

The deterrence of high speed driving: a criminological perspective

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Executive Summary

Introduction

In the last few years, substantial evidence has accumulated to suggest a causal link between speed and accidents, such that more of the former leads to more of the latter. It follows that a general reduction in speed will improve safety on the roads, but unfortunately achieving this reduction has not turned out to be straightforward. This report describes a study which adopted a criminological approach to the dynamics of and motivations for high speed driving, and in which the main focus was on strategies of prevention and deterrence.

Following previous research, it appears that a combination of internal and external counter-measures is most likely to lead to solutions, and this study focuses on both types of measure.

In the light of the latter point and our earlier research (Corbett and Simon 1992a), the aims of this project were as follows:

- i to investigate what penalties and risks of apprehension are required to deter the highest speeders, as the current ones seem insufficient
- ii to explore in more depth the concept of control, since the need to feel in control appears to be the most salient constraint on a driver's (free) choice of speed
- iii to see whether age (young drivers under 21), occupational group (those who drive for a living), type of vehicle driven (high performance vehicles) or membership of a sports car club exerted any influence on a driver's choice of speed, and whether at least some drivers in these groups acknowledged a subculture which encouraged them to speed
- iv to build up a picture of the sociocultural context in which speeding takes place, by examining the roles of traffic police officers, magistrates and driving instructors in dealing with drivers who speed
- v to explore variables of a demographic, geographic, sociocultural and criminological nature to see which, if any, distinguished between states of the USA with high and low rates of compliance with the speed limits.

Method

One hundred and twelve drivers were interviewed in depth, whom we had previously identified as faster than average, and who were sub-samples of several types of driver. Most were sampled by the word-of-mouth method, but 46 were obtained from DVLA records after being photographed by an unmanned speed camera and warned instead of prosecuted. Another component was a survey of 524 users of the A40 arterial road where cameras had been installed earlier. The third part comprised depth interviews with 60 traffic police officers, 35 magistrates (and three Justices' Clerks), and 12 driving instructors. The final component was a multi-variate study using aggregate statistical data from 51 states of the USA for the fifth objective above.

Results

In Chapter 3, following presentation of two photographs, one of an urban road and the other a motorway, it transpired that the bulk of all fast drivers, magistrates,

junior police and instructors would exceed the limit in these two scenarios. For most, top speed would be constrained by reasons of safety and control, and for some by the risk of detection. If this risk was removed, safety and control assumed greatest salience for nearly all. Moreover, the great majority of all fast drivers, magistrates and instructors tended to agree that up to speeds at which they felt comfortable and in control, even if these were well in excess of the speed limit, their accident risk was not raised. From this and further exploration, considerable evidence was uncovered to support the operation of the 'illusion of control' among our fast drivers, which concept has been identified in a range of previous researches (e.g. Taylor and Brown 1988). In our study, in particular, it was found that drivers were more likely to accept a link between speed and accidents in general (such that as speed increases so do accidents) than between their own speeds and accident risk.

We concluded that the fastest drivers may be most prone to misplaced confidence in their own skills, ability and degree of perceived control, hence least likely to believe that high speeds can be dangerous and therefore probably least deterrable.

In Chapter 4 results of the Deterrence Game were described. In this, the risk of apprehension and the severity of penalty were varied separately and together to measure hypothetical changes in drivers' expressed frequency of exceeding 40 mph and 50 mph in a 30 mph area. In general it seemed that typical penalties in force at the time of our fieldwork would have only a marginal effect on frequency of exceeding 40 mph in a 30 mph area unless the risk of receiving it was very high (once in the next month). To reduce such behaviour to 'hardly ever' among these fast drivers would appear to require fines of the magnitude awarded to better-off drivers when the unit fine system was in force (i.e. considerably high). In Chapter 5 the effect of social groups on drivers' choice of speed was considered, and whether membership of those reference groups to which we had assigned fast drivers caused them to drive faster or was merely correlated with faster driving. Apart from the sports car club members, there seemed little to suggest that the membership categories of being young, driving for a living or owning a high performance vehicle directly led individuals to drive faster, although there were associations. By contrast, magistrates, police officers and driving instructors nearly all reported a restraining effect of their professional role on their off-duty choice of speed. Despite this, however, the majority admitted at least occasionally exceeding speed limits. Considering that the bulk of their colleagues were seen as likely to behave similarly, it seemed that the weight of their professional role rather than the influence of their peer group was more likely to constrain their leisure-time speed choice.

In the statistical aggregate study of American states, it seemed that differences between States in rates of compliance with the speed limits could result from sociocultural influences. In particular, States with higher proportions of fast drivers tended to have a higher crime

rate, not to have a death penalty in force (both perhaps indicative of a more liberal cultural ethos) and to have lower taxes on petrol (an economic policy decision). This supports our view that the problem of speeding is not located solely with the individual.

Chapter 6 considered the policy and practice of the police with regard to enforcing speed limits, and found that these matters were not straightforward. Limited resources placed traffic police under pressure from within and without the service. Inevitably priorities were set, often with the focus set on catching the 'worst' offenders and leaving the average speeder untouched. One consequence might be that the driving public assumes the police condone a certain amount of excess speed.

The court's role in sentencing speeding drivers was discussed in Chapter 7, and it was suggested that in view of new budget assessment procedures introduced in 1992, road traffic offences - and speeding cases in particular - were relatively good news for courts. Thus proliferation of the unmanned speed cameras and the introduction of the conditional offer (fixed penalty) scheme could help boost the number of 'brownie points' earned by courts. As in police enforcement decisions, a range of objective and subjective factors was weighed up in sentencing speeders, especially in non-mandatory disqualification decisions, and it seemed there was some reluctance on the part of magistrates to disqualify. Moreover, it seemed that magistrates were much like ordinary drivers in their attitudes to speed limits and exceeding them, although the weight of their professional role tended to curb the speed of the majority.

In Chapter 8, driving instructors' views on the adequacy and realism of the DETR driving test were explored, it being found that most considered the length of the test too short to adequately test new drivers' safety and skill. As a result, they thought luck played an important part in determining the outcome and all had had some pupils pass the test whom they considered to be unsafe drivers. While instructors' overt tuition they give pupils may be technically correct, the attitudes they may impart or the messages picked up by their pupils with regard to the dangers of speeding may not be challenging potential speeders to a sufficient extent.

Conclusions

The conclusion of the study was that if society, and those that govern society, seriously wish to stop or curb speeding, then serious measures must be taken. The problem is that many such measures are likely to be unpalatable, so the obvious hope is to find a compromise solution that will enhance road safety without simultaneously alienating the different audiences. Possibilities to tackle the problem were considered under the headings of external and internal means.

External approaches to the prevention of speeding concern physical obstruction, actual punishment and the threat of punishment. Threat of punishment (general deterrence) was the main focus in this research, where action must be taken to manipulate the risk of apprehension and the severity of the penalty in order to reduce or eliminate speeding among actual offenders and

to deter potential offenders from starting.

The difficulty with punishment is that overall reliance is placed on the police either directly to raise the risk of being caught or indirectly to enforce adherence to disqualification orders. In view of restricted resources, police are unlikely to be able significantly to raise the average driver's chance of being caught for speeding or non-adherence to a ban. However, even if new technological devices come to have wide coverage in future, it is unlikely that external measures on their own will ever eradicate speeding, especially among the hard core who seem not to be deterred by higher risks and heavier penalties. Drivers' and society's attitudes to speeding and speed must therefore be changed.

This study's excursion into the sociocultural context of speeding supports the view that societal attitudes and values can be very important in determining compliance rates with speed limits. For instance, those having a professional input into the regulation of speeding were apt to be indistinguishable from ordinary drivers - deciding for themselves what was a safe speed for the circumstances and many thinking that speeding was not criminal. Thus if relevant professionals exceed limits, it is not surprising that ordinary drivers will too.

The problem is exacerbated because exceeding speed limits only very rarely has a negative outcome, and as a result, many reasonable people have difficulty accepting that high speed can be dangerous. In addition, in Western society's car culture, everything is geared towards speed which delivers the mobility and convenience that we want. In other words, speed, metaphorically speaking, keeps the wheels going round, and few wish to question our dependence on the car.

In conclusion, many speed-related accidents are avoidable, and if society seriously wishes to reduce these accidents then the government must take the lead in attempting to modify drivers' attitudes as to the desirability of high speed and in promoting a consistent and sustained message of the dangers of speed, hoping that this will permeate to the driving public. Further, our research suggests that at the heart of the matter, and a key to the problem of inducing attitude change among drivers, is the perception of control. The strong impression from our study is that those who drive fastest do so partly because they feel the most invincible and most in control. In sum, more attention to how drivers develop and then maintain their perceptions of invulnerability on the roads, and how they can be made to acknowledge their vulnerability, may now prove timely in the pressing need to discover the chink in the armour of the fast driver.

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1 Introduction

1.1 Background to the report

In 1987 the British Government launched a campaign to cut road casualties by one third by the year 2000 (Department of Transport, 1987). A major plank in this initiative was the introduction of a range of measures designed to reduce the speed of vehicles. These included: legislation in the Road Traffic Act 1992, the Criminal Justice Act 1991 and Construction and Use Regulations in 1988, 1991 and 1992; increased funds to local authorities to support traffic calming schemes; and publicity campaigns highlighting the dangers of speed. In addition, a programme of university research was set in motion to explore the dynamics and correlates of speeding behaviour by drivers. The present report is of a study which was funded by the Transport Research Laboratory (part of the Department of Transport (now the Department of the Environment, Transport and the Regions)) under this programme, and carried out at Brunel University between 1991 and 1993. Broadly speaking, the study is concerned with the deterrence of high speeding on the roads, and its aims and objectives are discussed in more detail below.

The various strands in the effort to reduce drivers' speeds presuppose, of course, that there is a link between speed and accident involvement such that higher speeds lead to more accidents. Certainly there is evidence for such a link, as the following examples demonstrate. In 1987, 40 American states raised speed limits on rural interstate highways from 55 mph to 65 mph. This resulted from low compliance by drivers with the former limit, making effective enforcement unrealistic; from public pressure to facilitate long-distance journeys (O'Neill, 1990), and from pressure by police to allow state highway patrols to shift their enforcement resources to other safety activities and other types of road - this, it was hoped, would decrease overall state fatality rates (Lave and Elias, 1992). Yet, as had been feared by opponents of the change, casualties and fatalities on rural interstates increased. Controlling for a wide variety of factors known to affect speed and accident data (such as vehicle miles travelled, seat belt laws, seasonal effects, long-term trends and economic conditions), several studies concluded that the increase in average speed of between 5 mph and 10 mph on those roads was the direct cause of the increase in accidents of between 19 and 30% (Baum *et al.*, 1990, 1991; Garber and Graham, 1990; O'Neill, 1990).

Earlier, in 1979, Denmark reduced its non-urban speed limits by 10 kph, which produced an overall reduction in average speed of around 2 kph and an 18% cut in rural injury accidents (Taylor, 1989). The European Conference of Ministers of Transport (1984) concluded that small speed reductions could reduce injury accidents by up to 30%, while a recent TRL study concluded that a 1 kph speed reduction would cut accidents by 5% (Finch *et al.*, 1994).

Yet the matter of speed-accident links is not actually as straightforward as this, and a range of other variables and facts complicate the picture. For instance, although absolute speeds on motorways are considerably higher than on other roads, accidents are least likely to occur there

(Department of Transport, 1991). Although some correlation has been found between individuals' reports of their habitual speeds and their accident involvement (Reason *et al.*, 1991; French *et al.*, 1993), it is also the case that many faster-than-average drivers have avoided accidents altogether or have a lower than expected accident rate even when their mileage is taken into account (Corbett and Simon, 1992a). For some drivers, slower speeds seem to induce lower levels of attention and concentration (Corbett and Simon, 1992a) and higher speeds (and speeding convictions) are associated with higher alertness and arousal (Furnham and Saipé, 1993; Matthews *et al.*, 1991). Lower speed limits may increase drivers' perceptions of safety and corresponding risk of accident, through creating a false sense of security (Bucks County Council, 1992). Further, as traffic police officers often told us in this present study, it is not necessarily the case that fast speeds *per se* are dangerous. It is inappropriate speed for the circumstances that is risky (cf. Department of Transport, 1992). Thus very low as well as very high speeds on a dual carriageway or motorway can lead to accidents if they increase the speed variance on the road (Utzelmann, 1976; Insurance Institute for Highway Safety, 1991).

Moreover, re-analysis of US data on fatal accidents occurring after the raise in speed limits on rural interstates suggests it is incorrect to say that the change led directly to an increase. Lave and Elias (1992) showed that when the statewide fatality rate was used as the dependent variable instead of the rural interstate fatality rate, there was an decline in state-by-state fatality rates of between 3.4 and 5.1%. The mistake, they argued, had been to assess local instead of system-wide effects. Reasons for the decline may have included a switch of enforcement resources to roads with higher potential safety savings, and a switch by some drivers to safer roads. In addition, the authors speculated that speed variance may have declined - as law-abiding drivers caught up with the speeds of faster drivers on the rural interstates, while speeders on the other roads changed to the rural interstates. This study does not necessarily contradict the general findings of, for example, Baum *et al.* (1991) and Garber and Graham (1990) which supported the causal role of speed in accidents, but it does highlight the fact that raising limits on some roads may result in an overall decrease in accidents when all roads are taken into account. This is because of knock-on, and perhaps unknown, effects of such a change on the whole traffic system and on driver behaviour. Thus important variables may mediate the speed-accident link.

Despite these complications, the bulk of evidence undoubtedly supports the value of attempts to reduce drivers' speed. There are two main approaches: internal measures and external measures. Internal measures include longer-term efforts to modify individual and societal attitudes through education and publicity, such that speeding comes to be regarded as a dangerous and anti-social activity in the way that drink-driving and smoking are now perceived. External measures comprise altering the physical road environment to prevent high speeds (by chicanes, road narrowing, changes to road surfaces and

humps), installing speed limiters in vehicles, and deterring drivers from speeding by both raising the likely penalties and increasing the chances (perceived and actual) that offenders will be caught.

Because each of these measures has its limitations (e.g. traffic calming is suitable only for certain places, police cannot resource a blanket coverage of high speed roads, and attitude changes take time), a multi-pronged attack on speeding will be of most use. However, even with this array of armoury to tackle it, one would be unwise to underestimate the breadth of the problem.

In our earlier study (Corbett and Simon, 1992a) which sought to explore the extent of unlawful driving behaviour and the range of motivations for law-breaking and law-keeping on the roads, it was found that only a handful of drivers¹ (one per cent) alleged total adherence to all speed limits. In contrast, 88% said they 'sometimes' (this being the middle point of a 5-point scale from 'never' to 'nearly always') exceeded one or more limits (cf. Lex, 1989; Stradling *et al.*, 1992). Reasons for non-adherence suggested that speeding is motivated by a plethora of factors, including the enjoyment and thrill of fast driving (cf. Rothengatter, 1988; West *et al.*, 1992; Utzelmann, 1976), and the driver's being in a hurry (cf. Labiale, 1988). Both of these perhaps reflect the pace of modern western life, its emphasis on the value of mobility and speed of accomplishment, and its 'go-getting' lifestyle. In the context of 20th century living, such entrenched motivations may be difficult to modify.

Certainly, our study supported the need for attitude change among speeding drivers. Of those interviewed at the roadside just after being stopped for speeding (Simon and Corbett, 1992), the majority did not feel guilty (62%) or see speeding as criminal (75%). During in-depth interviews some drivers felt that because 'everyone did it', the perceived social consensus thereby legitimated the activity (cf. Manstead *et al.*, 1992). From our questionnaire survey, one of the commonest reasons drivers gave for speeding was that they decided for themselves what speed was appropriate for the conditions, and in interviews drivers said they exceeded limits only when and where it was safe to do so. In other words, they did not see speeding as dangerous when they did it. Further, our strong impression was that those most at risk of high speed accident were possibly the least deterrable, since they were prepared to accept a greater risk of being caught and perceived current sanctions as insufficient to curb their choice of speed. (In this regard the abandonment of the unit fine system, where offenders with a higher disposable weekly income tended to receive higher fines, could, from a deterrent perspective, be seen as a setback).

An equally important finding was that drivers' decisions whether or not to exceed a speed limit or break other traffic laws depended not only on their assessments of the risk of apprehension and their fear of the likely penalty, but also on their need to feel in control whatever action was contemplated. By and large, as might be expected, high speeders tended to set the cut-off point between feeling in and out of control at higher levels than other drivers. So low speeders might feel safe generally at a

maximum of 10 mph above the 30 mph limit, while some high speeders professed they would feel safe and in control at 30 mph above that limit. This perceptual difference could explain why the more drivers engaged in offending on the roads including speeding, the more likely they were to discount the risk of personal accident, and why a substantial minority did not believe that road accidents would lessen considerably if speed limits were reduced. Our impression was, therefore, that high offenders and high speeders had more confidence than others that their excess speeds would not lead to harm, especially since they felt they only transgressed when it was safe to do so and provided they felt in control.

Unfortunately, accident data support the view that there may be a disjunction between feeling and being in control. Over 90% of accidents are in part caused by human error (Sabey, 1991; Storie, 1977); going too fast for the situation contributed to 27% of accidents in a recent study (Carsten *et al.*, 1989); and around 25% of injury accidents result in prosecution for having broken a law (Forsyth and Silcock, 1987; Jones and Everest, 1987). Thus drivers are obviously not always in control of their immediate traffic environment even if they believe they are.

1.2 Broad objectives

Our previous study begged various questions, of which the most important is: if present levels of penalty and enforcement do not satisfactorily reduce the speeds of drivers most at risk of high speed accident, what levels are required to have this effect? In addition, since we found with many fast drivers that their perceptions of the boundary of control in any given circumstances may be the most salient constraint on their choice of speed, further examination of the concept of control for fast drivers, could prove valuable. Focus on the individual high speeding driver therefore provided two objectives of this study: to explore in greater depth the notion of control (and whether these people see fast driving as risky behaviour and how they justify high speeds), and what external or internal measures will curb their speed choice.

No driver exists in isolation on or off the road, and probably no driver is unique. Driving itself is a social, interactive behaviour, and almost any characteristic chosen to describe a driver may typecast him or her as a member of a wider reference group. Because certain socio-demographic variables are linked with higher speeds, offending, or accidents, we capitalised upon this in our sampling of fast drivers. This allowed the opportunity to explore the potential or actual influence of the reference group on the individual driver, particularly with respect to speed choice. The characteristics targeted were age group (young drivers under 21), occupational group (those who drive for a living), type of vehicle driven (high performance cars), and membership of a sports car club. Young male drivers have been shown to have higher offending rates (e.g. Corbett and Simon, 1992a; Rolls and Ingham, 1992), to drive too fast for the circumstances (Carsten *et al.*, 1989), and to have higher accident rates (Goldstein, 1972; Chipman, 1985; Hemenway and Solnick, 1993). Recently, Rolls *et al.* (1991) found that

young male drivers made more dangerous errors, had the least accurate self-assessments of skill, and had accident rates almost three times higher than older male drivers.

Company drivers also drive faster than private motorists (e.g. Nilsson, 1990). Gallup (1990) found that of the traffic breaches listed, business drivers broke all more frequently than ordinary drivers except for red-running, and were more likely to engage in aggressive behaviour and to take chances when overtaking. They also had a significantly higher rate of convictions for moving vehicle offences than others which could be linked with their higher exposure rate. This latter fact could explain the slightly raised accident risk also found in the study, although West *et al.*'s (1992) research showed that accident risk in company cars averaged twice that in private cars when controlling for mileage.

High performance vehicle drivers, by and large, drive faster than other drivers (Corbett and Simon, 1992a), expect more pleasure in driving fast than others (Rothengatter and de Bruin, 1986) and have a higher accident risk than other groups (HMSO, 1992a). Interestingly, Field and Clarke (1993) argued that the macho image created by some vehicles (usually those with high performance specifications) might attract aggressive and young men in particular either to buy or steal such models so raising both their collision risk and theft risk. This would fit with Labiale's (1988) study which categorised drivers into various classes, and where Class V were described as aggressive, flamboyant and pushy drivers who were likely to purchase cars on the basis of good acceleration and stylish looks. Early research on licensed race drivers in the United States (Williams and O'Neill, 1974) showed that a sample of 447 of them had a higher accident rate and more speeding violations than a matched group of non-race drivers. It is possible, therefore, that sports car club members in this country may have raised accident rates and more speeding convictions compared with other drivers, and share similarities with high performance vehicle drivers in these respects. A third objective, therefore, was to look at the effect of wider reference groups on drivers' speed choice, and to see whether at least some drivers acknowledged a sub-culture which might encourage them to speed.

Excess speed is not a problem located solely with the individual driver or type of driver. Although in this study we are focusing on faster-than-average drivers living in England in this study, speed is an international problem, with many western countries reporting high non-compliance rates (e.g. Makinen, 1988; Riedel *et al.*, 1988; Nilsson, 1990; Ostvik and Elvik, 1990). Attitudes to speeding behaviour are, of course, developed from individuals' experiences on the roads and from a range of conscious and sub-conscious factors and personality characteristics (e.g. Furnham and Saip, 1993; West *et al.*, 1992; Donovan *et al.*, 1983). But the wider sociocultural context, or the national ethos, can also play a role (cf. Hayden, 1989; Rothengatter, 1990a; Hakkert *et al.*, 1988). Press articles and radio and television programmes explicitly or implicitly may shape social values and norms, and perceptions by drivers of the agencies which are concerned with the enforcement of speed limits, the sentencing of

speeding drivers and the tuition of new drivers may also impinge on the national consciousness. Thus if ordinary drivers perceive any ambivalence in the actions of these bodies, it may influence their own attitudes to, and choice of, speed.

So a fourth objective of the study was to get a 'feel' for the sociocultural context of speeding in this country, by examining the role of traffic police, magistrates' courts, and to a lesser extent driving instructors in regulating speed. This gave us the opportunity to maintain a criminological focus. For instance, to what extent do police and the courts see speeding as a problem, what circumstances do police take into account when enforcing speed limits, and what factors do magistrates weigh up when considering disqualification? As well as contributing to police and court policies and practices, traffic officers and many magistrates are also individual - and perhaps 'ordinary' - drivers, and the study takes a brief look at the perceived constraints or otherwise of their official role on their habitual choice of speed.

Finally, we would have liked to make some international comparisons to examine whether any differences between western countries in their (high) non-compliance rates could be explained in terms of demographic, geographic, sociocultural, criminological or other differences. This was not possible. But it is known that in the USA levels of compliance with speed limits vary between states (e.g. FHWA, 1990), and statistics describing many features of the states are available. So our fifth objective was to analyse these in order to explore variables distinguishing between high and low complying states.

1.3 Overview

This research comprised several components. The first involved depth interviews with a total sample of 112 drivers, whom we had previously identified as faster-than-average, and who were sub-samples of various categories of drivers. In the interview, their main task was to assess how their speed behaviour would change given a range of increasingly severe penalties and an increasingly higher risk of apprehension. In addition, issues of safety, control and risk were discussed, together with any possible influence of the wider social group to which we had assigned them. We also explored their accident histories and frequency of commission of other traffic offences.

Secondly, it was decided to take advantage of the introduction of unmanned speed cameras, which occurred gradually during our fieldwork period. Forty-six of the 112 drivers mentioned above had been photographed speeding, and had received a police warning letter before the camera scheme officially started, and our interviews with them included questions about that experience. In addition, we carried out a brief questionnaire survey of 524 drivers who used the A40 road where cameras had been installed eight months earlier, asking if they had modified their speed behaviour in any way since then.

A third stage comprised depth interviews with 60 traffic police officers from 12 forces. These interviews focused on force policy regarding speed enforcement, and on the interviewee's actual practice on the ground. Because of the

high speeds required in emergency calls, issues of control and safety were of especial interest in these interviews. We also discussed constraining influences of the police role on off-duty driving.

A fourth component of the study was to interview in depth 35 magistrates and three Justices' Clerks about their courts' sentencing policies and practices for high speeding drivers, to discuss the relative seriousness of excess speed compared with other driving offences, and once again to explore the constraining influence of the interviewees' court role on their own choice of speed.

Fifthly, in view of their potential influence in the formative stages of a driver's career, a small sample of 12 driving instructors was interviewed about the perceived effect they could have on new drivers' attitudes towards speed, and their own views on speeding and speed choice.

All the interviews asked respondents for ideas on any deterrent measures they thought could be useful in the effort to curb driver speeds.

Lastly, a statistical study used aggregate data from 50 American states (and the District of Columbia) to consider which, among a range of demographic, socio-demographic, geographical and criminological variables, predicted high non-compliance rates with respect to speed limits.

The report is composed as follows. Chapter 2 describes in more detail our methods, samples and sampling procedures. Chapters 3 to 5 summarise the main quantitative and qualitative data obtained from our interviewed drivers, and each is constructed around a different theme, bringing in material gathered from different parts of the study. Chapters 6 to 8 focus on the professional agencies and their roles, again adding information from other aspects of the research. Finally, Chapter 9 pulls the threads together, and discusses implications and future directions.

As noted, this study took place between the years 1991-1993. Since that time a few policies, procedures and processes mentioned in the text have changed in relation to aspects of the operation of magistrates' courts and the DETR driving test. Where changes are known to have occurred, e.g. new sentencing guidelines were made available to magistrates' courts in April 1997, these will be footnoted, leaving the main body of the text unaltered. However, it is emphasised that the bulk of the results should be as valid in 1997 as they were in 1993.

2 Methods used and profiles of the samples

In this Chapter we look first at 112 fast drivers where interviews formed the first component of the study. We describe how they were selected and what was covered in the interview, and we profile each of the four sub-groups in which these drivers fell. Next we say how the police, magistrates and driving instructors were selected and interviewed. Then we describe the survey carried out among drivers who used the A40 after speed cameras were installed. Finally we outline the statistical analysis of data from 51 states of the USA in regard to drivers' compliance with speed limits.

2.1 112 high speed drivers

2.1.1 Sampling and screening

The main sampling procedure was the 'word of mouth' or 'snowball' method. An alternative might have been to use DVLA records to gain a large sample, and then to send out screening questionnaires in order to select high-speeding respondents for interview. However, this approach was rejected on several grounds. Firstly, it would have been expensive and wasteful in time and money. Secondly, our aim in this study was not to identify key characteristics of a representative sample of each sub-group: to a large extent this had been done before (see Chapter 1). Our purpose now was to interview fast drivers who happened to be aged under 21, or to drive as part of their job, or to drive a high performance or sports car model, so that we could ask them about their speeding behaviour and, *inter alia*, about the potential influence of their sub-group on their choice of speed. Thirdly, the snowball method meant contacting respondents through drivers who had themselves been interviewed, and it was expected that this, plus a guarantee of confidentiality, would produce a higher response rate and would encourage rapport and frankness in the interview (cf. Wright *et al.*, 1992).

In practice we began with one or two known drivers in each category. Having completed their interview, they were asked to refer us to someone else whom they considered to be a fast driver and who also fell into one of our categories. When a referral was produced we immediately sought contact with this individual. To ensure that he or she was what we defined as a fast driver, a screening questionnaire was sent to the new contact before any interview was arranged. Very few of those contacted failed to respond or to offer help, although several reported driving insufficiently fast to be included for interview. Since the referral procedure required those who had already been interviewed to encourage others to participate, it is possible that some waiting for interview would have been forewarned about specific questions that would be put. However, the content of the interview largely focused on their views and experiences of driving, no trick questions were included and a non-judgmental approach was used, so it is thought unlikely that prolonged consideration of any particular question would have substantially altered drivers' immediate responses.

The screening questionnaire consisted chiefly of a list of 16 traffic offences, drawn from 25 which had featured in our earlier study (Corbett and Simon, 1992a, Table 3.1). Respondents were asked to say how often (using a 5-point scale marked 'never', 'only rarely', 'sometimes', 'usually' and 'nearly always') they committed these actions in the normal course of their driving. Six items referred to speeding, and the other ten referred to running red lights, improper overtaking, not giving way, drink-driving, illegal parking, failure to use indicators, driving without an MoT certificate, and driving with defective brakes. Responses on the six speeding items were combined to give each driver a 'speeding score' (which could range up to 24 points) and responses on two speeding items plus the other 12 were combined into an 'offending score'; both scores

had been used in the earlier study (Corbett and Simon, 1992a, p.8)². The screening questionnaire also asked about the respondent's age range, annual mileage, vehicle make and model and its perceived benefits, use of the vehicle for business or leisure, and what would be the respondent's ideal choice of car.

Screening questionnaires were returned by mail, and respondents who achieved a speeding score of at least 13 points were defined as high speeders and asked for an interview. (This definition of high speeder was the same as used in our earlier study). In fact very few of the people who had been recommended to us by their friends or colleagues as fast drivers failed to reach this score. In the case of people caught by the cameras driving at least 25 mph in excess of the speed limit (see below) we dropped the minimum score to 12 points if necessary to include them in our sample.

The word-of-mouth method was effective in producing samples that were, impressionistically at least, varied within each of the sub-groups we were targeting. However, it also proved to be rather slow in achieving desired numbers. Many interviews ended in apparent enthusiasm to help and a verbal assurance that the respondent could 'get lots of people', but then in the event few potential contacts were produced. Snowball chains proved especially difficult in respect of young drivers. Because we wanted variety in the group we largely refrained from interviewing students. Attempts to increase the trickle of contacts included advertising in the motoring section of a London-wide publication, advertising among students for non-student driver friends, and re-contacting interviewees who had said they would refer us to others but who had not yet done so.

Even with these efforts the samples grew too slowly. It was therefore decided to boost their numbers by including some drivers who had been photographed speeding by police cameras, and this aspect of the study will now be described.

At the time of our fieldwork, unmanned speed cameras were being installed on some arterial roads. The police wished to know the reactions of drivers who were caught by this new method, and we wished to increase our sample of high speeding drivers. So, just before the official introduction of the cameras, traffic police in West London agreed to carry out two sweeps of them to catch a sample of motorists driving at least 25 mph over the speed limit, which they would deal with (on this occasion) only by a warning letter and which we could ask for an interview.

Three hundred and forty-seven offending vehicles were recorded by the cameras during these sweeps. However, 178 were dropped because of foreign registration, company ownership or other reasons, leaving 169 drivers to each of whom the police sent a 'letter of advice'. Enclosed also was a separate envelope containing an introduction and explanation of our research, a request for help with it, and a screening questionnaire.

Eighty-six drivers (51%) replied. Fourteen of these omitted their name and address and four others indicated that they did not want to be contacted. Eighteen of the remainder had speeding scores that were too low. This left 50 of whom 46 were eventually interviewed. All but one

had been driving the vehicle when it was photographed (the other was the owner but had not been driving).

Thirty-seven of the camera sample were used to boost our snowball sub-groups: five were under 21, 20 were business drivers, and 12 drove high performance or sports models. The other nine were a miscellaneous group. In total, 112 high-speed drivers were interviewed: 30 young drivers, 36 business drivers and 37 high performance or sports model drivers, and nine others. All these sub-groups are profiled below.

2.1.2 The interview schedule

In most cases the interview with fast drivers lasted about an hour and a half, although some took much longer. Many of the questions were open ended which meant that much of the data produced was qualitative, since we considered this the best way to get at issues such as feelings of control, ideas on road safety advertising, beliefs about the risk or lack of it in speeding, and the circumstances of any accidents the respondent had had. Other questions asked the respondent's opinion on the 'criminality' of several moving vehicle offences compared with 'conventional' crime. Data was collected from all respondents on variables such as length of driving experience, frequency and dates of accidents, ratings of responsibility for accidents, a self-rating of driving skill, and the respondent's estimate of the chance of being caught speeding and of the likely penalty.

Respondents were shown two photographs: one of a section of motorway and the other of a road where the speed limit was 30 mph. They were asked to estimate the maximum speeds they would reach if driving alone in the situations portrayed, and then the maximum if there was no chance of being caught. We explored their reasons for not exceeding those maxima, and the speeds at which they would feel out of control.

Finally, interviewees carried out a pencil and paper exercise which we termed 'the deterrence game'. This was a hypothetical procedure in which the risk of apprehension for speeding, and the severity of the penalty were manipulated simultaneously across several levels, and the respondent indicated how his/her choice of speed would change. In conjunction with this, the respondent rated the eight penalties (used in the game) for severity on an eleven-point scale.

The interview schedules were not quite the same for all drivers. To investigate sub-cultural issues, some specially targeted questions were put to the different sub-groups: the young, business drivers, and high performance drivers or members of sports car clubs. Those who had been selected by the cameras were asked directly for their reactions to that experience, although all interviewees were invited to express their opinions on roadside preventive technology.

2.1.3 Brief profiles of the sub-groups

The different sub-groups on which we focused to try to obtain high speeding drivers had been suggested by our earlier research (Corbett and Simon, 1992a p.19). In the present sample their proportions were not necessarily the

same, and also our earlier study had over-sampled young drivers and those who had had accidents. So one would not necessarily expect our present 112 high-speeders, as a group, to be similar in all ways to the high speeders of the earlier study. Nevertheless it is interesting to compare them in certain respects.

Firstly, a comparison of annual mileage showed that the current sample of fast drivers had driven further in the previous year (mean = 17,700) than the earlier group of high speed drivers (mean = 10,900). Secondly, the mean speed score of our present sample was 13.3 (see Table 1) compared with a mean score of 15.5 for the high speeders in the earlier research. We would expect this to be the case since some of our camera-caught drivers were included with a minimum speed score of 12 points instead of the 13 points required for the rest of the present sample and earlier high speed group. Thirdly, the median³ offending scores showed a similar directional difference between the two sets of drivers, with the earlier high speed group achieving a score of 86.5 and the current fast drivers a score of 65.8. Thus, it would seem the latter drivers were slightly less deviant on the roads than the high speeders in our earlier research, and had driven considerably more miles annually.

Below is a brief profile of each sub-group: young drivers (YD), those who drove for a living (DFL), drivers of high performance or sports models (HPS), and nine others. It should be noted, however, that although we allocated each of the 112 to just one of these categories there was some potential overlap. In fact, three of the YDs drove for a living, and four drove a HP car. None of the DFL drivers or the HPS ones, were under 21. Three of the DFL ones drove a HP car, and 11 of the HPS ones had jobs which involved driving.

In allocating such drivers to one sub-group or another, we kept in mind the desirability of reasonable numbers and of making the best possible use of data relevant to sub-cultural influences.

Also, it should be emphasised that our sub-samples were not representative of the parent groups. Many interviewees could think of drivers in their own or other categories whom they did not consider to be fast drivers like themselves, but fortunately in order for the snowball chain to work, many could think of some who were. In each sub-sample the high proportion of males is largely due to the

fact that the few men with whom we started tended to suggest other men, who then did likewise.

2.1.3.1 Young drivers (YD: N=30)

Two of these were university students, seven worked full time but were day release students, seven were 'A' level students, two were unemployed, and the others worked in a variety of jobs including petrol attendant, leafleter at 'raves', computer operator, local government positions, van driving, and bar jobs.

Their mean number of months since passing the driving test was 21, and their mean annual mileage was 11,470. Two were disqualified at the time of interview, one for drink-driving, the other for a red-running incident which resulted in an accident. (These two were asked about their driving immediately prior to the disqualification).

Twenty-four (80%) were male. This imbalance has been explained above, but it also fits in with the finding that high speeders are more likely than other drivers to be young and male (Harrington and McBride, 1970; Goldstein, 1972; Agent, 1978; Chipman, 1985; Rolls *et al.*, 1991; Corbett and Simon, 1992a).

Compared with the other sub-groups these young drivers tended to have significantly higher traffic offending scores, the median being 80.5. As might be expected from other studies comparing male and female traffic offending rates (e.g. Corbett and Simon, 1992a) the median offending score of our young male and young female drivers differed significantly (82.9 and 61.0 respectively, a non-parametric median test giving sig. 0.02). However, as noted below, young male and female speed scores did not differ significantly. In regard to individual offences, the young drivers were more likely than other groups to report running red lights, failing to give way at main road junctions, driving into hatched white lines, speeding in built-up areas, parking on single yellow lines and driving without an MoT certificate or with defective brakes. Their mean speed score was 14.3. (males scoring an average of 14.6, and females 13.0 - difference not significant). Even in their short driving careers, just over a third of the sample had been prosecuted for speeding. In addition the mean annual accident rate of this group was very high at 30.1 per 100,000 miles. This figure is so high because several young males reported having two or more accidents within the first year of

Table 1 Comparison of sub-samples on key characteristics

	Young drivers	Drives for a living	High performance/sports drivers	Misc	Mean
Sample number	30	36	37	9	(n=112)
% female in sample	20	8	11	44	15
Mean annual mileage	11,740	23,166	19,041	10,500	17,713
Mean years since passing test	2.1	9.1	19.6	19.4	14.6
Mean speed score	4.2	12.3	13.7	12.1	13.3
Median offending score	80.5	61.4	63.6	52.4	65.8
% exceeding 50 mph in 30 mph at least sometimes	43.3	23.5	16.7	33.3	28.5
% exceeding 90 mph on motorway at least sometimes	60.0	47.1	75.0	33.3	58.7
Mean accidents p.a. per 100,000 miles	30.1	1.5	1.2	3.9	9.5
Median accidents p.a. per 100,000 miles	8.6	0.7	0.0	0.0	1.11
Mean accidents per annum	1.1	0.3	0.2	0.2	0.4

passing their test, having achieved very low annual mileages. When multiplied up to 100,000 miles per annum this has the effect of enlarging the mean annual accident rate to enormous proportions. However, if mileage is not taken into account, the annual accident rate of young drivers - 1.1 - compares more closely to, but is still higher than the figure of 0.35, which is the annual accident rate of Rolls *et al.*'s 1991 sample of young male drivers.

2.1.3.2 Driving for a living: (DFL: N=36)

These drivers worked as company sales representatives or managers, or in delivery, or retail, courier or vehicle repair roles. Their average annual mileage was just over 23,000 miles, which is higher than that recorded for business drivers by the Gallup Report (1990) at 18,000. Three drivers (8%) in this group were female. The mean number of years since passing the driving test was 19 and the mean speed score for the group was 12.3. Their median offending score was 61.4. Interestingly, DFL drivers were significantly less likely than others to report overtaking on the left hand side of the motorway. The average annual accident rate for this group was 1.5 per 100,000 miles.

Unfortunately, it is not possible directly to compare the accident rate of our DFL sample and that of the business drivers in the Gallup (1990) sample because of different methods of constructing an accident rate. It is only possible to say that on average our DFL group had had one accident causing injury or damage to someone or something in the last four years, while the Gallup sample on average had had at least one 'minor' accident (not involving hospitalisation) in the last nine years.

2.1.3.3 High performance and sports model drivers (HPS: N=37)

This group comprised 25 drivers of high performance vehicles and 12 others (see below) who were members of sports car clubs. On average their annual mileage was just over 19,000 miles and they had been driving 19.5 years since passing their test. Most were middle class people in professional well-paid occupations, and 30% drove as part of their job. Only four (11%) were female.

The mean speed score for the group was 13.6 while the median offending score was 63.6. These drivers were significantly more likely to report speeding frequently at or above 90 mph on the motorway (which is not surprising). So the young driver sample could be described as the worst speeders in built-up areas, while the 'fast car' drivers were more likely to be driving faster on the motorways. The mean annual accident rate for this group was 1.2 per 100,000 miles.

As most of the 12 sports car club members also drove high performance models at other times, it is appropriate here to compare them with the high performance sub-sample of 25. However, it is important to point out that these 12 drivers were not selected randomly. They were considered to be among the fastest in their branch, and the branch itself was not necessarily typical of others or of clubs celebrating different models of sports cars. The different median offending score for sports car club

members was 61.8 compared with 65.9 for the high performance drivers (a non-significant difference), while the mean speed score for the former group was 13.3 compared with 13.9 for the latter group (not significant). Sports club members had a lower accident rate when annual mileage was taken into account (0.73 compared with 1.44) but this was also not significant. In view of the similarity between these two sub-groups, we did not feel it unreasonable to treat them as one group in further analysis.

2.1.3.4 Miscellaneous drivers (N=9)

As explained earlier, this small group comprised those who were detected by the speed cameras, screened and categorised as fast drivers but who did not fit into any of the three main categories. They were interviewed to enhance information about speeding in relation to any deterrent effect of the cameras. Four of these drivers (44%) were female. This group had the lowest annual average mileage at 10,500, and their average experience of driving was just over 19 years. They had the lowest mean speed score at 12.1 and the lowest median offending score at 52.4. The average annual accident rate for this group was 3.9 per 100,000 miles.

The main characteristics of the sub-groups that we have described are summarised in Table 1.

2.2 Police, courts and driving instructors

2.2.1 Selection of samples

2.2.1.1 Police

Sixty traffic officers comprising 35 'juniors' (Police Constables and Sergeants) and 25 'seniors' (Inspectors and Superintendents) were interviewed in depth. The junior officers came from three different forces, one largely responsible for policing urban roads, and the other two for a combination of urban, motorway and rural roads. Six senior officers were interviewed from these three forces, and the remaining 19 were in a variety of nine other forces with a wide geographical spread. Thus views were obtained from senior officers in just over one quarter of all police forces.

Senior officers were nearly all nominal or actual heads and deputies of traffic departments of their respective forces, with responsibility for overall operation of traffic enforcement policy. We tried to select junior officers with at least two years' traffic experience, although in the event this ranged from less than one to 30 years' experience, with a modal range of 5-9 years. Only two were female. We had asked to interview a wide variety of officers engaged in different aspects of traffic policing, and in practice the selection seemed to be largely random (in the popular, non-statistical sense). For instance, officers who happened to be around during our visits to local traffic departments were sometimes 'asked' by their supervisors to see us (none refused), and judging from the views expressed none appeared to have been specially chosen on 'public relations' grounds. Nonetheless, we would not claim that this was a representative sample of operational traffic officers.

2.2.1.2 Court personnel

Three magistrates' courts participated in the early part of this research. (Later, another court was visited, as mentioned below). Initially it was planned to select a court within each of the three force areas where most police interviews had been conducted. This was achieved in two areas, but not in the third, so we were grateful that another court just outside the third force area agreed to participate. Our other criteria for selecting courts were (a) they had a sufficiently large number of magistrates to yield a random sample whom we could ask for interview, and (b) speeding offenders prosecuted there would have been driving on a wide variety of roads.

One court dealt largely with urban non-traffic offending, and was located in an inner city area; the second was situated in a busy city centre, again dealing largely with urban and arterial traffic, although its branch court - from which several magistrates were interviewed - dealt mainly with motorway offending. The third court was located in a large town with a rural-based branch court, so those prosecuted were caught on a range of rural, urban and arterial roads.

At each court the Justices' Clerk and the Chairman of the Bench were interviewed. The other magistrates were selected by us randomly from a list of those who regularly chaired traffic courts. Approximately half of those available were female, and our selection reflected this. Interviews were held with 35 magistrates spread evenly between the three courts and this represented an overall response rate of 86% of those who were asked. There was a slight difference between courts with 71%, 86% and 100% agreeing to participate respectively. Again, no claim is made that this was a representative sample, although there is no reason to believe it was not. All three Justices' Clerks and 32 of the magistrates were themselves drivers, the latter with an average driving experience of 35 years. The annual average mileage of the magistrates was 12,600 and over half of them (53%) drove cars with at least a two litre engine.

In addition to the three courts selected above, very near the end of the fieldwork period, another court was visited from among those with whom the researchers had contacts. At this court, which was in a large provincial town, a deputy Justices' Clerk and seven magistrates were interviewed specifically about some of the issues and findings that had come to light from the earlier set of 38 interviews with court personnel. This was done in order to clarify views, and to see whether and how opinions on speeding and sentencing of speeding drivers had shifted in the ensuing year, which had seen the introduction and demise of the unit fine system. Unless stated, however, findings in the text only relate to the interviews carried out at the first three courts visited.

2.2.1.3 Driving instructors

A major driving school agreed to participate in our study, and interviewees were selected randomly by us from lists of instructors with at least two years' experience, from three of the school's branches in London. In total, 12 instructors were interviewed. This was an overall response

rate of 66%, but there were big differences between the three branches: at one, all those eligible agreed to give an interview, at another only one agreed (lack of time was suggested by the branch manager as the most probable reason for refusal), and at the third, around half were interviewed.

On average, the 12 instructors had 19 years of driving experience, and seven years of instructing experience (ranging from two to 28 years). None was female, and all but two only used the driving school vehicle when off duty.

2.2.2 The interview schedules

Semi-structured depth interviews were carried out with all police, court, and instructor participants, and these generally lasted between one and one and a half hours. Interviews with senior police were mostly longer, ranging up to four hours, and those with Justices' Clerks also were longer.

Two versions of an interview schedule were constructed for police personnel. Senior and junior officers were asked about speed enforcement policy and everyday practice in their force area, and for their views on speed limit changes, unmanned cameras, and other enforcement technology. Interviews with seniors also focused on organisational features such as the effects of the devolution of traffic and the structure and workload of the traffic department. (cf. Southgate and Mirrlees-Black 1991).

Three forms of an interview schedule were devised for court personnel. Questions to Justices' Clerks highlighted features of the court's caseload, local sentencing policy, guidelines and practice with respect to speeding drivers, and court organisation. All magistrates were asked about their own sentencing practices regarding speeding drivers, the information they weighed up when considering disqualification for high-speeders, and the relative seriousness of speeding compared with other traffic offences. The interview schedule for the three Chairmen was a mixture of the other two.

For the driving instructors we used one standard schedule, which raised issues such as the potential effect their tuition could have on pupils' future choice of speed, how they dealt with excess speed during lessons, whether they felt they could spot future law breakers, and their views on the seriousness of speeding. All interviewees were asked for their own ideas to deter high-speeding drivers, and a range of questions centred on the relative criminality of speeding. All drivers were asked in one form or another about their own choice of speed, and for their experiences and views on speeding and speed-accident links. Altogether, we asked some identical or very similar questions of high-speed drivers and of people concerned with policing, sentencing or educating them, so that we could make comparisons.

2.3 The survey of A40 drivers

Towards the end of our fieldwork period, unmanned speed cameras were introduced on to some arterial roads in London and elsewhere. In view of our focus on the deterrence of speeding, it was decided to take advantage of the new cameras by conducting a survey of drivers using the

A40 road where they had been installed eight months earlier. (This road was situated conveniently near to Brunel).

To get a representative sample of such drivers and a high response rate would ideally require a census at the road side, but owing to lack of time this method was discounted. Instead, three superstores and four oil companies with petrol stations situated on or very near the A40 were contacted and permission was asked to seek brief interviews with customers in their lobbies or on their forecourts. Two superstores (B & Q and Sainsburys) and two oil companies (Mobil and Shell) agreed giving a total of five sites where interviews with drivers took place. (Drivers at one Mobil and two Shell garages were subsequently sampled).

Drivers completed a self-report questionnaire which took approximately three to five minutes. Questions focused on the driver's choice of speed on the A40, how (if at all) it had been affected in the last few months, whether any effect generalised to other main roads where cameras were not situated, and which types of driver were most and least affected by the presence of the cameras. Other questions asked respondents for their attitudes to the cameras and for estimates of their number.

In total 524 drivers who used the A40 at least occasionally were interviewed. Three hundred and thirty eight refused, largely because of insufficient time. Thus a 61% response rate was achieved.

Two-thirds of the survey respondents were male (67%). All age groups were well-represented except for young drivers aged under 26 (11% of the total), who probably were less likely to shop in superstores than other age groups. (Non-respondents were very similar in gender and age group - as far as could be assessed.) As anticipated, the majority lived locally and were regular users of the A40 road.

The findings of this study are reported in Chapter 4 (and are published in greater detail elsewhere - Corbett, 1995).

2.4 A multivariate analysis of speed data from the USA

As mentioned in Chapter 1, it is known that rates of compliance with speed limits vary between the different States in America. In conjunction with the School of Criminal Justice at Rutgers University we designed a statistical study to explore this variance by drawing on a broad range of data available for each State. The data were extracted from various national statistical sources which were widely available on an annual basis, and which included the annual reports of the Federal Highway Administration (which monitors drivers' speeds).

Up to 1986 the speed limit on rural inter-state highways in all States was 55 mph, but from 1987 onwards an increasing number of States raised their limits to 65 mph. To avoid the potential confounding effect of this, we used data for the years 1981-86. We employed as dependent variables the proportion of drivers (in each State) who exceeded the 55 mph limit (i.e. the non-compliance rate) and the proportion exceeding 65 mph.

Initial analyses were carried out to check the stability of non-compliance rates within the 51 States for the years 1981-86, since big annual fluctuations might produce artefactual findings in a prediction of between-States

variance. Although several States showed big jumps in one or two of the six years examined, the non-compliance rate in most States tended to increase fairly smoothly over the period 1981-86. We therefore considered it safe to conduct a series of between-States multivariate analyses. These were carried out by correlation, analysis of variance and multiple regression.

The independent variables of interest fell into five broad types. These included demographic features of each State (e.g. population structure, population density, age and gender structure), geographic (e.g. weather conditions, State location), socio-economic (e.g. employment rate, proportion of Japanese cars imported), criminological (e.g. motor theft rate, homicide rate, crime rate, number of citations issued, number of licence revocations per driver) and road or traffic related variables (e.g. number of vehicles miles travelled, proportion of new to old cars, proportion of rural inter-states). The criterion for inclusion was that each should be theoretically relevant as a possible causal factor in non-compliance.

Fifty-three variables were used, first for the year 1985. Once the best predictive models had been fitted, they were tested with 1986 data.

Results of the analyses are considered in Chapter 5. (The method and results are detailed more fully elsewhere - Corbett *et al.*, 1995.)

3 Drivers' perceptions of safety and control, and their effects on choice of speed

3.1 Introduction

A major conclusion from our earlier study (Corbett and Simon, 1992a) was that underpinning the propensity to commit or not to commit an offence was the driver's personal code or set of standards, which produced an habitual style of driving. This code was based on personal driving experience, social influences, personality factors including responses to stress, attitudes towards traffic rules, and the wider social context. However, a key feature of the code was the driver's need to feel *in control* whatever action (legal or illegal) was contemplated. It seemed that for many drivers the boundary between feeling in and out of it formed the benchmark for deciding whether a traffic breach was moral or immoral, safe or unsafe, crime or not crime. Yet feeling in control was insufficient on its own to determine whether an unlawful action would occur. Drivers also weighed up, however crudely, the perceived risk of being caught, the acceptable risk of being caught, and the likely penalty and its impact. In other words, they considered the traditional factors of the deterrence equation. Thus one driver might feel completely in control but still refrain from committing an offence owing to the perception of there being a chance of apprehension, however slight; while another, also feeling in control, might cheerfully break a rule through having little fear of the likely penalty if caught.

In that study we also thought that beliefs about being in control when driving might explain some counter-intuitive findings. For example, drivers were more likely to accept a

general link between raised speeds and raised accident risks than to accept a personal link, i.e. fewer were likely to believe that their own risk was raised when they drove at high speeds. Further, the more drivers were prone to break the law the more likely they were to discount the risk of personal accident. This was not through unconcern about accidents, but because they believed that, provided they felt in control and only transgressed when it was safe to do so, no harm was likely to happen (cf. Rothengatter, 1988).

As mentioned in Chapter 1, however, offending and accident statistics strongly suggest that there may be a gap between feeling and actually being in control (e.g. Jones and Everest, 1987; Forsyth and Silcock, 1987; Carsten *et al.*, 1989); and research has shown not only that the perception of being in control may be illusory (e.g. Crocker, 1982; Svenson, 1981; McKenna, 1993), but also that it is resistant to extinction (McKenna *et al.*, 1991).

Although our present study is concerned with criminological variables that may have a deterrent effect on drivers' speeds - in other words, a main focus is on the various external circumstances that are capable of manipulation - it would be inappropriate to ignore drivers' perceptions of safety and control. We wished therefore to examine these further in discussion with all our interviewees.

In our earlier study, it seemed from what some drivers had said that up to the perceived boundary at which they would still feel in control they did not feel their accident risk was raised, even if their speed was well in excess of the legal limit. However, once that cut-off point was exceeded, perceived accident risk seemed to increase. One purpose therefore in the present research was to see whether this 'model' of control had wider application, and if so to understand the dynamics of it further.

3.2 Subjectivity of perceived safety

First of all we present some findings from a small section of the interview schedule used with police officers, magistrates and driving instructors. These people when off duty may well behave similarly to the mass of ordinary drivers on the roads, and we thought that both their personal driving experiences and their professional roles might help to throw light on issues of safety and control. So we asked them for their views, and one part of the discussion was the following:

To focus their minds on the subject of speed and safety in a specific context, they were asked to imagine a rather invidious situation, thus;

Imagine that, as a private driver, you are driving along a busy urban arterial dual carriageway, in fine weather. Everybody around you is doing 50 mph even though there is a 40 mph limit. In those circumstances what speed would you do, and why?

(If respondent does not mention relative safety:) Do you think it would be safer for you and everybody if you kept up with the flow of traffic, or do you think it would be safer to stick at 40 mph?

Among both magistrates and instructors, about three-quarters responded that they would keep up with the flow because doing so would be relatively safer, even though a

few also said they would not like feeling pressure to break the law in that manner. Police, both senior and junior were rather less likely to think this way, with just over a half saying they would keep up because of safety. In contrast, fewer than one in ten in all three groups thought it would be safer to stick to the speed limit. (Others said they would stick to 40 or drive between 41-49 mph for other reasons). Thus while the majority view was that greatest safety is not always aligned with the speed limit in a given situation, there was some disagreement on the point, with around one in five of each group suggesting it would be safer not to keep up with the flow (either keeping to the limit or driving between 41 and 49 mph). Further discussion revealed that the matter was by no means clear cut, and some police officers, especially, expressed considerable disagreement with the opposing view of colleagues when this was put to them. So perceived safety in a given situation is very much a subjective judgment.

3.3 Exploring the boundaries: two photographs

In order to study the 'model' of control (mentioned above) we wished to examine drivers' perceived boundaries of safe speed. To do this we showed to the main body of our interviewees (all fast driver groups, magistrates, junior police officers and instructors) two photographs which are reproduced in Appendix A. The first, PHOTO30, depicted a wide urban 30 mph limit road, with a long high wall to the left side, and several turn-offs to the other side, in clear daylight with little traffic about. The other, PHOTO70, showed a three-lane motorway in clear daylight with little traffic. A bridge spanning the motorway was visible ahead as well as a distant junction sign. These situations were not necessarily typical of urban or motorway road conditions but were chosen to explore interviewees' perceived limits of acceptable risks of apprehension and of accidents.

With each photo the interview went as follows:

I'd like you to look at this photo, which is of a road with a 30 mph limit/a motorway with a 70 mph limit. It's a clear dry day, and you are driving your own car [and for police and instructors, off duty] along this road. What is the highest speed you might reach?

(Respondent says X mph)

Why would you not do more than X mph?

If there was no risk of your being caught, - say there was a moratorium on speed enforcement - what would be the highest speed you might reach?

(Respondent says Y mph)

Why would you not drive faster than Y mph?

The implication of the request to imagine being in the two situations described and shown was that they were typical rather than exceptional, and interviewers were careful to ensure that respondents had interpreted the questions accordingly.

3.3.1 Highest speeds with and without the risk of detection

Table 2 sets out for all the different groups of respondents the mean top speeds (and standard deviations) relating to each of the four situations.

The table shows, first, that even with a risk of being caught, the average top speeds of each group would be above legal limits, and that the fast drivers' speeds would be considerably higher than those of the police, magistrates and instructors.

Actually 11% of the police, 9% of the magistrates and 8% of the instructors said they would observe the 30 mph limit in the urban scenario, and 17% of the police, 26% of the magistrates and 33% of the instructors would stick to the 70 mph limit in the motorway scenario, while none of the fast drivers said they would keep to either limit. As other studies have shown (e.g. Rothengatter and de Bruin, 1986), it is mainly habitually fast drivers who find fast driving pleasurable. Since 60% of our fast driver sample (80% of both the young driver and HPS sub groups) said they enjoyed high speed driving, this could help explain the difference between their mean speeds and those of the other groups in the photo scenarios.

Secondly, it can be seen that removing the risk of detection raised the mean speeds of all groups, suggesting, superficially at least, that the fear of being caught may limit the speeds of some drivers. However, this account is too straightforward, as will be shown below.

Thirdly, looking just at the fast drivers in Table 2 (and disregarding the nine 'miscellaneous' ones) we see that, both with and without a risk of detection, young drivers were the fastest of all sub-groups on the urban road, while HPS drivers had the highest mean speed on the motorway. Those who drove for a living were the slowest on the urban road, and slowest on the motorway if there was the chance of being caught. Many young drivers said their top speeds would be constrained by the inability of their cars to go faster (see below), and had it not been for this the DFL drivers would probably have been the slowest sub-group in all four situations.

These results for the fast drivers are consistent with their responses to another question, which asked what was their preferred general speed in urban areas and their preferred cruising speed on motorways. For urban areas, young drivers suggested the highest mean speed (YD: 43.9 mph; HPS: 40.8

mph and DFL: 40.1 mph), and on motorways, the preferred cruising speed was higher for HPS than for the other two groups (HPS: 88.9 mph; YD: 82.4 mph and DFL: 81 mph).

3.3.2 Why not go faster?

Among the fast drivers, 73 (67%) said that on the urban road (PHOTO30) removing the risk of detection would not result in their top speed being any higher, while 36 (33%) said that it would. For the motorway (PHOTO70) the figures were 64 (59%) and 45 (41%). So in the scenes depicted in the photographs up to two-thirds of our fast drivers would not increase their speed if there were no chance of being caught. For each of the four situations all fast drivers were asked, 'Why would you not drive faster than [top speed mentioned]?' Table 3 sets out their reasons, with respondents grouped into sub-sets of those whose top speed would be the same when the risk was removed and those who said it would be higher.

Table 3 shows that, overall, the commonest reasons given by our fast drivers for limiting their top speeds were concerned with feelings of safety or control. For example:

'I'd feel comfortable at that speed. I'd still have a reasonable amount of control left in that situation'.

'Above 100, I instinctively feel my control slipping away'.

Now let us look more closely at the reasons given by the sub-sets of drivers in Table 3 for limiting their speeds, both with and without the risk of detection. On the urban road 67% (73) of the whole sample said they would not go faster if the risk of detection were removed, and all but two of these (97%) gave their reason as safety or control. On the motorway 60% (65) of the total would not go faster if the risk of detection were removed, 29 (44%) of them because of safety or control. Twenty-one (33%) others of this sub-set on the motorway said they would not go faster because of wear and tear on the vehicle. For some of these drivers 'wear and tear' reasons had direct implications for their perceived safety and feelings of control. For example, some alluded to likely engine problems, excessive vibrations occurring at the maximum speeds possible in their cars, which they reported, could compromise their safety.

Table 2 Drivers' top speeds (mph) in four imaginary situations

	PHOTO30 risk of detection		PHOTO30 no risk of detection		PHOTO70 risk of detection		PHOTO70 no risk of detection	
	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Fast Drivers								
Young (n = 30)	51.0	9.8	55.0	9.7	94.9	12.9	97.0	12.3
DFL (n = 37)	46.1	6.5	47.9	8.1	91.8	8.0	99.9	12.4
HPS (n = 37)	47.7	6.7	52.0	8.5	96.4	8.3	104.6	12.9
Misc (n = 9)	43.3	4.3	44.3	5.3	88.9	5.5	91.2	8.3
Total (n = 112)	47.7	7.7	51.3	9.2	93.9	9.7	100.1	14.5
Others								
Junior Police (n = 35)	37.4	4.6	41.3	9.6	80.7	8.0	85.0	1.9
Magistrates (n = 35)	39.8	6.7	42.3	7.0	81.8	12.1	85.1	15.7
Instructors (n = 12)	37.7	4.8	38.2	4.6	78.1	10.3	81.1	12.2

Note: Not all respondents were asked all four questions, so the n's shown are maxima

Table 3 Fast drivers: reasons limiting top speed in four imaginary situations**PHOTO30**

<i>Sub-set of drivers</i>	<i>Reason when risk present</i>	<i>Reason when risk removed</i>	<i>No. of drivers %</i>	
Same speed if risk removed (n=73)	safety/control	safety/control	42	(58)
	safety/control + detection	safety/control	27	(37)
	detection	safety/control	2	(2)
	other	other	2	(2)
Higher speed if risk removed (n=36)	safety/control	safety/control	10	(28)
	safety/control + detection	safety/control	10	(28)
	detection	safety/control	13	(36)
	detection	other	3	(8)

PHOTO70

<i>Sub-set of drivers</i>	<i>Reason when risk present</i>	<i>Reason when risk removed</i>	<i>No. of drivers %</i>	
Same speed if risk removed (n=65)	car won't go faster	car won't go faster	10	(15)
	safety/control	car won't go faster	5	(8)
	safety/control	safety/control	1	(29)
	safety/control + detection	safety/control	4	(6)
	detection	safety/control	4	(6)
	detection + wear & tear	safety/control	2	(3)
	detection + wear & tear	wear & tear	5	(8)
	wear & tear	wear & tear	16	(25)
Higher speed if risk removed (n=45)	safety/control + detection	car won't go faster	4	(9)
	safety/control + detection	safety/control	3	(7)
	safety/control	safety/control	4	(9)
	detection	safety/control	5	(11)
	detection	wear & tear	8	(18)
	detection	other	3	(7)
	detection	car won't go faster	12	(27)
	car won't go faster	car won't go faster	2	(4)
	car won't go faster	safety/control	4	(9)

Naturally, any mechanical failures resulting from excessive speeds would not necessarily occur in the imagined scenario and instead might occur during future bursts of maximum speeds. However, it might not be inappropriate to group some of the 21 drivers who gave 'wear and tear' as their primary restraining reason with the 29 who would refrain from higher speeds for reasons of safety or control were the risk of detection to be removed. This would mean that the proportion of the motorway subset restrained by safety or control reasons when there was no chance of being caught would lie between 44% and 77%.

These figures suggest that, for both the urban road and motorway scenarios, many drivers either largely discounted the risk of being caught for speeding or, up to a certain level of excess speed, were prepared to accept *some* risk of detection. Now we see why the obvious inference from Table 2 would be too simple.

In Table 3, a total of 52 drivers on the urban road and 24 on the motorway (69% overall) said that with the risk of detection present their top speed would be constrained by reasons of safety or control. For a smaller group (37 on the urban road and 11 on the motorway) the (slight) risk of detection and the acceptable limits of safety and control seemed jointly to restrict their top speeds (44% overall). Once the risk of apprehension was removed, only a minority of these people would drive faster, and for nearly

all of them, as for the others, safety or control was now the only constraint.

For another group (18 on the urban road and 32 on the motorway) the risk of detection was the main restriction on their top speed (45% overall). If this risk were removed the great majority of them would increase their speed, and for over half of these drivers safety or control (including wear and tear) reasons would then explain why they would not exceed their new maximum.

Thus for most drivers, either safety/control, or the risk of detection, or both, restricted their top speeds when there was a chance of being caught. When this risk was removed, safety/control assumed salience for nearly all.

For a minority of those on the motorway, however, constraints in the form of 'the car won't go faster' prevented higher speeds. Apparently for these people the limit of acceptable risk of accident had not been reached. Young drivers were over-represented in this group (37%) and this finding, taken together with the figures for young drivers in Table 2, suggests that young drivers accept higher risks (in regard to both safety and apprehension) than other driver groups. This is consistent with the findings of other studies (e.g. Rolls *et al.*, 1991).

Police interviewees were not asked how fast they would drive, and what would limit their top speed if there were no risk of being caught. Magistrates and instructors were,

and like the fast drivers their most frequent restraining reasons centred on safety or control in both urban and motorway scenarios. This adds support to the results for fast drivers. Altogether we may sum up our main findings so far as follows. Most of our respondents would, if they felt traffic conditions gave them the opportunity, exceed the legal speed limit, some by large amounts; and apart from the risk of detection which affected a few, most would set their own personal limit as that speed up to which they felt safe or in control.

3.4 Perceptions of accident risk and control

3.4.1 Perceptions of higher accident risk

It is at this point fair to consider whether perceptions of control can validly be studied using still photographs. While this method might be a valid way of obtaining respondents' estimates of the maximum speeds they might use in the urban and motorway environments described, had we used a simulation study instead it is possible that different data could have resulted. This is because a dynamic, interactive situation would provide more perceptual information than contained in a verbal description and photograph, which might alter drivers' assessments of the maximum speeds at which they would feel in control. This was a limitation of our study but one which was unlikely to produce a unidirectional bias, if there was a bias, as a simulation study might have raised or lowered drivers' perceptions of control.

With this limitation in mind we decided to explore further the limits of control. Thus fast drivers, magistrates and instructors were asked whether, at their preferred top speeds in the photo situations without the risk of apprehension, they would think their accident risk was any higher than it would be if they were keeping to the legal speed limit.

Among the fast drivers, 51% acknowledged that their risk would be higher on the urban road, the motorway or both, but 44% denied this. (Five per cent said something else). Yet, of the 44% of fast drivers who said their accident risk would be no different at their maximum speed, the majority (61%) accepted that it would be higher if they were to drive faster than that. In other words, of all the fast drivers, most (82%) admitted that their accident likelihood would be raised if they drove above the highest speed at which they would prefer to travel. Moving from the specific situation to the general, when we put the 'model' to drivers during the later part of the interview, 86% supported it, 7% partly supported it, and 7% disagreed with it. Thus, for most fast drivers it seems that up to the speed they feel comfortable with, even if this is above the legal limit, generally they do not believe their accident risk is any higher than if they keep to the limit, but beyond this boundary point, they do acknowledge that their chances of harm are increased. For instance, one said: 'Everybody has a safe maximum on any bit of road, and at this 'normal' speed there's no more accident risk. But above the normal safe maximum, I would start to get worried'. However, as is apparent from the standard deviations in Table 2, the 'normal safe maximum' or 'cut-off'

speed can vary greatly between individuals even when they are faced hypothetically with the same situation.

Illustrating that fast drivers are not alone in these perceptions, magistrates and instructors gave similar responses. A comparable proportion of each group (55% of instructors, 45% of magistrates) denied their accident risk would be higher at their preferred top speeds in the photo situations with no risk of detection, than at the legal speed limit, although in general their top speeds were lower than those of the fast drivers. Comparable proportions also supported the control model when it was put to them (88% of instructors, 73% of magistrates).

The crux of the problem, then, is that some drivers, particularly fast drivers, did not believe their risk is raised at speeds that can be well in excess of the legal limit, but studies of accident statistics (e.g. Carsten *et al.*, 1989) suggest that speed and accidents are linked. Thus, as researchers have discussed, the feeling of being in control may sometimes be illusory. Other findings from this part of our study illustrate the extent of the illusion.

3.4.2 Would actual higher accident risk feel higher?

At the speed drivers acknowledged that their accident risk would *actually* be higher, in the urban or motorway photo situations, three in ten drivers said the risk would not feel higher to them and two in ten were not sure or doubted if it would feel higher. (Two-thirds of magistrates also said they would not feel that that speed carried a higher accident risk - although for them such speeds were generally lower). This result suggests quite strongly that for many drivers there may be a gap in cognition between actually believing they are in control and feeling in control.

3.4.3 Accidents and speed: general and personal links

We asked interviewees whether they believed that for drivers in general there was a link between raised speed and raised accident risk, and then whether they believed there was such a link for them personally. In each of the fast driver groups and in each of the senior and junior police samples a higher proportion of drivers believed in a general link than in a personal one. Half of all fast drivers and three-quarters of all police said there was definitely a link between raised speed and raised accident risk in general, while only a third of the fast drivers and half the police acknowledged that the faster they drove the higher their accident risk would be. Thirteen per cent of drivers and 3% of police said there was no general link, while 27% of drivers and 16% of police said there was no personal link. (The rest were unsure or said 'it depends'). Expressed another way, among fast drivers and police who said there was definitely a general link, 20% of drivers and 12% of police denied a personal one.

Accounts given by drivers to explain the lack of a general link included the view that carelessness and over-confidence were more important factors than speed in accident involvement, that drivers going too slow were just as or more likely to cause an accident, and that the driver's experience was more important than his/her speed since extra experience afforded greater protection. Explanations

to account for the lack of a personal link occasionally encompassed the above, but others were more prominent. One such was that high levels of concentration offset any increase in accident risk caused by faster speed thus reducing the risk to the level associated with keeping to the speed limit. Another type of explanation centred on the notion that their own high performance vehicles afforded greater safety and protection against the errors of other drivers than would be given by ordinary cars. Examples of this were:

'I think [the link] depends on the skill of the driver and the type of car. Real high performance cars like Lotus or Jaguar are properly built and equipped for speed'

'I know in that car [HP] I can react quickly to any situation and the ABS really helps too'

'There are two levels of control: the ability to control the vehicle and the ability of the vehicle to respond to what you do'

'I don't see how an accident can happen in either [photo] situation at any speed because both my [HP] cars will comfortably go very fast'.

In these comments it can be seen that the respondents are not taking into account reaction times (which are actually the same whatever vehicle is driven) and are implicitly assuming braking distance to be shorter in high performance vehicles. Also there is the idea that if a vehicle is 'built for speed' then it must be safer to go faster in it than in another vehicle. Certainly, a number of HPS drivers said that having the high performance specification actually added to their safety, so at higher speeds or in bad weather their safety or control was not compromised. It might be said that these are examples of drivers' illusions of control.

With respect to the fast drivers who denied a personal link between raised speeds and accident risk, even more worrying was the finding that more of these people (69%) than in the remainder (30%) also denied that an accident was more probable if they should exceed rather than keep to their own preferred maximum (in either of the photo situations without a detection risk). From this it seems there may be a small hard core of fast drivers who are apt to believe in their complete invulnerability to accidents even above speeds at which they might choose to travel.

3.4.4 Feeling and being in control

However, the issue of control is complicated further. Depending on what had already been said in the interview, 72 fast drivers were formally asked whether, despite nearly always or always *feeling* in control when driving, they believed that this was truly the case. Forty-four per cent said yes and 56% said no. These responses were then cross-tabulated against their answers to the question whether for them there was a link between higher speed and accident risk. Although the cell numbers were small, the results suggested that drivers probably had one of the following sets of cognitions. They thought either:

- a I accept it is (or probably is) more risky the faster I go, but I'm always in control, so no accident will happen (35%); or
- b I deny that driving faster raises my accident risk because I am always in control (10%); or
- c I am not always completely in control, but I deny that driving faster raises my accident risk (15%); or
- d I accept it is (or probably is) more risky the faster I go and I am not always in control (40%).

Certainly in discussion these different viewpoints were put forward by various fast drivers, some of them realising the paradoxes contained in their opinions.

In Matza's terms (1964), it seems that neutralisation is occurring, with these fast drivers either denying these higher personal speeds raise accident risk, or denying that their control over their driving is ever compromised, or admitting one but excusing or justifying themselves in terms of the other (cf. Scott & Lyman, 1970). To bolster their justifications, three-quarters believed they had above-average driving skill (cf. McKenna *et al.*, 1991; Rolls *et al.*, 1991). It was not always a comfortable experience in interview for them to acknowledge contradictions in their beliefs about their risk-taking and control. A few, for example, started off by denying that they ever created risks by exceeding a speed limit, but later came to acknowledge that in some senses they took risks all the time. While the interview may later have made some of them think twice about their driving style and behaviour, advertising campaigns will need to be quite imaginative to have a longer-term impact on attitudes or beliefs, especially where denials, such as those mentioned, exist.

Interestingly, police officers were less likely than our fast drivers to affirm that they were always in control when driving, and as already noted, they were more likely to accept that by raising their own speeds they also raised their accident risk. So a greater sense of realism existed in the thinking of police officers in this regard.

3.4.5 Who is responsible for a driver's control?

When considering the notion of control, one argument would be that it is a relative concept, depending in part on the drivers' behaviour in interaction with other road users. From this perspective, a driver can be in control only to the extent that other road users do not make unpredictable errors which the driver cannot avoid. A number of magistrates expressed their view of control in these terms, such as:

'You're in control of your situation, but you've got to realise you're interacting, and there is someone out there who is not in such control as you are'.

Some fast drivers, on the other hand, had an alternative viewpoint. It seemed that for them, responsibility for control rested solely with themselves, (e.g. 'unless I've made a mistake, I'm always in control'), and did not depend on the control maintained by others or on the interactive situation. As an illustration of this, a number of

them said the boundaries of their own control extended beyond their vehicle - behind, sideways and in front - to the degree it seemed in a few instances, of believing that their control extended to include other vehicles. Provided they were in control (which it was rare not to be) an accident if one happened would not be their fault - it would just mean the other driver was not in control. This interpretation of their remarks is supported by what many fast drivers said about accidents they had had. In 77% of all accidents discussed (accidents other than single-vehicle ones, up to three per driver) the driver said he/she was in complete control immediately prior to the accident, and almost two-thirds (64%) of this sub-group said it was mainly or only the other driver's fault.

So those adopting this viewpoint seemed able to believe in their almost constant control, which would not be even temporarily lost should an accident occur because it would not be their fault. In addition such drivers almost invariably denied, when asked, that their confidence had been shaken by these accidents either in the short or the long term, and they tended to deny that the accident could have been avoided if they had been driving more slowly. An example was a sports car driver who hit a deer which ran into his path while he was doing 85 mph. He said he was fully in control before and during impact, that his confidence was not affected, and that he could not have avoided the accident had he been going at 35 mph since he could not have prevented the deer from suddenly appearing on his bonnet.

As noted above, police officers were more reluctant than the fast driver groups to assert that they were always in control when driving. However, almost paradoxically, most police officers claimed that if they stuck to what they had learned in their intensive driver training courses they would never lose control, and that if they had an accident it would not be their fault. Yet there were a few differences between our fast drivers and the police in this regard, as will now be seen.

At moderate levels of excess speed, the fast drivers believed that accident risk associated with speeding (if any was acknowledged) would be compensated for by their experience of fast driving and their high concentration, and often by the type of car they drove. This combination would reduce the risk to that associated with keeping to the limit. In the view of many police officers, any extra accident risk to them would be compensated for by a combination of their special training and experience and by the visibility of their marked cars and sirens if used. It could be argued in this respect that police justifications were perhaps more realistic than those of the fast drivers.

At high levels of excess, the fast drivers, provided they felt in control, did not usually see their accident risk as raised (see earlier). Yet at the high levels of excess required on emergency calls, police also felt in control, *but* they accepted their accident risk was nonetheless raised. Moreover, they accepted this higher risk as being part of the job. A few examples from police officers illustrate this point:

'At very high speeds, the risk would be higher of being involved, but the fault wouldn't be mine'.

'Most others wouldn't feel safe and in control at 130, but I do - although I've got to accept a higher accident risk. I think it's a risk we've got to take - otherwise we can't serve the purpose of why we're there'.

'I'm fully in control when driving fast on duty. But I know I'm at risk. That's the difference between me and ordinary drivers'.

Thus, unlike many fast drivers at high speeds, police were more likely to acknowledge their increased vulnerability to accidents.

3.5 Summary

It appears that, up to speeds at which they feel comfortable and in control, drivers tend to believe their accident risk is not raised even when they are well in excess of the limit. Moreover, at speeds where drivers acknowledged that their risk was raised, up to half said they would not *feel* the risk was higher. This is evidence for the operation of the illusion of control. Further, it was found that drivers were less likely to believe in a personal link between their own speeds and accident risk than in a general link between speed and accidents (cf. Finn and Bragg, 1986). In particular, the supposed protection offered by high performance vehicles was put forward by a significant minority to explain why their own personal risk was not raised. Finally, there may be a small hard core of fast drivers who are apt to believe in their complete invulnerability to accidents even above speeds at which they would choose to travel. Putting all quantitative and qualitative findings together, we conclude that these results suggest many drivers have misplaced confidence in their own skills and ability, and that they perceive they have more control over driving at high speeds than statistically they are likely to have. This perceived invulnerability to accidents felt by many fast drivers could be a hard nut for road safety planners to crack. This is illustrated by the ease with which some drivers justified their fast driving, denied their accident risk was raised at high speed, and affirmed their complete control even in the event of an accident. External measures might perhaps eventually reduce their choice of speed, but a more solid and enduring programme of education will be required to change the beliefs of the hard core of fast drivers.

4 The effects of measures to deter high speed drivers

4.1 Introduction: a changing research environment

In our earlier study (Corbett and Simon, 1992a), we concluded that drink-drivers apparently needed a greater risk of apprehension to deter them, since they perceived the penalty as sufficiently severe but the chance of being caught as remote. As for high-speeding drivers, we

suggested that they perceived the chance of getting caught as fairly low, and did not particularly fear it since the subsequent penalty was something many seemed prepared to accept. (One individual, for example, said he regarded fines just like petrol and oil - something that needed to be paid for occasionally). Moreover, even those who had previously been disqualified for speeding had mostly coped adequately with the ban, many describing it as inconvenient but manageable.

Not surprisingly, these findings supplied part of the impetus for our current research. If existing penalties and levels of risk did not deter high-speeding drivers, then what would? With this in mind, our interviews with drivers explored issues of deterrence qualitatively and quantitatively, and material from both types of enquiry is discussed in this chapter.

The quantitative measure took the form of a pencil and paper exercise (the 'deterrence game') that we devised whereby different types of penalty and various chances of being caught were manipulated simultaneously. It will be described shortly. This exercise remained unchanged throughout our fieldwork period, but unfortunately the research environment did not. During the 15 months in which we carried out all the driver interviews, unmanned automatic speed cameras were introduced, accompanied by varying degrees of local publicity. This period also saw the introduction and demise of the unit fine system which occupied the front pages and leader writers of the national press for some time. In the circumstances, we controlled for these potentially confounding factors as best we could. Drivers were asked whether they had heard about the cameras before the interview or before receiving the warning letter. In addition, they were asked to estimate their current chance of being caught for speeding, and the likely penalty, if caught, and if appropriate, whether the former estimate was influenced by knowledge of the cameras. There was no difference between the camera sample and the remaining drivers in their perceived chance of being caught for speeding, but the camera sample were more likely to have no idea, or an unrealistic idea, of the penalty they could expect for driving between 41 and 49 mph in a 30 mph area. Around a quarter of those not caught by the camera nevertheless thought their estimate of the chance of detection might have been influenced by knowing of the camera's existence. However, a comparison of estimates between those drivers acknowledging and those failing to acknowledge an influence of the cameras showed no significant difference.

The rest of this chapter is organised as follows. The next section sketches in the central planks of the deterrence doctrine. The third section presents the method and results of the deterrence game. Then a fourth section examines the effects of the automatic unmanned cameras. Here we first look at specific deterrence, using data from drivers who received a police warning letter after being photographed speeding. We then compare their views on the cameras with those of our fast drivers who did not receive a warning letter. Thirdly, we look at general deterrence, in the context of a survey of users of one of the main London arterial roads (the A40) where cameras had been installed.

A summary draws the threads together.

Finally, Appendix C considers innovative suggestions for deterrence from fast drivers and other participants from the police, courts and the driving school, and it presents views on the effectiveness of advertising campaigns designed to curb drivers' speeds.

4.2 The principles of deterrence

Deterrence, as a principle for sentencing offenders, has been around for a long time, but it became particularly popular in the 1960s, after the apparent failure of rehabilitative sentences to reform those who had transgressed. Since then, much empirical research has been conducted, and various deterrence theories and models have been put forward (e.g. Beylerveld, 1979; Gibbs, 1975; Homel, 1988). These cover the notions of specific deterrence (the extent to which offenders who have been caught and processed by the criminal justice system are dissuaded from further crime by the experience of punishment) and general deterrence (the extent to which potential offenders and actual offenders who have not yet been caught are dissuaded by the threat of punishment). The philosophy underpinning deterrence is that the risk to the lawbreaker must be made so great and the punishment so severe, that a person believes he or she has more to lose than to gain from the offence. All models state that deterrence will occur as a function of certain factors. Invariably, two key elements are included in such functions, and however framed, these essentially reduce to the 'perceived likely risk of being caught' and the 'perceived severity of the likely penalty'. The impact of the likely penalty on the particular offender (which sometimes includes the effect of stigma - see Andenaes, 1975) is considered important by some; social consensus on the seriousness of the behaviour to be deterred is important to some (e.g. Buikhausen, 1974); and celerity or swiftness of punishment is salient among others (e.g. Nichols and Ross, 1990). Certainly, behavioural psychologists regard the length of time between stimulus and response as crucial, but other deterrence studies which included celerity have not found this variable to have a significant effect (e.g. Miranne and Gray, 1987). That deterrence is a complex psychological process is even more apparent when one considers the scope for further formulations of the model. Variables such as moral commitment to the law and threat of social disapproval (see Grasmick and Green, 1980) are other potential inhibitors of behaviour, and individuals' motivations, perceptions and cost-benefit analyses also need to be taken into account.

4.3 The deterrence game

4.3.1 Method

In view of the difficulty of devising an exercise which could be represented two-dimensionally and be understood by most people, it was decided to vary only the two key factors: risk of apprehension and severity of penalty.

All drivers were presented with four sheets of paper. These pages were identical except for a label at the top of each, which described the 'chance of being caught' as 'once in five years', 'once in one year', 'once in three

months' and 'once in one month'. Respondents were asked to imagine that their risk of being caught for exceeding 40 mph in a 30 mph area was as stated on the label.

Respondents were asked to assess how their frequency of driving at between 41-49 mph and 50+ mph in a 30 mph area would change given various combinations of risk and penalty. The first sheet of the deterrence game is reproduced in Appendix B. Although the big majority of drivers soon understood the rules and aim of the game, four could not, mainly because of language difficulties (English not being their first language). Four others did not complete the exercise because of time constraints or other reasons.

In addition to giving their responses for speed behaviour in the deterrence game, drivers were asked on a separate sheet to show, using an eleven point scale, how severe they would think each of the eight penalties, if imposed on them for exceeding 40 mph in a 30 mph area. Three other questions were put before the deterrence game began. They were asked to estimate how long it would take 'starting from tomorrow' for them to be caught for driving in a 30 mph area at 41-49 mph and 50 + mph, and the likely penalty they would receive for doing each; and another check was made of their self-reported frequency of driving at those speeds. All this information was used to help in analysing the data from the deterrence game.

Given seven levels of penalty, four levels of risk and two speeding conditions, 56 (7 x 4 x 2) behavioural measures were gathered for each driver. A series of multi-variate analyses of variance (MANOVAS) was carried out. The two dependent variables were the extent of change in speed choice (both conditions) given different levels of penalty and risk, and in this exercise each was measured on an ordinal scale (the six possible responses). While this seems to violate one of the assumptions of an ANOVA design, an underlying interval scale was assumed. Moreover, it was considered that the size of the driver sample (104) and the robustness of the ANOVA (Box, 1953) would compensate for any effect of the violation.

4.3.2 Results

Initial analyses were conducted to examine the separate and interactive effects of penalty and risk of apprehension on changes of frequency of driving at 41-49 mph and 50+ mph in a 30 mph area. These showed significant main effects of the independent variables ($p = 0.0000$ for both), such that frequency of speeding at 41+ mph and 50+ mph would reduce as penalty severity or risk of apprehension increased. There was also a highly significant interaction between penalty and risk. Of the two variables, the F values revealed that increasing penalty severity would have more effect on drivers' speed choice than increasing the risk of getting caught. ($F = 468.2$, $df = 606$, 6 and $F = 161.0$, $df = 303$, 3 respectively). Figure 1 plots, for all drivers together, the change in frequency of exceeding 40 mph over the four different risk levels and seven penalty levels. Figure 2 does the same for exceeding 50 mph in 30 mph areas. These graphs show that if the risk level was once in five years, drivers' estimated frequency of travelling between 41 and 49 mph in a 30 mph area would increase slightly if a warning only were given. However,

this is the exception; at all risk levels, all penalties shown would reduce the frequency of driving between 41-49 mph or exceeding 50 mph among these drivers.

Interestingly, in both plots no penalty at any level of risk would reduce all drivers' speeding behaviour to 'never'. At certain 'heavy' combinations of penalty and risk, the bulk of drivers did say that they would never exceed 40 mph, but a significant minority thought that they could never say 'never', even if they intended this to be so.

It is important here not to lose sight of the fact that the deterrence game asked what would keep drivers' speeds to within a margin of 10 mph above the limit, not what would keep their speeds below the 30 mph limit. This decision was largely based on realism, since the police with their overstretched resources for enforcement would find it impractical to police low levels of excess and because a primary concern is to reduce the speeds of the very fast drivers - 'the top enders' - before turning attention to the lower levels of excess displayed by the majority of motorists.

So given our drivers' present levels of exceeding 40 mph or 50 mph in 30 mph areas, what would be the most parsimonious combinations of risk and penalty that would reduce their frequency of these behaviours to 'hardly ever'?

With respect to 40+ mph, the continuous line on Figure 1 indicates what would be required to achieve this reduction considering all drivers together. At the lowest level of risk, i.e. the driver having a good chance of being caught and prosecuted once in the next five years, a fine of around £250 and a disqualification of at least 3 months would be needed. At a risk level of being caught once in the next year, a fine of between £100 and £200 together with a ban of between three weeks and three months would be required. At the higher risk levels of three months and one month, a ban would not be necessary provided fines of £500 and £100 respectively plus six penalty points were awarded instead.

With respect to 50+ mph (Figure 2), it seems that because drivers tended less frequently to exceed this speed on 30 mph roads, lower penalties would be needed at each level to achieve the same reduction to 'hardly ever'. Thus, given a chance of being caught once in the next five years, a £250 fine and a three month ban would suffice. With the risk reduced to once in a year, a fine of between £100 and £250 and a ban of between three weeks and three months would be needed. At the three month risk level, again no disqualification would be required provided a £500 fine and six points were given; and at the one month risk level, little more than £100 fine and six points would be needed.

These results suggest that at low levels of risk, longer bans would be more effective than shorter ones, and disqualifications would be more effective than endorsement points. Figures 1 and 2 also suggest that a larger fine with points (£500 plus six points) would be less likely to achieve the desired effect than a small fine with a short ban (£100 plus three weeks) when all drivers are considered together.

However, further analyses showed that the efficacy of a penalty would depend somewhat on the type of driver receiving it. Separate graphs were plotted for YD, DFL and HPS drivers for all penalties at each risk level. As all

Driver's response:
I would do 41-49mph

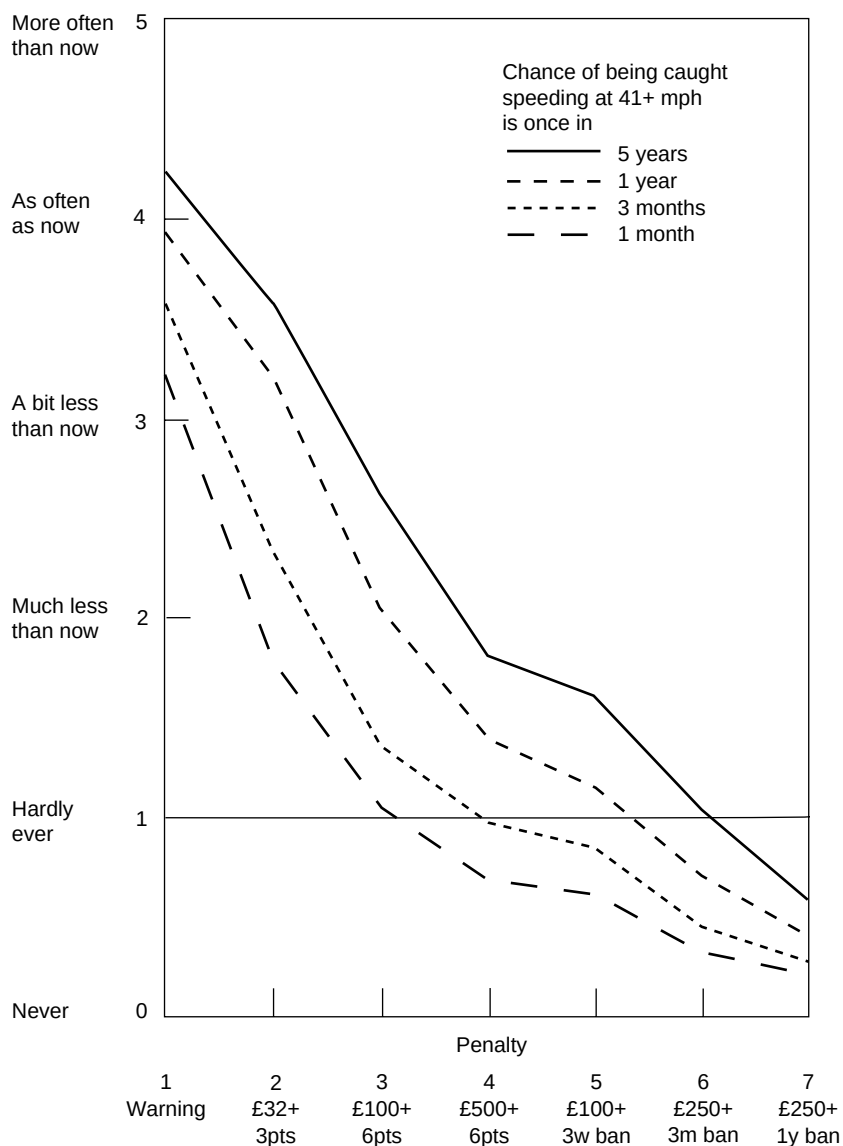


Figure 1 All high speed drivers (N=104): How often they would drive at 41-49 mph in a 30 mph area, under various combinations of risk of being caught and severity of penalty

Driver's response:
I would do 50+ mph

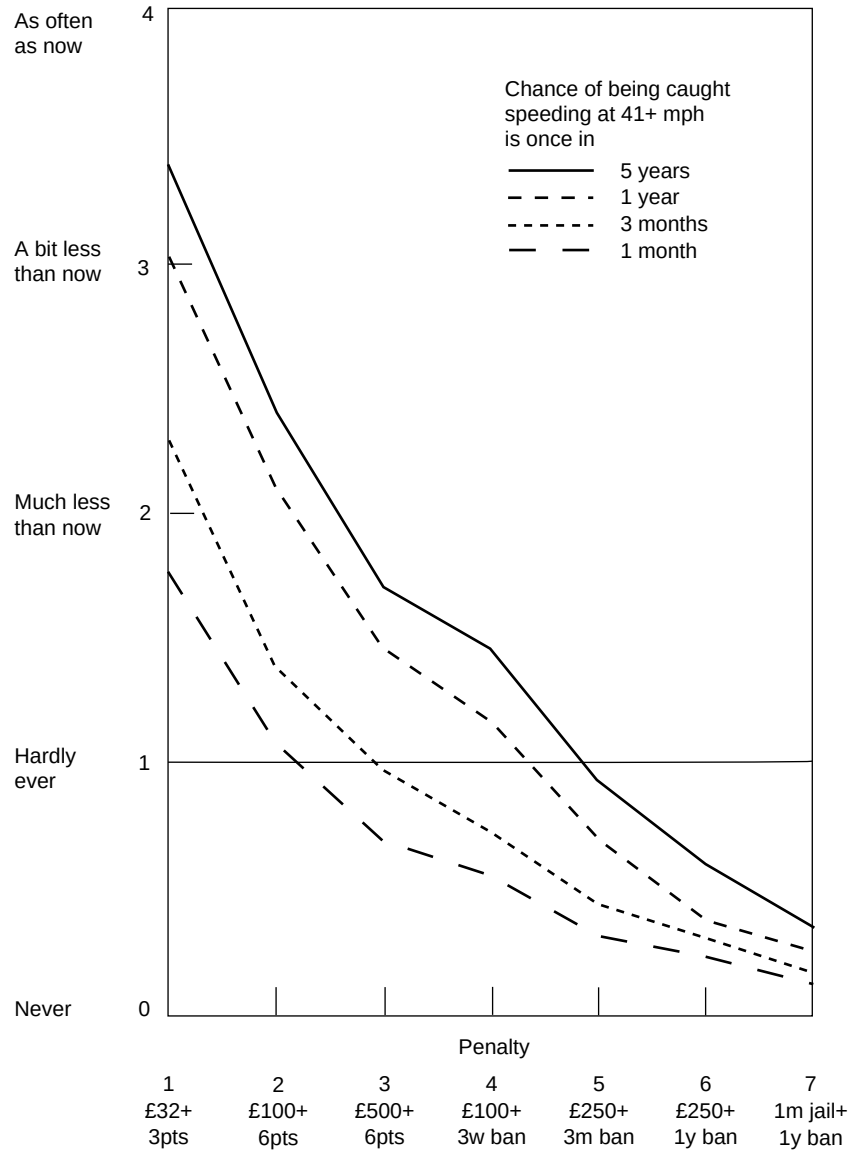


Figure 2 All high speed drivers (N=104): how often they would drive at 50+ mph in a 30 mph area under various combinations of risk of being caught and severity of penalty

showed a roughly similar pattern, we present just one of these in Figure 3 relating to 41-49 mph and a risk of being caught once in five years. In this we see that HPS and DFL drivers would be more deterred by a 3 week disqualification + £100 fine than by 6 endorsement points + £500 fine. As a ban might result in loss of employment (especially for DFLs), avoiding one at the cost of a higher fine might be considered by such drivers to be well worth it. By contrast, YDs would be more deterred by 6 points + £500 fine than by a 3 week ban + £100 fine. A similar interaction was observed at each risk level for 41-49 mph and three of the risk levels for 50+ mph. The exception was at the risk level of ‘once in 3 months’, where YDs’ responses reflected the pattern of the HPS and DFL drivers above.

At first glance this suggests that YDs were more influenced by the size of fine than whether points or a short disqualification was combined with it. However,

Figure 3 also showed that YDs would be more deterred by a 3 month disqualification + £250 fine than by 6 endorsement points + £500 fine, which result recurred at each level of risk for both levels of excess speed. Because fines, points and disqualifications were not systematically varied independently, it is not possible to accurately determine which type and amount of penalty was more salient to YDs. All that can be said from Figure 3 for YDs is that an additional £400 fine (£500 - £100) would have more of a deterrent effect (when combined with 6 points) than a 3 week ban compared with 6 points (when combined with £100 fine). This was so at all levels of risk and at both speed levels.

It will be recalled that, in addition to speed behaviour responses in the deterrence game, other variables for each respondent were also measured. These will now be discussed, beginning with the drivers’ ratings of the eight

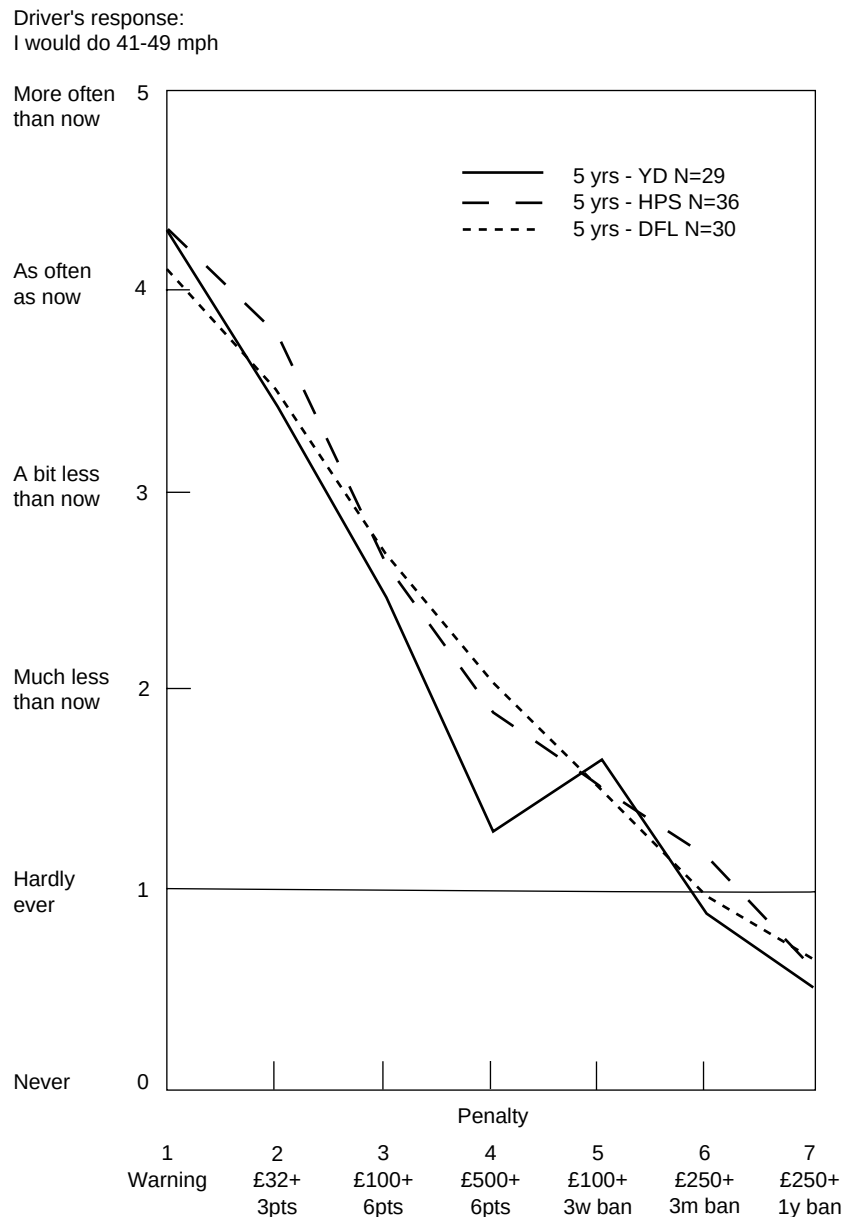


Figure 3 YD, HPS and DFL drivers: how often they would drive at 41-49 mph in a 30 mph area, given the chance of being caught as once in 5 years and the penalty at various levels

penalties on an eleven-point scale of severity.

Interestingly, there was not the perfect correlation one might expect between severity of penalty and behaviour change resulting from each penalty (at any risk level). This was probably because drivers may have assumed that the penalties as shown in the deterrence game increased in severity more or less linearly across each page (as we had intended), and so they may have paid less attention to their responses than if the penalties had been placed in random order. On the separate rating sheet for penalty severity, however, the eight penalties were randomly listed and there was clearly no linear order assumed, so drivers would have needed more concentration to complete it sensibly.

Figure 4 shows the mean severity ratings of each penalty by the whole sample of high speed drivers and by the YD, HPS and DFL groups separately. Here we see that although the trends for the HPS and DFL groups (and the

whole sample) are fairly smooth, the graph for the YDs shows two dips. The YDs rated a £100 fine with a three week ban as slightly less severe than a £100 with six points, and they rated a £250 fine with a three month ban as less severe than a £500 fine with six points. The former result is very difficult to explain, but the latter does add support to our finding above that YDs would be more deterred by a higher fine and points than by a smaller fine and a disqualification.

Six other independent variables were measured for each respondent. These were:

- The driver's (self-reported) current actual frequency of driving at 41-49 mph and 50+ mph in 30 mph areas, on the five point scale described earlier. According to their responses drivers were divided into more frequent and less frequent speeders.

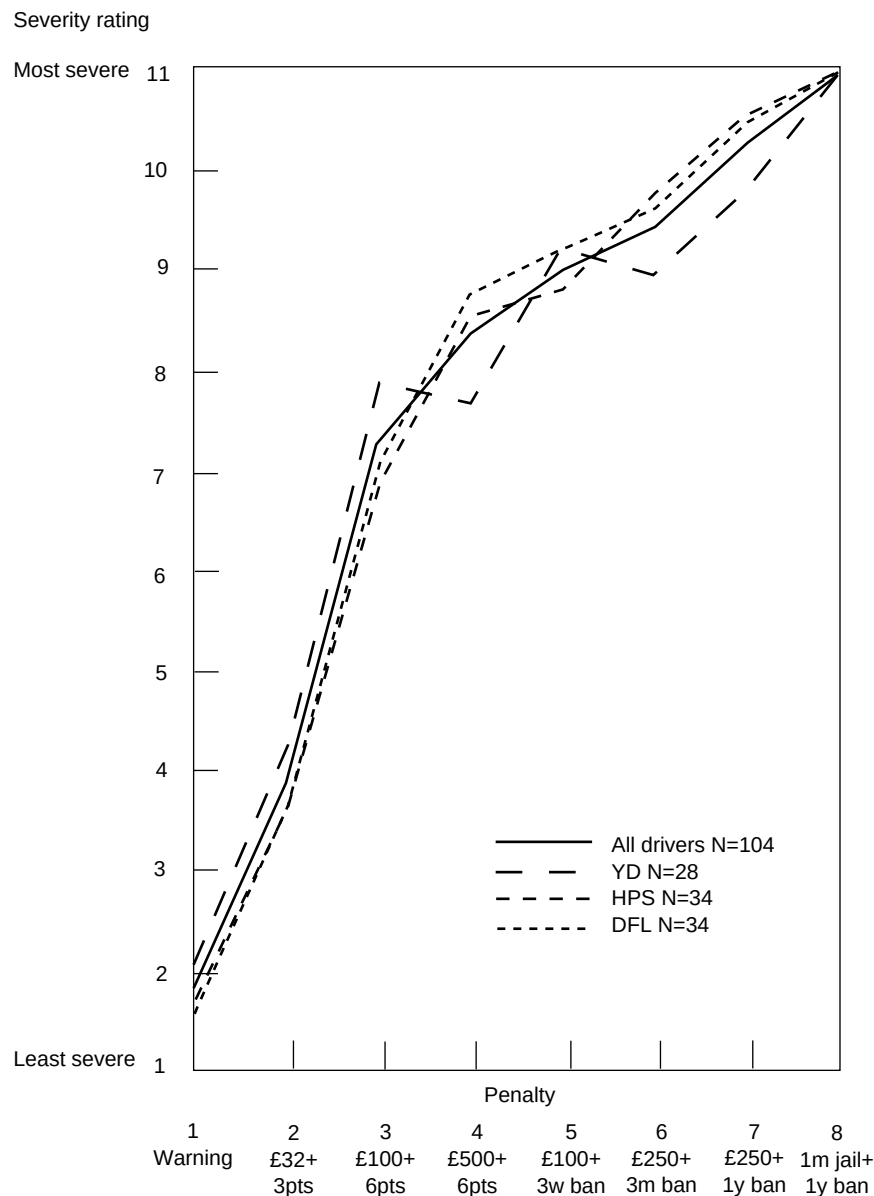


Figure 4 High speed drivers’ ratings of the severity of 8 hypothetical penalties

- The driver's estimates of how long it would take 'starting from tomorrow' before he/she was caught for driving at 41-49 mph and at 50+ mph in a 30 mph area, bearing in mind the driver's usual driving habits and mileage. The frequency distribution showed that roughly half thought that each event would take four years or less, and the other half thought it would take more than four years. Respondents were categorised accordingly as higher or lower risk.
- The driver's estimate of the likely penalty that would be imposed if he/she was caught for driving at 41-49 mph and at 50+ mph in a 30 mph area, if the driver had no existing endorsement points. Responses showed that drivers either (a) had no idea, or (b) suggested an unrealistic penalty, or (c) suggested a possible or likely penalty. They were therefore divided into those giving unrealistic estimates (a + b), and realistic ones (c).

A series of MANOVAS was then carried out with risk and penalty as the main independent variables, as before, but also each including one of the above factors. Perhaps the finding of most interest was that few of the main effects and interactions involving the above variables in relation to penalty and risk levels were significant. For example, whether a driver estimated it would take less than four years, or longer, before being caught for driving in a 30 mph area at 41-49 mph, or 50+mph, made no difference to the driver's responses regarding change of behaviour in the context of different risk (and penalty) levels. So those estimating it would take more than four years before they were caught for speeding were no more deterred than those estimating less time, when presented with a one year chance of being caught.

Similarly, whether or not a driver suggested a realistic penalty (or had any idea of the penalty) for being caught at 41-49 mph or 50+ mph, made little difference to his/her responses in the context of changing penalties (and risk levels). The only slight effect noted ($p = .102$) was that those suggesting likely penalties for driving at 41-49 mph were less deterred by a warning or £32 fine and more deterred by heavier fines than those who suggested an unlikely penalty or had no idea. Since 'likely' penalty in this instance was considered to be more than a warning but less than a heavy fine or disqualification, it is understandable that faced with a warning or a small fine and three points only, drivers expecting something more might feel inclined, as was shown, to exceed 'more often than I do now'. Likewise, faced with a heavier fine or a ban, drivers expecting a smaller fine with several points might be more deterred than those who had little idea or an unrealistic idea of what to expect.

Finally, and not surprisingly, it was shown that drivers who were actually more frequent speeders (at both 41-49 mph and 50+ mph in a 30 mph area) were less deterred generally at each level of risk than those who were less frequent speeders ($p = .008$ for 50+ mph), especially in respect of the £100 fine + three week ban.

4.3.3 Summary

The deterrence game showed that drivers' frequencies of exceeding 30 mph limits by more than 10 mph would be reduced significantly by imposing heavier penalties, or by increasing the risk of being caught, or by a combination of the two. In addition, it was shown that the effect of these variables on the frequency of speeding differed little between YDs, DFL and HPS drivers. The main difference was that HPS and DFL drivers were more deterred by a 3 week disqualification + £100 fine than by 6 penalty points + £500 fine at all levels of risk and at both levels of excess speed, while YDs were more deterred by the latter combination than the former one. However, this did not necessarily indicate that YDs were more deterred by high fines than by penalty points or disqualifications since the different kinds of penalty were not systematically varied independently. Nevertheless, given the penalty combinations presented, it seemed HPS and DFL drivers were deterred more by disqualifications than by points when accompanying fines did not exceed £500.

4.4 The specific and general deterrent effect of automatic speed cameras

As has been noted, during the fieldwork period of our study unmanned cameras were installed on various roads in the country and began operation in October 1992. The procedure has been that drivers who exceed speed limits by a wide margin activate a trigger on the camera which then photographs their vehicle. The registration number is traced and the owner is sent a letter asking if he/she was the driver on the date and time mentioned, and if not to state who was. The driver is then prosecuted in the magistrates' courts. When the scheme becomes fully operational, a conditional offer of a fixed penalty will be made to those drivers whose vehicles are photographed exceeding limits but whose speeds are not sufficiently high to warrant prosecution. (Those who exceed by higher margins will still be prosecuted in the magistrates' courts).

Because the cameras were intended to act as a deterrent to curb the speeds of fast drivers, we took advantage of their introduction in several ways. In this section we first report some findings obtained from 46 drivers who had been photographed speeding but who had not been prosecuted. Next, we compare some of these findings with those from the remainder of our fast driver group (who had not been photographed). Then we report the results of a separate survey of drivers who used a camera-targeted road (the A40). Finally, we draw the findings on the cameras together.

As already mentioned in Chapter 2, 46 of our 112 fast drivers were motorists who had been photographed by the cameras several days before the scheme officially commenced. The interview schedule used with these drivers was the same as for the other 66, with some additional questions about their views on the cameras, their reaction to the police warning letter, and their choice of speed following the warning. Their responses to these questions are now considered.

4.4.1 Specific deterrence: drivers receiving a warning letter for speeding

Fewer than one in five of the 46 drivers photographed exceeding limits had expected to hear further from the police, since the majority claimed not to have noticed a camera flash as they passed by. Almost three in ten had reacted by feeling angry on receipt of the letter and, in answer to another question, a quarter felt it was not fair that the police had contacted them on this matter. Some of these dissatisfied drivers believed the cameras might have photographed them in error since they had no recollection of speeding at the place and time alleged, and others believed the act was too trivial for the police to get involved.

The majority of drivers, however, were accepting of the warning letter because no financial penalty or endorsement points were involved. But some of them said their attitude might have been very different if a penalty notice had been included. Interestingly, it was the faster drivers who were most accepting of the police action, and the slower ones who were more likely to be upset by the warning letter.

With regard to behaviour change following receipt of the letter, two-thirds (67%) reported that their speeds had been generally lower than normal for the first few journeys afterwards. Forty per cent of drivers said the warning would make a general long-term difference to their driving and they would slow down on other roads or at least on main roads; a further 41% said in future they would slow down whenever they saw a camera or knew where one was located. Not surprisingly, faster drivers were just as likely as slower ones to say the warning letter would have a long-term effect, or to say they would only slow down when knowingly passing a camera.

The remaining 18% were equally divided between those saying the warning letter had made no difference to their choice of speed, and those who said it had had only a short-term effect. Asked why, these respondents said that there were still too few cameras to be a real threat or that they would just change their route.

So the message to be drawn from these drivers who were caught by the cameras, is rather equivocal. At first sight, it is encouraging that the majority said they would reduce their speed in the long-term, but disappointing that of these, half said they now reduced their speed only when passing a camera.

4.4.2 Perceptions of risk compared

Of the 66 drivers selected through word of mouth, 35 were asked how the cameras' existence had affected their perceptions of the likelihood of being caught. (The remainder were not asked since they had been interviewed prior to the introduction of the speed cameras). Their answers to these questions will now be compared with those obtained from the 46 drivers who received a warning letter.

The majority of both groups had previously heard about the existence of the cameras. As interviews with word-of-mouth drivers started several months before the official introduction of the scheme, it is noteworthy that nearly all fast drivers interviewed then had remembered that there would be a new means to catch speeders. Of all drivers,

87% thought that their general risk of being caught had increased to some extent since the introduction of cameras. As shown in Table 4, the camera-caught group were only slightly more likely to believe their risk had increased 'quite a lot' or 'very much' (37%) than the remainder (31%), and only slightly less likely to think that their risk had stayed the same (11% compared with 17%). These small differences are perhaps surprising.

Table 4 Perceptions of risk of apprehension by sampling methods

	Caught by camera (46)	Word of mouth (66)	All n = (112)
(Overall sample)			
Specific sample *	46	35	81
Believe risk has increased 'quite a lot' or 'very much'	37%	31%	28
Believe risk has only increased 'minutely' or 'a little'.	39%	29%	28
Believe risk has stayed the same	11%	17%	11
'Other'	13%	23%	14

**This specific sample is made up of 81 respondents. 31 of the word-of-mouth respondents were not asked about the cameras since cameras were not operational at the time of their interview.*

When the question was rephrased to ask drivers whether their risk had increased on arterial roads in particular, those who had received a warning letter (for speeding on an arterial road) were also more likely than the others to believe their chance of being caught had risen, but the effect was less pronounced.

In addition, as might be expected, drivers with higher speeding scores believed their risk in general and on arterial roads specifically was raised more than did those with lower speeding scores. When respondents were divided into camera-caught and other drivers, this pattern of faster drivers perceiving a slightly higher risk was maintained. Thus, for example, 58% of camera-caught high speeders thought their risk had risen in general 'quite a lot' or 'very much', compared with 29% of camera-caught low speeders.

All interviewees were asked for their general views on the cameras and some had much to say. Just under half gave a mainly positive response (35% believed the cameras would enhance road safety, and another 10% thought cameras would enable police to deal with more important tasks). When these two positive responses were combined, there was little difference in the proportions thus responding between those who had and had not received a warning letter - 47% and 41% respectively. Overall, a slight majority of drivers expressed some disquiet. Seven per cent believed their civil liberties would be undermined, and a similar proportion believed that 'fast but safe' drivers would be unfairly penalised while dangerous or reckless drivers (who were not necessarily the fastest) would escape prosecution. Fourteen per cent of the sample had doubts about how fairly the new technology would work, wondering either how accurately cameras could target drivers who were speeding, or

whether a selected few rather than all drivers who exceeded at a similar speed would be prosecuted.

However, the most common criticism (offered by 16%) reflected an ideology whereby speed detection was considered a 'game' between police and motorist. While some mentioned the word 'game' specifically, most used a metaphor encapsulating this idea. For example, 'it's just not cricket', 'cameras, they're not sporting', 'it's unfair, cheating', or 'cameras are a dirty trick'. It seemed that while drivers were happy to try to avoid prosecution in a game of skill where the opponent was another human being (a police officer), they felt the odds were stacked against them when the opposition became a machine. This could explain why five out of six drivers estimated that their general risk of being caught had risen, at least minutely.

4.4.3 General deterrence: survey of drivers using a camera-targeted road

4.4.3.1 Aims and method

Another perspective on the unmanned cameras was gained through the results of a separate survey of drivers carried out in May 1993. In this exercise we briefly interviewed drivers who used the A40 road in West London where cameras had been installed eight months earlier. The main aims of the interview were to find out the extent to which drivers had altered their choice of speed since the introduction of the cameras; which drivers were most and least affected, and most and least in favour of the cameras; and whether any reduction in speed on the A40 generalised to other arterial roads where no cameras existed. As elsewhere in this research, data in the A40 survey rested on drivers' own reports of their behaviour.

Several superstores and oil companies with premises on or very near the A40 were contacted for permission to survey customers either on their forecourts or in their lobbies. Two superstores and two oil companies agreed, and five sites (one oil company offered two filling stations) were used to carry out the fieldwork. Little or no selection of customers took place at these sites. Quite simply, when the researcher was ready, the next customer was approached, provided (in the case of petrol stations) that no congestion would be caused on the forecourt.

Five hundred and twenty-four drivers (61% of those who were asked) completed a brief questionnaire. Drivers under 25, and particularly teenagers, were under-represented but all other age-groups were well represented. Two-thirds of respondents were male; over half (57%) lived near to the London stretch of the A40, and a further quarter (25%) lived elsewhere in Greater London. Over a third (35%) used the A40 on 5-7 days a week and so were regular users, and at the other extreme, 7% used it rarely.

4.4.3.2 Results

It was found that drivers were more likely to comply with the speed limit on 70 mph stretches of the A40 than on 40 mph stretches. In fact, 65% said they generally drove faster than 42 mph on 40 mph stretches, while 34% said they generally drove faster than 72 mph on 70 mph stretches. The most common pattern was the individual whose modal

speed was between 47 and 55 mph on 40 mph sections, and between 72 and 79 mph on 70 mph sections.

When asked about speed change since the installation of the cameras, fewer than 1% reported driving faster in general, 45% reported no change, and 54% said they had slowed down in some places at least. More specifically, this 54% comprised 29% who said they had slowed down 'a bit' or 'a lot', 15% who had slowed down in some places but not others, and 10% who reported a slower speed in some but a faster speed in other places. Another question confirmed that almost half the respondents (46%) slowed down where they thought the cameras were situated. (Ten per cent said they did not know where the cameras were located, and 3% denied knowledge of their existence).

The fastest drivers were of two kinds. One kind reported that they had slowed down 'a bit' or 'a lot' in general on the camera-targeted road. The proportion of fast drivers who had slowed down in this way was similar to that of drivers in other groups whose habitual speeds were lower. In other words, this type of speed reduction took place across the board; the fastest drivers were as likely to curb their speed as the slowest ones. The other kind of fast driver was the more numerous and was more likely to slow down in some places but not in others or to go faster in others. (Habitually slower drivers were less likely to report some manipulation of their speed on the camera-targeted road).

Because the fastest drivers tended to be younger, to do slightly higher mileages, and to drive high performance vehicles, individuals with these characteristics were more likely to report that they had curbed their speeds in some way on the A40 than other drivers. Males were fractionally more likely to have reduced their speed than females - presumably because they had slightly more speed to cut in order to escape the attention of the cameras.

The most regular users of the A40 were likely to be the fastest, and to be best able to estimate the number of cameras passed on a typical journey and the number existing on each east or westbound carriageway. Moreover, the most regular users (5-7 days a week) were also the most likely to report that they had slowed down in some way on the A40. In particular, over half of them (51%) said that they had either slowed down in some places but not in others, or had slowed down in some but drove faster in others.

More encouragingly, almost three in ten respondents (29%) reported that they had reduced their speed on arterial roads in London which did not have cameras signposted: thus some generalisation had apparently occurred. This generalisation seemed more likely to hold among drivers who had slowed down 'a bit' or 'a lot' on the A40 than among those who had slowed down on the A40 in some places but not in others. Because of the distribution of these groups in the total sample, it appeared that overall the generalisation effect did not depend on habitual speed choice on the A40, i.e. the fastest drivers and slowest drivers were equally likely to have reduced their speeds on other main roads.

To complete the picture, it was found that the fastest drivers were least likely to agree that fewer accidents would happen on roads where cameras had been installed,

and most likely to think the camera scheme meant that authorities, such as the government and police, were gaining an unacceptable amount of power over drivers.

4.4.3.3 Conclusions from the A40 survey

In summary, therefore, when those drivers who had curbed their speeds 'a bit' or 'a lot' were combined with those who had slowed down only when they passed a camera, it seemed it was the fastest and most frequent users who were most likely to have reduced their speed in one of these ways on the A40 - especially by deliberately adjusting their speed downwards where the cameras were situated. Moreover, drivers who had least reason to curb their speed were the most likely to have positive views on the cameras and to be content with their number. In contrast, those who had most reason to reduce their speeds were most likely to want fewer cameras and to have more negative views on the scheme.

Even though most behaviour change in the desired direction was seen among the 'worst' offenders, this is much tempered by the finding that almost half of those who had reduced their speed had done so only in some places, and those who had reduced their speed most were still driving well over the 40 mph limit in particular. This suggests there is still some way to go, and further improvement may occur when the conditional offer scheme begins operation in more police force areas. At present, the trigger speed is set some way above the various limits. Thus if a driver's preparedness to gamble on being photographed, or forgetfulness while speeding past a camera, is followed by lack of punishment, this may currently reinforce the speeding behaviour and encourage the driver to think that his or hers is a 'safe' speed (in terms of low risk of apprehension) at which to travel.

On a more positive note, 29% of the drivers surveyed reported that they had curbed their speeds 'a bit' or 'a lot' on other arterial roads in London without cameras signposted, so it seemed some generalisation had occurred.

This survey is reported in more detail elsewhere (Corbett, 1995).

4.4.4 Discussion

Because of the differences in samples and in the questions asked, it was difficult to assess categorically the impact of the introduction of cameras. Nevertheless, in general the signs are encouraging. Among our fast drivers who had been sent warning letters for speeding, 40% said they had slowed down on roads other than camera-targeted ones. Thus, it could be argued that specific deterrence (the effect on future behaviour of present attempts to deter actual offenders) in the form of a warning seems to have been moderately successful. Considering both specific and general deterrence, there was evidence that a significant minority of drivers reported slowing down on camera-targeted roads only when knowingly passing a camera site. These were 40% of our fast drivers who had been sent a warning letter, and 45% of the drivers surveyed near the A40. Thus knowledge of the whereabouts of the cameras could defeat the aim of promoting a more uniform slower speed on targeted roads. Mobile units and publicity might

achieved the desired objective in future.

Taken all in all, the evidence suggests that the camera scheme has made a promising start. In addition, it does not seem important for drivers to be caught and punished before behaviour change will occur.

5 The effect of wider social groups on drivers' choice of speed

5.1 Introduction

Almost any attribute chosen to describe a person may typecast him or her as a member of a wider reference group. For example, with respect to driving, it is known that certain socio-demographic characteristics are linked with higher speeds, offending or accidents. The procedure we used to obtain our sample of fast drivers allowed us to take advantage of these links so as to explore the potential or actual influence of the reference group on the individual driver, especially with respect to speed choice. We focused particularly on age group (young drivers under 21), occupational group (people who drive for a living), the type of vehicle drivers choose (high performance vehicles) and membership of a sports car club.

As was summarised in Chapter 1, young drivers are associated with higher accidents, offending and speeds; those who drive for a living have generally higher speeds (and higher offending and accidents when exposure is not controlled for); and high performance drivers have been found to drive faster and to have more accidents. Little is known about members of sports car clubs, but in view of the link with high performance vehicles, it is possible that such members share some of the characteristics of high performance drivers.

Although we had asked each word-of-mouth interviewee for referrals to other drivers in a particular category (normally the same one as the interviewee), the new referrals when interviewed did not usually know that they had been selected partly on account of their age, occupation or vehicle driven. One of our concerns therefore was to find out whether individuals acknowledged the sub-culture into which we had categorised them, and if so, whether they recognised any disinhibiting influence of it on their choice of speed. For instance, did people start to drive fast on acquiring a high performance or sports car, or on choosing to drive for a living, or had they always been fast drivers? In other words, did membership of the wider reference group cause or encourage individuals to drive faster, or was there merely an association between the two where cause and effect could not be established?

Chapter 2 included brief profiles of our fast driver sub-groups in terms of certain factual characteristics, especially their occupation, annual mileage, and rates of offending (including speeding) and accidents. Now, in the next section, we amplify those descriptions and explore, for each of the sub-groups, the extent to which membership of that category appeared to encourage high speed driving. (The nine miscellaneous drivers will be excluded from this discussion).

Then, to contrast with the potential disinhibiting effect

of a sub-culture on speed choice, the third section examines the potential inhibiting influence. Here, we explore the views of magistrates, traffic police and instructors on the ways in which their occupation constrained their own choice of speed as drivers.

Finally, we widen the definition of social group and examine the influence of regional characteristics on speed choice. Focusing on demographic, geographic, socio-economic, criminological, and other differences between the 51 States in the USA, we enquire which variables, if any, distinguished between the States with high and low rates of compliance with speed limits.

5.2 Sub-groups of fast drivers: factors encouraging speed

5.2.1 Young drivers

The main distinguishing feature resulting from the qualitative and quantitative analyses carried out to compare responses of the YD, DFL and HPS groups was the higher enjoyment of risk taking, on and off the road, which was acknowledged by young drivers. Seventy per cent of YDs admitted they enjoyed taking risks 'a lot' or 'quite a lot' in their lives, compared with 53% of the HPS and 41% of the DFL groups. Similarly, 37% of YDs compared with 28% of HPS and 19% of DFL drivers said they enjoyed taking risks on the road 'a lot' or 'quite a lot'. Corresponding to their greater enjoyment of both kinds of risk taking, YDs were also more likely than the other two groups to admit that they created risks for themselves and other road-users by driving above the speed limits. Forty-three per cent of YDs, 21% of HPS and 19% of DFL drivers said they 'occasionally' or 'often' created risks by exceeding limits. For instance, one YD said 'I never look at the speedo. I go round bends too fast occasionally - I do silly things like that.'

Even among drivers who denied creating risky situations, fewer of the YDs than of the other groups thought their friends or colleagues would agree with them or that an emergency service driver would support their view that they 'never' or 'rarely' created risks. This could be interpreted as a veiled acknowledgment by these drivers that they actually took more risks than they admitted, and that deniers among the YDs were more likely to acknowledge a gap between an objective view and their own.

Strongly associated with the acceptance of creating risks by speeding was the thrill of driving fast. All drivers were asked if they enjoyed driving fast and if they got any kind of thrill or excitement from it. YD were most likely to say fast driving was just plain 'thrilling' or 'enjoyable' without mentioning any functional value (53% compared with 29% of HPS and 21% of DFL), although when 'functional and thrilling' responses were added to these proportions, around 70% of both YD and HPS drivers attested to the thrill of driving fast. So enjoyment of risk taking and acknowledgment of creating risks by speeding distinguished YDs more than the excitement and thrill of speeding.

Compared with the other two groups, YDs were more likely to say that 'most' or 'all' of their friends were fast drivers like themselves (61% compared with 53% HPS and

36% DFL), and that they discussed cars (and their handling and performance) 'sometimes' or 'often' (70% compared with 40% HPS and 36% DFL). YDs were also more likely to talk or joke with their friends about driving fast. We can, of course, only speculate why this could be. Yet as other commentators have noted (e.g. Marsh and Collett, 1986), among young people the act of driving has added significance since it may provide an emerging sense of freedom or independence associated with early adulthood, and the grounds for negotiating identity and status within the peer group. Illustrating this last point, we found that YDs had a greater desire than other groups to hear from people that they were considered good rather than fast drivers, so being seen as competent and capable behind the wheel was important.

While the above suggests that for some YDs the peer group was important in respect of driving, over half (55%) denied the influence of friends on their choice of speed. Fourteen per cent admitted that their friends did influence them and 31% admitted that 'perhaps' they did, yet this influence was not all in the direction of encouraging faster speeds: a few YDs said their friends actually persuaded them to slow down. This latter finding would support the results of Rolls *et al.* (1991) who found that young people's driving style varied according to the age and sex of their passengers.

That age rather than the peer group might be the more powerful influence on these YDs is suggested by the following. When those who talked with friends about cars and driving fast were compared with those who did not discuss these things, no significant or noteworthy differences were found: both groups were likely to exceed speed limits for a similar range of reasons and to have similar views of their 'above-average' skill as a driver. Moreover, those who talked more about cars tended to have lower speeding scores than those who talked less (but the result did not approach significance).

In summary, therefore, the effect of the YDs' peer group on choice of speed did not appear especially prominent: those who denied talking with friends about cars or driving fast were likely to drive faster than those who did discuss these matters, and over half denied any influence of their friends on their choice of speed. On the other hand, compared with the two older groups - the HPS and DFL drivers - the effect of age was more distinct. YDs were more likely to admit to enjoyment of risk taking on the roads, and to creating risks by exceeding limits. They also had a considerably higher accident rate (see Table 1). We conclude therefore that being young seemed to have a more widespread effect on driving style than any direct influence of the peer group.

5.2.2 Driving for a living

Here we were interested to know whether the reference group (the driver's work colleagues) and the job itself exerted an influence on the driver's speed, and if both, which had the greater effect. The answer soon became apparent. Over half of this group (58%) said they 'never' or 'only rarely' spent time with their colleagues after work, 64% 'never' or 'rarely' discussed cars with their

colleagues, and 80% 'never' or 'rarely' discussed speeds with them. For instance:

'Very occasionally after meetings we go to the pub and then don't talk about speed except moaning about it being a bore or about traffic jams. We talk about making money, yes, but not driving'.

These and other findings suggest that the DFL drivers were a fairly disparate set of people, and that to assume an underlying sub-culture would be rather premature. However, common beliefs may stem from common action rather than direct group influence, and it could be that the parameters of the job rather than the people themselves determined shared group values.

As noted in Chapter 2, this group of 36 drivers not surprisingly had the highest average annual mileage (over 23,000). The impression created by their responses was of widespread boredom with cars and driving (although there were some exceptions), and indeed this was one reason why they drove fast. For example:

'Driving is a bore in my car. You just want to get there, get it finished, because of the number of miles I do'.

Only two drivers (6%) said they had a lot of interest in cars or driving in general (e.g. watching motor racing, doing up old cars, reading motoring journals, etc.) compared with 25% of HPS and 17% of YDs. When asked about the best features of their own cars, they tended to mention practical matters like comfort, economy, size and reliability, rather than image, performance and acceleration - which were mentioned more frequently by HPS drivers. (YDs were most likely to mention economy and least likely to mention reliability). When asked if they found driving fast enjoyable or thrilling, DFLs were least likely to answer in the affirmative (21% saying yes) and most likely to say that driving fast was 'functional only' (51% compared with 23% of HPS and 27% of YD).

DFL drivers were more likely than HPS drivers to distinguish between regular speeds driven in work and in leisure time: the former were more likely to say they drove faster for work purposes. In addition when drivers were *not* in a hurry in their own time, a higher proportion of DFL drivers than of HPS or YDs said they drove more slowly then, which suggests that their choice of speed was more likely to reflect the pressure of work than a love of fast driving.

Of the three main groups, DFL drivers were least likely to say they had 'always driven fast' - although 39% did say this - and were most likely to say that they had started driving fast on joining their present company or embarking upon this career. Indeed four in seven said that their job had had 'a bit' or 'a lot' of influence on their normal choice of speed, often because they were rushing to arrive at meetings on time. However, of those asked, only a minority would blame their employer should they be disqualified for speeding. While work pressure to some extent accounted for their habitual choice of speed, a slight majority did acknowledge that they had an element of

choice. Some admitted they put pressure on themselves by setting off late knowing that they could make up time by driving fast. Others, as already noted, said that boredom induced by high mileage led them to drive fast so to reduce time spent on the road. Two examples of self-induced pressure were:

*'I tend to estimate the journey time by the shortest time I've ever done it. But I know one really can't do it' [so he speeds].
'I can't do my job if I stick to speed limits. I have two choices. I can work 24 hours a day or I can drive fast outside the limits and work fewer hours'.*

The latter driver then produced various calculations to prove his point.

Not surprisingly, in view of the experience gained by high mileage driving (and many had long careers), two-thirds of the group believed those who drove for a living had more driving skill than other drivers, and most drivers were quick to name scapegoat groups who were 'below average' in skill. In contrast to the YDs who often commented on good drivers, the professionals implied that being considered a good driver was taken for granted and mention was made only of bad drivers who were prone to accidents.

DFL drivers generally considered themselves to be 'safe but fast' drivers, although in the opinion of several traffic officers whom we interviewed they were often 'just plain lucky' and tended to drive far too close to vehicles in front. In comparison with the other two groups of fast drivers, the DFL sample were less likely to say they enjoyed risk taking on or off the road, and were less likely to accept that they ever created risks by exceeding limits. Only 19% said they 'occasionally' or 'often' created such a risky situation. Moreover, of the 81% saying they 'never' or 'only rarely' took risks of this kind, nine out of ten said that most or all of their friends or colleagues would agree with this judgment and two-thirds said emergency service drivers would also support it. Thus this group of DFL drivers had very strong views about their safe speeding.

Ironically, two factors were mentioned which could increase the risk of the 'safe speeding' claimed by the DFL group. Two drivers said that the most risky aspect of driving for a living was having to use a car phone without a pre-programmed number or when 'hands free' mode was not possible because of a bad line. (cf. Brookhuis, de Vries and de Waard, 1991). Having to write things down was awkward, and having to steer with one's knees (albeit on the inside lane) was difficult because, as one said:

'Your field of vision has to change several times during the whole process - road, pad, phone, road, pad, phone etc'.

The second factor mentioned which might affect the degree of risk in speeding was the level of the driver's concentration. Because of the boredom of long journeys, concentration might occasionally be compromised unless the driver was going at his or her top speed. For instance:

'I measure distance by [radio] programmes. Sometimes if I am driving a long way you end up in the programme rather than driving - your concentration is on the programme and you are on automatic pilot'.

'If it's a late night journey I drive like a bat out of hell to keep the adrenaline going - to keep me awake. But I prefer to drive in a more relaxed way - if possible I prefer 85 on automatic pilot'.

'If I am on a motorway, I switch into motorway mode. There are two parts, one which does the driving which is reasonably automatic, and the other thinks about other things'.

It was noticeable that YDs and HPS drivers were far less likely to mention reduced concentration when driving and many HPS drivers in particular were proud to talk about their ability for sustained concentration. There is the danger, therefore, that high mileage could lead DFL drivers especially to attribute higher standards of skill and lower levels of risk-taking to their own driving, when in fact it may engender reduced concentration and thus greater risk especially at speed.

Summing up, we may say that driving for a living exerted some causal influence on speed choice. However, this was mainly due to drivers allowing themselves too little time rather than to their being forced to drive fast to meet schedules, and because the boredom of long journeys resulted in some of them increasing speed to reduce time spent on the road, or to relieve tiredness by increasing adrenaline. There was little evidence of an occupational sub-culture centred on the drivers themselves. Instead, it seemed to be the nature of the job that determined shared group values.

5.2.3 High performance vehicle drivers and sports car club members

So far in this chapter, high performance vehicle drivers and sports car club members have been combined as one group and contrasted with YD and DFL drivers. Because of the similarities between the two groups in terms of their mean offending scores and speed scores (see Table 1) and because most of the sports car club members also owned high performance vehicles, this pattern will continue here. However, some additional information about the sports car club members will be presented in a brief section to follow.

A strong impression gained from many HPS drivers in this sample was that driving fast and exceeding limits represented the main remaining vestige of rebelliousness left over from their youth, which, some admitted freely, had been wild. The majority were now approaching or in their middle years, they had calmed down and prospered and their one outlet for 'deviance' - although not always seen as such - was to drive fast in a powerful car. Thus 70% admitted that they found driving fast thrilling or exciting (see also Rothengatter and de Bruin, 1986) although two-thirds of this sub-group said speeding served functional purposes too. Two examples illustrate this view:

'There's tremendous excitement when you are accelerating hard on A roads. That's the only time you're using all your driving skills. There's no excitement on motorways unless you're going incredibly fast because the roads are very easy'.

'It's difficult to explain what feels good. You just enjoy driving at speed - the exhilaration of overtaking, for example, gets the adrenaline flowing'.

A slight majority of the group (53%) said that 'most' or 'all' of their friends were fast drivers like themselves (the corresponding figure was 39% among DFL drivers). Many believed this was because 'like attracts like' rather than that they had been initially encouraged to drive fast through knowing another fast driver. Indeed, when asked about the influence of friends on their choice of speed, unlike the YDs none accepted that friends had had any effect on this. However, just over a third, most of whom came from the sports car club group, said friends had influenced their choice of vehicle 'a bit' or 'a lot'.

HPS were more likely than DFL drivers to say they had always driven fast (61% compared with 39%), although another 20% said they started to drive fast on first buying a powerful car. When questioned, this latter group said they had bought a fast car in order to drive fast; for example one stated 'my choice of speed influenced the type of car I bought, not the other way round'. The HPS drivers were also more likely than the DFL drivers to say they drove at similar speeds in work and in leisure time, and that in their own time being in a hurry made no difference to the speed they would choose. So enjoyment of high speed and a desire to drive fast were main motivations for these drivers. It seems therefore that fast drivers gravitated towards each other in the same way as do other people with similar interests. As one 45 year old executive said:

'Most of my friends, I guess, drive fast too. They're that sort - a bit mental, if you know what I mean. Sometimes we joke about speed, yes, there's a bit of that about - a bit of macho to say I've got here in under 20 minutes, if I'm honest'.

Another executive in his late 50s said:

'I like fast driving, and it gives me a basis for conversation in the pub, and one attracts people with like minds, so my friends are similar to me'.

In summary, it appeared that among this group of HPS drivers a love of speed came first which tended to attract them to fast cars and then to like-minded others. For some, this camaraderie formed the basis of a loose-knit sub-cultural group. Now that these drivers were older, however, they tended to talk less about speed than formerly, although they actually continued to speed because it was still exciting. Unlike most of the drivers in our previous study (Corbett & Simon, 1992a), where it was found that speeding tended to decrease with age (except

among those who had been previously disqualified for speeding), these HPS drivers showed no such tendency.

5.2.4 Sports car club members

The obvious difference between sports car club members and other high performance vehicle drivers was that the club members had all joined to consolidate their interest in a particular model of car. So a definite sub-culture existed for members within the club branch, which for most of our interviewees had become a welcome way of life. It is necessary to emphasize again that the 12 drivers interviewed were not randomly chosen but those considered to be fastest in their branch, and that the branch itself was not necessarily typical of others or of clubs celebrating other marques.

These members themselves believed their branch was more sociable than normal, and said that rather than spend all the time 'polishing their bits' they preferred to have weekend parties and holidays driving together in Europe. What noticeably distinguished these drivers from other high performance drivers was the passion they expressed for their cars, and the enjoyment of driving them. Some quotations illustrate this passion:

'It's definitely a second sort of marriage, it's definitely a love affair. If there was a choice, the wife would have to go'. (She did a while later but not for that reason).

'I fell in love with it when I read an article about it. For years I wanted one and when I got the first one, the repayments cost me more than my mortgage'.

'It's almost like being free... it sort of fits round you like a glove, and I enjoy batting around in it. If you're in a traffic jam you don't really mind, it's like you're almost at peace'.

One thing expected of new members was a high standard of driving. As the vehicle was an enthusiast's car, and not of a modern design, it was said that drivers would need to have above average skill in order to handle it well, and many believed bad drivers would be noticed. One bad driver, a tailgater, was described as an 'up-the-bum merchant' whom others wished to steer clear of, and several said that 'those who can't keep up with the rest' were not particularly admired either.

In fact, the ability to keep up on a convoy (when drivers go on long journeys together in single file) was a desired attribute and added to a driver's status within the group. One said, 'As a typical woman I feel I've got to keep up', and another, 'You don't want to be thought of as an incompetent driver in a sports car club... you want to be seen as one of the pack, not a straggler'.

Not all members were enamoured of convoys and some avoided them, joining their colleagues at the destination later. A third of those interviewed said that occasionally convoys did oblige them to drive faster than they would like in order to keep up with the rest, which they felt could be a bit risky, and most noted that those who elected to go at the back usually had to drive very fast to keep up. Two members could recall accidents they had had when on a

convoy but apparently these were not speed-related. Two views exemplify these comments:

'Convoys can be very dangerous. People may not be able to drive that quickly. Lots can't drive for toffee, but they just like the car and take risks all the time, just to keep up with the leader'.

'If they're doing 70 at the front in traffic, people at the back have to go fast to keep up. We put someone who enjoys driving fast at the back and he'll overtake people and say 'come on, come on, put your foot down''.

It seemed, therefore, that danger engendered in convoys was redefined as fun or a test of one's skill among members and that peer pressure was exerted to keep up with the pack. Keeping up was important for a member's perceived status as a good driver. However, these matters were not openly discussed between them, the main focus being on social events organised by the group and their mutual passion for their chosen marque.

5.2.5 Summary

So to summarise the key points, it was found that the YD group were distinguished by having the greatest enjoyment of speed and risk-taking; their typical choice of speed and style of driving was more due to youth than peer-group pressure. The DFL group largely drove fast on account of self-imposed pressures of the job (leaving departure times to the last minute, for example). Although they believed themselves to be 'safe speeders' because of their high mileage and long driving careers, they were probably at more risk than acknowledged because of loss of concentration on long drives. It seemed that the parameters of the job rather than an occupational sub-culture determined shared group values. Those who drove high performance or sports cars (HPS drivers) still found high speed exciting though they were now older. Love of fast speed drew them to others of like mind, among whom loose-knit sub-cultural groups would be formed. Those owning a sports car were all members of a club. They were very similar to the high performance drivers, but on drives organised as social events they were expected to drive fast - sometimes faster than preferred.

5.3 Professional role influences inhibiting speed

In view of the professional roles of driving instructors, traffic police and magistrates in respect of teaching new drivers and apprehending and sentencing high speeders, one might expect that, if anything, these people would feel inhibited by their role in their own choice of speed when driving 'off duty'.

Interestingly, around four in five of each group admitted that they sometimes exceeded the speed limit off duty (about one in five drivers denied this), although between one half and three quarters of each group kept to low margins of excess 'unlikely to attract police attention'. This means that the remainder did admit occasionally to driving faster. All three groups were asked if they ever felt

constrained in their choice of speed by their work role, and virtually all police officers and driving instructors replied in the affirmative. Magistrates were slightly different in that several said that they had not moderated their speed since joining the bench and still drove fast, and a few others said that they had not changed because they had always been slow drivers. While some said that since their appointment they had given up breaking certain traffic laws, speeding was rather the exception. For example, two comments were:

'I knowingly break speed limits and I feel bad about it at times, but I don't do anything else like parking or red lights'.

'I didn't try to moderate my speed, I just tried not to get caught'.

The large majority in all three groups said that on joining their respective profession they had decided to slow down for a variety of reasons. Each of these reasons was endorsed by roughly similar proportions of magistrates, police and instructors, and they were as follows: that people in their role ought to set an example and keep the law on principle; that to speed (by wide margins) would be hypocritical; that the link between speed and accidents was now better appreciated; that they would be inhibited by the potential embarrassment that would be caused. Some examples follow:

'I can't sit in court facing people and do exactly the same myself. I can't be hypocritical' - (a magistrate who speeds by moderate amounts).

'You can't have the attitude 'do as I say but not what I do'. How can I nick people for doing things I do?' - (traffic officer who exceeds speed limits slightly).

'I wouldn't want ever to embarrass anybody to have to decide what to do with me I am proud of the position I have here and it would put me in a very invidious position - so it does have an effect on my speed' - (senior traffic officer exceeding by moderate amounts).

In addition to these reasons, driving instructors mentioned two others which tended to inhibit their speeds. First, most said that being prosecuted for speeding could lead to their instructor's licence being revoked and loss of their livelihood was not worth risking; secondly, most pointed out the company's logo on the side of their vehicles, and since, for nearly all, this was their only vehicle, they needed to be mindful of the image they portrayed to potential or actual customers.

In sum, therefore, most interviewees from each of the three groups felt to some extent constrained by their professional role in their own choice of speed. Despite the perceived restrictions, the majority did admit to exceeding limits, but hoped that their margins of excess would be insufficient to attract the attention of police on duty.

While it is no doubt true that the official word of the courts, police and driving schools would be to express strong disapproval of staff members who exceeded speed

limits, especially by wide margins, it is unlikely that the various sub-cultures comprising fellow magistrates, traffic officers and instructor work colleagues would be so condemnatory. This is because most of those interviewed admitted exceeding speed limits themselves. So, the individual, if caught, would be likely to feel more embarrassed than sinful and to be judged by his or her peers as careless for getting caught rather than as having acted improperly. So the weight of the professional role sitting heavily on the shoulders of the interviewees constrained their leisure time choice of speed. It was this rather than a peer-group sub-culture, that seemed to determine shared group values.

5.4 The influence of regional characteristics on speed choice

In this last section we enquire into the potential influence on choice of speed of the region in which drivers live. Initially, it had been hoped to make international comparisons of rates of compliance with speed limits, but methodologically this was very difficult. Instead, we took advantage of the wide range of relevant statistical data available in the USA to explore differences in compliance rates between 51 States.

Chapter 2 has already outlined the methods used in this exercise, and we now summarise the results. (See Corbett *et al.*, 1995 for more details).

5.4.1 Methods and results

With the 1985 data, a setwise multiple regression equation accounted for 56% of the variance, and suggested that States with higher percentages of drivers exceeding the 55 mph speed limit tended to have a higher crime rate (per capita), lower driver density (the number of registered drivers per road mile), not to have the availability of a death penalty, and to have lower proportions of urban interstate roads (as a percentage of total interstate road miles) and rural roads (as a percentage of total road miles).

Similar regression analyses were then run on the 1985 data using the second dependent variable - the proportion of drivers within each State exceeding 65 mph on roads with a 55 mph speed limit. The model produced also accounted for 56% of the variance and showed some likeness with the 1985 equation. States with higher percentages of speeding drivers had a higher suicide rate (per capita), did not have the death penalty available, had lower taxes on petrol, a lower proportion of rural roads and a lower volume of traffic (vehicle miles travelled per road mile).

In order to validate the models obtained from the 1985 data, these models were tested for their goodness of fit to 1986 data using predicted and actual standardised values for the two dependent variables (the proportions of drivers exceeding 55 mph and 65 mph). It was shown that the 1985 models accounted for 37% of the variance in the percentage of drivers exceeding 55 mph in 1986, and 27% of the variance in the percentage of drivers exceeding 65 mph in 1986. Thus a reasonable goodness of fit of the 1985 models to 1986 data was suggested.

Several of the predictor variables in both models were

concerned with physical aspects of roads - the extent of rurality, driver density, traffic volume, road type. Thus States with a greater proportion of rural roads, more urban than rural interstates, a higher density of drivers and higher volume of traffic tended to have higher compliance rates. Since these variables may be seen as constraining influences on drivers' speed choice, this is not unexpected.

However, the availability of the death penalty potentially is, and it would seem that States eschewing capital punishment tended to have a higher proportion of non-compliers. If this variable is not masking the operation of a 'proxy' variable (cf. Sivak, 1983) linked with it, this would support the view the more liberal States have more speeding drivers. Another variable capable of change was the amount of tax levied on petrol, and as one would expect, as tax decreased the proportion of drivers exceeding 65 mph increased.

The remaining predictor variable in the model of the lower level of non-compliance was a State's crime rate. In fact this correlated independently with both lower and higher levels of the dependent variable, from which it is concluded that speeding seemed not to be independent of the recorded level of crime.

The main difference between the two models was the salience of crime rate in the lower level model of non-compliance which was replaced by a State's suicide rate in the higher level model. Possible interpretations of this finding have been put forward by Corbett *et al.* (1995), but further work is suggested to fathom the mechanism or underlying social factors linking crime and suicide rates with speeding rates.

In sum, it appeared from the regression models that State structural factors exerted a stronger influence on levels of non-compliance with speed limits than non-structural ones. This indicated that opportunities to lower speeding rates or induce compliance by manipulating predictor factors seemed limited. While these results are somewhat disappointing, it is important to bear in mind that this study has shown that variables other than those indicative of individual differences between drivers can predict non-compliance rates. In other words, the extent of speeding may also be a function of societal and structural influences, and may not just be the result of individual propensities to deviance.

6 The police role in enforcing speed limits

6.1 Introduction: a complex issue

Drivers' attitudes to speeding and speed limits are shaped not only by their individual characteristics and experiences but also by the values and norms they pick up from the wider society, and these are probably shaped in large part by the media. In particular, drivers may adjust their own choice of speed according to the messages they perceive. In other words, the ways in which the police and courts handle speeding drivers can impinge upon the national consciousness, influencing the sociocultural environment in which speeding takes place.

This chapter looks at the role of the police in enforcing speed limits. As will become apparent, it is not a straightforward issue, and in the second section we examine some of the pressures on the traffic police, putting into perspective the context in which enforcement occurs. Against this backdrop, the third section looks at what traffic police think they should be doing about speed limits and how policies may vary between police forces. The fourth section examines how force policies are put into practice by individual officers, while the fifth considers the potential influence of officers' own views and their choice of speed when driving off-duty. Finally, in section six the findings are summarised.

6.2 The context of speed limit enforcement

6.2.1 Internal pressures

In the late 1980s, many police forces decided to decentralise, devolving many or all management functions to divisional command. As a result, centralised traffic departments disappeared in some forces and lost many of their functions in others. All the twelve forces we visited for this research had devolved to some extent. In respect of traffic work, our interviewees saw the impact of devolution as positive only to the extent that, in theory, each division now had the autonomy to run its own affairs and to respond to the particular traffic problems of its area. In contrast, disadvantages were far more frequently noted by our respondents. Between three and ten per cent of police staff were employed as traffic officers in our sample of forces, but since devolution fewer than this proportion were likely to be engaged on traffic work at any one time. Because much of the individual workload of operational traffic officers is self-generated, many of the senior officers we interviewed reported that other departments saw traffic policing as a luxury or even a waste of time, to be engaged in only after all demands for reactive policing had been met.

This meant that where traffic officers had been moved to a division or sub-division following devolution, they were often reduced to 'being beat bobbies with big cars ... used as substitute second-class patrols' to attend non-traffic incidents 'because they have four wheels and are seen as available'. The effects of this were said to be: a loss of traffic expertise because 'they don't deal on a regular basis with HGVs, documents and regulations'; a loss of identity, morale and esprit de corps through uncertainty as to their proper role; a deterioration in training standards and the quality of officers wishing to specialise in traffic; and a lack of expertise among supervisors (inspectors or above) with little or no previous knowledge of traffic policing.

At the time of our fieldwork three forces were taking steps to try to rectify the problems caused by devolution, and it may be that in general the situation has now normalised. Yet, even if all difficulties have been resolved, it is clear that initiatives in traffic enforcement are not always taken seriously by other sections of the police, who see other tasks as having higher priority.

6.2.2 External pressures

In contrast to the low priority ascribed by some people inside the organisation, outside it the services offered by traffic police are frequently given high priority. The difficulty is that there may be conflicting demands. This is particularly the case when a force area covers several counties or boroughs which operate different policies. Thus the example was given of two neighbouring boroughs where one was promoting a vigorous traffic calming campaign, encouraging the use of public transport and discouraging through traffic and high speed, while the other was keen on 'red routes' to promote the free-flow of through traffic. Not only did the senior officer concerned report that policy objectives for his area were made difficult, but in practice too, he reported his officers sometimes had difficulty concerning the aims of enforcement at the boundary points between the boroughs.

A more common problem seen by senior officers was the occasional need to bow to local political pressure to carry out speed enforcement on particular roads which had very few accidents but a high rate of non-compliance with the limit. Apart from some trunk roads, local speed limits are set locally. The advice of the police or the borough engineer may be accepted or rejected, and representations from district councils can influence the decision. Thus, subsequently, police may be requested to enforce limits that have been swayed by political influence and that they believe are impossible to enforce adequately. Several senior officers stated that the result of lowering a speed limit to an unrealistic level was not only that their officers had no proper chance of enforcing it but also that motorists reacted by raising their average speed above that which prevailed before. This view is supported by the experience of Buckinghamshire County Council (1992) where, against the advice of the police and the council, local pressure succeeded in reducing various speed limits, resulting in the 85th percentile speeds⁴ rising above those previously recorded.

Another form of external local pressure comes from residents' complaints about drivers exceeding limits on local roads. Most forces we visited had assigned teams of officers specifically to investigate this kind of complaint, and in all forces these grievances were taken seriously. But several problems were associated with the outcome of the monitoring. Firstly, it was common police experience that if subsequently they initiated an enforcement campaign, one of the complainers would be caught. Moreover, one rural force said that the vast majority of drivers caught lived within ten miles of the area the officers checked. Thus the implication is that people speed in their own villages and the surrounding area but complain of others who do it. It may be, as Jones (1990) suggested, that local people assume some kind of territorial right whereby they believe that speed limits are for others to comply with rather than themselves. Secondly, it frequently happened that monitoring showed an enforcement initiative was not justified. Thus it could be that situations which look unsafe to residents are also likely to look unsafe to passing drivers, who tend to adapt their behaviour accordingly. Hence, a dangerous-looking environment may not in fact

have a low compliance rate with speed limits, although to residents such a perception may prevail. As one senior officer put it, 'Residents' perceptions aren't necessarily what's going on. The problem is that environmental noise and the displacement of air from HGVs interfere with the 'feel good factor', but at the moment we prioritise on casualty issues not environmental ones'. This raises the important and difficult issue of whether traffic officers should police on criteria they feel most salient or whether they should try to appease the more immediate concern of the local police.

The final kind of external pressure on the traffic police is the need to improve and maintain good relations with the motoring public. Often the only time a person finds him or herself on the wrong side of the law is by being stopped for a driving infringement. Since most motorists believe their driving skills are above average (e.g. McKenna *et al.*, 1991), they do not take kindly to criticism, and traffic police are well aware of the danger of alienating people who may be among their strongest supporters (see Corbett, 1993). Confining speed 'stops' to the worst offenders could have the unintended consequence of appearing to condone, or even encourage lower levels of excess; while stopping drivers other than the 'top-enders' for speeding could appear over-bearing and be likely to lose 'good friends' (Corbett, 1993). With respect to the latter point, traffic officers on motorcycles were apparently more prone than others to verbal abuse; it seemed that some members of the driving public perceived them as behaving in a 'fascist' or 'gestapo-like' manner.

The foregoing suggests that speed limit enforcement does not take place in an untroubled, benign environment, but instead is fraught with difficulties stemming from conflicting internal and external pressures and competing demands. Caught in the cross-fire, what do traffic police themselves think they should be doing?

6.3 What traffic police think they should be doing about speed limits

In our interviews with police, all respondents were asked to rate the importance of seven of the most common activities with which traffic officers are tasked. These activities were the same ones used by Southgate and Mirrlees-Black (1991) in earlier research in order that we might compare findings over time. However, two of these tasks 'enforcing traffic law' and 'educating drivers' may not have been mutually exclusive, since the activity of enforcement may be deemed educative in part since it provides feedback on unwanted behaviour. Nevertheless our police subjects seemed able to distinguish the tasks.

As has been detailed elsewhere (Corbett, 1993) enforcing the traffic law was ranked fourth by managers and third by juniors, lower than educating drivers (which was ranked first by managers and second by juniors), and lower than dealing with accidents at the scene (ranked first by juniors). These rankings are similar to those found by Southgate and Mirrlees-Black (1991) using a larger sample of officers, (the main exception being that we now found juniors ranked educating drivers as more important than enforcement).

When we asked our respondents to rate the importance of enforcing seven traffic regulations, the 30 mph speed limit was ranked second by juniors and fourth by managers, and the 70 mph limit fifth by juniors and sixth by managers. Both groups ranked enforcement of the drink driving law as of primary importance.

Several points follow from these results. Firstly, the finding that enforcing speed limits - especially the motorway limit - is not of highest priority may reflect some officers' doubts on the effectiveness of this kind of enforcement. All police (and magistrates and instructors) were asked how much difference stricter enforcement of the 30 mph and 70 mph limits would make to the number of accidents. Forty-six per cent of police (15% of magistrates, and 25% of instructors) thought that stricter enforcement of the 30 mph limit would make 'quite a big' or 'a very big' difference to the accident rate. For the 70 mph limit the figures were 36% of police (21% of magistrates and 13% of instructors). Though the police were the most optimistic group, they saw the effectiveness of enforcement generally as compromised, because even if much more attention were paid to speed limits the number of drivers stopped would still be 'a drop in the ocean'. Further, because of the reliance (in the three main forces visited) on marked as opposed to unmarked cars, apparently it was difficult to catch any 'real speeders' because all drivers slowed down when coming near a marked vehicle. Thus though the purpose of general deterrence was temporarily served, any serious enforcement would require unmarked vehicles to catch the fastest and most dangerous drivers unawares. A fair number of all ranks lamented this state of affairs, a common view being that 'the Brits play cricket, and because we won't change our attitude we have got our traffic problems'. These officers thought that the need to improve police-public relations lay behind the eschewal at top level of more covert policing. If this is correct, it illustrates again the police concern for balance between being seen to uphold speed regulations and not alienating drivers who fail to respect them.

The second point arising from our respondents' rating of the relative importance of traffic tasks concerns the perception that educating drivers is more important than enforcement. At the heart of this finding lies the question of what should be the purpose of stopping speeding motorists. While few would disagree that the ultimate goal of traffic work is to reduce road casualties, it did not always seem to be made clear to our junior respondents how this policy objective should be achieved in practice. In several of the traffic departments we visited, managers had recently been introduced who had had no previous experience of working in traffic departments (as one put it 'I haven't got diesel in my veins'), and nearly all of these commented on the need for a change of culture within their department. They said that, traditionally, junior officers had perceived their objectives and their role mainly in terms of prosecution figures (in which 'speeding is the bread and butter'), believing their efficiency and performance to be judged on that criterion. However, these managers wished to break up what they saw as the

entrenched values of the traffic sub-culture with its reliance on punishment, and to instill a new philosophy linked with the current emphasis on 'quality of service'. Thus in the overall endeavour to reduce traffic accidents, drivers should, wherever possible, be warned (educated) rather than fined or reported (i.e. punished).

Although in our research junior officers rated education as more important than enforcement, it seemed that in practice they were not entirely convinced that education was the most valued objective, for most whom we interviewed still believed that the number of drivers dealt with formally was a measure of performance. So there was some disjunction between the views of management and operational officers on the purpose of stopping speeding motorists.

Moreover, officers of all ranks had mixed or uncertain views on how low warnings (and indeed fixed penalty notices and reports for summons) affected drivers who received them, and on which types of driver most benefited from warnings. Many officers gave examples of people they had stopped for speeding who they believed would benefit greatly from the warning given, but there was no evidence to back this up. More usually officers were unsure of the deterrent effect of a warning. The fear was that some drivers would merely think themselves lucky instead of realising the error of their ways and deciding to drive slower in future, but officers only had their 'gut feelings' to guide them in speaking to the driver they had just stopped. However, 30% of juniors alleged that they made up their minds how they would deal with the driver *before* they initiated verbal contact, and they denied such personal tailoring of the sanction.

6.4 Speed limit enforcement in practice

Despite force policies that exist, in all types of policing, practice is ultimately determined by the on-the-spot decisions and actions of individual officers involved in interactions with the public. This is particularly so in traffic policing because of its largely proactive as opposed to reactive nature, and because the introduction of the fixed penalty system in the mid-1980s considerably enhanced the discretionary powers of the officer on the ground.

It might be argued, therefore, that the manner in which an officer carries out speed limit enforcement is the result of individual discretion tempered by the constraints and requirements of the law (at least in theory), and is perhaps coloured by the local force policy with respect to the matter. Because other researchers have commented on the exercise of discretion (e.g. Layzell, 1984; Stradling *et al.*, 1990), what follows is only a summary of some of the key points found in our study in regard to it. First, however, brief mention will be made of the forces' enforcement policies.

6.4.1 Local enforcement policies

Annual policies issued in all the forces we visited included at least one statement on the objectives of enforcement for operational officers. Some policies specifically mentioned speed limit enforcement, but otherwise its inclusion was implied under the general heading of enforcement. In our interviews it appeared that forces gave different weights to

the importance of doing speed checks. Where local speed reduction initiatives were in progress or planned, speed was seen as more of a problem. But, as several senior officers noted, the creation of a squad for a particular purpose can create that problem.

Whether or not speed enforcement was highlighted all forces had, at the time of our fieldwork in early 1992, recently responded to new ACPO guidelines⁵. These advised that, subject to an officer's use of discretion, forces should consider enforcing speed limits at slightly lower margins of excess than had previously been tolerated. According to a member of the ACPO Traffic Committee, the main aim of the guidelines was to increase national consistency of practice. Yet it seemed not only that forces' responses varied - accepting, partly accepting, or rejecting the guidelines - but also that individual operational officers had differing views about the guidelines. Only 40% of the juniors felt 'very well briefed' on the new guidelines, and fewer than a third knew exactly what they were. Yet, irrespective of their degree of knowledge of the guidelines, most believed that they and others would continue as before: using their own discretion about when to stop, whom to stop and how to deal with each speeding motorist. In contrast, a few officers welcomed the lower margins of excess to be tolerated, saying that too much leniency had been permitted before. It appeared, therefore, that rather than promoting greater uniformity of practice, if anything the guidelines would produce a wider range of practices, not just among forces but among individual officers on the ground (see Corbett, 1993 for more details).

6.4.2 Local enforcement practice

In addition to officers' individual interpretations of their local force policy, a wide range of other factors was capable of influencing their discretion in carrying out speed checks.

As mentioned above, 30% of junior officers stated that they made up their minds before initiating verbal contact with the offending motorist what sanction they would apply. In other words, the driver's attitude to the stop would not affect their decision.

These officers tended to justify this framework in terms of treating all drivers equally, so that any personal bias would be removed from their decisions leaving the action rather than any attribute of the driver as the only criterion. In contrast, another group of juniors (47%) said that (given the premise that absolute speed would occasionally determine the outcome) the driver's attitude should, and did, affect how they dealt with the stop. Thus if a verbal warning was the initial plan of action, but the driver opened conversation in an abusive or aggressive manner, then the proposed attempt at education was likely to be abandoned in view of its perceived limited value. As one officer said 'if he fails the attitude test, he gets a £32 fine stuffed up his shirt and three points'. Alternatively if a driver readily admitted exceeding the limit and showed contrition or a belated awareness of the potential danger, then a fixed penalty notice instead of a report, or a warning instead of a fixed penalty notice, could be given - again in

the name of education rather than punishment, with the potential spin-off benefit of improving relations with the driving public. As one officer put it, 'a warning or fixed penalty can be an investment especially if they're expecting more'.

The range of sanctions available did not appear to be used equally by all officers. This was for several reasons, including officers' different perceptions of the deterrent value of each sanction. In addition, individual officers held varying views on the efficacy of the related criminal justice agencies, and this could influence their decisions. A few, for instance, believed that their local courts could not cope with the volume of unpaid fixed penalty notices, and so for some speeds at which other officers might have given a fixed penalty they either warned drivers (if they stopped them at all) or reported them. Alternatively, some officers feared that the CPS would fail to agree many of their summons requests in speed cases, and so they gave fixed penalties at higher speeds than were recommended in the guidelines. Several also believed that magistrates were too sympathetic to speeding drivers and failed to disqualify some who deserved it. Others thought that where defendants disputed their alleged speed, courts were too ready to accept the defence story. The net result of these beliefs was that some individual officers, and occasionally some shifts, were using their discretionary powers to create quite distinctive patterns for apprehending and sanctioning drivers, and thus they were increasing the diversity of practice. These beliefs existed not only among junior ranks; one senior officer stated:

'They don't want us to enforce some things, they [the courts, the CPS, administrative sections] affect what we do.The majority of police don't put pen to paper now unless they really think it should go to court, because they think they are wasting their time otherwise'.

Another factor mentioned by some officers related to practical considerations and personal safety. Sometimes there were no locations where it was practicable to operate a detection device, nor any safe roadside spots in which to talk to apprehended drivers. Occasionally an officer had to weigh up the risk of causing an accident through stopping a driver in the conditions then prevailing against the risk of that driver causing an accident if he/she continued at the observed speed. There could also be the problem faced by police engaged in non-traffic work: that of personal safety. This had to be negotiated and contingency measures worked out. As one officer noted:

'Single crews are not prepared to put their necks at risk if there is more than one in the other car and they're miles out in the sticks. Fear of assault does affect them'.

This meant that in certain situations some very high speeders or those travelling in groups might escape apprehension.

Finally, all officers mentioned things that could broadly be construed as relating to 'the perceived danger in any

given situation' (for road users generally). This included drivers' actual speeds, distances between vehicles, weather and road conditions, and the volume of surrounding traffic. (Such matters would be included in what Stradling *et al.* (1990) refer to as the 'Decision Environment'). Thus in certain conditions it might be dangerous for drivers to do speeds approaching the limit, while in others there might be no need for limits at all. In the absence of variable speed limits, officers' discretion was crucial.

'Perceived danger' will be shaped not only by consideration of objective, external criteria, but also by subjective criteria, and discussion now turns to these.

6.5 The potential influence of officers' own attitudes and speed behaviour on enforcement practice

One conclusion from our interviews with police officers was that they considered absolute speeds far less important than speed in relation to the prevailing circumstances. Since officers' own views on speed limits are likely to affect their perceptions of what is a safe speed in any given situation, we summarise relevant findings here.

As noted in Chapter 3, when officers were asked to imagine driving alone, off-duty, along a busy urban dual carriageway where the limit was 40 mph but all traffic was doing 50 mph, just under half the senior officers and just over half the juniors said they would keep up with the flow, since that was relatively safer in the circumstances. When the hypothetical was exchanged for the real, fewer than one in five of our respondents denied ever speeding. Most of the others said they tended to keep within margins unlikely to attract the attention of officers on duty, although a fair minority said that off duty they drove like everyone else, not necessarily keeping to within a few miles per hour above the limit.

Back in the realm of the hypothetical, junior officers were asked what their maximum speeds would be in the PHOTO30 and PHOTO70 scenarios (discussed in Chapter 3). Eleven per cent said they would observe the 30 mph limit and 17% the 70 mph limit. Nevertheless, the overall mean speeds would be 37 mph (ranging from 30 mph to 50 mph) and 81mph (from 60 mph to 100 mph) respectively. When the risk of being caught was removed from these imaginary situations, mean speeds rose to 41 mph and 85 mph respectively, on a par with the mean speeds of the magistrate sample.

In more general conversation later, many junior officers were keen to point out that the speeds they did off duty were always safe for the circumstances, and that when on duty they would use the same criterion for other drivers, and would not stop one who was travelling at a speed which they themselves would do in the same situation.

The fact that officers considered speed in relation to the circumstances as the appropriate criterion on which to intervene, was bolstered by findings showing that fewer than half the officers (44%) believed that exceeding a speed limit was a crime in the same sense as theft or violence, and only 10% said that exceeding *any* speed limit was really a crime. In other words, traffic officers tended to think in similar vein to our group of fast drivers: they exceeded limits only when they thought it safe to do so

and they never exceeded their perceived boundary of control. However, while this speed level might often be in excess of the limit, all juniors and most seniors had, unlike nearly all the fast drivers, received intensive and extensive driver training. This might help justify the claim of many juniors that provided they stuck to what they had learned, an accident was very unlikely to happen to them, and if one did, it would not be their fault.

6.6 Summary

It has been shown that the matter of enforcing speed limits is very complex, with the police who are responsible for carrying it out being pulled and pushed in all directions from inside and outside their organisation. When police resources generally are limited the largely proactive nature of traffic policing - particularly in regard to speed checks - is seen as something of a luxury. As a result, traffic police, especially since devolution, are called upon to help out in non-traffic work, and the fear is that expertise is being lost. In their dealings with people outside the organisation, traffic police find they must tread a fine line in responding to conflicting demands. Neighbouring boroughs may have different traffic policies, through traffic and local residents are likely to have different perspectives on speed, and local politicians may want limits reduced to levels the police think unenforceable. In addition, the need to prioritise could mean that the driving public perceives the police focus on apprehending the 'worst' speeders as condoning lower margins of excess. Alternatively, instead of enhancing police-public relations, the police face alienating 'Mr and Mrs Average' should they stop motorists for less excessive speeds. In some of the forces we visited traffic officers felt that they were being asked to enforce speed limits with their hands tied behind their backs, but that increasing the number of unmarked cars was not favoured by their policy-makers because of the political dimension.

Local speed enforcement policies seemed to depend on the perceived role of speed in accidents. Where speed was viewed more seriously, local enforcement campaigns were planned or in progress. While the overall aim is to reduce road casualties, there seemed to be some confusion within forces as to whether education or enforcement was the better approach to achieving it.

Officers' individual practice was found to depend on a variety of factors. Views of the efficiency and attitudes of local courts and CPS offices coloured the actions and decisions of some, while the practicalities and safety aspects of stopping motorists concerned all. Interpretation of the forces' guidelines added to individual diversity of practice, as did assessment of the perceived danger in any given speeding situation. Prevailing road, traffic and weather conditions constituted some of the objective criteria, but subjective criteria were also important. How officers perceived the driver's attitude when stopped, their own views on speed and limits, and their own choice of speed when driving off-duty, could affect their decisions. Most officers admitted that at least occasionally they exceeded speed limits when off-duty, provided that they felt it was safe to do so in the circumstances and they were

in control. Exceeding a speed limit was seen as a real crime by only a small minority, and as several officers pointed out, they only tended to treat it as a 'real' criminal act when negative consequences ensued. In sum, although nearly all officers had undergone much more intensive and extensive training than the fast-driver group, in many respects they were like ordinary drivers in their attitudes to speed. As the police are fond of saying, police only reflect the society they serve.

7 The court's role in sentencing speeding drivers

7.1 Introduction

If the police decide to deal with a speeding driver other than by a warning or fixed penalty, the offender will have some direct contact with the local magistrates' court. How the matter is dealt with there may be interpreted by the offender as reflecting the court's view on the seriousness of speeding in general, and on the present act of speeding in particular. The wider driving public are also likely to pick up messages about the courts' opinions on speeding either from people who have been caught or from the media. One need only recall the press furore in mid-1993 over the severity of some unit fines imposed on motorists - including speeders - to see how information on courts' sentencing practices is easily disseminated (e.g. Sunday Times, 4/4/93). In other words, drivers may use courts' sanctions as another indicator of the nation's attitude to excess speed. As a result, they may change their own views on the seriousness of speeding and whether it is worth taking the risk to exceed limits.

Although they sit on the other side of the bench, magistrates are not a species apart. They are of and from the local community, and supposedly representative of it. Though their task is to administer the law judiciously and impartially they are also human, and many are drivers. Like others, their own views on speeding will be shaped by their driving experiences and personal attributes, but unlike ordinary drivers their opinions and attitudes may also be influenced by the weight of the judicial role upon their shoulders, and by the manner in which speeding motorists are traditionally dealt with at their own court.

This chapter continues our enquiry into the sociocultural context in which speeding takes place, through an examination of the magistrates' role in sentencing drivers who are caught. The second section puts magistrates' courts into current context, detailing recent and continuing changes and pressures upon them, and we examine how traffic offences, and speeding in particular, fit into this framework. Section three describes local policy and practice with respect to speeding motorists in the courts visited for the research, and raises the question of how seriously courts take speeding. Section four focuses on magistrates' own views on speeding and their off-duty choice of speed, and brings together findings on this theme from other parts of the report. The last section summarises the discussion and raises issues that will be considered further in the final chapter.

7.2 The current context

7.2.1 Magistrates' Courts in a state of flux

Within the last few years magistrates' courts have had to cope with a succession of major new pieces of legislation. These have included the Children Act 1989, the Criminal Justice Act 1991 (and amendments in 1993), and the Road Traffic Act 1991. In addition to training demands associated with the new Acts, courts find themselves under pressure in a different way through the intended re-organisation of their structure by the Lord Chancellor's Department (HMSO, 1992a). In addition to the pressures associated with reorganisation, courts are also faced with pressure to turn around cases as fast as possible following the introduction in April 1992 of cash limited budgets based on productivity which will be fully phased in during 1996/97.

At the time of writing, the majority of Justices' Clerks (File on 4, Radio 4, 29/6/93) and magistrates (Daily Telegraph 11/10/93) believed the Government's drive for greater efficiency in the courts would compromise the principle of justice.

Several of the Justices' Clerks we interviewed said that some types of case are quicker and easier to deal with than others and are 'better earners of brownie points'. Shoplifting cases are one such kind and road traffic cases are another, especially if they are straightforward and the defendant pleads guilty. One Justices' Clerk said:

'I'd like to attract more road traffic cases since they'd give me a greater number of fines. The shorter the case the better, by and large and things move at a pretty fast pace in traffic since they [the magistrates] don't often retire'.

With the introduction of automatic speed cameras it is expected that many more speed cases than before will be prosecuted by way of fixed penalty and summons, and that the number will increase as the cameras proliferate. In addition, because the cameras produce photographic evidence, there is a strong likelihood of a higher rate of guilty pleas. Unintentionally perhaps, the changes referred to above are turning speeding motorists into particularly good news for courts.

7.2.2 Magistrates' involvement with speed cases

In most courts nationally including those we visited, most speeding motorists plead guilty and are sentenced in their absence (under the Magistrates' Courts Act 1980). These cases are the less serious ones. As was pointed out to us, very large numbers of these speeders can be dealt with in one sitting by the traffic court, and such sittings are often regarded as 'boring' or 'tedious' by magistrates. The remaining high speed drivers appear in court either because they have pleaded not guilty, or because they are summoned on account of 'totting up' where disqualification is inevitable, or because the offence is sufficiently serious for disqualification to be considered. In one of the urban courts visited it was uncommon to have a defendant appear on a straight speeding charge, apparently because the police focused on more serious traffic

offences. By contrast, another court dealt mainly with motorway offences largely involving speeding. All the magistrates we interviewed, however, occasionally acted as Chairs to the traffic court and had had at least some experience of dealing with speeding drivers.

Three of the four Justices' Clerks interviewed, and several senior magistrates, pointed out that sometimes the most seasoned offenders 'played the system' and escaped punishment. One 'loop-hole' was the difficulty of proving service of the summons, and repeated failures to turn up in court or to produce essential defence witnesses were other problems that led magistrates to adjourn cases several times. Solutions were to issue a warrant for the defendant's arrest or to proceed in his or her absence but, according to one Justices' Clerk, 'courts are reluctant to do that for a speeding offence, so they continue adjourning and we get no points for this or if the case is withdrawn'. Two of the Justices' Clerks admitted that such difficulties could produce occasional tensions between the clerks and the magistrates as the latter sought to pursue justice while the former had an eye for management objectives.

A number of magistrates, Justices' Clerks and police held the view that, as one put it, 'it is Mr/Mrs Average motorist who get it in the neck, while the real baddies get away'. It was suggested that more fixed penalty notices for speeding would at least relieve pressure on the courts, and that there was perhaps a better chance of the offender paying a fixed penalty rather than a high fine, (see also Justices' Clerks Society, 1993). Yet, as another Justices' Clerk admitted, such a course of action, while possibly more practical, would in effect be another step towards decriminalisation of speeding by removing the 'worst' offenders from the public arena.

7.3 Local policy and practice

7.3.1 Local policies

Nearly all our interviews with court personnel were completed before the introduction of the unit fine system. This system (which of course applied to fines generally, not just in traffic cases) based the level of fine on both the seriousness of the offence and the offender's disposable weekly income. Discretion was restricted; while courts had some power to reflect any mitigating circumstances, they were largely bound to use the formula set by the Government (and agreed by the Magistrates Association) to arrive at the total fine. Following the Government's abandonment of the unit fine system after seven months operation, a new set of guidelines was introduced in September 1993 by the Magistrates' Association in which the offender's means are taken into account if a fine is to be imposed, a guilty plea attracts a discount, and previous convictions and offending on bail may be considered as aggravating factors. In general, the new guidelines once again encourage the use of sentencers' discretion⁶.

The three main courts we visited all used a local version of the Magistrates' Association pre-unit fine guidelines (issued in 1988) as the basis for deciding amounts of fines for speeding motorists and whether to disqualify them. Although magistrates had the latitude to accommodate

mitigating features, the majority indicated that in practice they deviated little from the policy. Yet, separated from their copy of the guidelines interviewees showed little consensus within or between courts as to the level of fine for each mile per hour over the limit. This indicates either that some magistrates could not remember the fine level agreed, or that, perhaps inadvertently, they did deviate from the policy.

7.3.2 Local practice

When asked how they decided the amount of a speeding fine, only a minority of magistrates said anything other than that they wholly or largely followed the local formula, which took the number of excess miles per hour as the main criterion. Among the minority, some said they differentiated between the type of limit exceeded (thus a higher fine would be levied for exceeding a 30 mph limit than a 70 mph one); others used a proportionate rather than absolute excess (so that, for example, 25 mph above a 30 mph limit would be treated more seriously than 25 mph above a 70 mph limit). At the fourth court (which we visited later), magistrates were asked if they would, or did, favour a 'proportionate' reckoning. Nearly all agreed this would be an improvement, but some were surprised at the suggestion, saying they had not considered it before.

In deciding whether to disqualify, Justices appeared to consider a wider range of factors including objective ones like weather, time of day, type and condition of road, and the driver's previous speed convictions. While magistrates gave examples showing broad agreement on these criteria they differed more on the importance of the offender's age and employment status. It seemed that being young or having a job could be either mitigating or aggravating depending on who was making the assessment. The following comments illustrate this:

'Young drivers get shorter disqualifications because they don't stick to them otherwise - they're young and they want to drive - and they can't afford big fines so you don't give them heavy ones'.

'We rarely disqualify for speeding if that is the only offence and if there is no previous. However, if it is a young driver under 21, he may need to learn a lesson, especially if they are inexperienced'.

'People driving for their living need to be aware of the dangers of being disqualified. Someone like a minicab driver who goes too fast I reckon they're being irresponsible and I would find it very difficult not to disqualify'.

'Certain jobs I downgrade a bit, - commerce, taxi drivers - they've got to keep their cars'.

Among magistrates who mentioned job status as a factor to be weighed up, the balance was much on the side of not disqualifying if the offender would lose his or her job. Yet ironically, this seemed to disadvantage those who had no job to lose and those whose employment was not at risk. As one magistrate said 'If it was a very bad offence I'd

first look to disqualification, and then if he is not going to lose his job, I'd give a short one'.

7.3.3 Divergence between courts and police

All senior police, and all Justices' Clerks and Chairmen of the Bench, were asked about the extent of contacts between themselves and the other agency. In nearly all instances these seemed to be fairly minimal. Contact usually was limited to meetings of the Court Users Group, but none of those asked could recall an instance when speeding had been discussed there. The explanation appeared to be the belief of both police and courts that they should remain independent of each other. While such sentiments are to be applauded, the resulting lack of communication may encourage the puzzlement or disagreement expressed by some magistrates about the apparent aims of traffic police with regard to speeding. (E.g. 'Are they just trying to sting the poor old motorist by standing there?' or 'Drivers are picked on too much especially those at the lower speeds'). It may also help to explain the disillusionment some police showed about courts' 'leniency'.

A partial illustration of this divergence is provided by responses to a short vignette presented during the research. All police interviewees, and all magistrates interviewed at two of the three courts whose jurisdictions included at least one motorway, were asked what they would do about a driver speeding on a motorway at 102 mph at 4am on a clear fine night. Two-thirds of the police officers thought they would stop the offender and report for summons, since it was sufficiently serious to be heard in court, and several offered the view that disqualification was warranted. The magistrates were asked how they would sentence such a driver who appeared before them. Although several said it would depend on the driver's job status, almost three-quarters said they would be unlikely to disqualify, and instead would probably impose a fine that was higher than normal. One might speculate that the majority of police favoured disqualification as the most appropriate sanction, whereas the magistrates leaned towards a high fine rather than a ban.

In general it is probably fair to say that in reporting motorists for summons, the instigating police officers would think that on balance the driver warranted a disqualification. Otherwise (see Chapter 6 for police views on lack of confidence in the Crown Prosecution Service and courts), they would 'not bother putting pen to paper'. The fact that the magistrates we interviewed, who were not necessarily atypical, mostly tended to look for reasons *not* to disqualify could fuel the belief noted among some police that the courts were too sympathetic to speeding motorists.

7.3.4 How seriously do the courts take speeding?

In discussion, magistrates we interviewed showed a fair amount of sympathy for speeding drivers - provided they had caused no harm - often along the lines of the lack of intention to do wrong, drivers being an easy target for the police, the difficulty of keeping beneath 30 mph in some cars, and the danger of speed depending on the conditions

rather than absolute limits. In addition, like drivers in our previous research (Corbett and Simon, 1992a) magistrates viewed speeding as more socially acceptable than some other offences. For instance:

'We empathise more with the speeding driver than with the drinking driver because its more socially acceptable we're driven by social norms, and the lay magistracy just reflects the general social attitudes'.

Of the dozen interviewees asked (spread between the four courts visited), magistrates and Justices' Clerks had mixed views on the propriety of mandatory disqualification for excess speed. A few cautiously thought the idea 'interesting', several were flatly opposed to it, and the remainder thought it might be appropriate either 'for the worst speeders' or 'depending on the circumstances'. When it was pointed out to these latter magistrates that conditions were not taken into account for drink driving offences, so why should they be for speeding, most reiterated their support for a straightforward ban on all excess alcohol drivers but said that speeding was different - often because it was not deliberate or not as dangerous. One senior magistrate said:

'Benches shy away from disqualification. They require defendants to attend if they are considering it, but they readily refrain, particularly if mitigation is given. Also there's the 'there but for the grace of God go I' view'.

So, because magistrates sometimes break speed limits themselves, as one Clerk said 'they do not see it can be so wrong if they themselves do it'.

Several magistrates mentioned that since their appointment to the bench they had had speeding convictions, and most knew others who had been caught. But of those specifically asked, none believed it should be a cause for resignation. Indeed, a magistrate convicted of speeding (for the first time) receives only a written admonishment (if the Lord Chancellor's Department finds out about it).

Hood (1972) asked magistrates for their opinions on speeding and other traffic breaches and found 'virtual unanimity that the 'criminal label' was undeserved' for the majority of drivers convicted of speeding. In the present study, respondents were asked if people convicted of persistent high speeding were 'criminal' in the same sense as those who steal, rob, commit violence or sexual offences (cf. Hood, 1972), and 48% said 'no' or 'it depends'. Thus, while in the last twenty years some hardening of attitude against the speeding motorist appears to have occurred, almost half of the current sample did not think persistent speeders who exceeded by wide margins were real criminals. Moreover, only 9% believed that exceeding *any* speed limit was 'really a crime'. So attitudes do not appear to have shifted dramatically. But ironically, as Hood's magistrates pointed out then, and a fair number pointed out to us twenty years later, it is often the case that 'real

criminals' fined for indictable offences such as theft receive lower fines than many motoring offenders who are not considered to be 'real criminals' at all.

7.4 The potential influence of magistrates' own attitudes and speed behaviour on sentencing practice

As noted above, the general view of our respondents was that, in practice, the policy to follow the Magistrates' Association guidelines left them little discretion in deciding upon the amount of a fine, but that more latitude was available in regard to non-mandatory disqualification. It is possible that magistrates' own views about the danger of speed and exceeding limits, and their own choice of speed when driving, will colour their sentencing decisions. We found that magistrates who believed motorway limits should be raised were significantly less likely than those supporting the existing limits to think that persistent high speeders were 'criminal' in the same sense as people who commit violence or property offences. Although there is no necessary link between attitudes and behaviour, magistrates holding more lenient views might be less inclined to disqualify. This section will therefore summarise the relevant findings.

It will be recalled that when presented with the hypothetical scenario of a busy dual carriageway where everybody else was doing 50 mph along a 40 mph stretch, three-quarters of magistrates believed they would keep up with the flow. The main reason given was that this was considered the safest course, but several had other explanations. For example:

'You'd have to be very nobly spirited not to keep up if everyone was passing you. I should know better, I know, but I am a human being after all'.

When shown PHOTO30 and PHOTO70 and asked to imagine the highest speed at which they would drive on these roads, 74% of magistrates said they would exceed the limit on the motorway, and 91% would exceed the urban limit. The mean speeds of the magistrates' group in these two situations, with and without the risk of detection, would be slightly higher than those of the police and instructor groups. When asked why they would not go faster if there was no chance of being caught, magistrates, like fast drivers and instructors, gave reasons which mainly centred on ideas of safety and control. For instance 'At 90 mph I have control but at 100 mph I have less, so I wouldn't do it', and 'I wouldn't drive in any way that prejudiced my or others' safety'. Thus in regard to perceived restraints on speed, magistrates appeared to think in similar ways to the fast driver group (see Chapter 3) and ordinary drivers (see Corbett and Simon, 1992a).

Asked about their driving in real life most (4/5) of the magistrates admitted exceeding limits at least occasionally. A few said their appointment to the bench had not in any way changed their usual choice of speed, since they had tended always to keep within the limits anyway. Yet the big majority did feel constrained on appointment, with most but not all conceding to the perceived pressure to

drive more slowly. One said:

'There's a conscience factor here, and also an element of fear - fear of being found out as a magistrate. Having to judge others when frequently you're not free of sin yourself. Morally just unacceptable - it would mean you're living by two standards. So I slowed down a lot when I was appointed'.

Some said that concern to avoid a reprimand by the Lord Chancellor's Department acted as a curb on their speed. In contrast, several said that speed was 'not a problem' for them, and in fact they enjoyed driving fast. One remarked:

'You're driving along at this speed, it's dangerous and I do it, but I like driving fast'.

At an early stage in the interview all magistrates were asked to rate the seriousness of eight traffic offences, including two speeding ones, from the perspective of their magisterial role. Towards the end of the interview they were asked to rate them again, this time as ordinary drivers. (For this second exercise they were given a fresh copy and not allowed to look at their earlier answers).

The results are shown in Table 5 below. From the mean ratings (and rankings) we see that in both their roles magistrates as a group rated 'driving between 41 and 50 mph in a 30 mph area' as more serious than 'driving between 81 and 90 mph on a motorway', and both these offences as more serious than 'driving knowingly without road tax' and 'parking on single yellow lines at prohibited times'. Both speeding offences were rated as less serious than 'driving over the blood alcohol limit when feeling one's ability is not affected'. We also see that the respondents as ordinary drivers rated six of the eight offences less seriously than they did as magistrates, including, significantly, both levels of speeding.

Around three in ten magistrates (29%) could not in fact see any differences in seriousness of the offences between one perspective and the other, but almost half gave different ratings to at least three. Those perceiving no difference attributed this either to their long length of service whereby it was 'difficult to cut oneself in half after all this time', or to the view 'there but for the grace of God go I' such that it could be they who were receiving the court's attention, so seriousness had to be seen similarly from whatever their vantage point.

In contrast, the five who perceived both speeding offences more seriously as a magistrate did so either on account of having to administer the law as it stood, or because they felt some things were socially acceptable as a driver but not as a magistrate, or because magistrates had to consider the potential danger that could be created by speeding. (A further ten perceived one or other of the two speeding offences more seriously as a magistrate). For instance, one said '41-50 mph is quite acceptable as a driver but as a magistrate it isn't'. Another said 'As a driver, because of the way cars are made automatically to go over the 30 mph limit, that's not so serious, but as a magistrate

Table 5 Perceptions of seriousness of different traffic offences by magistrates in their professional role and as ordinary drivers (N=32)

	Rating*					Ranking	
	As magistrate		As ordinary driver		p sig	As magistrate	As ordinary driver
	Mean	sd	Mean	sd			
Driving when the driver thinks he/she is over the blood alcohol limit but feels his/her ability is not affected	10.50	0.95	10.13	1.40	.010	1	1
Driving between 41-50 mph in a 30 mph area	7.66	1.93	7.25	2.30	.035	2	4
Overtaking, crossing into a hatched white line area to do so	7.41	2.37	7.44	2.44		3	2
Turning right when a sign indicates no right turn	7.31	2.35	7.38	2.39		4	3
Driving between 81-90 mph on a motorway	7.09	2.03	6.60	2.30	.006	5	6
At a junction, driving through amber lights when there is time to stop	6.75	2.50	6.69	2.60		6	5
Driving a vehicle knowing it is not road taxed	5.69	2.19	5.31	2.28		7	7
Parking on single yellow lines when it is prohibited to do so	4.44	2.03	4.28	2.26		8	8

*Ratings were made on a 1-11 scale of seriousness with point 1 labelled as 'extremely minor' and point 11 as 'extremely serious'.

we have to think of the danger that would be created, so I treat speeding more seriously than I would otherwise'.

These results suggest that the constraints of their official role can affect not only magistrates' choice of speed but also their perceptions of the seriousness of various traffic offences including speeding.

7.5 Summary

Magistrates' courts have been under pressure, trying to come to terms with much new legislation and to resist changes that the Lord Chancellor's Department seeks to impose on their structure and organisation. Against this backdrop, courts' budgets will now be largely determined by productivity levels, for which completed cases will earn varying numbers of performance points (HMSO, 1992b). While serious cases will attract a higher number of points, courts can earn more points overall by completing a greater number of quick and easy cases. Road traffic offences offer a good source of these, and the expected proliferation of speed cameras will add to the numbers of speed prosecutions passing through the courts. Some would say that relatively minor offending will now be a major resource to the courts. Yet courts are not necessarily contented with this turn of events. Less than half the magistrates participating in this research thought persistent high speeding to be 'criminal' in the same sense as property or violent crime; there was the view among many that motorists tended to get 'picked upon' because they were easy to catch, and that while the average motorist paid up the worst offenders were able to 'play the system' avoiding ultimate punishment.

Magistrates are chosen, in theory, to reflect and represent their local communities. It seems that, like ordinary drivers many exceed speed limits (although the majority of interviewees said, hopefully not by enough to attract police attention). Magistrates' reasons for choosing not to drive faster than they do reflect those of ordinary motorists being largely concerned with safety and control. So, if they exceed limits because they see it as safe in the circumstances then, as one senior magistrate said, 'they think it can't be that serious'. In other words, there was the

feeling that some speeding motorists were relatively hard done by when caught, and that speeding was not necessarily dangerous or criminal.

With respect to sentencing, magistrates have no say about fixed penalty notices. The courts we studied applied the Magistrates' Association guidelines for fining defendants in court, and discretion was mainly exercised in regard to non-mandatory disqualification. Here, it seemed that magistrates were by and large reluctant to disqualify, especially if the offender was likely to lose employment, and there was the view that 'there but for the grace of God'. So while guidelines restricted their sentencing discretion with regard to speeding drivers, there was some latitude left.

On the whole these magistrates tended to see speeding more seriously in their professional role than in their role as a private driver. While it is magistrates' task to administer the law impartially and judiciously, it is possible that their private views and their own choice of speed may affect their decisions. Defendants who have been 'let off' from disqualification may feel lucky and may judge that sympathy has been extended to them, but the wider driving public will pick up messages about the courts' attitude however and wherever they can. These messages may be about to change, given the advent of the latest guidelines (in September 1993, replacing the unit fine system) and the expected wider coverage of roads by speed cameras⁷.

8 Early driving experiences: the instructor's role

8.1 Introduction

As the last part of our focus on the professional agencies who may have at least an indirect role in shaping the driving style of motorists, we examine briefly the role of the approved driving instructor (ADI). In recent years increasing research attention has been given to ADIs, and we shall mention findings where appropriate. However, to our knowledge the main concerns we addressed with our small sample of a dozen ADIs have so far not been covered by other research.

Since the benchmark of tuition is the DETR driving test, and since inexperience is associated with higher accident liability (e.g. Maycock *et al.*, 1991), our first concern was to ask ADIs about the adequacy of this test as a measure of the skills that are required for everyday driving, and to ask them whether they perceived any difference between driving to pass the test and regular everyday driving. Secondly, in view of the potential influence driving instructors could have in the formative stages of a driver's career, we asked our sample about the perceived effect they could have on new drivers' attitudes to speed and to their future choice of speed, and whether they could spot those who were likely to become high speeders and high offenders on the road. As well as overt tuition encapsulated in lessons, ADIs are also likely to communicate - perhaps more covertly - their own attitudes to exceeding speed limits, and it is possible that pupils might respond as much or more to these cues as to the formal advice given. So, lastly, we shall summarise the findings obtained on these ADIs' views of speeding and their own choice of speed off duty, and consider whether, as a group - albeit somewhat small - their attitudes to speed differed markedly from those of our groups of magistrates and police officers.

Two surveys of ADIs have been conducted recently. The first, undertaken by TRL (Lester and Maycock, 1994), resulted in 2261 instructors completing a questionnaire aimed at collecting information which included the tuition given and their attitudes to road safety. Among the preliminary results available, only 10% thought the driving L-test was a 'very good' test of driving ability - although 62% thought it was a 'fairly good' test. Just 5% believed that newly qualified drivers were 'extremely able' to cope with situations on the road, though 81% considered new drivers were 'fairly able'. Thus it appeared that the L-test was perceived as an adequate test of driving and coping ability by the majority yet only a small minority had more positive views, suggesting there could be room for improvement.

The second study, (Hall and West, 1994) addressed the extent to which ADIs could assess the driving capabilities of their pupils. Basing their research on 443 instructors and on 442 of their pupils who reported their test results, they found only moderate correlations between pupils' and instructors' ratings of pupils' future driving ability. For instance, they found a significant association between pupils' and instructors' ratings of the pupils' likelihood of passing the test the first time. But no significant correlations were found between the pupils' and instructors' ratings of how safe and how good a driver the pupil would be, and the pupils' accident likelihood within the first year of driving.

However, instructors' ratings of how safe they felt with their pupils and how good and how safe a driver the pupil would be after the test significantly distinguished between those who failed or passed their L-test first time. But instructors' ratings of pupils' level of skill failed to distinguish significantly between those who passed or failed. The authors suggested either that instructors were poor at assessing their pupils' level of skill, or that examiners did not base their pass/fail decisions solely on this criterion. Since the mean score differences on

perceived behavioural characteristics between those who passed and failed were small but significant, it was considered that the L- test did, to a certain extent, screen out unsafe and not just unskilful drivers.

8.2 Realism and adequacy of the DETR driving test

It could be argued that since inexperience and a higher accident rate are correlated, the standard DETR driving test should be strengthened in various ways to give a better measure of the skills required for regular everyday driving⁸. As things stand, many would say that the driving style required to pass the test is different from that of normal everyday driving. In particular, while examinees must demonstrate the ability to drive safely and to abide by the law, once through the test, many new drivers will join the majority who exceed speed limits fairly regularly. Instructors were therefore asked whether they thought that driving to pass the test and everyday driving were different, and ten of the twelve agreed. Yet ADIs were equally divided on whether they taught with the two styles in mind, about half saying that they did acknowledge a difference with their pupils, and the other half denying this. As an example, several mentioned that to drive always as stated in the Highway Code was impractical since real life situations would be very different from the theoretical situation portrayed. One said 'The Highway Code is the cut and dried version of something that can never be cut and dried'. For instance, keeping always to the speed limits might be more dangerous than keeping up with the flow of traffic (see later).

Again, ADIs were split on whether they perceived the test as a sufficiently good measure of a driver's level of safety, one being satisfied, five saying it could be improved, and six saying it was not good enough. Similarly, over half believed that the test was an insufficiently realistic measure of everyday driving, while the remainder thought it was adequate in the circumstances, being a compromise between cost and practical constraints. Perceived deficiencies in the test were wide-ranging, including the views that some locations were easier than others so an advantage could be gained by changing the test centre; that slow and uncrowded routes rather than fast or busy routes were used, especially to carry out the required manoeuvres; and that drivers should be tested in different kinds of weather since some pupils cope badly in fog, rain or ice.

However, the most common criticisms centred on the length of the test - usually between 15 and 20 minutes of actual driving - which was seen as too short to test safety and skill adequately. Brevity led to too few manoeuvres being tested, with some important ones omitted such as the ability to reverse and park between two vehicles and negotiate narrow gaps. Several instructors said that most people could maintain their concentration for twenty minutes, but over say, fifty minutes, people's faults, if any, would be likely to show and the outcome would depend less on luck and the conditions prevailing on the day.

As things stood, luck was considered to be a significant component of the test drive. Because of the cost of lessons, many trainees were keen to take their test before the

instructors believed them ready. Instructors made various attempts to deflect candidates they thought likely to fail or to be unsafe drivers, since their own reputations would suffer with local examiners 'if we keep sending dodgy pupils up'. Despite their efforts, however, some pupils were not to be put off, which led to two outcomes. Firstly, some potentially skilled and safe drivers failed through meeting a situation not previously encountered and mishandling it. Secondly, and more importantly, all instructors admitted that they had, in the past, had some pupils pass the test whom they considered to be unsafe drivers. Two of the twelve admitted this had happened many times. Again, these unsafe passes were largely attributed to the brevity of the test which consequently failed to distinguish adequately between safe and unsafe drivers. One instructor said:

'I've taken rubbish out who've passed. I've taken out skilled people who've failed. Driving one person to the test I had to grab the wheel and use the brakes, he passed the same day'.

This ties in with the conclusion of Forsyth (1992) that many candidates come forward for a driving test who are not adequately prepared. Of 29,500 who took their test on one of four dates in 1988 or 1989, the examiners were required to take some form of physical action, such as using the dual controls or taking over the steering wheel in 18% of failed tests (9% of all tests).

Despite the significant correlation noted in Hall and West's (1994) study between instructors' ratings of how good and how safe a pupil would be after the test and test outcome, this does not prove that the current driving test is a foolproof measure of a driver's level of safety. While only a small sample of ADIs took part in the current study, their responses nevertheless suggest that unsafe drivers can and do pass the test occasionally. For instance, the fact that instructors' ratings of pupils' level of skill failed to predict those who subsequently passed or failed in Hall and West's study might mean that an element of luck does sometimes intervene on test drives (as stated by our sample of instructors) rather than, as Hall and West suggested, examiners deciding to pass or fail on criteria other than perceived level of skill. Thus in considering whether the L-test is adequate there should be no room for complacency.

8.3 Instructors' influence on pupils' future driving behaviour and attitudes

More than one instructor pointed out that if the sole aim of tuition was to get all pupils through their test as fast as possible, they would just have their pupils drive repeatedly round the different (usually few) local test routes, and do nothing else. They might pass their test, but they would not be able to drive. To be a good, safe driver was seen as the primary goal of tuition by more than half the sample. As one ADI said, he just wanted 'to teach them driving skills for life. The test is just a milestone along the way'. For the remainder skill and safety took second place to getting pupils through their test.

Corresponding with this longer-term objective of tuition was the view of the majority that they could and did have a longer-term influence of some degree on the future driving behaviour of their trainees. Most believed their pupils would remember some of the things they had been told by their instructors, but doubted whether everything would be recalled. While all felt the standard and quality of the tuition would have a major impact on driving during lessons, all thought that once through the test, pupils' individual personalities and traits could take over, and instructors would cease to be the most important influence on new drivers.

Instructors had similar views on the impact of their tuition on pupils' attitudes. Most believed they could instill a courteous and generous attitude into most pupils, but that this might evaporate once lessons ceased. Working in London, many of the instructors acknowledged that part of their task was to teach assertiveness, or as some put it 'aggressiveness'. This was seen as difficult to do among hesitant or timid drivers and to some extent it undermined their other focus - to teach courtesy. However, as a means to driving survival within the city, it was hoped that the seeds of assertiveness would grow once pupils were through the test.

With respect to speed, the big majority advised pupils not to exceed the speed limit for the purpose of the test, although two mentioned that a ten per cent margin of error was allowable. At the same time, all advised pupils to keep up, but without driving too close, provided the general speed was no more than a few miles per hour over the limit. Once past the test, however, few expected their pupils to adhere always to speed limits. Most attempted to stress some point involving risk of apprehension or risk of accident in the hope of having a small long-term impact, but as one said, 'some you know will never stop speeding'. Only one of the dozen instructors said that it was very difficult to spot future high speeders and high offenders. Six said they could identify most such people in advance, and five thought they could identify some of them. However, other than point out the risks, these instructors bowed to the inevitable and said there was really nothing they could do when such a driver began lessons. One instructor during our interview pointed out a young male driver across the road and waved to him, and said 'I taught him and I knew he would be mad on the road, and every time he sees me he lifts both hands off the wheel and waves to me'.

So, in summary, it appeared that most instructors believed they had a significant influence on pupils' attitudes and behaviours until the test was passed, but after that point some influence was lost. Most ADIs thought their former pupils would adhere to some of their edicts, especially older drivers, but that individual traits such as unnecessary aggressiveness would not be suppressed as a result of several hours tuition. Moreover, most ADIs believed they could spot the 'worst' future offenders on the roads but felt powerless to do anything about this other than warn such drivers of the negative consequences of high speeding and high offending once the test was passed.

8.4 The potential influence on pupils of instructors' own attitudes and speed behaviour

Like magistrates and police officers, ADIs were asked a range of questions about their own attitudes to speeding and their choice of speed when off duty, and in this section the findings are summarised.

When asked to imagine they were driving (off duty) along a busy dual carriageway where everyone else was driving at 50 mph in a 40 mph zone, three-quarters of ADIs thought they would keep up with the flow of the traffic because it was safer in the circumstances (see Chapter 3). Several of these were asked what they would advise their pupils to do; none would advise a pupil to stick with the flow, one saying that despite the greater perceived danger 'I have to think what an examiner would think'.

All ADIs felt constrained by their professional role, particularly since the company's logo appeared on the side of their vehicles; yet despite this all but one admitted exceeding speed limits, at least occasionally, when off duty (see Chapter 5). When shown the two photos referred to as PHOTO30 and PHOTO70 (see Chapter 3) and asked what would be their top speed if there was a risk of detection, only one instructor said he would observe the 30 mph limit and four the 70 mph limit, and the mean top speeds of the sample would be 37.7 mph and 78.1 mph. This indicates that this group of ADIs differed little in speed choice from the magistrates and traffic police, though they did report the lowest average speeds of the three groups.

There were similarities too between ADIs and our fast driver group. The main reasons instructors gave for not going faster than their preferred maxima in two photo scenarios were safety and control, as was the case among fast drivers and magistrates; and like the latter, around half the instructors denied that the risk of an accident would be any higher at their preferred speeds than if they were keeping to the speed limits. Like the fast drivers and the magistrates, the majority of instructors agreed with the 'control model': i.e. at speeds up to the perceived boundary of their personal control they thought no harm was likely to ensue, but above that point, harm was thought possible.

Three-quarters of ADIs acknowledged both a link between speed and accidents in general, and a link between their own speeds and accident risk. (Among all other groups, higher proportions denied a personal link). Yet in conversation, their comments revealed similar kinds of justification to those used by other groups in explaining why an accident was unlikely to happen to them. For instance, they believed they had greater awareness and experience than the average driver, were better able to assess the risk, only exceeded limits when it was safe to do so, and always kept within the margins of perceived control.

Instructors' other views on speeding indicated that, like other groups, they did not necessarily see exceeding limits as immoral (less than half believing it was), or as crime in the conventional sense (half saying it 'depended' or was not a crime), and almost half (42%) thought that motorway speed limits should be raised.

8.5 Summary

Driving instructors' views on the adequacy and realism of the DETR driving test showed that most considered the length of the test too short to adequately test drivers' safety and skill. As a result, they thought luck played an important part in determining the outcome and all had had some pupils pass the test whom they considered to be unsafe drivers. Less than half the sample thought that getting through the test was the primary goal of tuition; teaching pupils to be competent and safe drivers was of greater salience. Instructors believed they could have a considerable impact on emerging styles during lessons, and that all pupils would later remember some of the advice given. However, they felt less confident about the extent to which their advice would restrain new drivers' choice of speed once through the test. All but one instructor said it was possible to spot at least some future high speeders and high offenders during tuition, but that apart from warning them of the dire consequences of high speed their hands were tied.

It appeared that the tuition instructors were giving to their pupils tended to reflect 'ideal' or correct, law-abiding behaviour, especially in respect of speed choice. However, while most ADIs were probably more highly trained and skilled than the average driver, almost all admitted occasionally exceeding speed limits. In addition, when three hypothetical situations were put to them, most indicated they would behave in a similar fashion to other groups in the research, i.e. they would exceed limits in those specific situations. Their expressed attitudes towards speed and speeding, were similar to those given by the other professional agencies, and by and large they were quite similar to those of the fast driver group. Thus, among some instructors, although the overt instruction they are giving may be technically correct, the attitudes they may be imparting or the messages that are picked up by their pupils with regard to the dangers of speeding may not be challenging potential speeders to a sufficient extent.

9 Conclusions

In the last few years substantial evidence (e.g. O'Neill, 1990) has accumulated to suggest a causal link between speed and accidents, such that more of the former leads to more of the latter. It follows that a general reduction in speed will improve safety on the roads but unfortunately achieving this reduction has not turned out to be straightforward. International research (e.g. ECMT, 1984) indicates not only that exceeding speed limits is a widespread phenomenon, but also that a multi-pronged effort is the best way forward to tackle the problem. First, it seems that useful contributions to the study and deterrence of high speed behaviour can be made by researchers from a wide range of disciplines - from economists to psychologists to physicists; and secondly, it appears that a combination of internal and external counter-measures is most likely to lead to solutions.

This report describes a study carried out at Brunel University between 1991 and 1993, which adopted a

criminological approach to the dynamics of and motivations for high speed driving, and in which the main focus was on strategies of prevention and deterrence.

From a criminological viewpoint this research was interesting because it provided the opportunity to study offenders whose behaviour has less social stigma attached to it than much other law-breaking, including virtually all non-traffic offences. Also, because the focus of attention in relation to a criminal justice process or issue need not rest only upon the individual and his or her responses, but can also rest upon the social group, the sub-culture, the organisation or the wider society, we had a variety of perspectives from which to view the problem of high speed driving.

Exceeding speed limits is a matter for concern because it produces avoidable casualties in numbers which, if they arose from any other cause, would engender considerably more societal alarm than road accidents do at present. The conclusion, therefore, is that if society, and those that govern society, seriously wish to stop or curb speeding, then serious measures must be taken. The difficulty is that many such measures are likely to be unpalatable to (i) the general driving public, who have come to value the mobility and the relative freedom to 'decide for themselves what is a safe speed in the circumstances'; (ii) the government, who would need to implement such measures probably in the face of some opposition from the driving electorate; and (iii) the motor industry. The obvious hope, therefore, is to find a compromise solution that will improve road safety without at the same time alienating the different audiences.

There are various ways to tackle the problem of speeding, the main bifurcation being between internal and external means. Since this study has considered possibilities relating to both types of measure, we shall conclude by offering some thoughts on the present situation and on future directions under each of these headings.

9.1 External measures

If drivers do not choose to drive more slowly they must be 'forced' to do so. The three main external approaches to the prevention of speeding concern physical obstruction, actual punishment, and the threat of punishment.

Up to now physical obstruction has taken the form of designing out opportunities to speed by introducing various types of road hump, street furniture, chicanes and road narrowing (see Corbett and Simon, 1992b). This is successful as far as it goes, but is impractical for main arterial roads and motorways. Another kind of physical obstruction would be for car manufacturers to stop producing cars that go faster than our laws allow. The practical problems of such a strategy are obvious though they would not be insurmountable if the will to implement it were there.

External prevention by the imposition of punishment (specific deterrence) aims to deter those who are caught from future offending through the impact of the penalty. In 1994, 472,000 fixed penalty notices were given for speeding and about 105,000 cases were dealt with in magistrates' courts (HMSO, 1995), but to our knowledge

no systematic research has been carried out to assess the deterrent impact of the penalties on the subsequent speed choice of the drivers who received them. Similarly, while research shows that at least one third of disqualified drivers breach their ban (e.g. Robinson and Smiley, 1987) it is not known what proportion of straight speeders fail to adhere to theirs, and whether they lower their choice of speed on regaining their licence.

The third form of external prevention is by threat of punishment (general deterrence). In order to reduce or eliminate the undesired behaviour (exceeding limits) among actual offenders and to deter potential offenders from starting, action must be taken to manipulate the risk of apprehension and the severity of the penalty.

The present study aimed to look at the separate and interactive effects of these two key factors in the deterrence equation through the use of a hypothetical exercise. The general tenor of the findings was that the severity of penalties that were typically imposed (before the unit fine system) was insufficient to reduce our fast drivers' frequency of exceeding 40 mph in a 30 mph area. For instance, at the start of our fieldwork the standard fixed penalty was a £32 fine and three points, but Figure 1 shows that these drivers, on average, believed the threat of this penalty would only fractionally reduce their present frequency of speeding as long as the chance of being caught was no higher than once in 12 months. Unaided by technology, the police are unlikely to be able significantly to raise the average driver's chance of being caught, and without the likelihood of a substantial increase in public numbers, little impact can be expected on drivers' numerous and often continuous offences of speeding. Moreover, if other forces follow the Metropolitan Police in trying further to reduce response times to emergency calls (e.g. National Audit Office, 1995; Metropolitan Police, 1997), this could be at the expense of losing a proportion of the proactive speed checks carried out by traffic officers to warn or punish motorists.

If traffic police are unable realistically to enforce the present speed limits, the number of offenders might be reduced by raising the limits. Indeed, of the 23% of our police interviewees who advocated an increase in the motorway limit, some gave this as a main reason. However, although accidents occur least frequently on motorways (Department of Transport, 1992) suggesting these are the safest type of road, it is probable that some drivers would increase their speeds proportionately to exceed the new limit, resulting in less reaction time for emergency manoeuvres and worse impact when avoidance was impossible.

The opposite strategy of a general lowering of speed limits is also unlikely to reduce accidents. Not only would realistic enforcement be more difficult, but also it has been found that reducing limits has the effect of raising overall speed (Bucks County Council, 1992). It is almost as if drivers decide to drive somewhere near a 'realistic' limit, but if instead they consider the limit 'unrealistic' they will ignore it completely and drive at the speed they consider safe in the circumstances (which, as our study shows, can be well in excess of the legal limit).

From the foregoing it appears that the police urgently need assistance, and it is timely that new technological devices are available. Unmanned speed cameras have been in full operation on some roads for several years now and DETR statistics (e.g. Swali, 1993) and Highways Agency figures (1996) indicate that minor, injury and fatal accidents have all decreased on these roads along with mean speeds. This suggests that on the camera-signed roads motorists are driving more carefully and more slowly. As already noted, our survey of A40 drivers found that the fastest were most likely to have reduced their speed at least at some points, and there seemed to be some generalisation of the effect.

For a more pronounced and sustained effect, more cameras (including mobile ones to reduce drivers' knowledge of their whereabouts) appear to be needed. At the time of the research, a minority of forces had installed a handful of cameras, the decision being left to each Chief Constable. Because a camera and its accompanying software cost about £30,000, and because the monies gathered from the fixed penalties are returned to the Treasury, most senior police we spoke to felt they needed to be convinced about the efficacy of the cameras before considering buying any. In addition there was the view that the government should be keener to help financially with the purchase; in particular, the provision of an 'administrative charge' in addition to the fixed penalty to fund the infrastructure and further cameras. However, if sufficient weight is attached locally and nationally to police performance indicators relating to the number of fixed penalty notices issued, and to a reduction in road traffic accidents (see, for example, Home Office Circular No 17/93, June 1993), then the purchase of cameras may become a more attractive proposition.

The situation is somewhat similar in the magistrates' courts. Several senior court personnel whom we interviewed bemoaned the fact that no central money had been allocated to help pay for the extra administrative staff needed to process the additional volume of fixed penalty notices which were expected to flow from the conditional offer scheme. However, with the budgeting reins in the hands of the Justices' Clerk, easy points accruing from fixed penalties could provide the incentive to find extra staff.

Whatever the resistance by police or courts to more widespread cameras coverage, the march of progress suggests that change will come. Research from abroad (Bourne and Cooke, 1993) indicates that unmanned speed cameras in conjunction with red light cameras and sustained publicity and enforcement are of considerable benefit in reducing accidents and speeds.

We can only speculate about the effect of the proliferation of cameras in this country but two likely consequences are that:

- a the fastest drivers on a camera-signed road will have a greater probability of being caught than they would by traditional police means (if only because cameras can work 24 hours a day and will photograph all vehicles travelling above a set trigger level);
- b more of both the fastest and the not so fast speeders will be prosecuted - at least until overall speeds decline.

Until speeds reduce, there will probably be a greater volume of prosecutions in which disqualification is potential but not mandatory. Unless magistrates courts lay on more traffic sessions, a possible outcome of (a) and (b) could be that some of the worst speeders will have a much higher chance of being caught, but when this happens they will have a proportionately lower risk of being disqualified.

Another issue mentioned by court and police interviewees was that a greater reliance on fixed penalties further distances speeding from the public arena (the courtroom). Several asked if this was the slippery slope to decriminalisation of speeding, as more offences are handled by impersonal administrative procedures (i.e. a machine photographs the offending vehicles, and a network of computers locates the owners' details and produces letters to be sent to them).

This idea of decriminalisation is echoed in another technological innovation - the 'smart card' - which has been discussed by researchers for several years (e.g. Rothengatter, 1990b; Harper, 1991) and was mooted by a Government minister in 1993 (e.g. Times 25/8/93). Here drivers would be charged a certain amount for exceeding a speed limit for a certain number of miles (e.g. see The Times above), or for breaching other traffic regulations that the vehicle registers (e.g. Rothengatter, 1990b). While such innovations would score highly on certainty of apprehension, critics say this is not the point. Instead of trying to deter the driver - to prevent him or her from doing future wrongs of this type - the message would appear to be that wrong is almost all right provided the offender is prepared to pay each time. If on the other hand, the fine was accompanied by the award of penalty points for each breach, this would naturally raise the stakes and act as a real deterrent for those drivers who would adhere to a disqualification order. Increasing the swiftness of punishment - possible with future technology - could add to the deterrent effect too (see Harper, 1991).

This last point leads into another in our consideration of deterrence by threat: that of penalty severity. Our study suggested that, among our fast drivers who drove high performance vehicles or who drove for a living, even a short disqualification (irrespective of the size of accompanying fine) would be a more effective deterrent than a large fine. This indicates that a higher likelihood of disqualification could lead to some fast drivers curbing their speeds. But many magistrates we interviewed seemed reluctant to disqualify a speeding driver especially if it meant the defendant would lose his or her job. Therefore disqualification might have to be made mandatory in certain circumstances. However even this would be unlikely to resolve the problem, since more disqualifications would require more police resources to check that local offenders were complying with the court order and this, as many traffic officers told us, is already very time-consuming. In addition, it could be that the 'worst' offenders are least likely to adhere to a disqualification order (see Willett, 1973) which would weaken the potential impact of imposing more.

The conclusion from the foregoing is that external measures on their own are unlikely ever to eradicate

speeding, especially among the hard core of drivers who are not deterred even by much higher risks of being caught, or of disqualification, or of imprisonment as a result of failure to observe a ban (Magistrates Association guidelines, September 1993). Drivers' and society's attitudes to speeding and to speed must therefore be changed.

9.2 Internal measures

While speeding is an international problem, there is evidence that people in some societies speed more than others. For instance, United States Federal Administration Statistics regularly indicate (e.g. FHWA, 1990) that almost neighbouring states can have different rates of compliance with limits. Our study tentatively suggested part of the reason could be that states more likely to exceed could be underpinned by a more liberal ethos. Thus the sociocultural context and societal attitudes may be important. Illustrating this, our research found that in England even those having a professional input into the regulation of speeding were apt to be indistinguishable from ordinary drivers, deciding for themselves what was a safe speed for the circumstances and many thinking that speeding was not criminal. Thus if relevant professionals exceed limits (cf. Evans and Towriss, 1993), it is not surprising that ordinary drivers will too.

The problem is that unlike drink-driving or smoking, where most reasonable people have now understood and accepted that these activities definitely cause physical impairment and carry a very high risk, exceeding speed limits does not cause physical impairment and only very rarely has a negative outcome. Because of this, many reasonable people have difficulty accepting that high speed can be dangerous. Moreover, when a speed-related accident does happen, then provided it does not affect one personally, in Western Society it is called the price of mobility, and things continue as before. Speed, metaphorically speaking, keeps the wheels going round, and few wish to question this state of affairs.

The dilemma for the government of the day is that, on the one hand, too much interference in drivers' decisions to decide a safe speed for themselves will court unpopularity, while on the other hand many speed-related accidents, along with the resulting suffering and expense, are avoidable. Clearly what is required is a firm platform: if society seriously wishes to reduce traffic accidents then the government must take the lead with a consistent and sustained message of the dangers of speed, in the hope that this will permeate to the driving public. At present, for example, car advertisements can and still do allude to the attractions of high performance specifications. Moreover, efforts must be made to change attitudes as to the desirability of speed. For instance, higher speeds involve the driver in an higher workload and a more turbulent traffic flow, while slower speeds facilitate a smoother and less effortful journey, and relatively little time is saved by travelling at say, 80 mph than at 70 mph.

Our research suggests that at the heart of the matter, and a key to the problem of inducing attitude change among drivers, is the perception of control.

Given an opportunity to exceed limits, drivers - ordinary, fast and professional - prefer to decide for themselves what is 'safe' in the circumstances, and their cut-off point for 'safety' appears to be the boundary between feeling in and out of control. Provided they feel in control when exceeding limits, most feel their accident risk is the same as if they were keeping to the limit. Thus speeding is not seen as dangerous until the boundary of perceived control is passed. More alarming, however, is that some of those drivers who are most at risk of high speed accident (the fastest) seemingly convince themselves that their control is maintained even if they are involved in an accident, and that it must be the other party's fault.

If this strong impression from our study is supported by wider research it is likely to mean that those who drive fastest do so partly because they feel the most invincible and most in control. The quest must therefore be for the chink in the armour of the fast driver - to find what will force them to acknowledge their vulnerability.

An obvious solution was inadvertently suggested by some of the fast drivers themselves. Older, noisy vehicles and those without high performance specifications were less user-friendly, so that more concentration and slower speeds were needed in order to maintain the same level of control afforded by more luxurious models (cf. Horswill and McKenna, 1996). In other words, car manufacturers add to drivers' illusion of control over speed with each new attempt to win customers by raising standards of comfort, handling and performance. Thus to reincorporate the sensation of speed into new vehicles could help quell feelings of invulnerability, and hopefully therefore reduce speed.

Such a strategy is not likely to find favour with the motor industry. A less unpopular approach would be to see what can be gleaned from existing psychological studies and, where gaps are found, to carry out further research. Are there, for example, correlations between the extent of feeling in control off the road and on, as there are with respect to other traits of personality and behaviour (e.g. Gulian *et al.*, 1989). Or, as we suspect, is the correlation not so strong, and if not, why not? It could be that driving is one activity that actually helps to restore the sense of control that is sometimes lost in everyday life, and that this is one factor in some drivers' enjoyment of speed. Certainly, helping to restore clients' sense of control over their lives off the road is very big business in the counselling and therapeutic industries, so why is such a service not required among motorists in respect of their driving behaviour?

Finally, another strong impression from this study suggests that paradoxically, the need to feel in control is closely juxtaposed with the need to take risks, as if both belong together and are positively correlated. Most fast drivers in this study appeared to require more of both than did other drivers who were interviewed here and in our previous research (Corbett and Simon, 1992a). There have been various studies of the dimensions of driver risk (e.g. Barjonnet, 1988; West *et al.*, 1992; Vlek and Hendrickx, 1988), and combining this focus with that of control could prove valuable.

Researchers have done much to expose the illusion of control in the laboratory (e.g. Finn and Bragg, 1986; Taylor and Brown, 1988; Svenson, 1981) and to indicate how it may be eradicated, at least in the short-term. More attention to how drivers develop and then maintain their perceptions of invulnerability on the roads, and how people off the road lose and then regain their sense of control, may now prove timely in the pressing need to discover the Achilles heel of fast drivers.

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Appendix A: PHOTO30 and PHOTO70

(Photographs presented to respondents showing a 30 mph stretch of road (PHOTO30) and a 70 mph stretch of motorway (PHOTO70))



PHOTO 30



PHOTO 70

Appendix B: ‘The deterrence game’

(Sheet one of four. The ‘game’ was presented to all fast drivers, and is shown at reduced size)

THE DETERRENCE GAME

(Sheet 1 of 4)

Chance of being caught if doing 40+ mph is
ONCE IN 5 YEARS

PENALTY 40-49 mph warning 50+ mph £32 fine + 3 points	PENALTY 40-49 mph £32 fine + 3 points 50+ mph £100 fine + 6 points	PENALTY 40-49 mph £100 fine + 6 points 50+ mph £500 fine + 6 points	PENALTY 40-49 mph £500 fine + 6 points 50+ mph £100 fine + 3 weeks ban	PENALTY 40-49 mph £100 fine + 3 weeks ban 50+ mph £250 fine + 3 months ban	PENALTY 40-49 mph £250 fine + 3 months ban 50+ mph £250 fine + 1 year ban	PENALTY 40-49 mph £250 fine + 1 year ban 50+ mph 1 month jail + 1 year ban
I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐	I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐	I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐	I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐	I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐	I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐	I would do 40-49 mph50+ mph more often than I do now☐☐ about as often as I do now☐☐ a bit less than I do now☐☐ much less than I do now☐☐ hardly ever☐☐ never☐☐

Appendix C: Innovative ideas suggested by respondents

C.1 Ideas for curbing speeders

In our main research (not the A40 survey), all participants were asked at some point in the interview for ideas that would be effective in curbing the speed of fast drivers. Apart from the obvious ones of significantly raising the risk of getting caught and the penalties then imposed, few suggestions were innovative to the extent of being new to road safety planners. The most common type of suggestion made by the police, court personnel and driving instructors was to place restrictions on new or young drivers, similar to steps outlined by the Department of Transport (1993). These focused on the use of P plates for two years after passing the test, with licences being withdrawn in the event of a moving vehicle conviction, and restrictions on engine size for new drivers. Several interviewees in each group suggested that all drivers should be re-examined every 10 years or so, which would keep standards up and could act as a real ego-deflator to careless or dangerous drivers.

Some respondents favoured vehicular restrictions, such as a continuous buzzer coming on once drivers exceeded the 70 mph limit and it being an offence to disengage it. (But how would this be adequately enforced?) However, the installation of speed limiters in more types of vehicle did not find favour with many. Police in particular could see many objections, including: a general increase in congestion and close following, making it difficult for drivers to join or leave a motorway; the idea that traffic flow works because of the variability in drivers' speeds (although others pointed out that there would be fewer accidents since there would be much less pulling out into another lane); the view that frustration would lead to boredom resulting in loss of concentration and more accidents; and lastly, the driver's loss of control and inability to accelerate away from danger such as might be caused by a driver pulling out into the path of another. On the other hand, several police officers welcomed the idea of limiters on the grounds that there would be no speed enforcement for them to do on motorways, unless drivers managed to find ways to disengage the device which, according to several officers, occasionally happened in HGVs.

Several participants ventured the view that insurance could be invalidated in the event of an accident when exceeding a speed limit even if the responsibility was not the driver's, and that lower insurance premiums should be offered for drivers who were members of the Institute of Advanced Motorists. (But does this mean such members are slower drivers?)

Lastly, a number of magistrates had found that drivers on being disqualified were often anxious about their names being reported in the local press. Thus it was suggested that publishing lists of those disqualified for speeding and other offences would certainly deter some, although it was realised that such a move would also discriminate against the motoring as opposed to the non-motoring offender.

C.2 The effectiveness of advertising campaigns

All our fast drivers were asked whether they could think of an existing original or existing advertising slogan or campaign that would induce other fast drivers like themselves to curb their speeds. Responses to this question showed that 38% believed advertisements had little or no effect on any driver, including other fast drivers and themselves; related to this were 15% who admitted that advertisements had no effect on them but did not know what effect they might have on others. Another 22% thought they might be useful for other drivers in general, or for a particular group, but that advertisements had no effect on themselves. Often this was because publicity they had seen did not address speed issues they felt relevant to them. For instance, they might have been surprised to know the effects of impact with a child at 40, 30 or 20 mph, but said this was not relevant because they already were very careful in urban areas and were aware of the possibility of children running out.

An alternative view was that adverts portrayed the atypical situation pretending it was typical, which would obviously not hoodwink astute drivers. An example of this was:

'They're too stereotypical. There's always a child running out and you know that doesn't happen very often. People think about having accidents with cars, motorbikes or trucks, but not with people'.

Of course, the fact that some fast drivers seem to hold this view points up the exact purpose of such a campaign. Yet this type of denial does illustrate the difficulty facing road safety planners.

Finally, almost four in ten fast drivers (39%) believed that advertisements might be effective in generally curbing drivers' speeds if campaigns were improved. The majority of this group called for shock tactics, such as showing at-the-scene aftermaths of real fatal accidents. But, as others pointed out, this could soon lead to desensitization on the part of the viewer or denial that such an accident could happen to them.

Since the majority of fast drivers denied that advertising affected them, it was not surprising to find that fewer than half the sample (43%) could remember clear details of a recent speed reduction campaign. A further 25% showed no awareness of any publicity. However, while it is possible that advertisements can exert an influence on behaviour without conscious cognisance, these findings do suggest what part of the problem may be. Cognitive dissonance is the unpleasant state said to result from inconsistent attitudes or a mismatch between attitudes and behaviour, and it is possible that those who are targeted by the adverts may be least likely to pay attention because of the dissonance created. As one fast driver commented:

'they're not very nice ads, I don't like watching them'.

Despite many drivers' scepticism about the ability of advertisements to influence behaviour, other participants (and a few fast drivers), made many suggestions for more

effective road safety campaigns and slogans which were not of the 'blood and gore' variety. Some of the more creative were as follows. Several drivers in each group believed there was far too little publicity especially in relation to new legislation. For instance, a number of police officers mentioned that after changes in regulations that frequently affected HGV, PSV drivers and motorcyclists, many of these people would telephone them asking whether they were still licensed to drive their vehicles. What publicity they had seen had been confusing and many had seen none. Further, in this context, several officers pointed out the usefulness of the Vehicle Defect Rectification Schemes (VDRS) to which police could direct those drivers who genuinely did not realise their vehicle was defective in some way. It was felt unfair to punish such drivers for their ignorance when there existed little publicity to relieve them of it. One suggestion to counteract this deficiency was the introduction of a 'Top Gear' type of programme where driver education and traffic police were given a bigger role. Officers believed that the general public and drivers want to hear about speed limit changes, unmanned cameras, new tyre regulations, defensive driving techniques and safety advice. (After all, it was pointed out, even prisoners enjoy police programmes). Certainly we found in this research that there was no lack of interest among fast drivers in talking about driving in general and about their own experiences, so such a programme could prove popular and serve an educative function.

Many police officers mentioned that what is dangerous is not speed *per se* but the headway or time separation between vehicles. Yet, they said, while fast drivers could often quote stopping distances fairly accurately, on the road drivers generally underestimated actual distances. Thus they might know the theory but not the reality. Officers therefore suggested that road signs could be spaced along the motorway giving messages such as (on the first board) 'To come to a stop at 70 mph on a dry road takes.....' (on the second board) '...this far if your brakes are in good condition', or 'To stop at 70 mph takes 315 feet'.....'315 feet is this far from the first board'. Traffic officers also pointed out that drivers had as much difficulty judging short distances as longer ones. Thus on a congested road drivers could believe they were maintaining a gap behind another vehicle of say 50 metres, when in truth it might be 10 metres. Part of the problem, officers said, was the difficulty of judging distance accurately at speed.

Another suggestion by a fast driver was that the backs of HGVs could be used to advertise safety messages, such as different clauses of the Highway Code. For instance: 'X (e.g. any big supermarket chain) backs safer driving. Your stopping distance at 70 mph is 315 feet'. This could have the added effect of curbing the speeds of HGV drivers if they knew their company - and by proxy they themselves - were supporting safer driving.

Notes

- ¹ Out of a sample of 457. This sample was overweighted with young drivers and with those who had accidents, so it was not representative of the driving population.
- ² The six speeding items were: driving at 31-40, 41-50, and over 50 mph in a 30 mph area, driving at 71-80, 81-90, and over 90 mph on a motorway. Respondents' frequencies on each were scored as: never = 0, only rarely = 1, sometimes = 2, usually = 3, nearly always = 4. The speeding score for each respondent was a simple summation of those points over all 6 items, so that the maximum possible score was 24. In our earlier study (Corbett and Simon 1992a) one quarter of the main sample of drivers (N = 457) scored 13 or more points, and these we defined as high speeders. We used the same definition in the present study, screening out drivers with scores lower than 13 except that those who had been caught by the cameras were included if they scored at least 12.
- The offending score was compiled from 2 speeding items (driving at 31-40 and at over 50 mph in a 30 mph area) and 10 others. Each of these 12 carried a number of "seriousness points" derived in our earlier study, and we multiplied this number by the driver's frequency for that offence (scored as above) and added these products. Thus a driver's offending score was a weighted sum reflecting both seriousness and frequency.
- ³ The median offending score is preferred throughout this report since it is considered a more stable measure of offending than the mean score. This is because a few drivers reached extremely high values on the offending scale.
- ⁴ In a frequency distribution of a population's speeds, the 85th percentile represents the point below which 85% of speeds fall.
- ⁵ These 1992 ACPO guidelines concerning speed limit enforcement were still being used in July 1997.
- ⁶ In April 1997 a new set of guidelines was introduced to replace those introduced in 1993 (Magistrates' Association, 1997). These guidelines were still based on the sentencing structure established by the Criminal Justice Act 1991. The main change contained in the latest set is that 'graduated fines' based on net weekly income are allowed for to reflect the principle of 'equality of hardship' rather than 'equality of monetary penalty'.
- ⁷ The April 1997 guidelines (see footnote 5) allow for fines graded by income. Under these, speeding drivers with a 'high' weekly net income of £650 who come before the court could be faced with a fine of between £360 and £810 depending on the margin of excess miles per hour + penalty points or disqualification. Although not all courts are likely to adopt the new guidelines, since they are not binding, high earning drivers who disclose their true income to the court may face higher penalties for speeding than hitherto. Thus the message picked up from the courts about the perceived seriousness of speeding may change once more, especially among high earning speeding drivers.
- ⁸ As from July 1 1996, a theory test has been added to the standard on-road driving test, although the latter has not changed. Moreover, from June 2 1997, under the Road Traffic (New Drivers) Act 1995 young drivers face disqualification if they accumulate six or more penalty points in the first two years of driving with a full licence, and will be required to re-pass both theory and practical tests again.

Abstract

This report adopts a criminological approach to the problem of fast driving, and its main focus is on motivations for high speeding, strategies of prevention and deterrence, and the socio-cultural context in which speeding takes place.

The research conducted included depth interviews with fast drivers, traffic police officers, magistrates and driving instructors; a survey of users of a road where cameras had been installed; and a multi-variate study using aggregate statistical data to explore compliance with speed limits in the USA.

Given that solutions are likely to arise from a combination of external and internal approaches, these are reflected in the report's conclusions. The main conclusion is that the problem of speeding is a socio-cultural one and cannot be located solely with the individual driver; in our westernised car culture with everything geared towards speed and mobility, the state must take the lead in attempting to modify drivers' attitudes as to the desirability of high speed. Further, the strong impression was that those who drive fastest do so partly because they feel most invincible and most in control, and research is encouraged to understand how this misperception of invulnerability arises and how it can be changed.

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