

# Using Planning to Manage Parking – UK Experiences

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## Introduction

Parking is a neglected topic in transport research, yet one that plays a key role in mobility, access and economic development in what appears to be an ever more car-dependent society. Parking is also a profitable business for both the private and public sectors. The RAC Foundation (2005) has now gone some way to making up for this void in parking research with its seminal publication *Motoring Towards 2050 – Parking in Transport Policy*<sup>1</sup>, which sets out a broad research as well as policy agenda.

There is a key message underlying much of the Foundation's argument in the document: that managing demand for car use by managing parking supply – a key policy priority in much UK government guidance issued since 1994 – may be misguided and ultimately backfire in the face of inexorably rising car ownership. Since it is presented at a seminar on parking management, this paper considers the Foundation's argument critically, asking the question: can we – and should we – expect UK policy on use of parking as demand management tool to be relaxed in future – even though it appears to be the only transport demand management tool that the vast majority of UK local authorities seem prepared to use.

The paper deals with this question as follows: it firstly reviews the evidence that parking can indeed act as a transport demand management (TDM) tool, and that it can in some circumstances be an effective substitute for much-vaunted but rarely implemented congestion charging schemes. It then outlines recent UK government policy on the use of parking as a TDM tool, and reviews any available evidence of the use and effects of such policies. It devotes some pages to detailed consideration of the links between travel plans and parking, and the ability under UK law to require travel plan measures to be implemented as part of a new development. Thereafter, the paper considers some key arguments made by the RAC Foundation (2005) and the degree to which these are supported empirically. It also briefly considers a local example, Edinburgh, and the pressures on parking policy here. It then draws conclusions as to the correctness of the Foundation's basic argument that we should place less emphasis in future on the use of parking as a demand management tool and instead move to a more predict and provide situation.

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<sup>1</sup> RAC Foundation (2005) *Motoring Towards 2050 - Parking in Transport Policy*. Available free from RAC Foundation, London. See [http://www.racfoundation.org/index.php?option=com\\_content&task=view&id=24&Itemid=31](http://www.racfoundation.org/index.php?option=com_content&task=view&id=24&Itemid=31)

## **Evidence that parking can be used to manage travel demand**

The literature on parking and modal choice is sparse, as acknowledged by Pratt *et al* (2003). There is an on-going EU “Concerted Action”, COST 342, on parking and its links with urban mobility and vitality; however, the papers currently available have not dealt in depth with the link between parking provision and mode share (see for example Lester, 2002, in EPA, 2002). The available literature does however reveal, through both empirical studies and modelling, that parking policy measures are likely to be relatively more important than many other traffic management measures in influencing mode choice. More specifically, in the limited studies undertaken, the decision to use a car for the journey to work is greatly influenced by the availability and cost of parking at the destination.

### *Impacts of parking on mode choice*

Feeney (1989) suggested that decreased availability and increased costs may have five major effects on car drivers. They may:

- change their parking location;
- change the starting time of their journey;
- change the mode used;
- change their destination; or
- abandon the trip.

However, the last two effects are less relevant to commuters, at least in the short term.

In many large cities there is a high provision of free parking - in central London, over 80% of car commuters have free parking in the work place vicinity (NEDO, 1991) and this is accompanied by a correspondingly high car usage for commuting by these travellers.

Several empirical studies and models have determined various influences on mode choice for the journey to work, and the relative importance of parking provision. For example, in a study of parking availability in Paris (Young *et al* 1991), it was found that 75% of commuters to the city centre have a company provided parking space. When asked what action they would take if that space was no longer available, the replies can be summarised as follows:

- 40% would look for a free on-street space further out;
- 20% would switch to bus or rail;
- 20% would walk or cycle;
- 15% would attempt to form a car pool;
- 5% would pay for parking.

Hence, very few of this group would be prepared to pay the full commercial price for city centre parking, and the vast majority would not drive into the city centre without the possibility of a free space. Similarly, the introduction of a residents’ parking permit scheme in Munich (Topp, 1991), reduced car trips from 44% to 32% and public transport increased its market share from 40% to 47%.

A TRL study (Dasgupta et al, 1994) compared the effect of parking restrictions and improved public transport on car use. A halving of public transport fares predicted a 1% to 2% decrease in car use but a doubling of parking charges reduced car use by a predicted 20%. Halving the number of parking spaces, however, had the greatest anticipated effect with a reduction in car use of over 30%.

#### *Parking charging in local authority areas*

Still and Simmonds (2000) confirm that there is an increasing trend amongst local authorities that have control of a reasonable proportion of the off-street public parking in their areas to change the pricing structure to deter all-day parkers in order to free up parking spaces for shorter stay shopping and business parkers. Such policies have been adopted by Croydon, Sutton (Surrey) and the City of Nottingham (both cities in the UK), among many others. Healey and Baker (1998) surveyed 123 British local authorities and found that, at this time, 25% were planning to cut the number of parking spaces in their urban centres, with more than 50% increasing parking charges in real terms.

However, this literature review was unable to find any evaluation of the effects of such policies, with the exception of Canterbury's (England) policy of reducing city centre parking – both on- and off-street - and replacing it with park and ride. This has been successful in reducing city centre traffic levels without negatively impacting on city centre trade (Valleley, 1997). The fact that few if any such pricing policy changes have been reversed indicates that their effect is, at worst, neutral. Importantly, such changes are likely to enjoy the support of retailers, both in terms of on-street parking as well as the off-street “offer”.

#### *Travel plans and workplace parking charges*

The DfT (2002a) reviewed some 21 workplaces around the UK that have implemented travel plans (workplace-based measures to encourage staff to choose means other than the private car for travel to work), and the effect of these travel plans on employee travel to work. The average reduction in drive alone commuting that was achieved in 20 of these 21 cases was 14%. The twenty-first involved a relocation of a workplace from an out of town to an inner city location. It is also of note that the majority of these sites introduced travel plan measures as part of the planning process related to expansion or relocation of their sites. It is this author's view that the restraint-based parking standards associated with PPG13 may have played a role in exacerbating the perception of transport problems at some sites and therefore increasing pressure for travel plan measures to alleviate these problems.

The majority of the 21 sites noted that restricted employee parking availability was a key factor in the effectiveness of their travel plan. Only 6 of the 20 sites however actually charge for parking and all bar one of these are from the public sector. The average drive alone reduction achieved among these 6 sites was 18%, suggesting that charging for parking has an impact over and above other travel plan measures. DfT (*ibid*, p7) state that “Parking restraint is a hallmark of high achieving travel plans.” They also note that the introduction of parking charges or management at workplaces can be contentious. In view of this, Rye and Ison (2004) surveyed a number of sites (all in the public sector) that have introduced parking charging for employees to find out more about their experience, and the process used. They concluded that this process works best if the following conditions are satisfied:

- There are clear, site specific reasons for introducing parking charging;
- Consultation will take some time but it should not be expected that it will resolve all opposition; however, opposition will reduce, after the scheme is introduced;
- Significant investment is required in parking control systems, but this will be recouped through the revenue raised within one to two years;
- Charges are low, income related and applied with few exemptions;
- Those exemptions that are made are justified by clear and transparent criteria; and
- The funds raised are ringfenced for improvements in parking, security and alternative transport to the site.

In conclusion to the review of literature it can be seen that there are only limited studies of the effect of parking controls on mode choice, and even fewer considering the impacts of on-street controls. However, there is indisputable evidence that parking controls can be used to manage the nature of demand for car travel by either moving the time or location of the car trip, or by shifting that trip to another mode.

### **Current parking policy**

National policy in the UK currently places considerable emphasis on the use of parking as a demand management tool. This is particularly the case for planning policy, where English planning policy guidance notes (PPGs, which inform, though do not direct, both planning policy and planning decisions) number 3, on housing, and number 13, on transport, emphasise the need for new development to incorporate restraint-based parking standards as a means of stimulating the use of alternative modes. (See ODPM 2000 and 2001.)

PPG 13 incorporates maximum parking standards for new developments from which local authorities may only depart exceptionally in their planning policies and decisions. It argues that “reducing the amount of parking in new development... is essential as part of a package of planning and transport measures to promote non-car travel choices”. PPG3 (para 62) states that “car parking standards that result, on average, in development with more than 1.5 off-street car parking spaces per dwelling are unlikely to reflect the Government’s emphasis on securing sustainable residential environments.” The parking standards in PPG13 are shown in Table 1, below.

**Table 1 – PPG13 National Maximum Parking Standards (England)**

<b>Land use</b>	<b>Parking standard</b>
Food retail	1 space per 14m <sup>2</sup>
Non food retail	1 space per 20m <sup>2</sup>
Cinemas and conference facilities	1 space per 5 seats
B1 including offices	1 space per 30m <sup>2</sup> = 1 space per 2-3 staff
Higher and further education	1 space per 2 staff + 1 space per 15 students
Stadia	1 space per 15 seats

In addition, national guidance to local authorities on their Local Transport Plans (LTPs, in England) and Local Transport Strategies (LTSs, in Scotland), also makes much of the need for local authorities to use parking to manage travel demand. For example, the new Scottish guidance on LTSs (Scottish Executive, 2005, p 32) states that the Executive “would expect all Strategies to consider how parking policies are to be used to encourage motorists to use alternative means of transport. This will be essential where strategies propose significant investment in public transport.” In its guidance on LTPs the English Department for Transport (DfT, 2004, p 23) makes clear that managing parking supply and pricing should be considered as a demand management measure that can help to “lock in” the benefits of infrastructure investment. There has to the author’s knowledge been no published review to date of the degree to which parking charges and the extent of controlled parking zones in England have increased as a result of the LTP requirements, however.

The same guidance on LTPs also requires local authorities to take steps to encourage the adoption of travel plans by employers in their area. The degree to which local authorities meet the targets in their LTPs – which may include targets for the take-up of travel plans – determines the amount of transport capital funding that they are allocated by the Department for Transport. This is local authorities’ primary source of funds for transport and therefore very important. There is no doubt that this system has led to greater levels of travel plan activity in England than in Scotland, where there is no such link between targets and funding. In the Birmingham area, for example, it has been estimated by the local authority that 70% of the workforce based in organisations of more than 100 staff is covered by a travel plan for their workplace. There is, however, no systematic data on the effectiveness of these travel plans – many may be simply documents rather than plans that are actually put into effect.

Guidance at the national level therefore makes clear national government’s views on how parking should be used to manage travel demand. At the local level, however, the picture is much less clear. Litman (2003) summarises parking policy choices in different sizes of urban area; while based on US and Canadian experience (prices in US Dollars), they are also typical of the parking policy choices made by UK towns and cities, within the framework of wider national government policy.

**Table 2 – Typical parking policy choices in different urban areas**  
(from Litman, 2003 found at [www.vtpi.org](http://www.vtpi.org))

	<b>Large City</b>	<b>Small City</b>	<b>Town/Suburb</b>
Commercial Centre, On-Street	Priced: high hourly rates (e.g. 25¢ per 10 minutes). Regulation: Some loading spaces with short time limits.	Priced: medium rates (e.g. 25¢ per 30 minutes). Regulation: 1-2 hour time limit.	Regulation: 1-3 hour time limit.
Commercial Centre, Public Off-Street	Priced: high hourly, daily and monthly rates. (e.g., \$5-10 per day)	Priced: medium hourly, daily and monthly rates. (e.g., \$2-5 per day). Regulation: sometimes 1 hour free to customers.	Priced: low monthly rate (\$15-\$30 per month) Regulation: 2-3 hour time limit.
Commercial Centre, Private Off-Street	Priced: high daily and monthly rates. (e.g., \$5-10 per day)	Priced: medium daily and monthly rates. (e.g., \$2-5 per day). Regulation: free to qualifying customers and employees.	Priced: low monthly rate (\$15-\$30 per month). Regulation: free to customers and employees.
Near Commercial Centre, On-Street	Regulation: 1-3 hour	Regulation: 1-4 hour	Unregulated.
Residential Neighbourhood, On-Street	Regulation: “Residents Only”, which may involve permits.	Unregulated.	Unregulated.
Near Special Attractors (schools, parks, theatres, etc.)	Regulation: “Residents Only”. Special management and enforcement during busy time periods.	Regulation: “Residents Only”. Special management and enforcement during busy time periods.	Regulation: “Residents Only”. Special management and enforcement during busy time periods.

Litman’s typology is a useful generalisation (although it does not deal with parking standards for new development). However, the degree to which such policies, and those advocated by LTS/LTP and planning policy guidance, have been adopted in practice by local authorities in the UK is largely unknown and this, as well as the impacts of such policies, should be the topic of further research. Reasons why local authorities may or may not be reluctant to use parking as a demand management tool, as advocated by central government, are discussed in the context of Edinburgh in the penultimate section of this paper.

## **Current policy on the use of travel plans as part of the planning process**

As we have seen, travel plans in new development can play a key role in controlling car use to that development, especially when implemented in tandem with maximum car parking standards and where there is no free parking available in the immediate surroundings. For this reason, English (and to a lesser extent Scottish) government planning guidance – *PPG13, Transport* - advocates the implementation of travel plans as part of the planning process for larger new developments (ODPM, 2001, paragraph 89). Furthermore, paragraph 91 of the same documents advise that the implementation of a travel plan be required through the legal mechanism of a planning condition or planning obligation. Neither mechanism is used exclusively for transport related aspects of the development. In both cases, the relevant Acts of Parliament allow local authorities to take enforcement action against developers or owners of land where obligations and/or conditions have not been met. In serious cases, fines may be imposed through the courts.

A planning condition is, as its name suggests, a condition imposed by the local authority on a developer and, if the condition is not met, the development may not go ahead. An example might be the number of cycle parking spaces provided at a development, or the time on a weekday before which the car park at a development may not open. This may be enforced under the relevant legislation by the local authority serving the developer or subsequent owner of the land with a “Breach of Condition” notice.

The planning obligation is negotiated between authority and developer as an adjunct to the planning permission process and the nature of the obligation will vary from area to area and development to development. The developer is not required to accept an obligation but if they want to develop in an area they are often aware that their chances of securing planning permission will be enhanced if they are, however, willing to agree to a planning obligation. The corollary of this is that if they have a number of possible sites in different local authority areas then they may choose to go to the site where the obligation is the least onerous (requires the least from them).

Conditions can be used to secure payments of money from the developer to the local authority to improve on- or off-site infrastructure and services and this, increasingly, is interpreted to mean travel plan measures. These should, notionally, be related to the development (e.g. a new road or bus stop to permit access to the development) but sometimes the relationship is very tenuous and, for example, new supermarkets may have obligations that are used to fund local community centres. This has led to accusations of planning permission in economically buoyant areas being “bought” by developers willing to put the most money into a planning obligation. In less economically-buoyant areas, developers have a stronger negotiating position (because there is less development pressure) and authorities are less willing to use obligations or conditions, for fear of “scaring off” development.

In the UK, the case-by-case nature of planning obligations related to new development means that it is difficult to predict the scale and nature of the contribution that it will be possible to secure from the private sector in each case. This lack of predictability is a problem for both private and public sectors, and leads to the expenditure of a great deal of time and effort on both sides in negotiating an

agreement. The UK government therefore has plans to replace the case-by-case system with a formula based approach, but this has yet to be enacted into law.

Work in the EU Interreg IIB project OPTIMUM ([www.optimum-eu.net](http://www.optimum-eu.net)) showed that private developers in the UK are often willing to fund sustainable transport measures through the planning obligation process, but that there is also a limit to the amount that it is willing to contribute. This appeared to be in the hundreds of thousands of pounds rather than millions in the scale of development considered. It was clear that there was a relationship between the scale of development and the size of the contribution obtained.

DfT (2002b and 2002c) contain details of a survey of 42 English local authorities' use of conditions and obligations with regard to travel plans. Very few of these were in fact found to be using obligations (the more powerful tool) in an active manner. A brief literature search by the author turned up no published works on the experience of *enforcing* such transport-related planning conditions and obligations in the UK. This may be because of the relative novelty of using them, especially in relation to travel plan measures, or it may simply be because it is not an area that has attracted much interest from academic planners. Subsequent to the literature search, the author carried out an email survey of planning and transport authorities in the south of England, the Midlands and the northwest, specifically to discover whether any had taken enforcement action against any developments that were non-compliant with travel plan obligations. None who replied had done so.

#### *Further legal details of planning conditions and obligations*

Planning conditions have to meet certain tests. If they do not, they can be challenged by the developer in court. The key criteria in the test are that the condition is:

- Necessary.
- Relevant to planning.
- Relevant to the development in question.
- Enforceable.
- Precise.
- Reasonable in all other respects.

Since conditions have to be related very closely to the nature of the development, they are less suitable for securing travel plans overall than are obligations. That said, a condition may be used to secure elements of a travel plan. For example, if the local authority wished to ensure that there were a certain number of bus stops provided in a new business park and that they were provided to a certain standard (e.g. all with raised kerbs and shelters of a given quality) then a condition would suffice. However, to provide bus stops on roads outside the development would require an obligation, since the stops would have to be provided by the local authority using money provided by the developer.

Nonetheless, certain local authorities do use conditions to secure travel plans or participation by employers in travel plan forums, but such conditions are unsuitable for securing a travel plan that has measurable outcomes (e.g. that has to produce a measurable level of mode shift).

Planning obligations also have to satisfy a number of criteria. They may only:

- Restrict the development or use of the land in some way.
- Require specified activities to be carried out in, on, under or over the land.
- Require the land to be used in any specific way.
- And/or require money to be paid to the local planning authority as specified in the agreement.

If the travel plan is required by the local authority includes the implementation of measures like shuttle buses or a carsharing scheme, or discounted ticket offers for staff, or cycle route links off-site, then an obligation is required. If the mobility management plan is required to meet certain output targets (e.g. “five years after opening the percentage of staff driving alone to work will be no more than 50%”) then an obligation is definitely required.

#### *Enforcement of planning obligations and conditions relating to travel plans*

As noted above, the author is not aware of any UK cases to date where travel plan-related conditions or obligations on developments in the UK have been subject to enforcement action. However, the law does allow sanctions to be taken against developers or the subsequent owners of land if conditions or obligations are not met. Such sanctions could include:

- Payments to the Council to implement measures agreed in the condition or obligation.
- Specified works to achieve what was supposed to have been achieved otherwise e.g. reduction in numbers of car parking spaces if public transport improvements fail to bring about pre-specified levels of mode shift.
- Payment to the Council to achieve an agreed outcome e.g. implementation of a controlled (residents’ only) parking zone around a site.
- Changes in the way the development is used, in order to achieve a specified outcome.

All these sanctions must be judged to be reasonable. Legal thought is that a reasonable sanction should be:

- at the same scale as the failure to meet the condition or obligation (e.g. a £2 million payment is not in keeping with a failure to meet a mode share target by 1% in a company of only 200 workers);
- related to the importance of the failure to meet the condition or obligation to the planning application as a whole (i.e. was transport a critical issue in the planning decision – if not, a major sanction is unreasonable); and
- related to how much money is needed to put right the failure.

To date this is an untested area in mobility management in the UK. Some local authorities are very nervous of using planning obligations to impose outcome targets on developers as they are not certain that the legality of so doing is proven. In addition, monitoring to demonstrate failure to meet outcome targets is something of a vexed issue and, furthermore, there is relatively little consistent empirical data on the effects of travel plans, which could make it easy for a non-complying site to claim

successfully that its failure to achieve targets was in spite of its best efforts. A test case is still awaited.

There are currently no proposals in any part of the UK to make travel plans compulsory for existing developments – this would be very much against the current government’s philosophy. Also, legal requirements for travel plans have had something of a chequered history in the USA (see Rye, 2002): most have now been withdrawn, due to the problems of effective monitoring and enforcement of thousands of employers. As shown above, the degree to which travel plans in the UK are compulsory for new developments depends very much on the degree to which local authorities interpret PPG13 and how stringent they are prepared to be in their use of conditions and obligations. Generally, the more economically buoyant an area, then the more willing the local authority will be to require a better-resourced, more interventionist and therefore more effective travel plan.

### **The RAC Foundation’s arguments against using parking as a demand management tool**

Having looked at current UK national and local government policy on parking and related matters, the paper now turns to the issue of arguments *against* using parking as a demand management tool. The RAC Foundation’s (2005) report sets out a number of arguments why, in its view, current government policy on using parking as a demand management tool is unrealistic. Many of these relate fundamentally to the assertion – which the report does not support with unequivocal evidence – that using parking to manage transport demand will succeed only partially, because of the lack of viable alternative modes. The report also asserts that more, especially off-street, parking should be provided, possibly by investing the proceeds of existing on-street parking operations. These arguments are considered here.

*Rising car ownership puts increasing pressure on existing parking supply, and local authorities will need to address this growing demand by building more off-street parking at origins and destinations.* Rising car ownership is putting pressure on existing parking supply, particularly in older high density areas that were built without any off-street parking. However, the Foundation’s report itself notes that at present only about 10% of people have problems finding a parking space close to their home.

In addition, the report does not consider the argument that a lack of residential parking space may be a positive attribute, in that it may act to curb car ownership in areas that are well-suited to the use of alternative modes. For example, the 18<sup>th</sup> century New Town close to Edinburgh city centre has 71% of its population economically active, of whom three quarters are in professional and managerial occupations, yet 35% of households have no car and only 17% have two cars or more (2001 Census, available at [www.edinburgh.gov.uk](http://www.edinburgh.gov.uk)). Clearly there is some interaction here between high pedestrian and public transport accessibility and low car ownership and use, but it is also likely that lack of parking plays a role as well.

The report also offers little evidence that residents of such areas are more willing to pay for off-street parking than they are to tolerate more stringent on-street controls,

nor that local authorities have the resources to build such off-street parking. Nor does it consider the role that Home Zones can play in increasing on-street parking supply. It cites instead examples from France and Spain of residents making use of parking spaces in off-street car parks but neglects to mention that these are often subsidised (resulting, for example, in a monthly charge of €75 for a space in central Lyon). At a typical construction cost of £20,000 per space, the parking surplus generated by local authorities' operations of £350 million in 2003/04 (RAC Foundation, 2005) would soon be exhausted, were it to be used to build underground car parks in residential areas. In addition, the value of urban land and the economics of off-street parking in urban areas may make it unlikely that enough off-street parking could be provided at a price that consumers would be willing to pay. However, this would be a fruitful avenue for future market and economic research.

*People will buy and use cars even if their residential parking standards are restraint-based, and park them wherever they can.* This is quite possibly the case, but will depend on the accessibility of a new area by alternative modes, and the mix of uses that can be found there. Once again, little research has been carried out to establish whether this is indeed the case, nor to get a full picture of the degree to which such parking standards are actually being implemented in new residential development. The Foundation's solution to this problem (whose scale is as yet un-measured) is for local authorities to specify the density of a development and to leave developers to provide as much parking within that density envelope as they wish. This may work, but its impacts on the streetscape and the accessibility of areas by alternative modes would have to be carefully evaluated.

*Restraint-based PNR standards at workplaces do not take account of the lack of alternatives that exist to car use for journey to work.* Anecdotal evidence suggests that restraint-based parking standards at workplaces are leading to lower car use than would otherwise be expected – but there is little evidence that employers are lobbying government because that lack of parking per se is causing recruitment or other problems. The author has conducted previous work on parking management strategies at workplaces with limited staff parking (Rye and Ison, 2005), which showed that those employers for whom parking may have some recruitment implications (e.g. hospitals) are implementing travel plans to ameliorate these problems. The same research revealed very little problem with overspill parking resulting from restraint-based standards.

*Parking restraint negatively affects economic and especially retail performance.* Whilst the retail sector continues to make this argument, studies in the UK (such as Still and Simmonds, 2000) continue to be unable to establish clear link between parking (or restrictive parking standards) and economic vitality. Research for the Scottish Executive entitled *The Effect of Maximum Car Parking Standards including Inward Investment Implications* (Scottish Executive, 2002) was also quite equivocal, concluding (un-numbered page in Executive Summary):

*“Whilst transport is a primary issue for locational decision making, parking is a secondary issue which will probably not be considered until comparing sites at a local level...”*

*“It would also appear that inward investors will not be deterred from Scotland on the basis of maximum parking standards although the recruitment and retention of staff*

*may pose a serious threat. Workforce availability is the most important criteria for most businesses encountered in this study and therefore all efforts must be made to ensure employees, customers and students feel there is genuine alternative to the private car for access to sites.”*

However, the link between parking and economic vitality remains a key *political* issue, as will be discussed below.

Overall, then, the RAC Foundation’s arguments do not make a wholly convincing case for abandoning the use of parking as a demand management tool. The arguments are based on limited evidence and, it could also be inferred, perhaps from an ideological motivation to see policy change from one that is at least partly demand management led to one that accepts a situation of constantly rising car ownership and use. However, the fact that the evidence is limited also points to the need for considerable further research that could, ultimately, prove many of their arguments correct.

The paper now goes on to consider parking from a local perspective: the extent to which parking in Edinburgh can be used as a demand management tool, given the many other competing demands on parking policy makers and managers.

### **Local experience: drivers of parking policy in Edinburgh**

In February 2005 electors in Edinburgh voted by a 3 to 1 majority to reject a congestion charging scheme for the city. Nonetheless, some political pressure remains for the local authority to manage congestion, and its stated policy is to use parking as one means of so doing (City of Edinburgh, 2004). There are however many other (conflicting) political pressures on the authority’s parking policy. These include

- Parking in relation to economic vitality, especially of retailing in the city centre. Pressure from city centre retailers may result in increased amounts of short to medium-stay parking being provided in the city centre in future, as they believe that the city centre economy suffers from the image of being “a difficult place to park”.
- The high density Victorian and Georgian flatted (apartment) development in much of inner Edinburgh brings great pressure on the parking supply for residents. Growing car ownership, as well as competition from commuters for such space, is compounding this problem. The expansion of the city’s existing controlled parking zone by 2007 to cover an area approximately 2-3 km in radius from the city centre will alleviate the commuter parking issue, but there will remain a serious shortage of residents’ parking outwith the operating hours of the controlled parking zone.
- The local authority has since 1998 used restraint-based parking standards for new development. Typically, a suburban office occupied at medium density will have around half as many parking spaces as employees (and city centre offices, almost none). These standards have led to localised overspill onto residential streets, but do not appear to be deterring development thus far.

## Conclusion

This paper has attempted to provide a brief critique of some of the arguments in the RAC Foundation's report on parking (2005), key to which is the assertion that many attempts to use parking as a demand management tool are misguided in the face of inexorably rising car ownership. A review of the literature and brief consideration of a case study in the form of the City of Edinburgh leads to the following conclusions:

Firstly, there is little doubt that many UK local authorities, especially in urban areas, *are* using parking as a transport demand management (TDM) tool. They are doing so with the support of national government transport and planning policy. However, the extent to which they are using parking in this way, and its effects, are not fully understood due to a lack of evaluation studies.

Secondly, and in contrast, there are many political pressures on Councils *not* to use parking as a demand management tool – not least from retailers and from residents. These pressures may lead to some reduction in its use for TDM purposes in future – although many Councils also face political pressure to tackle congestion, and parking management is one of the few means of traffic restraint open to them.

Nonetheless, without more research, we can finally argue that it would be premature to adopt the largely “predict and provide” parking policies advocated by the RAC Foundation, and it is likely that parking will continue to play some form of demand management role for many years to come.

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