WORKPLACE CAR PARKING CHARGES: AN ASSESSMENT OF THEIR IMPLEMENTABILITY AND THEIR EFFECTS

Stephen Ison[1a], Tom Rye[b]

[a]Transport Studies Group, Department of Civil and Building Engineering,
Loughborough University, Loughborough, + 44 (0)1509 222605
[b]School of the Built Environment/ Transport Research Institute
Napier University, 10 Colinton Rd, Edinburgh, EH10 5DT, Scotland,
+ 44 (0)131 455 2477
e-mails: s.g.ison@lboro.ac.uk, t.rye@napier.ac.uk

Abstract

Charging employees to park at their workplace has been shown by authors such as Feeney (1999) and Lester (2002) to reduce, sometimes significantly, the percentage of total staff that travels to work by car. Clearly, this fits in with policy statements such as the EU Commission's White Paper on Transport (2001), and its 1998 UK predecessor (DETR, 1998). However, charging employees to park at workplaces is a practice not commonly implemented by employers, at least in the UK. This paper details why, and assesses the scope for the wider implementation of the policy in the UK. The aim of the paper is to review relevant literature on the implementation and effects of workplace parking charging. The paper is based on empirical research (surveys and interviews) carried out at 11 UK workplaces that already charge staff to park and it considers the process that was adopted to implement the charge; the barriers faced; the schemes ultimately implemented; and their effects. The paper concludes that workplace parking charging requires significant organisational resources to implement and that, to date, its introduction has been limited almost exclusively to a few very large public sector employers. The paper will postulate, on the basis of the empirical work, that there are no intrinsic barriers to the introduction of parking charges and that, as the policy of maximum parking standards for new buildings continues to take effect in England, more and more employers will have to consider charging.

Key words: Workplace parking charges; Implementation
Topic Area: H10 Urban Transport Policy

1.   Introduction

Since the publication of the UK Government's White Paper on the Future of Transport in 1998, UK transport policy has focused on the need to manage the demand for travel, especially by private car in areas and at times where demand for roadspace outstrips supply and an inefficient level of externalities result.

Market-based instruments have long been advocated as a means of dealing with congestion and traffic-related pollution in urban areas. It is however the non-market based command and control measures that have tended to hold sway not least because of the difficulties encountered when implementing market-based economic instruments. One market-based instrument that is being increasingly considered as a measure for managing the demand for car travel, especially at peak times, is to charge employees to park their car at their workplace. The effectiveness of this policy in reducing car use for

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[1] Corresponding author

commuting has been recognised (see Feeney 1989, Willson and Shoup 1990 and Shoup 2001) and it is also a measure proposed by the UK Government in terms of their planning guidance (PPG13 – Transport) as a policy that local authorities should attempt to pursue through the planning process for new or expanding workplaces (DETR 2001). There has however been limited work to date that has examined the extent to which UK employees are actually charged to park at their workplace or that has considered the barriers (at the employee level) to the wider implementation of this policy.

The aim of this paper is to address this issue by identifying the types of workplace that are likely to adopt the policy of charging employees to park at work, seeking to understand the motivations for the implementation of this policy, the way in which it is implemented in practice and the barriers to its wider adoption.

2.   Background

There is a dearth of academic literature relating to employee parking charges and in particular difficulties in terms of its implementation. The on-going EU study "Concerted Action", COST 342, on parking and its links with urban mobility and vitality (see for example Lester, 2002, in EPA, 2002) reveals through both empirical studies and modelling, that parking policy measures are likely to be relatively more important than many other traffic management measures in terms of 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.

Feeney (1989) suggested that decreased availability and increased costs of parking may have five major effects on car drivers, namely they may change their parking location, the starting time of their journey and the mode used. Clearly in terms of the journey to work however, a change of destination or abandonment of the trip are less relevant to commuters, at least in the short-medium term. As a result of reviewing a number of mode choice models, Feeney (1989) concluded that out-of-vehicle costs (mainly time and parking costs) were significantly more influential on modal choice than in-vehicle costs.

In many large cities there is a high provision of free parking. In central London for example it has been estimated that 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. In Paris, it has been estimated that 75% of commuters to the city centre have a company provided parking space (Young et al 1991). When asked what action they would take if that space were no longer available, then 40% stated they 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 and 5% would pay for parking.

The DfT (2002) reviewed some 21 workplaces around the UK that have implemented travel plans, 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% (one involved a relocation of a workplace from an out of town to an inner city location). The majority of the 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 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.

Willson and Shoup (1990) provided further evidence to suggest that the introduction of payment for parking was a major influence on mode choice. In a study

for the Government offices in Ottawa, Canada, an increase in parking charges for all employees was seen to result in a 20% reduction in solo car trips, with the majority converting to public transport.

Overall, the literature would appear to indicate a link between car parking charges at the workplace (the commuter's destination) and a move away from car use for the commute trip. Few employers however have implemented a charge. In terms of employee car parking charges little has been published in terms of how and why charges may be implemented. The DfT (op cit) reviewed the development of travel plans, of which, in some cases, parking charges formed one part. In terms of implementation the study noted the importance of consultation with staff and the need to ring-fence revenue in order to fund additional travel benefits, including those for staff who continue to drive to work, such as improved car park security. Van der Maas (1998), in her study of workplaces that had introduced charging for parking in the Netherlands or other financial disincentives to car use for commuting, concluded in terms of implementation that:

- such measures are rarely introduced, because they are perceived by employers to be too sensitive from an industrial relations point of view;
- their introduction is assisted by careful consultation with staff;
- a system that is perceived to be "fair" (e.g. no exemptions for senior staff) is more likely to be accepted; and
- opposition may be fierce until the change is introduced, after which it dies away rapidly.

These findings concur with those of Ison and Rye (2002), in their review of the implementation of road user charging and travel plans.

Overall however there is a paucity of work in terms of the implementation of employee car parking charges and as such this paper in detailing the barriers to implementation and ways to overcome them seeks to further the debate among policy-makers.

3.   Methodology

In view of the objectives of the research outlined in the introduction to this paper, a semi-structured interview-based qualitative research framework was adopted.

The major challenge for the study was, firstly to identify sufficient workplaces that have implemented a parking charge and then, amongst that sample, to find those who were willing to be interviewed with respect to their car parking charging policy. The final list of organisations chosen are given below. Those interviewed at each organisation were directly involved in establishing and administering their particular car park charging scheme on a daily basis. As such they were ideally placed to inform on the reasons, practicalities and barriers to implementing a car park charging scheme. Certain of the interviewees preferred not to be identified and as such have been given generic names.

The list is as follows:

- Two hospitals in the East Midlands;
- A Unitary Council in the West Midlands;
- Sheffield University;
- A large "red brick" University in the north of England;
- Robert Gordon University (Aberdeen);
- Grampian University Hospitals NHS Trust (Aberdeen);
- A medium sized Scottish University;

- A large teaching hospital in the East of England;
- A large University in the West Midlands;
- A Scottish Hospital.

Interviews were conducted in person or by telephone or, for three of the above sites, by email, with follow up telephone calls for clarification, where necessary. Interviews lasted between 30 minutes and 2 hours and were primarily one-to-one apart from three situations in which 2-10 interviewees were involved in a round-table discussion situation.

As noted in the introduction, these organisations are without exception public sector and primarily hospitals or universities. There are few private sector organisations that have implemented parking charging in the UK, most notably Pfizer in Kent and Surrey, whose experience is already well-documented (see http://www.local-transport.dft.gov.uk/travelplans/guides/index.htm) and which, strictly speaking, does not charge employees for parking, but rather subsidises those who choose not to drive to work through a complex cashing-out process.

4.   Research findings

In terms of implementation then it is clear from the semi-structured interviews undertaken that certain key issues need to be addressed if the barriers to implementing workplace car parking charges are to be overcome. This section details the results of the interviews. In order to put these findings in context, key characteristics of the case study sites are summarised in Table 1.

The environment in which the charge is to be introduced

It is clear that the introduction of an employee parking charge is of major importance to staff, in fact one interviewee stated that *"from the staff side it is more emotive than pay"*. One group of staff stated that when it was first mooted there was outrage *"charging us to go to work"*. This is something that needs to be borne in mind by those who are tasked with implementing an employee parking charge strategy.

The need for clear objectives

A number of reasons were given for the introduction of a parking charge (some proactive and others reactive), most notably:

- To help upgrade the car parks;
- In response to the local Council's *"major greening project so we had to follow otherwise we weren't going to be allowed to re-build"*. In other words the motivation was a planning issue;
- **"***The site was logged jammed, there was no dedicated parking areas, it was a free for all………there was no system of parking management and we had no money to develop it, so what we did was decide to charge for car parking;*
- There were major security problems we were *"loosing sixty cars per month through theft"*;
- There was *"congestion and an environmental problem"*.

Clearly there is no one objective in terms of the implementation of a car parking charge at work places. On the other hand, the various objectives given are tightly focussed, be it to deal with excessive congestion, the issue of security, the environment or as part of the planning process. What appears to be important is the existence of a significant catalyst for change, when it comes to implementing a policy such as workplace parking charges.

Table 1 – Case study summaries

	Years in place	Reasons	Speed of introduction	Length of intro	Install. Costs	Staff charge	Visitor charge	Income related charge	Exemptions?	Part of wider TP?	Modifi-cations?	Overspill?	Use of funds?
Midlands Council	4	n/k	Big bang	1 yr	Low	£16/mth	n/a	FT/PT	Disabled	N	Y	Slight	n/k
Eastern hospital	10	Congestion on site	Incremental	1 yr	n/k	40p/day	60p/hr		Disabled; vols.	Y	Y	Y	Parking; TP
East Mids. Hospital	6	Congestion on site	Big bang	6 mths	n/k	£55/yr	£1/hr	FT/PT	Disabled; vols.	Y	Y	YY	Parking; TP
East Mids. Hospital	6	Congestion on site	Big bang	1 yr	n/k	60p/day	60p/hr	N	Disabled; vols.	Y	N	YY	Parking; patients
Northern University	3	Lack of parking	Big bang	1 yr	n/k	£135/yr	£2/day	N	Disabled	N	N	Slight	Parking; security
Grampian NHS Trust	2	Lack of parking; planning	Incremental	1 yr	£300k	70p/day	70p/day	Y	Disabled	N	Y	YY	Parking; security
Midlands University	N/k	Parking congestion	Big bang	18 months	N/k	50p/day	50p/day	N	Cleaners	N	N	N	Parking; security
Robert Gordon University	0.15	Lack of parking; planning	Big bang	2 yrs	£160k	£1.50/day	£1.50/day	N	Disabled; car-sharers; essential users	Y	N	YY	Parking; TP
Scottish University	3	"Wild" parking	Big bang	18 mths	£280k	£80/yr	n/a	N	Disabled	N	N	N	Parking; security
Scottish Hospital	3	Raise funds	Big bang	1 yr	£300k	£80/yr	£1/day	Y	Disabled; vols	N	N	N	Parking; patients
Sheffield University	5	Congestion on site; lack of parking	Big bang	2 yrs	Signi-ficant	£6 - £30 per month	£2/day	Y	Disabled	Y	Poss.	YY	TP; Parking; security

N/k = not known
Vols. = volunteers
TP = travel plan

While reducing congestion on site may be a prime objective for introducing a car parking charge at the workplace this may not bring about the desired effect. It is clearly an issue of price elasticity. As one interviewee stated *"it hasn't really reduced numbers to any great extent, the idea was that if people pay daily rather than annually then they might think about walking into work but it hasn't seemed to work"*. One reason put forward for this was that *"a charge of only 50 pence per day hasn't really been significant enough to change travel behaviour"*.

The process of introducing a charge

Some respondents said that they had extremely lengthy consultation and a parking charge took several years to implement. Others managed it in little over 9 months but the average appears to have been two years. Grampian NHS Trust was not unusual when it commented that its consultation process was *"Very lengthy and complex. Charges were discussed and agreed through a strategy group which included representatives from all interested parties on site, including patient/public representatives (via the Local Health Council)."*

Consultation took different forms most notably: surveys, consultation meetings, focus groups and in the case of certain respondents, formal negotiations with Unions. All interviewees stressed the importance of consultation to the process but also recognised that it would not resolve all opposition before the scheme was implemented.

Whilst two sites introduced their charges incrementally (one from a very low rate of 20p per day initially[2], the majority had implemented charges in one go. This did not mean that charges could not rise further. Robert Gordon University, for example, notes explicitly in its guidance to staff on parking charging that it reserves the right to increase charges. In some cases, charges were introduced at different times at different sites, or for different car parks, but at the same level of charge as in other areas.

As noted above, in the majority of the case studies, the parking charge was introduced in response to a problem, where there had been no parking charge before. Thus any introduction of charges and major re-organisation of parking management was likely to be perceived as a "big bang" approach; but it can also be argued, that a non-incremental approach was necessary to solve major parking and congestion problems. Nonetheless, several respondents made the point that they are likely to increase parking charges incrementally over the next few years.

Charges and exemptions from charging

Charges used in each scheme are set out in Table 1, and schemes can be seen to have a relatively simple structure in terms of operation and payment. Key elements include:

- A charge for staff of between 50 pence and £1.50 per day, often payable by payroll deduction;
- (For hospitals), a higher charge is made for visitors and patients (but with discounts for those who have to make regular trips);
- (Also for hospitals) there tends to be different car parks for staff and visitors – which is often a continuation of the pre-charging situation;

Income-related charging was is evidence in only a small number of cases. In general, organisations have decided on a straightforward, easily administered charging systems with only basic price differentiation between user groups and products. Sheffield University's scheme is perhaps the most complex pricing structure of those examined, with others much more inclined to remain at a basic price per day or per month for all users, or a small degree of differentiation based on one or two income bands (Grampian NHS Trust, for example).

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[2] It was stated that *"if we'd introduced 40 pence and 50 pence to start with it would have created some difficulty"*.

At most sites surveyed, there is little differentiation between users and the car parks that they are able to access. At the hospital sites, it appears normal to have separate staff and visitors' car parks, but this is in part the continuation of a policy that exists in hospitals that do not charge for parking. Only at those sites with the greatest pressure on parking, such as two of the universities surveyed, is there a more complex division of parking space and related pricing, so that essential users, or those who wish to pay more for greater certainty and/or a higher quality space, can do so.

Exemptions tend to be few and limited mainly to disabled drivers and occasionally those who require a car for operational use. Where there is scope for exemptions, or where there are different types of permit, some more desirable than others, then of course there is a need for some type of adjudication process to allocate these permits. However, one respondent stressed that *"In my experience once you start building up a whole raft of exemptions the whole system becomes very difficult"* and, for the same reason, one simply stated *"everybody pays on site, so there's no argument"*.

At least two organisations also operate a system where certain users are unable to obtain a permit at all: these tend to be those users who live close to the site, or within easy travelling distance by public transport, and who work normal hours.

Where exemptions exist, whilst there is a structure to the exemptions, there is also flexibility:

- In terms of a particular hospital, *"if you've got a child that's on the ward that's got a long term illness, rather than get the parents to keep paying each time they come we'll actually issue them with a part time permit, so it's cheaper to do it that way"*.

- At one University it was stated that *"Eventually in the course of negotiations very low income people were excluded, primarily cleaners."*.

Enforcement

Five sites surveyed use a barrier system and six use a pay and display system to administer their parking scheme. One that is now using barriers and smart-card technology has done so since:

- *"We had a pay and display system, but we went away from that, because what we were finding was that people were parking at the site and going into the city centre. It was cheaper to park at the hospital than in the city centre so we had to introduce the barrier system to control access"*.

Administering the scheme

A number of administration systems are used at the various workplaces interviewed. At one site, it was reported that *"quite a chunk of administration time is taken in terms of assessing people's application for permits, because people are eligible to park on site who meet certain criteria, due to the fact that they work night's, early mornings, how far away from the site they live, the availability of public transport and child care that sort of thing, so if people think they meet that criteria, they apply and then there's an assessment process to decide whether they are eligible.*

In general, though, there is a desire on the part of employers to keep the charging regime and its administration as simple as possible.

Use of the revenue raised from workplace parking charges

Hypothecation or ring-fencing of the funds raised from the parking charge would appear to be an important facet of introducing such a charge. It was stated *"once you've got a little bit of money, you can go a long way and have a big effect very quickly"*. In terms of those interviewed all but one organisation ring-fenced the funds obtained. One stated that it was *"decided to charge for car parking and that income was ring fenced purely for security and traffic management and it has stayed so ever since."* Investing in

CCTV, refurbishment of the car parks, more lighting, more signage, managing the site, barriers, control room and improving the environment provides a visible sign of the money being spent which is particularly important for car users. More respondents stated that the monies raised would go into improving car parking and related security than said that they would go into a more general transport fund.

Overspill parking effects

The degree of overspill parking can be limited by four factors namely:

- The availability of on-street parking. For example the opportunities for parking in the Scottish NHS Trust's local are limited, due to large areas of green space found around the site;
- On-street parking controls. Obviously these largely affect the city centre or the edge of centre sites;
- Security concerns;
- The quality of public transport and the accessibility of the site by public transport compared to the "park and walk mode". In some locations, park and walk may still offer considerable journey time advantages when compared to public transport.

Response to the issue of overspill parking effects varied depending on site location. One interviewee said that they had not experienced the problem of overspill onto local roads simply because the local area is notorious for its crime rate and as such parking on site is safer. In addition the situation was pre-empted to a certain extent by getting the Council to undertake complimentary measures most notably placing double-yellow lines on the adjoining streets.

Nevertheless overspill parking can be a major issue. One interviewee stated that *"Yes that's definitely happened and the residents complain to the Council and this has caused problems for the organisation".* The overspill problem is not however specifically due to the parking charge but also due to the fact that there are more people that want to park within the organisations interviewed than there are spaces available.

Where the local authority had not, or was not prepared to, implement on-street parking controls, overspill parking was perceived as being a difficult issue.

5. Lessons of relevance from the case studies to organisations considering the implementation of a parking charge.

A number of important areas of advice were given in terms of helping other organisations seeking to implement a parking charge. They can be summarised as follows:

- *Manage consultation meetings carefully* since the introduction of parking charges is an emotive subject and you can get dragged into an argument very quickly. As such *"as far as possible be non-confrontational and reasonable".*
- *Good communication*. As stated, *"plan lots of advertising, the staff knew it was coming and then we did a count down to it, they saw all the cameras going in first, so they could see where the money was being spent so the investment was there prior to the establishment of the charge. It would be good at the car parks to have a sign that says 'your car parking fees are ring fenced for security and the park and ride bus, this is why you pay car parking fees'.".*
- *Road shows can work well* keeping staff informed of what is going to happen and why it is happening.
- *Be prepared* since not everyone will support it so *"when you do your road shows you have got to be prepared. Quite clearly road shows will attract those who are more anti than in favour.*

- ***There needs to be a level playing field between staff*** to stop arguments emerging such as *"the chief executive's got a dedicated parking space"*. It was sold on the basis that *"if it's good enough for the housekeeper at ward level, it's good enough for the chief executive and visa versa and that's how it was done and that's the only way that staff would accept it and it's stayed like that since"*.

- ***Work in partnership with the local authority*** in order to avoid difficulties before they arise. This could involve issues such as spill over onto adjoining roads and the need for residential parking zones.

- ***Use common sense*** not least in terms of not trying to achieve too much in the first instance since it will cause a *"knee-jerk reaction"* and you need to make sure you get the support of the staff. This may involve a charge in the first instance which is not too much of a disincentive so as to get the principle of a charge in place and then you *"can look at the rates"*.

- ***Have clear and transparent criteria for issuing permits*** this is something that needs to be considered prior to going ahead with a policy of implementing car parking charges at workplaces. As stated, *"experience is that once you start building up a whole raft of exemptions the whole systems becomes very difficult"*.

- ***Sell the benefits*** such as *"you are going to get CCTV and ...."* and *"we found that since we introduced a parking charge car theft has reduced by 75 per cent and frequently publicise that car crime has gone down"*.

- ***The parking charge may not be a deterrent to car use.*** It was stated that *"it isn't a deterrent for the majority who are bringing their cars on site, because they will pay it, just because they want to park closer to work"*.

- ***Be "up front" and stick to your guns*** *"when you're doing it because it's not going to be acceptable initially and you'll just have to get on with it and do it, but be fair, explain entirely what you're doing and if you can't actually ring fence it, to actually say that your going to use the money to improve public transport access then that's more palatable than if the monies being siphoned off to do something else"*.

- ***Be transparent*** *"in how you do it, you need proper aims and objectives, a proper implementation plan and evaluation and you need to make sure that you're equitable ...I think my advice would be not to assume that it's going to be straight forward, don't assume that people will actually see your point of view, and don't assume that it's a two minute job. I think you need to recognise it as a major change initiative, you actually need to have it properly managed as a discreet project...you have got to actually make it transparent to the people who've got to benefit from it, there will be some that don't benefit from it..."*

- ***Offer alternatives*** *"We are not forcing them to bring the car on site, we're just raising your tariff to park on here...but we are increasing more public transport on the site and we are developing hubs on site and we are trying to give them as much information as we can so that even with the hype they might get to a point when they think, well this is priced right out of our market, is there a bus that will get me to work at the time that I need to get there..."*

- ***Bite the bullet*** *"you have to recognise that its going to upset staff, but it's a process that you have to go through, if you're going to change the way you do things"*

6.   Conclusions: the wider use of parking charging in transport policy

A key finding of this paper is that there are very few organisations that have introduced parking charging, and those that have appear to be limited almost exclusively to the public sector and, within that, to hospitals and universities.   There are perhaps two conclusions that can be drawn from this. Firstly, it is only the very largest organisations

(1,500+ employees, plus visitors or students, on one site) that will implement parking charging because they suffer from acute problems of insufficient on-site parking. Secondly, one might infer that it is only these organisations that are sufficiently "un-footloose" that local authorities can require restrictive planning obligations from them, without fear that they will leave the area. Such obligations may include employees parking charging. Thirdly, these organisations are special cases in that they have students and or/visitors making trips to the site, as well as staff – and it has been demonstrated that, at hospitals at least, visitors and patients pay more than staff. This generates additional income without antagonising staff, but also suggests that only at organisations where there are parking demands additional to those of staff that the parking situation may become sufficiently acute for charging to be considered. It may be that large hospitals and universities define the minimum size of organisation in which discussion of parking charging is actually viable; and there are very few private sector employers with individual sites as large, in employment terms, as the hospitals and universities considered in this paper.

On the other hand, the paper has demonstrated that parking charges can be implemented at workplaces, and that, while their implementation is not simple, it will be assisted if the following factors are taken into account:

- 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;
- The funds raised are ringfenced for improvements in parking, security and alternative transport to the site.

Finally however, it should not be expected, given the fact that the case studies in this paper reveal that charging can be introduced successfully that this will mean other organisations will rush to follow them unless, as noted above, there are clear, site specific reasons for so doing.

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