

Since motorcyclists are a consistently overrepresented fatal casualty group, they have long been the subject of research. A recent study[6] segmented riders based on their self-reported decisions about the helmets and safety gear they use, as well as their approaches to avoiding fatigue. From this, seven segments were defined - so-called *performance disciples, performance hobbyists, riding disciples, riding hobbyists, car rejecters, car aspirants and look-at-me-enthusiasts*. Although these labels are deliberately suggestive, it makes sense to summarise the groups and their diverging attitudes to risk.

i. *Performance disciples* are committed, all-year riders with a focus on high performance riding. They see risk as an unavoidable negative of riding and personal skill and armour as a response to it. Performance disciples have a slightly higher than average accident propensity, though this is partly because of higher annual mileage.
ii. *Performance hobbyists* refers to solitary, summer-only riders. They see risk as part of what makes riding fun, but are uncertain about their ability to deal with it, and therefore ride cautiously. Performance hobbyists have relatively low accident propensity.
iii. *Riding disciples* are passionate riders for whom riding is a way of life. They are highly conscious of potential risk and take active steps to mitigate it. They have a significantly lower than expected accident propensity score.
iv. *Riding hobbyists* describes older, summer-only riders. They are highly conscious of risk, avoid risky situations altogether and have significantly lower than expected accident propensity scores.
v. *Car rejecters* do not care for motorcycles but use them as a response to the rising cots of fuel, parking and other problems associated with cars. They are very sensitive to the risks of riding, though have slightly higher than average accident propensity scores.
vi. *Car aspirants* are young people looking forward to getting their first car, but in the meantime are happy to have their own wheels. They themselves would not think about the risks of riding but will take steps to avoid risks if they are pointed out to them. Car aspirants have accident prosperity scores significantly higher than the average.
vii. *Look-at-me enthusiasts* are young (or never-grew-up) riders with limited experience and for whom riding is all about self-expression and looking cool. They recognise the risks of riding but see risk as part of what makes it fun. They have significantly higher than average accident propensity scores.

The study usefully concludes by recommending the types/themes of intervention that might be targeted at these groups. *Car aspirants*, *car rejecters* and *riding hobbyists* were found to be most open to considering safety features. However, their attitudes towards safety features do differ. For example, *car aspirants*, who may have limited budgets, tend to make decisions around safety gear based on (legal) necessity rather than actual safety. *Look-at-me enthusiasts,* which represent almost a quarter of all riders, prefer looks over the quality (in terms of safety) of helmets and body armour. For this group, it was recommended that any attempt at promoting safety should not be purely factual, but should also resonate with riders' motivations/interests. Finally, fatigue was cited as the most substantive issue facing *performance disciples.* Also susceptible to fatigue are *performance hobbyists* and *look-at-me enthusiasts*. A suggestion here was training which emphasises how fatigue affects personal performance as well as safety[6].

Driver Behaviour: Seat-belts and drink driving
If motorcyclists' riding behaviours and attitudes to risk are important, then so too are the behaviours of all road users. Between 2000-2008, around 70 percent of all road casualties in Leicestershire involved some form of driver error (figure 6.1h). Nationally, it has been argued that behavioural factors are playing an ever increasing role in road accidents - that driver standards are falling[3]. Whilst some generalisations will be made around driver behaviour in our discussion of casualties by age and demographic groups, two key areas which perhaps need to be discussed separately are around seat-belt wearing behaviours and drink driving.

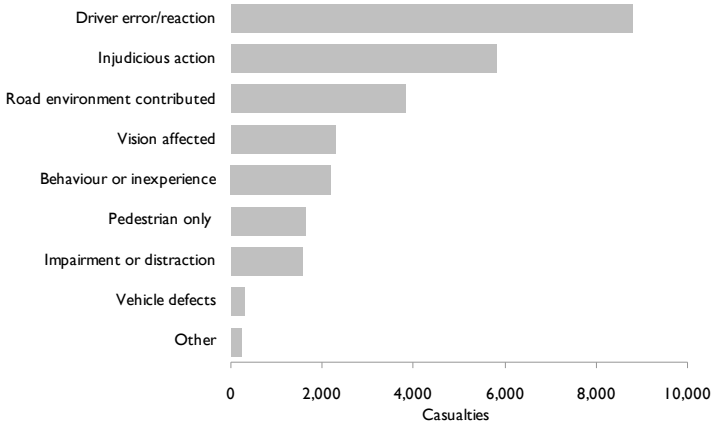
Seat Belts
When a road accident takes place, whether or not the persons involved are wearing a seat-belt can significantly affect injury severity[7]. The DfT has recently carried out a review of research into seat-belt wearing behaviour. The review cited analyses of STATS 19 data and hospital reports: both of which showed a relationship between injury severity and seat-belt wearing. Fatalities were found to be significantly over-represented amongst non-belted road users. Approximately 30 percent of car drivers killed were not wearing seat-belts and had they been wearing seat-belts, it was estimated that half would have survived[6]. In Leicestershire, initial Police Officer reports seem to support this link between injury severity and seat-belt wearing. Whilst only 2 percent of all casualties in Leicestershire were not wearing seat-belts, non-seat-belted drivers/passengers constituted 18 percent of all fatal casualties.

In terms of public behaviours and attitudes, the DfT's *Think!* campaign found almost all people agreeing that wearing a seat-belt is something they have to do (94 percent), with a similar proportion subscribing to the view that it makes them safer[9]. Around a quarter of drivers, however, did admit to not wearing seat-belts. Findings from other national surveys offer a number of reasons for not wearing seat-belts, from simply forgetting, to those who are opposed to seat-belts because they see them as inconvenient or even dangerous. More importantly in policy terms, accident and survey data suggest certain personal and situational characteristics significantly associated with non-use. These are:

- young men or men in general;
- rear-seat passengers (a particular concern as rear-seat passengers are more likely to be ejected from their vehicles);
- goods vehicles and company car drivers;
- late at night or early in the morning; and
- people driving in urban areas with relatively low speed limits[5].

The DfT also reports that whilst almost all people agree that wearing seat-belts is something that vehicle users should do, a

Figure 6.1h Casualty contributory factors in Leicestershire, 2000-2008



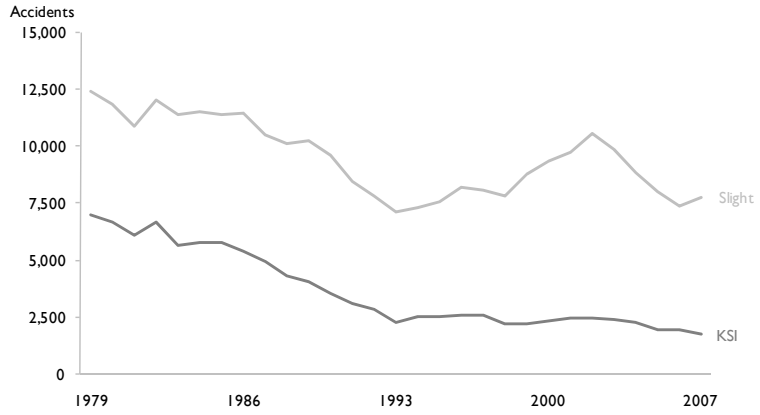
Source: STATS 19, Leicestershire

substantial minority, 14 percent of the adult population, are inconsistent seat-belt wearers[8].

Drink Driving

Drink driving is a major concern because it severely affects driver reaction times and driver skills[8]. Once blood alcohol levels (BAC) rise above the 50mg per 100ml of blood limit, which is the medically recommended limit[8], the risk of collision is double that of a driver with no alcohol in their blood, and rises to 10 times for a BAC of 80mg/100ml (the current UK legal limit). Although the number of drink drive casualties in Great Britain has shrunk over the last 30 years, 6 percent of all the UK's road casualties in 2007 involved a driver who had consumed alcohol in excess of the recommended limit. In Leicestershire, impairment by alcohol or drugs was recorded for only around 4 percent of all casualties in 2008. Nevertheless, comparisons over the four years between 2005-2008 show little improvement.

Figure 5.1i Drink Driver Casualties 1979-2007, GB



Source: DfT, 2008

In the DfT's 2007 *Think!* survey, drink driving was seen as the biggest issue that government should address, and other survey evidence shows that drink driving is now socially unacceptable[8]. Despite this, a different survey by the DfT found that 40-50 percent of drivers reported that they had driven after drinking some amount of alcohol. The main reasons for drink driving were that respondents considered themselves still safe to drive, or that they were unsure how the units they consumed registered on either the medically recommended or legal limit. Another study identified statistically significant variations/characteristics amongst those most likely to drink drive:

- Men and young men in particular
- older drivers, especially those with company/luxury cars and/ or who cover high mileage
- those from ABC1 - upper middle, middle and lower-middle–class - backgrounds
- uninsured drivers[5]

How are road traffic casualties experienced by different groups?

The analysis of sea-belt wearing and drink driving shows that there are specific situational and personal characteristics that can be linked to poor passenger and driver behaviour. If transport planning is to target reductions in road casualties, then it is crucial to establish how, at a general level, road casualties are experienced by different groups of people. At present in Leicestershire there is a lack of detailed evidence around the extent to which road casualties (not just driver behaviour) vary by social-demographic groups. However, again using headline STATS 19 data and more detailed national research, it is possible to focus on two important characteristics: age and social grouping.

Age

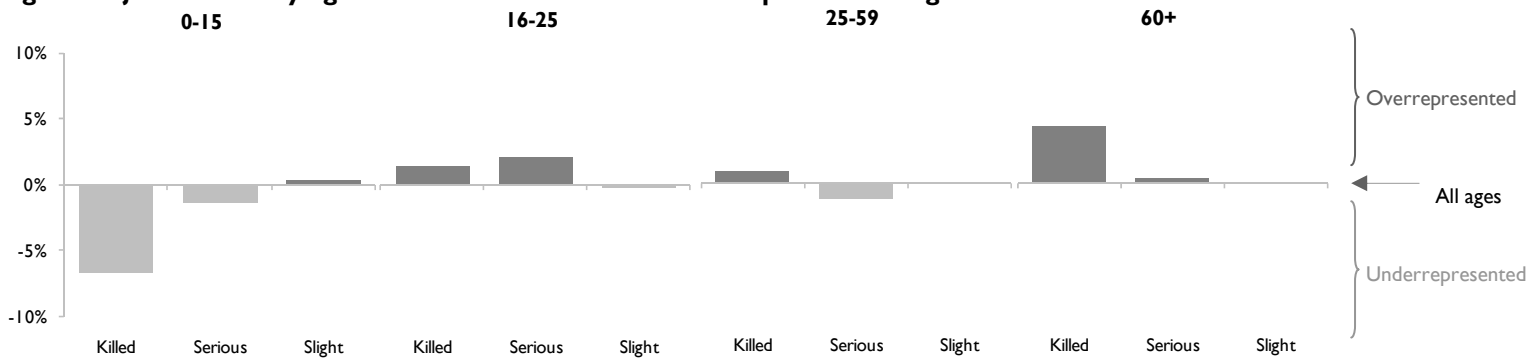
Younger people are an overrepresented casualty group. In Leicestershire, 16-25 year olds account for 30 percent of all casualties and, relative to all ages, there is a higher proportion of younger drivers/passengers present in killed and serious casualty groups. Although this comparison should be treated cautiously (since road casualties in the county are not necessarily restricted to local residents) it is worrying that 16-25 year olds represent only 14 percent of Leicestershire's population but 30 percent of all casualties. By contrast, older people (60+ year olds) are noticeably less likely to be involved in a road accident. They make up 23 percent of Leicestershire's total population, but just 9 percent of all casualties. Older people are nevertheless significantly overrepresented in terms of killed, and slightly overrepresented in terms of serious, injuries (figure 6.1j).

These figures are reflected in more extensive national research. Interrogation of STATS 19 data and Hospital Episode Statistics found that, compared to all ages, younger drivers (under the age of 30) were significantly more likely be involved in a fatal collision[5]. We already know that young drivers are more likely to drink-drive and less likely to wear a seat-belt when travelling. Added to this, more extensive research has found an association between younger adults (under 30 years) and speeding, deliberate risk-taking, a tendency to drive older cars and to drive while unlicensed.

Social grouping

Social-economic status is an important factor in understanding both road casualty severity and the likelihood of an individual being involved in a road accident[10]. The national data presented in figure 6.1lk show a clear distinction between casualty rates and neighbourhood deprivation. Differences between IMD deciles is striking. Across the board, casualty rates are higher for people living in socio-economically deprived neighbourhoods. Figure 6.11 compares rates by vehicle modes at the extremes of deprivation (10 percent most and least deprived). Compared to all neighbourhoods, rates are higher in the most deprived decile for pedestrians and car passengers (figure 6.11) and, with the exception of motorcyclists and car drivers, this trend is reversed for casualties in the least deprived decile.

Figure 6.1j Casualties by age in Leicestershire 2000-2008 compared to all ages



Source: STATS 19, Leicestershire

As with age, further analysis suggests this might be the result of driver behaviour. Riskier driving behaviours, particularly excessive speeds, were found amongst lower IMD scores, or higher levels of deprivation[10]. Drivers and passengers living in more deprived neighbourhoods were also less likely to wear a seat-belt, more likely to be under the influence of alcohol and more likely to be travelling whilst unlicensed and uninsured[10]. In addition, some evidence has shown that fatal accidents in deprived areas are more likely to occur late at night or in the early hours of the morning[4]. Other research has suggested that newer cars, which have more sophisticated safety features, tend to be less evident among lower socio-economic groups[7] and, on pedestrian casualties, a significantly higher number of child fatalities can be found amongst lower NS-SeC (National Statistics Socio-economic Classification) groups[11].

Figure 6.1k Casualty rate by 10 percent most to least deprived decile compared to all neighbourhoods in England, 2007

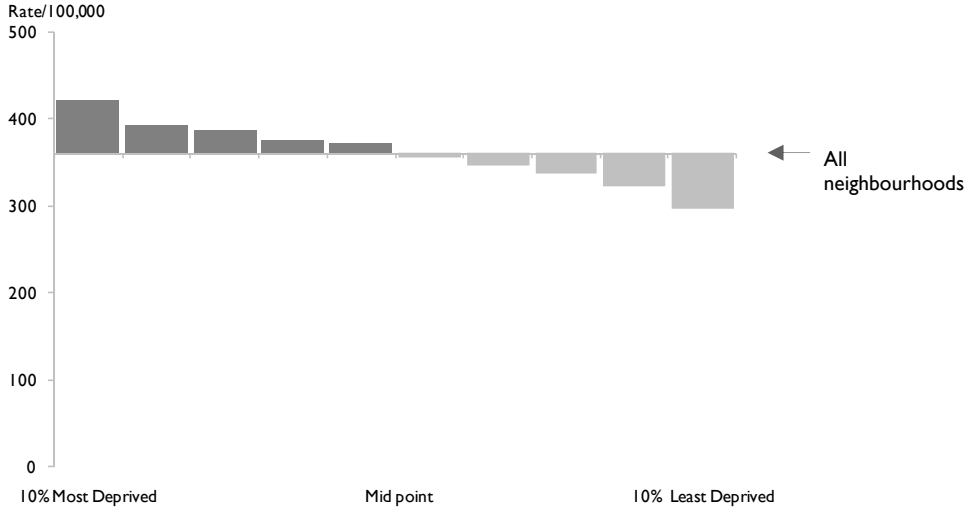
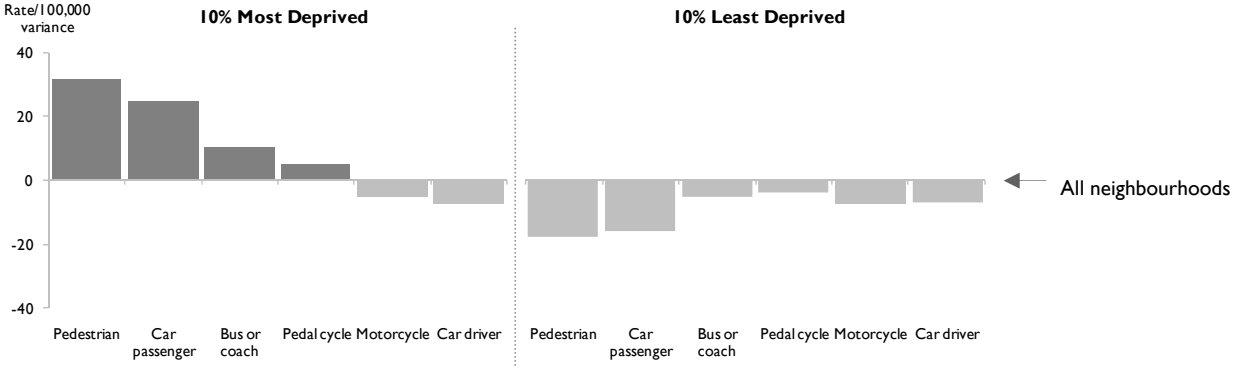


Figure 6.11 Variance in casualty rate in 10% most and least deprived decile and by vehicle type to all neighbourhoods in England, 2007



Source: DfT, 2008

The IMD data set is explained in greater detail in Chapter 3 but briefly here is a measure for how deprived a residential areas is, based on the people living there. An easy way of interpreting IMD is to consider a neighbourhood's position relative to the rest of the country. The data in figure 6.1k and 6.11 presents the casualty rate for all casualties cut by relative levels of deprivation.

Conclusions

This section has tried to identify the physical conditions and personal circumstances which give rise to road casualties. Firstly, relative to traffic volumes, road casualties seem to be particularly high at night. Deeper national research has suggested that poor lighting and driver behaviour are partly to blame, but it would be useful to see the extent to which this is the case locally. That fatal and serious casualties are overrepresented on rural A roads and amongst motorcyclists is not new. Both were identified as priorities in Leicestershire's LTP2, and the county's recent record on motorcycle casualties is encouraging. On driver behaviours, levels of drink driving and seat-belt wearing rates in the UK have reduced, but remain concentrated amongst certain age, gender and social-economic groups. Related to this, DfT-commissioned research has identified distinct situations where, across the board, incidences of fatal and serious casualties are of concern. Younger drivers and passengers are perhaps the most obvious, but so too are those from more deprived social-economic groups.

The STATS 19 data set, from which these conclusions are largely drawn, is comprehensive, and it may be possible to replicate some of the DfT studies using local data. An initial priority might be to better understand casualties and driver/passenger behaviour amongst a broader range of geo-demographic variables in Leicestershire, before using multivariate statistical analysis to predict which combinations of personal characteristics are most likely to give rise to serious/fatal injuries.

6.2 Health

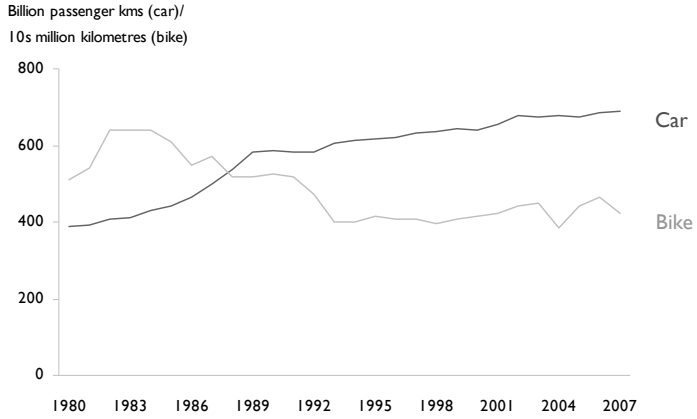
The transport system might at first seem at odds with a healthy lifestyle. Innovations within the car industry have meant that owning a car has become a cheaper and more reliable option than ever and, notwithstanding improvements in efficiency, modern forms of transport still impact heavily on air quality. The DaSTS report, however, suggests that more physically active transport choices such as walking and cycling, as well as managing air quality (Chapter 8), can bring genuine health benefits[1]. This section will firstly discuss why levels of physical activity should be of interest to transport planners. It then attempts to better understand engagement in, and attitudes towards, physically active travel amongst different groups.

Why physical activity matters

Physical inactivity and obesity have come to be recognised as distinctly modern issues. Recorded levels of obesity increased substantially during the late 20th century and in 1997 obesity came to be recognised by the World Health Organisation as a global pandemic[12]. Levels of obesity in the UK have risen fourfold over the last 25 years. The situation has escalated to the extent that 22 percent of the UK's population can be labelled as obese[12].

Notwithstanding the huge importance of a healthy diet, medical evidence around the role of physical activity here is compelling. Physically active people apparently have a 33-50 percent lower risk of developing type 2 diabetes than those who do not take regular exercise, are around 50 percent less likely to develop major chronic diseases such as coronary heart disease and cancer, are less likely to suffer from osteoporosis and are better able to cope with arthritis and lower back pain[13]. Particularly important to our interest here is that physically active transport choices, and not just physical activity in general, do reduce levels of obesity. Whilst this view sounds credible, academic research has recently shown a link between levels of obesity in economically advanced countries and those countries' dependence on walking and cycling as modes of transport. It demonstrated that 'Western' countries with greater dependence on walking/cycling are associated with comparatively low rates of obesity[14]. Given this, it should perhaps be of concern that over the last 20-30 years, total distances travelled by car in Great Britain have risen whilst distances travelled by bike have reduced (figure 6.2a).

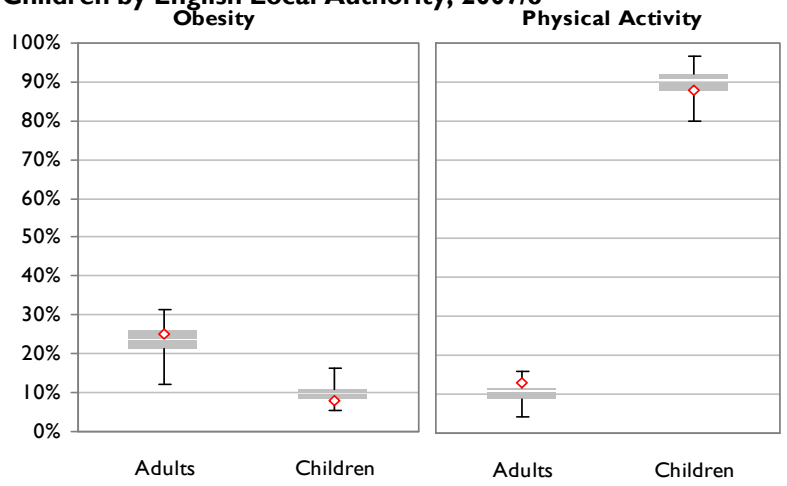
Figure 6.2a: Change in passenger transport kilometres for cars (billion passenger kms) and push-bikes (10s million kilometres) in GB, 1980-2007



Source: Transport Statistics Great Britain, 2008

Levels of physical activity and obesity in Leicestershire
There is a lack of local evidence on rates of physical activity and obesity over time. However, figure 6.2b shows present levels of obesity and physical activity amongst children and adults in Leicestershire compared to all county and unitary authorities in England. Unsurprisingly, more adults are obese than children, and markedly fewer adults than children engage in recommended levels of physical activity. Comparison at local authority level here is interesting. Leicestershire is just within the top performing local authorities on child obesity (8 percent of all children are obese) but on adult obesity is within the bottom half of all authorities (25 percent of all adults are obese). On physical activity rates, this pattern is reversed. Adults are within the 25 percent best performing local authorities and children are within the bottom 25 percent of all local authorities. It should be noted that the indicator for children measures levels of physical activity within schools alone. Since activity rates amongst adults are comparatively better than most authorities and that the county compares favourably on child obesity levels, Leicestershire's child activity rate should be read cautiously. Unfortunately, there are no similar comparative data on levels of walking and cycling.

Figure 6.2b: Obesity and Physical Activity rates for Adults and Children by English Local Authority, 2007/8



*Adult Obesity– 2003-5 figures
Source: APHO, 2003/5; 2007/8

Obesity
Child obesity rates: reception age school pupils with a BMI significantly greater than all Children BMIs.
Adult obesity rates: 16+ population with a BMI of over 30.

Physical activity
Child activity rates: Number of children in state schools participating in at least two hours of high quality PE/school sport per week divided by the total number of children within each surveyed school.
Adult activity rates: Proportion of 16+ population participating in 30 minutes of at least moderate level physical activity for 5 times a week.

Social-geography of poor health and inactivity
Importantly, levels of obesity and physical activity are not experienced equally throughout society. Compared to the rest of the population, people experiencing material disadvantage, living in poor housing, with lower levels of educational attainment or with insecure employment prospects, are amongst those more likely to suffer from poor health[15]. According to the National Health Survey for England (2001), men and women working in unskilled manual occupations are over four times as likely as professional occupations to be morbidly obese, whilst levels of physical activity are usually lowest amongst older people and those with low levels of educational attainment.

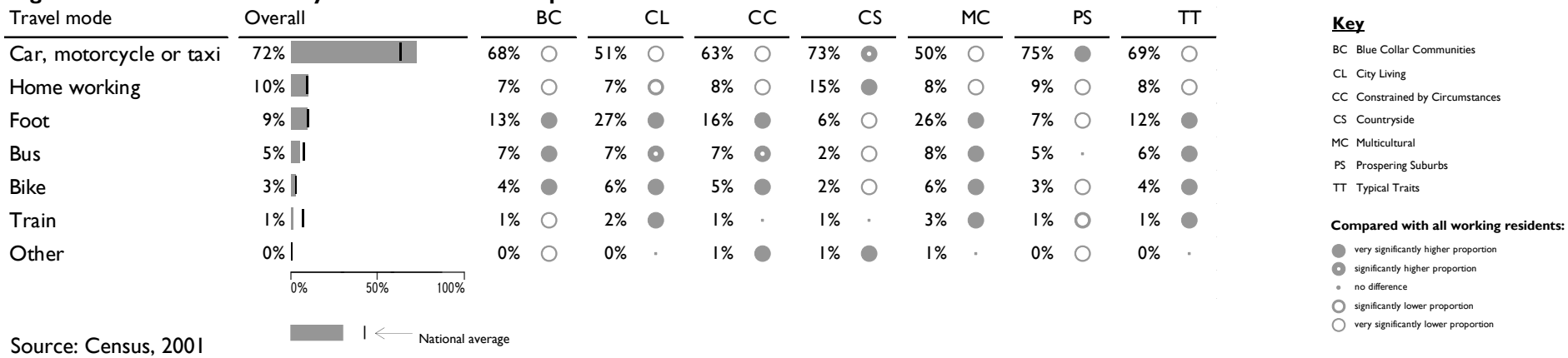
If there is therefore a link between material disadvantage and poor-health, then it is usually the case that inequalities in health are expressed spatially - they follow areas of disadvantage. One way of understanding health inequalities at a local level, and in the context of the rest of the country, is through the Indices of Multiple Deprivation data set. The indicators behind IMD are explained in Chapter 3 (*Methodology* chapter) of this report. Briefly though, the IMD is made up of seven domains, of which one is 'Health Deprivation' (the indicators the Health domain is built around can

be found in Chapter 3). Since Leicestershire suffers from low levels of deprivation, the county as a whole is not health deprived. There are nevertheless spatially articulated gaps in health status, with higher levels of health deprivation found in the north and west of the county. Four LSOAs in Leicestershire are in the top 20 percent most deprived in England on the Health Domain. Two are in Loughborough and the other two can be found in the Greenhill area of North West Leicestershire. For a comprehensive explanation and analysis of the IMD data set see, 'Leicestershire County Council (Research and Information Team) (2008) 'Key results from the Leicestershire Indices of Deprivation 2007', available at: http://www.lsr-online.org/reports/key_results_from_the_leicestershire_indices_of_deprivation_2007.

Do certain groups of people travel differently to others?
Again, there is relatively limited evidence around differences in travel behaviours between different groups of people in Leicestershire. From our analysis of labour market movements (Chapter 4), we know that people working in higher-skilled occupations travel further distances to work than those in lower-skilled occupations. Analysis of Leicestershire's 2008 Place Survey reveals that unemployed respondents, those renting from the council or housing associations and living in OAC neighbourhoods classified as 'Blue Collar' and 'City Living', are very significantly more likely to not have access to a car. Census travel-to-work data supports this view with very significantly fewer workers living in 'City Living, 'Blue Collar' and 'Constrained by Circumstances' communities travelling to work by car and very significantly more workers living in 'Prospering Suburbs' areas commuting by car (figure 6.2c).

Thinking about more sustainable travel modes, then, the Census travel-to-work data gives some indication. Nine percent of Leicestershire's workforce walks to work and 3 percent cycle. Probably as expected, very significantly more workers living in 'Blue Collar', 'City Living' and 'Constrained by Circumstances' communities cycle or walk to work (figure 6.2c). In a similar way, analysis by the IMD data set shows that very significantly higher numbers of workers living within the 40 percent most deprived neighbourhoods in England walk or cycle to work and very significantly fewer workers from these neighbourhoods travel to work by car.

Figure 6.2c: Travel-to-work by travel mode and Output Area Classification



Source: Census, 2001

Beyond this analysis there is little information on levels of, and more crucially attitudes towards, walking and cycling more generally in Leicestershire. In the absence of this local information, the National Travel Survey[16], commissioned by the Department for Transport, is the most useful source of information on actual levels of walking and cycling.

Walking

According to the National Travel Survey, walking accounts for almost a quarter of all trips. This proportion in itself is not surprising. Over the last 10 years, however, the average distance travelled on foot has remained stable and, as a proportion of all trips under one mile, walking has reduced from 80 percent in 1995/7 to 76 percent in 2005[16]. This is important and possibly further supports the idea that the UK is becoming increasingly car dependent.

Women and young people walk the most whilst car owners walk less than those without a car. It is recommended that to be healthy, adults in England should take some form of exercise (of moderate intensity) five times a week. Thinking about levels of walking which may bring health benefits, then, 37 percent of the population walk for 20 minutes at least three times a week. 17-20 year olds in the UK are slightly more likely than other adults and older people to take this level of activity, whilst people aged 70+ are the least likely age group.

On public attitudes to walking, over 90 percent of adults in the UK agree that, as part of improving people's health, everyone should be encouraged to walk, and for a third of adults, walking is their only regular form of exercise. In terms of the barriers, although most people feel safe walking on their local streets, 10 percent of adults express some concern over their personal safety. People living in deprived neighbourhoods in particular are less likely to feel safe[17].

Cycling

Levels of cycling have been declining in the UK in recent years and currently represent one percent of all trips. Use and ownership of bicycles (figure 6.2c) tends to vary. A quarter of 5-15 year olds use a push-bike approximately three times a week, whilst this is the case for just 5 percent of adults (aged 16+). Across all age groups, males tend to make more cycle trips than females. This gap widens in the 17-20 age group, where males make 5 times as many journeys as females. The main reason for making cycling trips are for leisure or social purposes (38 percent), but just under a third commute to work by bike (30 percent). Use is seasonal, peaking in July and at its lowest in December[16]. Importantly, the National Travel Survey revealed that adults are conscious of the possibility of cycling more. Thirty-seven percent agreed that they could reasonably cycle for many of the short journeys they take.

In terms of encouraging more cycling, a third of car users said they would reduce their car use if there were more cycle tracks, cycle lanes and better parking facilities for cyclists[16]. Amongst parents, cycling is often regarded as a dangerous option for their children to take up. Barriers here are busy, congested roads, poorly maintained surfaces, bad weather and inadequate street lighting. Fears around safety were heightened by the belief that other road users do not show adequate consideration towards cyclists. Given the fact that cyclist casualties are slightly underrepresented amongst fatal and serious casualties in Leicestershire (section 6.1) and that numbers of local cyclist casualties have reduced over the last 10 years, these anxieties about safety might be reversed.

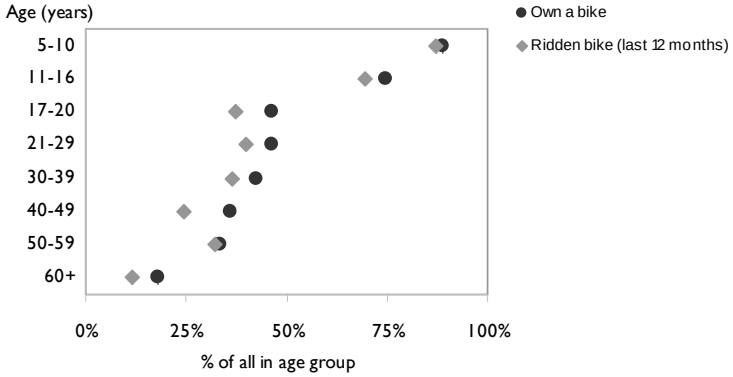
It has also been suggested that if more people were doing it - if it was perceived to be 'cool' - young people would be more likely to cycle[18].

Changing walking/cycling behaviours

This survey evidence demonstrates, unsurprisingly, that those who are least likely to have access to a car, children and young people, are also most likely to walk and cycle. It also reveals that a number of people unnecessarily choose other modes of travel ahead of walking and cycling. Thirty-seven percent of adults agreed they could cycle more than they already do, and compared with 10 year's ago trips under 1 mile are increasingly taken by modes other than walking or cycling. This suggests there is potential for changing people's behaviour. A programme of research has recently found that, given current infrastructure, 31 percent of journeys could be transferred from car to walking[19]. That barriers to cycling can apparently be linked to fears around road safety and, particularly in deprived neighbourhoods, fears around personal security, implies that making roads safer and communities more crime-free may increase walking/cycling use. However, in order to genuinely change behaviours - to embed walking/cycling into people's everyday life - a more detailed understanding of what influences travel decisions for short journeys is required.

Lancaster University, the University of Leeds and Oxford Brookes have recently established a programme of empirical research with this aim. They started from the position that travel behaviours are complex and are contingent on individual circumstances. They argue that, in most instances, decisions around walking and cycling depend on a mix of social, economic, cultural, environmental (to do with urban design) and physiological situations. They also suggest it is difficult or unhelpful to claim that particular social-demographic groups are necessarily more predisposed to walking or cycling than others. Outputs from this research programme are still emerging. However, details of it, and work to date, can be found at: http://www.lec.lancs.ac.uk/research/society_and_environment/walking_and_cycling.

Figure 6.2c: Percentage of respondents owning a bike/ have ridden a bike by age, 2007



Source: National Travel Survey, 2007

Conclusions

Encouraging more physically active transport choices can bring genuine benefits to people's health. These benefits are made increasingly salient by the fact that almost a quarter of Leicestershire's population is obese and the UK is more car dependent than ever. Results from the National Travel Survey show that levels of walking and cycling are highest amongst young people. This makes sense since they are most likely to depend on walking and cycling as modes of transport. In terms of increasing levels of walking and cycling, it is encouraging that almost all people in the UK understand that both are beneficial to their health and that a substantial number agree they could cycle more than they already do. The survey evidence also suggests improving road safety, feelings of personal security, and in some instances changing cycling's image, may help. However, in order to genuinely affect behaviours - to embed walking/cycling into people's everyday life - a more detailed understanding of what influences local travel decisions for short journeys is required. If the aim is simply to improve people's health, then a priority might be to understand attitudes to walking and cycling in parts of the county which suffer from comparatively high levels of health deprivation.

6.3 Security

In our discussion on health, we mentioned that fears around personal safety might be a barrier to walking and cycling. This section will consider feelings of personal safety in more detail. Since the private car is regarded to be the most secure mode of transport[20], we refer largely to attitudes towards personal security on public transport. The section will review literatures and experiences around the 'fear of crime' nationally and, where possible, in Leicestershire, before dealing with the issue of crime on or around public transport.

Fear of Crime

Media and political reporting is shot-through with references to the 'fear of crime'. For some, this focus is credited to a growing recognition that policy should attend more to personal experiences of crime[21]. However, whilst feelings of anxiety and fear are very real and disabling - they are clearly important if they prevent people from accessing local services and employment - they are complex, and cannot always be reduced to actual levels of crime within an area.

Some criminologists have suggested that anxieties around crime often come out of an alienation from society[21]. Fears here are seen as the result of various personal and structural-economic circumstances; a loss of respect, influx of new social groups, industrial restructuring. When met with reactionary media reporting, they can be unhelpful. Others have suggested that the 'fear of crime' is to do with a genuine increase in everyday crimes and anti-social behaviours. More recent empirical research[22], which considers these competing views, identifies three key ways in which fears/anxieties are experienced and can be understood:

1. For some people, typically those living in less desirable neighbourhoods, fear of crime is a quite understandable response to high levels of crime and disorder
2. For those living in more protected areas with less crime, it is a way of expressing anxieties which are not just about crime, but also other social changes and economic circumstances
3. For a different group, general worry/anxiety about the fear of crime is very rare, even though some in this group may have had a direct experience of crime/anti-social behaviour[22]

It makes sense to assume that these three different experiences/ expressions might be associated with specific people and places. It is also possible that encounters on the transport system might differ from those identified above. The rest of this section uses survey evidence to try to identify these three fear types and their personal/situational characteristics. It considers how our three interpretations of the 'fear of crime' can apply to experiences on the public transport system, and concludes by tentatively suggesting where and who in Leicestershire might suffer from high levels of fear.

Measuring the fear of Crime in Leicestershire

In 2006, Leicestershire County Council replicated a set questions originally developed by criminologists at Sheffield University[23]. The questions aimed at better identifying fears of crime in the county - at delineating between general fears of crime and more specific experiences[23]. The questions, which were included in the Leicestershire Town and Villages Survey (2006), first asked whether or not residents generally feared becoming a victim of crime. More specific questions were then raised about the frequency, timings and the extent to which residents felt afraid.

By comparing across the responses, the three distinct fear types introduced earlier can be identified.

Type 1: Expressed general worry about the fear of crime and had also experienced a recent fearful episode. This group represented only around 4 percent of respondents and for these people fear of crime can be intense.

Type 2: Had no direct experiences of fear in the past year, but expressed general concern about crime. This group accounted for 29 percent of respondents.

Type 3: Did not express any general worry about crime and had not experienced any fearful episodes. Sixty-five percent of respondents were in this group. There was also a further two percent who had direct experience of fear but who did not worry in a general sense.

This analysis is interesting because it shows that extreme levels of fear - both expressive and experiential (type 1) - are rare, yet there remains a portion of the population who do suffer from a more general fear (type 2). Unfortunately, the sample size used in this survey is too small to make many assertions about who these three 'fear types' are and where in the county they live. Nevertheless, younger respondents (under 33s) living with children were significantly overrepresented in type 2. People in this group were also more likely to hold negative views about society than type 3. This probably fits with our initial understanding and intuitively it makes sense since, if fear of crime is not rooted in actual experience, then there must be something else driving it.

Measuring fear of crime in the UK

The British Crime Survey is the largest annual measure of public attitudes to crime, and the findings from it also map relatively closely on to the three different experiences of fear set out earlier[24]. Importantly, though, analysis of the BCS does suggest a connection between fear of crime and actual levels of crime. Residents in inner city areas or council estates felt particularly vulnerable and those living in areas with higher levels of public disorder were more likely to consider themselves at risk of being a victim of crime. Included within those significantly more likely to suffer from fearful episodes were:

- older people
- those on low incomes
- living in social rented housing
- those in poor health
- those living in social isolation[24]

Fear of Crime on Public Transport in Great Britain: National Centre for Social Research (NaTCen) Omnibus Survey 2008

The most recent survey around fear of crime on public transport was conducted in 2008. The survey was based on a sample of adults large enough to make generalisations for the population as a whole. Rather than targeting regular users of public transport, the sample population used in the survey was random. It found that most people (84 percent) feel safe travelling on public transport, with only a very small portion (3 percent) not making more use of public transport as a result of concerns around anti-social behaviour or crime[25]. Unfortunately it is not possible to break down by social-demographic groupings here.

The survey does reveal, however, that those who use public transport the least are more likely to feel unsafe than regular users, and that this is particularly the case when travelling at night and for older respondents. The NatCen survey also asks questions about actual experiences of crime and, in a similar way, a gap here opens up between perceptions and real experiences. Older people experience fewer anti-social behaviour incidents on public transport than younger users, yet they are least likely to feel safe on public transport. In addition, and logically, those who use public transport more and who use public transport after 9pm, are more likely to experience some form of crime or harassment, but at the same time are least likely to feel unsafe.

Crime on Public Transport in Leicestershire

Without survey data, it is difficult to make assumptions about the fear of crime on public transport in Leicestershire. However, according to Leicestershire Constabulary's Crime Information System (CIS), it is true that younger passengers are more likely to be victims of crime than older passengers[26]. School age passengers (under 17 years) were victims in thirty-five percent of the 52 crimes which took place on public transport in 2008/2009. As a wider issue, outside of the theme of 'fear of crime', this statistic might be worrying since for all crimes in Leicestershire, residents aged under 17 make up just 0.6 percent of all victim groups. Nevertheless we should be careful not to read too much into this. Crimes on public transport still represent less than one percent of all recorded incidents where under 17s were victims. It is also worth remembering that these conclusions are based only on crimes reported to the Police. They possibly miss more general, everyday nuisance and intimidating behaviours on buses and trains in Leicestershire.

Neighbourhood effects: Crime outside of public transport routes

So far we have considered anxieties about, and experiences of, crime in Leicestershire, nationally and when travelling on public transport. In Leicestershire we suggested that for a portion of the population (almost a third), fears of crime cannot be explained by direct experiences. The NatCen Omnibus survey of public transport users seems to confirm this: those who are least exposed to crime on public transport are most likely to express general fears about their security. Findings from the British Crime Survey, however, suggest that the fear of crime can be partly reduced to actual levels of crime, and DfT commissioned research has reinforced this view[27].

The DfT study found that a passenger's walk to and from a bus stop or train station is often perceived to be the most insecure part of their journey. In real terms, only 25 percent of recorded crime on the rail network takes place on trains, whilst the majority (75 percent) takes place elsewhere, most notably surrounding the station or station car park. It concludes, then, that in reducing fear of crime on or around public transport, so-called 'neighbourhood effects' - actual crime rates and levels of deprivation - are important and can also influence fears and travel choices[27]. Again this position is supported by other survey evidence. In the Health section of this chapter, for example, an analysis of the National Travel Survey was cited which showed fears about personal safety while walking or cycling to be statistically overrepresented in areas of high deprivation, suggesting that neighbourhood effects are significant.

The human geography of crime and fear of crime in Leicestershire

We can now probably accept that fear of crime on or around public transport is the result of personal and/or place-based factors. Better and more specific survey evidence would allow us to analyse in detail the 'intensity' of fear experienced by passengers in Leicestershire across our three fear of crime types. From a transport perspective, this would be especially useful given the fact that, nationally, fears about crime on buses and trains actually discourage 3 percent of the population from using public transport. In Leicestershire we already know that 4 percent of respondents suffer from extreme, potentially disabling, levels of fear. If the sample size was big enough, we would be able to identify specific people and places for intervention. Since 2007, Leicestershire County Council has produced an annual audit of crime in the county and in the absence of specific survey evidence, the findings from this audit can be used to tentatively prioritise some places[28] and people[29].

Identifying places: a geography of anti-social behaviour in Leicestershire

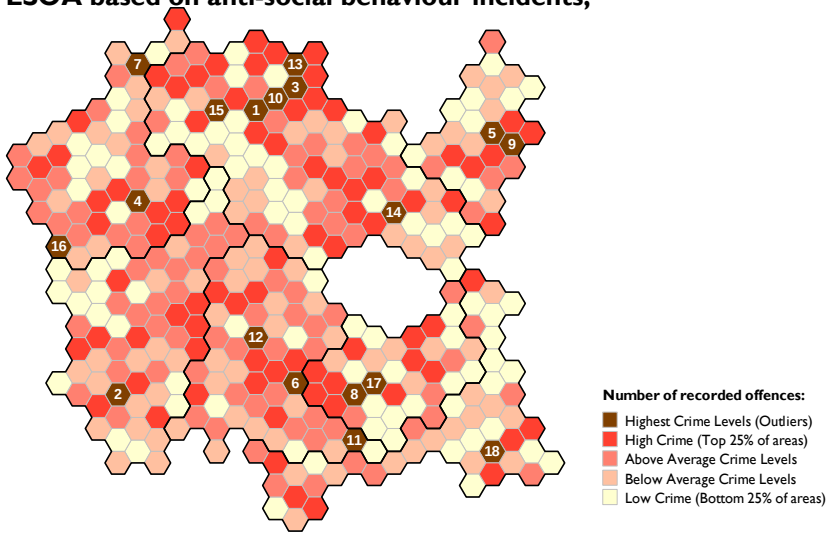
A section of the most recent audit used data collected by the Police to label areas of high crime and disorder. Thinking about the problem of 'neighbourhood effects', it is therefore worth considering where specific incidences of anti-social behaviour are concentrated in the county.

Figure 6.3a compares neighbourhoods (LSOAs) in Leicestershire based on anti-social behaviour (ASB) incidents reported to the Police in 2008/9. Eighteen neighbourhoods stand out as displaying a significantly high volume of ASB compared to the rest of the county. These areas account for almost a fifth of Leicestershire's ASB incidents and seem to be mainly located within town centres[28]. This tells us nothing about intimidation on or around bus/rail routes in these areas. However, they contain relatively high levels of ASB and therefore may be intimidating to some. This perhaps implies that in these neighbourhoods the physical design of bus/rail stops - whether or not they are isolated and lit well - is important.

Figure 6.3a High-crime areas in Leicestershire by LSOA based on anti-social behaviour incidents, 2008/9

Map Ref.	CDRP	LSOA Name	ASB
1	Charnwood	Loughborough Centre West	468
2	Hinckley & Bosworth	Hinckley Town Centre	454
3	Charnwood	Loughborough Bell Foundry	391
4	NWLeics	Coalville Centre	374
5	Melton	Melton Sysonby South	307
6	Blaby	Blaby North	289
7	NWLeics	Castle Donington North East & Hemmington	276
8	Oadby & Wigston	Guthlaxton College & Wigston Police Station	275
9	Melton	Melton Craven West	274
10	Charnwood	Loughborough Centre South	263
11	Blaby	Countesthorpe Centre	259
12	Blaby	Fosse Park	237
13	Charnwood	Loughborough Toothill Road	216
14	Charnwood	Thurmaston North West	208
15	Charnwood	Loughborough Ashby East	199
16	NWLeics	Measham Centre	199
17	Oadby & Wigston	Wigston Centre	196
18	Harborough	Market Harborough Coventry Road	192

Source: *Leicestershire Constabulary, CIS*



Identifying people: negative perceptions of crime in Leicestershire and personal circumstances

Another section[29] of the audit considered perceptions (though not necessarily fears) of crime in Leicestershire. The purpose was to identify groups which would most benefit from social marketing campaigns aimed at redirecting/allaying negative crime perceptions. The work drew largely on responses from the 2008 *Place Survey*. It first divided up different perceptions of crime and interrogated two important negative perceptions:

1. Those who thought local levels of crime were a priority and need improving (14 percent of respondents)
2. Those who thought crime levels were not a priority but that they need improving (9 percent of respondents)

In order to understand the personal circumstances under which these two negative views were held, a range of geo-demographic information were considered. Using statistical analysis, the work identified personal characteristics which were significantly over– or under– represented within the two perceptions. It then considered the magnitude and order of these statistically significant personal characteristics and labelled certain combinations which were most likely to predict whether or not an individual in Leicestershire holds each negative view (for an explanation of this technique see Chapter 10). Thinking about the personal circumstances associated with our 3 fear of crime types, it makes sense to discuss the findings.

1. A priority and needs improving

Despite there being some correlation between place-based factors (high levels of crime and deprivation) and negative perceptions, respondents who reported that crime levels are a priority and need improving were significantly more likely to live in areas of average deprivation. Those in full-time employment and individuals buying on a mortgage, people who possibly had invested to some extent in their local area, were significantly overrepresented. For these people, it was suggested that levels of crime are a priority because they might threaten this investment. The reverse, those least likely to perceive crime levels to be a problem and in need of improving, were students and apprentices, the unemployed and those looking after the home.

Demographics and places with proportions significantly above the county average - significantly more likely to think crime in Leicestershire is important an needs imporving - were:

- males
- full-time employees
- those aged 45 to 64 years
- those buying a home on a mortgage
- living in Charnwood
- living in Output Areas (OA) with an Urban classification.

Demographics and places with proportions significantly below the county average were:

- females
- those looking after home, students and the retired
- those aged under 24 years
- aged 75 years and over
- people renting from the Council
- from a BME background
- living in Harborough
- living in OAs with a Town and Village classification
- those living in a OAC group labelled as ‘Countryside 1 and 2’
- those who do not have access to a car

As alluded to earlier, using a form of multivariate analysis, specific combinations of characteristics most likely to predict membership of this group - the most dominant sub-groups - were identified:

i. Full-time employees living in areas with high deprivation levels, especially within 'Typical Traits 4' neighbourhoods: neighbourhoods associated with high levels of crime (twice as likely to belong to this group).
ii. Full-time employees aged in their thirties and living in OAC areas 'Constrained by Circumstances 1', 'Blue Collar 3' and 'Prospering Suburbs 5' (nearly three times more likely to belong to this group).
iii. Full-time employees aged over 48 years, regardless of the areas in which they live (twice as likely).
iv. Retired males, living in areas with average levels of deprivation in OAC area 'Typical Traits' and 'Prospering Suburbs' (twice as likely).
v. Self-employed males living in areas of well below average deprivation (twice as likely).

By comparing across other responses in the Place Survey, and also real recorded crime data, it was found that this group were much more likely than the rest of Leicestershire to hold negative views about crime and anti-social behaviour in their area, feel ill-informed around local service provision, live in areas of high crime (though not necessarily deprivation) and live in areas of low social capital - and therefore possibly feel alienated from their area.

This study talks specifically about perceptions and *not fears* of crime, and it is difficult to make assumptions about where this perception might fit within our three 'fear of crime' types. It is possible that the personal circumstances detailed above are associated with more intense and disabling fears of crime. However, the dominant sub-groups intuitively resonate most with the second fear of crime type we identified at the beginning of this section: fear in a general and not specific sense.

2. Not a priority but needs improving

Respondents who felt local crime levels were not a priority but need improving were more likely to live in areas of high deprivation and high crime than other respondents. It was suggested that people in this group either lack long-term investment in their local area, or suffer from ill-health or financial difficulties, and so have something more specific to worry about. This group were therefore more likely to prioritise other aspects such as job prospects, affordable decent housing and public transport, ahead of local levels of crime.

Demographics and places with proportions significantly above the county average - significantly more likely to be in this group - were:

- those aged 65 to 84 years
- in fair to poor health
- apprentices, students and retirees
- those living in homes owned outright and/or rented from the council
- living in North West Leicestershire
- living in OAs with an Urban classification
- in OAC areas 'Blue Collar', 'Constrained by Circumstances' and 'Multicultural'
- Tailored OAC areas: 'Blue Collar 3', 'Constrained by Circumstances 1', 'Multicultural Communities 1', and 'Typical Traits 2'; all are areas of average or well above average crime rates, high unemployment, lone households and publicly rented properties
- those who do not have access to a car.

Demographics and places with proportions significantly below the county average were:

- those aged 25-44 years
- full-time employees
- those in very good health
- who are buying a home on a mortgage
- living in Harborough
- in OAs classified as Village
- living in OAC areas labelled as Countryside
- living in tailored OAC areas: 'Countryside 1', 'Countryside 3', 'Prospering suburbs 3' and 'Prospering suburbs 4'; all are areas of average or below average crime, with a higher than average proportion of detached housing.

Specific combinations of characteristics most likely to predict membership of this group - the most dominant sub-groups likely to think that crime is not a priority but needs improving in Leicestershire were:

i. Respondents in the labour market, living in more deprived areas and renting their property (up to four times more likely than average to belong to this group).
ii. Students and apprentices living in the more deprived and higher crime areas, and in tailored OAC areas: Typical Traits 3, Constrained by Circumstances 1, Typical Traits 1, Blue Collar 1, Blue Collar 2, Typical Traits 4, Prospering Suburbs 2, Multi-cultural Communities 1 (over three times more likely).
iii. Those respondents looking after the family and living with a mixed range of crime rates, and in tailored OAC areas: Typical Traits 3, Constrained by Circumstances 1, Blue Collar 1, Blue Collar 2, Blue Collar 3, Prospering Suburbs 1, Prospering Suburbs 4, Prospering Suburbs 9, Countryside 2
iv. The permanently sick or disabled, aged over 44 years, especially those living in OAC neighbourhoods labelled as Constrained by Circumstances - a classification with typically high levels of crime (twice as likely).

As with those who thought crime was a priority and needs improving, this group were much more likely to hold negative views of crime in their area, live in areas of low social capital and high crime, were more likely to express concerns about vulnerability and to live in areas of high crime. People holding this perception, however, were also statistically more likely to live in neighbourhoods suffering from specifically high levels of deprivation. Again, we are cautious of reading off these findings onto the three 'fear of crime' types. It is possible that respondents from this group could sit within of the three. However, the characteristics identified in the fourth most dominant sub-group (iv above) seem to be closely associated with 'Type 1' - those who have genuine/real experiences of, as well as a general, fear of crime. That this group are significantly more likely to not have access to a car, and therefore possibly depend on public transport, is important. If fear of crime is felt so intensely that it prevents these people from travelling on public transport, it could lead to further social and economic isolation.

A more detailed explanation of these groups, the method behind them and their implications in terms of the 're-assurance agenda', can be found in, Leicestershire County Council (Research and Information Team) (2009) *Partnership Strategic Assessment 2009: Community Safety Perceptions,* and is available at: http://www.lsr-online.org/reports/leicestershire_community_safety_partnership_strategic_assessment_2009.

Also, as with Chapter 5 of this report, the analysis draws on the tailored OAC classifications created by Leicestershire County Council. A definition of these with reference maps is at: (*Forthcoming on LSR-Online*).

Conclusions

This section has tried to understand 'fear of crime' as a concept and how fears of crime are experienced nationally, in Leicestershire and on or around public transport. It argued that there are three different types of anxieties about crime. These three anxieties can be linked to a combination of personal circumstances, perceptions of society and also actual/direct experiences. For some, they are an intense and quite understandable response to high levels of crime and disorder; for others they are a way of expressing anxieties which are not just about crime, but also other social changes and economic circumstances; and for a third group, general worry/ anxiety is very rare.

Using various survey data, and in particular an analysis of perceptions of crime in Leicestershire's 2009 *Partnership Strategic Assessment*, these three different fear of crime types, and the personal characteristics associated with them, were tentatively identified in Leicestershire. Particular emphasis was placed on those which might be linked to the first fear of crime type - intense and potentially disabling feelings of anxiety which are the result of direct experience and personal circumstances. The people loosely associated with this group were significantly more likely than the county average to depend on modes of transport other than the car and, if for these people fear prevents them from using public transport, the consequences could be severe.

More empirical and possibly qualitative research would be required to fully establish whether or not fear is actually disabling for this group, what drives that fear and how it might be allayed. That they live in areas of low social capital, relatively high crime and deprivation may mean that offering more community-based activities could help. In addition, remembering that the walk to and from a train or bus stop is often perceived to be the most dangerous part of a journey, the positioning of stops, and lighting, in high crime neighbourhoods (figure 6.3a) will be important.

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