

# Public Attitudes Toward Traffic Regulation, Compliance, and Enforcement in Urban Areas of the United Kingdom

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Public attitudes toward traffic regulation, compliance, and enforcement in urban areas of the United Kingdom were examined in a study for the U.K. Department of Transport, through a series of group discussions among road users and a national quantitative survey. Most drivers admitted to breaking at least some types of traffic regulation, and drivers and nondrivers generally agreed on which were the most serious offenses—usually those with a perceived safety or congestion impact. Twelve factors were identified that affected compliance levels in urban areas: physical ease of offending, quality of the traffic signs, existence of exemptions for certain groups, perceived rationale behind the regulation, persons adversely affected by noncompliance, convenience of legal alternatives, enforcement level and penalty, magnitude of the infringement, importance of the trip, compliance by others, personal predisposition, and familiarity with the area. People have a sense of territory in their local area and may ignore traffic regulations that are felt to be there to control through-traffic. Despite the common use of personal judgment about when to comply, virtually everyone accepted the need for traffic regulation and wanted better enforcement of certain offenses, such as dangerous driving and illegal parking; where the latter caused congestion or a safety hazard, there was also strong support for towing away the offending vehicle. Better understanding of which regulations people regard as reasonable and why should make it possible to increase compliance levels without additional enforcement resources.

The movement of traffic in urban areas is governed by a wide range of regulations intended to control the use of vehicles and ensure the smooth, safe, and orderly flow of traffic. In Great Britain, many of these controls are introduced under the Road Traffic Regulation Act 1984, which empowers highway authorities to make traffic regulation orders (TROs) to regulate the speed, movement, and parking of vehicles, and to regulate pedestrian movement. In most cases, this policy means that in Britain, unlike many other countries such as the United States, any contraventions are made against the legal TRO, not the traffic sign or road marking that notifies its existence to the traveler. The content and scope of a TRO can vary greatly and may be quite complex. Thus, regulations can be closely adapted to meet local needs, but enforcement problems can arise because of the difficulty of correctly and fully signing a TRO (often not all exemptions are shown, for example).

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## OBJECTIVES AND METHODS

The work reported here was one of a series of studies commissioned by the U.K. Department of Transport into various aspects of the traffic regulation and parking control arrangements available to local authorities under the Road Traffic Regulation Act 1984. The objective of this research was to obtain “a comprehensive series of insights into the public understanding of the role of traffic regulations and parking control techniques which surround the management of road users, particularly in urban areas.”

The study concentrated on six main types of regulation:

- Waiting and loading restrictions,
- Parking controls,
- Access restrictions,
- Carriageway reservations (e.g., bus lanes),
- Pedestrian facilities, and
- Restrictions on movements at junctions.

The following topics were covered in the surveys of public attitudes:

- Local and general traffic problems in urban areas;
- Problems faced by specific groups of road users, and in different types of areas;
- Public awareness of the TRO notification and consultation procedures;
- Familiarity with and comprehension of TRO notices;
- Awareness and comprehension of signing, and suggestions for improvement;
- Reported noncompliance with selected types of traffic regulation, by specific groups of road users;
- Perceived seriousness of infringements of different traffic regulations;
- Public views on the enforcement of urban traffic regulations: deterrence, detection, and penalties;
- Support for different types of traffic management policy giving priority to particular road-user groups, including pedestrians, cyclists, and bus passengers;
- Resolution of the conflicting demands for curb space; and
- The need for traffic restraint in urban areas.

Public views on these issues were sought in two ways. The first method was a series of intensive group discussions lasting two to three hours, during which respondents discussed each

of these issues in turn under the guidance of an experienced interviewer, using a range of visual aids to focus discussion (videos, color slides, newspaper cuttings, and leaflets). Twenty-one group discussions were carried out in five different-sized urban areas in England, selected to reflect different traffic problems and a variety of traffic measures. Approximately 150 people took part in the discussions. The second source of public attitudes was a national, household-based quantitative survey covering a random sample of 2,126 adults living in Great Britain; the questions were derived from hypotheses that came out of the discussion groups.

The national survey provided a broad indication of public attitudes across the country as a whole, whereas the qualitative interviews provided an opportunity to probe attitudes and behavior in much greater depth, and to seek explanations for the observed regularities. The analysis drew on approximately 4,000 pages of national data analysis and 800 pages of transcripts from over 50 hr of taped discussion.

The following road users were represented in the surveys:

- Pedestrians,
- Pedal cyclists,
- Bus passengers,
- Car passengers,
- Handicapped drivers,
- Professional drivers, and
- Private motorists (ranging from occasional to frequent drivers).

The following affected land users were represented in the surveys:

- Local residents,
- Shopkeepers, and
- Local business people.

In addition, the professional opinions of a number of local authority engineers and police officers were sought in the study areas. The main intention of the study, however, was to seek out the views of individual members of the public.

Two aspects of this wide-ranging study—public compliance and views on enforcement of traffic regulations—are covered here. A brief summary (1) of the full study and the published version of the full report (2) are also available. Although there were differences in view among and between population subgroups and the various study areas, in most cases the findings were fairly consistent, with evidence of a high level of consensus in the public mind.

## ATTITUDES TOWARD COMPLIANCE WITH TRAFFIC REGULATIONS

Approximately half of the drivers in the national survey were asked about the extent to which they might ignore certain types of traffic regulation on some occasions; the other half of the drivers, and the nondrivers, were asked how seriously they viewed infringements by others. Ten types of infringement were described, representing a range of moving and stationary vehicle offenses. For each situation, motorists were asked to identify with one of the following statements:

1. I would never knowingly do that—I think it's wrong.
2. I know I shouldn't do that, but I might—just occasionally.
3. I do that when I think I can get away without being caught.
4. I often do that—I think it's a stupid regulation.

In order to counter a possible reluctance to admit to traffic offenses, the introduction stressed that most people bend the rules occasionally, and in several cases the examples referred to minor infringements (for example, ignoring a short section of No Entry). The proportion of drivers who agreed with statements 1 and 2 for each offense is presented in Table 1. Table 2 presents the answers to the questions on the seriousness of these offenses (rated on a five-point scale from That is a very serious offense to That should not be an offense).

In most cases, drivers and nondrivers agreed on the relative seriousness of infringing different TROs, and a reasonably clear relationship emerged between the likelihood of compliance and perceived seriousness. Four of the 10 offenses were consistently seen as being very serious, and drivers rarely admitted to ignoring these regulations. These regulations were

1. Parking in a bus lane when it is in operation,
2. Ignoring a short No Entry section of road,
3. Ignoring a No Right Turn when quiet, and
4. Stopping briefly on a white zigzag line (marked on the curb on approaches to a pedestrian crossing, where vehicles are not allowed to stop or overtake other vehicles, to ensure clear sight lines).

Speeding was somewhat anomalous. Most drivers admitted to doing 40 mph at a quiet time in a 30-mph area at least occasionally. Only 18 percent of the drivers viewed this offense as very serious, but twice as many nondrivers took this view. Speeding was the only regulation of those tested showing a divergence of views between drivers and nondrivers. A smaller divergence of view was evident in the case of pavement parking—drivers saw this as the only option in some narrow roads, whereas nondrivers were more aware of the hazard it could cause to blind pedestrians or people walking with push chairs or in wheelchairs.

Few sociodemographic differences in attitude among the population were observed for the offenses perceived to be very serious. For offenses generally regarded as less important or serious, however, men were more willing than women to report that they broke the regulations themselves and regarded infringement by others as less serious. Younger people more often responded "more likely to ignore" and "less serious offense" than older ones, and people who drove for a living were particularly prone to breaking these regulations and to regard infringement as less serious than the average motorist. Cyclists admitted to ignoring many regulations, although they reported that they would usually comply with them if they were driving.

A comparison of views held by the same individual about the general adequacy of enforcement and amount of regulation to the perceived seriousness of different violations resulted in the following conclusions:

- Drivers who wanted more enforcement were most likely to regard offenses as very serious, and

TABLE 1 REPORTED NONCOMPLIANCE BY DRIVERS

SITUATION*	OWN BEHAVIOUR	
	Never	Occasionally
Ignore short 'No Entry'	82%	10%
Park in bus lane	82%	10%
Stop briefly on white zig zag line <sup>(1)</sup>	81%	13%
Ignore 'No Right Turn' when quiet	80%	9%
Drive in bus lane	73%	21%
Park in Residents' spaces	49%	29%
Park on pavement where road narrow <sup>(2)</sup>	49%	35%
Ignore local access restriction	45%	36%
Park on single yellow during the day <sup>(3)</sup>	38%	38%
Doing 40mph in 30mph area when quiet	23%	48%

\*Note: examples used are often 'minor' infringements

#### Explanation of infringements:

- <sup>(1)</sup> An area marked out along the kerb on the approaches to a pedestrian crossing where vehicles are not allowed to stop or overtake other vehicles (for safety reasons, to ensure clear sight lines).
- <sup>(2)</sup> It is generally illegal in the U.K. to park a motor vehicle on a footway - although in some cases this is permitted (and signed); not all respondents realised that pavement parking is illegal.
- <sup>(3)</sup> It is an offence to park along a stretch of kerb with a single yellow line during the working day, although drivers may set down and pick up passengers and trucks may load/unload there.

• Drivers who thought there were too many regulations viewed noncompliance least seriously.

Among nondrivers, however, there was no consistent association between the two sets of attitudes.

#### FACTORS AFFECTING COMPLIANCE

Twelve factors that seemed to affect the decision of whether or not to comply with a particular regulation were identified. An overall ranking of the factors could not be established, because their relative importance seemed to be site- and person-specific, and they could be combined in various ways to influence behavior in different situations. Thus, no order of importance is intended.

#### Physical Restraint or Impedance

• Physical obstacles (barriers, posts, or width restrictions) largely prevented abuse, although some examples of the removal of obstacles were found. Some people liked physical barriers, because they removed the element of choice.

• Often a slight physical impediment (e.g., special curbing at the entrance to a limited-access street), coupled with appropriate signing, may reinforce the sense of wrongdoing and reduce noncompliance: "That would put me off, because the actual road finishes and turns away and it's cobbled after that. That is more of a deterrent than just signs."

• The physical layout of a street—if it looks or feels wrong to be there—may inhibit noncompliance, without any physical restrictions. This layout is referred to as "subliminal signing."

TABLE 2 PERCEIVED SERIOUSNESS OF INFRINGEMENTS BY DRIVERS AND NONDRIVERS

SITUATION	% WHO SAID 'VERY SERIOUS'	
	Driver	Non-driver
Ignore short 'No Entry'	47%	47%
Park in bus lane	50%	49%
Stop briefly on white zig zag	54%	46%
Ignore 'No Right Turn' when quiet	52%	48%
Drive in bus lane	30%	33%
Park in Residents' spaces	17%	15%
Park on pavement where road narrow	32%	40%
Park on single yellow during day	15%	17%
Doing 40mph in 30mph area when quiet	18%	35%
Illegal use of an Orange Badge <sup>a</sup>	38%	44%

<sup>a</sup>[A permit issued to a Registered Disabled Person, enabling them to park in a restricted area for a limited period - currently a maximum of 2 hours]

#### Visibility and Comprehensibility of Signs and Markings

• Some people were more inclined to ignore a regulation if the sign or marking was faded: "Very often the singles (yellow lines) are so dirty anyway, that you're never sure if there is a line there or not. I always plead ignorance with a traffic warden."

• Signs and controls that are obviously temporary were seen by some as less important, and so were more likely to be ignored: "I think people tend to say that temporary traffic lights (used at road works) are not real lights."

• People appeared to be genuinely confused over the meaning or status of some signs; thus, some people might break regulations unintentionally.

• Poor siting or ambiguous wording increased the likelihood of noncompliance, even where people understand the meaning.

#### Exemptions to the Regulations

• Some people felt it was acceptable to stop briefly on yellow lines, because trucks and buses can do so and they are much bigger and more likely to cause congestion or be a safety hazard.

• Exemptions for buses at a restricted turn also seemed to justify noncompliance; some people argued that if it was safe for a large bus to make a turn, then it must be safe for a small car.

#### The Rationale Behind the Regulation

The rationale was very important to respondents: Why is it there? Four kinds of rationales were recognized:

- Safety reasons,
- To avoid or reduce congestion,
- To improve the local environment, and
- Other policy reasons (e.g., to discourage car use).

These four objectives were accorded different degrees of acceptance. Regulations with an obvious safety function were highly respected, whereas those introduced for environmental or policy reasons were more likely to be abused. In cases where the rationale was not obvious, providing this information seemed to affect attitudes toward compliance, but only in cases where people supported the objective.

A No Right Turn policy on a main road was challenged by one lady, who often encouraged her husband to ignore the sign because: "I couldn't see what was the point, with the road perfectly clear. Why can't I turn there? I can see right up the road in both directions." One person who was very strongly opposed to anyone parking illegally on yellow lines had one exception—a residential area that he visited frequently and knew well. Double yellow lines had been installed when the road was a major short cut through a residential area (banning parking at all times), but they were retained when it was blocked off: "Double yellow lines in a cul-de-sac, which has got no purpose whatsoever! So everyone ignores those. I put that down as an aberration. . . . I always park on that one and I don't consider it to be an offense—it shouldn't be there."

#### Who Would Suffer If a Regulation Were Ignored

"You only break regulations if you believe that you're not going to cause any harm." Respondents were more likely to observe a parking restriction, for example, if they perceived that the space was needed by a high-priority user, such as a doctor or a handicapped person.

### Availability and Convenience of Legal Alternatives

Justifications were given for the following situations where legal alternatives were not convenient or available:

- Ignoring a banned right turn: "If it meant that you had to go out of your way . . . then you would [ignore it]."
- Ignoring a No Entry sign: "We've got a friend who lives on \_\_\_\_\_ Road, and he lives on the first house on the right (100 yards up from the sign). So, if nothing's coming, I'll just nip in . . . the road is dead straight . . . otherwise I'd have to drive all the way round the road system and it would take me an extra 10 minutes."
- Pavement parking: "I know a lot of people who live in narrow roads, and I'm in a quandary. What do I do? Do I park on the pavement or do I go off miles and miles away and have to walk back?"

### Enforcement Level and Penalty

The more likely people felt it was that an offense would be detected and the more severe the penalty, the less likely respondents were to break the regulation. People would sometimes take action to reduce the risk of detection; examples were given of ways to avoid being caught when parking illegally. "I wouldn't park on a yellow line on the main road; the one I park on in \_\_\_\_\_ is round the corner," or "You can get away with more with the van. I was outside the bank the other day to pick up some curtains. There was nowhere to park so I left the van outside the bank."

Even where people are not supportive of a regulation, the risk of detection can act as an effective deterrent: "I look after my license with all these things. . . . Although I think the bus lane is stupid, I don't go in it." The only instance where the threat of a penalty seemed to have little effect on behavior was illegal parking by business people: "One of the saddest things in London today is that, for the [representatives] it's just part of the job. Some companies allow [them] up to £100 a week just for parking tickets. They just say there's no way you can park in London."

### Short Infringements

People often seemed to adopt the attitude that infringements short in time or space don't count; they are perceived to be less serious, and the chances of being caught are seen to be low. About three-quarters of the respondents in the national survey said they never drive in a bus lane. But most participants in the group discussions acknowledged that they might pull into a bus lane briefly to bypass a car turning right (and so avoid holding up traffic behind) or to avoid oncoming traffic. Such minor violations were not regarded as an offense. Brief parking violations were also justified: "I'd like to know who can put their hand on their heart and say they haven't parked illegally at some point for 5 minutes."

### Necessity or Urgency of the Trip or Action

There was considerable sympathy for some groups of people who break certain regulations in order to carry out their job

efficiently, such as postmen, milkmen, and delivery drivers: "Where else can he stop but by blocking the traffic which is behind? I have every sympathy with him. I certainly don't sympathize with someone who stops on double yellow lines for just a few minutes." Private motorists admitted to being more likely to ignore regulations if they were in a hurry and when doing so would save valuable time. "It may depend if you've got to get a train, or whatever."

### Personal Familiarity With an Area

Many respondents admitted to being less likely to comply with regulations in their own neighborhood, or in an area they knew well and with which they identified. Several reasons were given for this:

- They knew the area and the traffic situation well enough to make a personal judgment about the relevance and effectiveness of the scheme: "I think that's just a stupid system which they've put in there. . . . To me, they've achieved nothing from doing it."
- In some sense, if a scheme is designed to protect local people from through traffic, then access restrictions or banned turns should not apply to locals: "If you know the area as your patch you tend to think of these rules as a bit of a bloody cheek, really."
- Local people are more likely to know what is to be gained by ignoring, for instance, an access restriction: "If you live in the area and you know you can get out of the other end, then you probably would drive through. But if you're a stranger to the area you probably wouldn't go down there."
- A habit pattern predating the regulations may govern behavior: "It's funny because I do it there [ignore an entry prohibition except for access on a short section of road] but I wouldn't do it anywhere else. . . . I used to walk down there to school years ago."
- Knowledge that the regulation is widely abused and poorly enforced increased the social acceptability of noncompliance and reduced the risk of detection: "If someone lives in the area and they've done a maneuver loads of times and seen everybody else do it, it doesn't matter what the sign says—they will do it."
- If the respondent were stopped by a warden or police officer, he would probably know the area well enough to find some plausible excuse for being there.

### Perceived Level of Compliance by Others

A perceived lack of compliance by others can lead to a herd effect:

- A taxi driver using an ordinary car said, "You can guarantee if I am in a bus lane (legally), within seconds there is two or three cars behind me."
- "If everyone else was parked on the curb, then I'd park on the curb."

### Personal Attitudes Toward Compliance

Some respondents claimed to be more law-abiding than others, although most admitted that there was one type of regulation

they might transgress, or a particular situation in which they occasionally ignored a regulation. In many instances, both motorists and fellow cyclists complained about cyclists ignoring regulations.

### GENERAL VIEWS ON TRAFFIC REGULATION AND ENFORCEMENT

Virtually everyone in the national survey accepted the need for traffic regulation and enforcement in urban areas; around half agreed with statements saying that more should be done (either better enforcement or more regulation) and only 6 percent supported the proposition that vehicles and pedestrians are too regulated and fewer, rather than more, controls are needed. In London, 70 percent wanted additional action.

When people who opted for greater enforcement or regulation were asked what they had in mind, 30 percent of the comments in the national survey concerned parking controls and nearly as many related to bad driving (such as speeding, drunk driving, and jumping red lights). The main traffic problems identified in urban areas were road congestion and shortage of parking spaces, which in turn were felt to lead to secondary problems such as speeding, "rat running" (taking short cuts through residential areas), and pavement parking. Even though most drivers admitted to breaking some regulations at least occasionally, there was general support for an increase in enforcement of certain moving and stationary vehicle regulations, especially if the illegal behavior was thought to be dangerous or cause congestion. Enforcement levels and penalties were identified as one of a set of factors influencing compliance; enforcement is particularly important where some of the other psychological restraints do not apply: "I think you respect the zigzags because you know they could cause an accident. I think the yellow stripes [lines] you respect because you feel the weight in your pocket." (See Table 1 for definitions of the markings.)

The use of physical measures to control or prevent abuse (e.g., posts to stop pavement parking) held widespread support, and most motorists showed little resentment at being prevented from behaving illegally. "There's a general air of anarchy around at present, and I think the only solution is to design things so that people can't take liberties. It's sad when you've got to do that." However, opinions differed in the specific cases of speed bumps and barriers across the road. People were generally in favor of using cameras at traffic lights and similar devices to detect the more serious forms of abuse.

Respondents generally believed that, where it is impractical to install a physical measure, the best way of stopping drivers from breaking rules is to increase the resources devoted to detection, which principally means more traffic wardens or traffic police. Despite the bad image that wardens appear to have a respondent commented, "We all curse traffic wardens. I think they're wonderful people, because as soon as they go off duty at 4:30 p.m. you suddenly see cars dumped all over the place, because they know no one is going to give them a ticket." A recent national survey (3) found that 75 percent of adults agreed with the proposition that "Traffic wardens do a necessary and worthwhile job."

### PENALTIES FOR PARKING INFRINGEMENTS

Different penalties were generally believed to be appropriate for different types of parking infringement, although at present in Great Britain most carry the same penalty. For most offenses, traffic wardens have three options: a parking ticket (£12), wheel clamping the vehicle (central London only), or towing the vehicle. Table 3 summarizes responses to a question on the appropriate action involving an illegally parked car in seven different situations.

Parking illegally in a bus lane or on a white zigzag line were felt to deserve strong penalties. Conversely, 20 to 25 percent said that nothing should be done about cars parked illegally on a single yellow line (which bans parking but allows loading during the working day), or in a residents' parking space. People tended to regard parking on a double yellow line as much more serious than parking on a single yellow line, although they both carry the same penalty (the difference is in the period of time over which parking is banned).

Although the issue of a parking ticket was the most frequently recommended action, in cases of infringements that were perceived to be very serious, a sizable proportion of respondents favored the use of wheel clamps or towing the vehicle away, with a general preference for the latter. The argument used was that such strong measures are only justified where the parking infringement was a safety hazard (white zigzag line), or caused congestion (bus lane or double yellow line), or was antisocial (parking in a handicapped space). Wheel clamping tended to exacerbate the problem in the public mind by keeping the offending vehicle there longer and so was felt to be the worst action from a traffic point of view. The cost effectiveness and deterrent value of wheel clamping were not fully appreciated by the public, although this procedure is strongly supported by professionals. A policy of concentrating vehicle removals on offenses perceived to be a safety hazard and a cause of congestion would receive strong public support.

The following differences in attitude were observed:

- Respondents who drove for a living and those in households with a car available were more likely to support towing when the offense was a safety hazard (white zigzag line) or caused congestion (double yellow line or car parked in bus lane).

- Respondents from households with a car were slightly more tolerant of people parking on single yellow lines (22 percent said do nothing, compared with 15 percent from households without a car). When the offense concerned who parks in a space, differences were negligible.

- In most cases, a strong relationship existed between reported noncompliance or perceived seriousness and the type of parking penalty recommended. For example, 52 percent of the people who often parked on single yellow lines said do nothing, compared with 14 percent of those who never break the regulation.

### CONCLUSIONS

A number of insights into public attitudes toward traffic regulation and enforcement in Great Britain were gained, and

TABLE 3 RECOMMENDED ACTION AGAINST ILLEGAL PARKING

SITUATION	ACTION SUPPORTED:			
	Tow Away	Wheel Clamp	Issue Ticket	Do Nothing
Car parked in bus lane in rush hour	60%*	4%	27%	3%
Car parked on white zig zag	40%	8%	42%	5%
Car left in disabled space	28%	10%	49%	7%
Car parked on double yellow	19%*	15%	59%	3%
Car left in residents' space	13%	7%	46%	26%
Car parked on single yellow	6%	5%	61%	20%
Overstaying permitted time	6%	7%	70%	12%

\* Stronger support for tow away among those who drive as part of their job.

**General public reaction:** *"Towing away for the more serious offence and tickets for the less serious offence."*

12 factors that influence compliance were identified. Simple, clearly signed regulations that are obviously needed and have few exemptions are likely to be best observed. Although most drivers break regulations, at least occasionally, better enforcement of certain types of offenses is strongly supported, especially where the objective of the regulation is seen to be road safety or congestion relief.

The purpose of the research was to obtain a consumer view on traffic regulation issues, and these findings need to be balanced against the concerns and judgments of the professionals involved in urban traffic regulation. Nevertheless, the views expressed by the public are clearly of wide-ranging significance and relevance to all those involved in the resolution of traffic problems in urban areas.

(A leaflet summarizing the key findings of the whole study has been produced by the Department of Transport's Traffic Advisory Unit as *Traffic Topics 1*, and is available free of charge from Traffic Policy Division, Room C10/12, Department of Transport, 2 Marsham Street, London, SW1P 3EB, England.)

#### ACKNOWLEDGMENTS

The study was supported by the Traffic Policy Division of the Department of Transport. The assistance of colleagues at the Transport Studies Unit is acknowledged, plus Bob Bixby of Oxford Polytechnic; Andy Layzell of South Derbyshire Health Authority; and Chris Wright of Middlesex Polytechnic. The

success of the study relied entirely on the willing cooperation of many members of the public; valuable contributions were also made by local authority staff and police officers in the study areas. The general advice and assistance of the Department's Project Officers Robert Jackson and Janet Fullerton are gratefully acknowledged, and in particular the help of Tony Doherty as the representative of the customer division in the Department of Transport, for whom this research was carried out. The author is grateful to the Department of Transport and the Copyright Controller of Her Majesty's Stationery Office for permission to use extensive extracts from commissioned work.

#### REFERENCES

1. P. M. Jones. Public Attitudes Towards Traffic Regulations and the Allocation of Roadspace in British Urban Areas. Presented at the World Conference on Transport Research, Yokohama, Japan, 1989.
2. P. M. Jones. *Traffic Quotes: Public Perception of Traffic Regulation in Urban Areas*. Her Majesty's Stationery Office Publications, London, 1990.
3. *LEX Report on Motoring*. LEX Services PLC and MORI, Great Britain, 1989.

*The views expressed are those of the author and do not necessarily represent those of the Department of Transport.*

*Publication of this paper sponsored by Committee on Traffic Law Enforcement.*