REVIEW OF TAXI ACCESSIBILITY REGULATIONS

EFFECTS OF COMPLIANCE

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SUMMARY

1. This report examines the expected effects on the taxi industry of the draft regulations prepared under the 1995 Disability discrimination Act. In the consultation document on proposals for taxis, the timetable for implementation was given as January 2002 for the accessibility regulations to come into force for newly licensed vehicles and January 2012 for all taxis to comply with the regulations. These two dates have been used in estimating the effects of the regulations on the trade. The consultation document also proposed interim regulations that would apply to wheelchair accessible taxis licensed before January 2002. Subsequent discussions between the Department and the principal manufacturers of purpose-built taxis have shown these interim regulations to be impracticable, at least in the form in which they are currently stated. For this reason, no account has been taken of these interim requirements in this report.

2. The taxi trade is very complex. It is dominated by small, often individual enterprises and, at the local level, answers to almost 380 authorities with licensing powers. Hackney carriage services, which are the concern of this report, are almost universal though the balance between the modes of operation; rank, on-street and pre-booked, vary from place to place, as do the types of vehicles used.

3. The starting point for the assessment is to consider what might happen to the taxi trade in the future were there to be no regulations. Taxi use and the taxi (meaning hackney carriage)[*] and private hire fleets grew rapidly during the 1980s. The fleet numbers continued to grow during the 1990s but at a rather lower rate, reflecting a much reduced increase in taxi and private hire use.

4. It is concluded from this analysis, and from the relative differential between local bus and taxi fares, that future growth in the taxi fleet would be at a lower level than historically. An estimated annual growth rate, nationally, of 1.5 per cent per annum has been taken, which would have produced a taxi fleet by 2012 of about 80,000 vehicles.

5. The proposed regulations, however, will give rise to quite significant additional costs, both capital and continuing. These costs are summarized in the following paragraphs (8 to 23), but in aggregate are expected to lead to a substantial reduction in the number of taxis by 2012. This reduction will not be evenly spread across all areas. The areas least likely to be affected by any reduction are those where there is already a mandatory order (or its equivalent in the case of London) affecting all or a substantial proportion of the fleet and those areas where there is a quantity limit with, consequentially, some value attaching to a hackney plate.

6. Those areas where there is no mandatory order and no quantity limit are likely to be the most severely affected, with a substantial movement to private hire. Many of these areas are also ones in which the majority of taxi work comes via the telephone/radio circuit rather than off rank or on-street hail; again reasons why taxi operators may choose to go to private hire since they would lose little of their hackney work.

7. Based on this analysis, with a small movement out of taxi work in mandated areas with no quantity limits and a substantial - estimated at 70 per cent - movement out of non-mandated unlimited areas, the 2012 taxi parc is estimated at approximately 66,000 vehicles : virtually the same as that at December 1997.

[*] Taxi is used to mean hackney carriage service in this report

8. Based on discussions with taxi manufacturers, it is estimated that the additional purchase costs for new vehicles arising as a result of the requirement for full (wheelchair) accessibility will be £2,100 for each purpose-built London-style cab and £2,500 for each MPV-based taxi.

9. There are two further capital costs associated with the advent of the regulations. The first of these affects those taxi operators who presently use saloon cars. They will have to change to compliant vehicles; largely purpose-built or MPV-based taxis, the numbers changing to van-based taxis are not expected to be of significance nationally.

10. Because fully compliant taxis will not be available to buy until, at the earliest, January 2002 there will only be a ten year period during which those saloon taxi operators who wish to remain in hackney service can change their vehicles. Over that period these operators will be buying vehicles ranging from new to up to ten years old at estimated average prices well above the typical price currently paid for saloon taxi.

11. For the purposes of this assessment it has been assumed that the average price paid for a purpose-built cab would be £14,000 and for an MPV-based vehicle £11,000. These figures compare with an average price of £7,000 paid for a saloon taxi.

12. The third capital cost is attributable to the loss of usable life of non-compliant purpose-built cabs. On average these have a life of about 12 years, though some are run for much longer than this. Given that non-compliant taxis are the only vehicles available prior to January 2002, there may be some 8,000 taxis that will have to stop operating as hackneys in 2012 but which still have some working life left. In theory at least they could be used as private hire, but this type of vehicle is not the preferred choice in this sector. It is likely, therefore, that there will be a loss of useful life which has a capital value estimated to average £3,000 per cab.

13. The precise amounts of the costs of providing full access and of the change from saloon to compliant vehicle are both dependent on, inter alia, the proportions of the 2012 fleet taken by the two classes of vehicle; purpose-built and MPV.

14. Based on the latest data available, purpose-built taxis account for about 48 per cent of the taxi fleet, MPV-based taxis for just over two per cent and saloons for the remainder. The future pattern of vehicle type will still be subject to the policies of licensing authorities - or of those who choose to adopt a policy - and will vary from area to area. Detailed assumptions on vehicle mix are given in the report, but range from 100 per cent purpose-built cabs in areas which already mandate this type of vehicle to 35:65 purpose-built : MPV in non-mandated, unlimited areas. These estimates also take into account the likely ability of the manufacturers and converters to produce the required numbers of vehicles. The result is a 2012 fleet forecast to comprise :

54,800	purpose-built cabs	(83%)
11,100	MPV-based cabs	(17%)
65,900	**Total**	

15. The additional costs of providing full access, based on these figures, give capital costs at full compliance date of

Purpose-builts	54,800 x	£2,100	£115 million
MPVs	11,100 x	£2,500	£28 million

To which should be added the additional costs incurred by saloon taxi operators changing to compliant vehicles. They are estimated to change to purpose-built : MPVs in the ratio of 3:2, giving the following costs

12,400 saloons replaced by purpose-builts	£86.8 million
8,300 saloons replaced by MPVs	£33.2 million

Finally there is the loss of working life, which is estimated as

8,000 purpose-builts x	£3,000	£24 million

The total capital costs of meeting the proposed regulations sum to £287 million, which will be spread over the ten years from 1.1.2002 to 1.1.2012.

16. The other aspect of costs concerns the continuing or operational costs. Compliant taxis will be heavier than their present-day versions and it is estimated that this will cause a five per cent increase in fuel use. The change from saloon cars to purpose-built or MPV taxis will also lead to increased fuel use, estimated at +21 per cent saloon to MPV and +36 per cent saloon to purpose built.

17. Using average mileages of 22,000 per annum for London taxis and 40,000 miles elsewhere, and with the predicted size and composition of the 2012 taxi parc, these extra fuel costs are estimated to be :

Replacement of existing purpose built/MPVs New purpose built/MPV in mandated areas }	+5%	£8.5 million pa
Replacement of saloons by purpose-builts	+36%	£16.2 million pa
Replacement of saloons by MPVs	+21%	£6.4 million pa
Total		**£31.1 million pa**

18. Depreciation rates of purpose-built taxis compared with those of a three year old saloon bought for £7,000 and disposed of at the end of three or four years are similar. Depreciation on MPV-based taxis, assuming an eight year life are somewhat higher by about £600 per annum. This additional cost of depreciation, applying to those saloon taxi operators who change to MPVs would amount to an annual extra cost of about £5 million.

19. Taxis, whether bought new or second hand, are usually purchased by hire purchase. For those who would be buying purpose-built or MPV taxis irrespective of any regulations, the extra costs is the interest attributable to the cost of full access (£2,100 £2,500 see paragraph 15). for those who have to change from saloon, the extra cost is the interest attributable to the difference between the "typical" saloon purchase price and that of the compliant taxi : plus £7,000 for the purpose-built, plus £4,000 for the MPV.

20. Interest calculations are based on a flat rate of 6.75 per cent over four years for saloons and MPVs and 5.75 per cent over four years for purpose-built taxis. For the parc as at 1.1.2012, these annual costs would be :

Purpose built cabs "access" costs (£2,100)	£2.205 million pa
MPV "access" costs (£2,500)	£0.931 million pa
Saloons to purpose-built cabs (£7,000)	£4.106 million pa
Saloons to MPVs (£4,000)	£2.242 million pa
Total continuing annual interest costs	**£9.484 million pa**

21. There are two other elements of costs affected by the proposed regulations : maintenance and repairs, and insurance. Firm data on maintenance and repairs across the present taxi parc is difficult to obtain and, when found, shows a great deal of variation. On balance however it is estimated that the change from saloon to purpose built will result in a small average reduction in cost, amounting to £1.2 million per annum.

22. Insurance costs also vary for obvious reasons. For some taxi operators there will be a small increase to give "door to cab" public liability cover although some current insurance already covers this. Against this, insurance premiums for purpose-built cabs are lower, on average, than for saloons. It is estimated that the net effect of changes in insurance premiums will be a reduction amounting to £1.6 million per annum.

23. In summary the changes in annual continuing costs, based on the forecast taxi parc at 2012 is

Additional costs	
Fuel costs	£31.1 million pa
Depreciation	£5.0 million pa
HP interest charges	£9.5 million pa
Savings	
Maintenance, repairs etc	£1.2 million pa
Insurance	£1.9 million pa
Net additional costs	**£42.5 million pa**

24. The other aspect to this estimate of the effects of the proposed regulations is the additional revenue that may arise as a result of providing disabled people - particularly wheelchair users - with a usable service. Based on NHS data it is estimated that there are 700-750,000 wheelchair users in the UK. Evidence from taxi services with accessible vehicles is that at the lower end of the range, use by wheelchair passengers only accounts for around 0.1 per cent of total passengers. At the other extreme it can be up to three per cent. It is apparent that whether or not there is some form of subsidy for wheelchair users, like Taxicard, makes a substantial difference in levels of use.

25. Based on an examination of data from existing accessible taxi services and national travel data it is estimated the increase in use by wheelchair passengers if all taxi and private hire vehicles were fully accessible would amount to about six million trips per annum. However, hackney carriage taxis could only expect to get about one-third of this increase, the balance going to private hire. On the basis of the national average taxi journey of 3.7 miles - equivalent to a fare of about £4.60 - it is estimated that this could increase taxi revenues by about £9.2 million per annum.

26. The other source of potential additional revenue is for carrying disabled people under contracts to local education authorities, local authority social services and health authorities. There are no national figures on the extent of this, either in numbers of

journeys or revenues. Nor are there any general data within the taxi trade itself on the extent of this type of travel. Examples from individual taxi operators with accessible taxis suggest that it can form a significant proportion of their work. What is much less clear is the extent to which, if taxis were all fully accessible, they could generate additional passengers, presumably taken mainly from private hire services and minibus operations. What evidence there is suggests that contract work could at least double the amount of additional work gained by fully accessible taxis, producing an increase in revenue in total of about £20 million per annum.

Net additional revenue £20 million pa.

27. On the basis of the figures given in Sections 23-26, there is a net reduction of about £22 million per annum in revenue, spread over the national taxi fleet. This represents about two per cent of the total revenue generated by taxi services in the UK.

28. There are a number of other issues that have arisen during the preparation of this report. These include the following :

    (i) The date for compliance for newly licensed taxis (1.1.2002) is probably not feasible. Certainly, the view of one of the manufacturers of purpose-built taxis, is that they could not have a fully-compliant vehicle available for sale by that date.

    (ii) Given the average working life of purpose-built taxis, a ten year period from new license compliance to full compliance will take otherwise usable taxis out of the fleet before the end of their working life and may cause a short sharp increase in demand for compliant taxis close to the end of the period.

    (iii) Because of the extra costs which taxi operators will have to re-coup, fares are likely to rise slightly faster than would have been the case were there no regulations. One effect of this may be to syphon off more taxi work into the private hire sector. If the proposed working time regulations come into being, most taxi drivers will not be able to recover the extra costs by working longer hours, indeed many will have to work shorter hours, always assuming that the regulations are enforced.

    (iv) The extra revenue arising from increased use by wheelchair passengers may be somewhat understated, particularly if local education, social services and local health authorities place more contract work with taxi operators. However, any increase in costs of taxi services will militate against this.

    (v) There is quite a wide-spread view among taxi operators that they are being treated like public transport so far as DDA regulations are concerned, but not like public transport (particularly buses) so far as fuel duties are concerned. In some areas this feeling is exacerbated by taxis not being allowed to use bus lanes.

(vi) There is also quite a wide acceptance within the trade that adequate provision should be made for disabled passengers, particularly wheelchair passengers. This view is coupled with a belief, supported by some evidence, that if a proportion of the taxi fleet uses fully accessible vehicles, that proportion can generate sufficient additional revenue to justify the extra costs. The problems with this approach are that no-one has any conclusive evidence on what that proportion should be nor on how, if a proportion were chosen, it should be selected from among the fleet as a whole.

29. The figures for costs given in this report are large but it should be remembered that they are spread over time and across the whole fleet, albeit not equally so. The total additional capital costs, spread over ten years, amount to an extra £435 per taxi per annum or about £1.50 per working day. The continuing annual net costs, across the fully compliant fleet average about £1.14 per working day.

TAXI ACCESSIBILITY REGULATIONS - EFFECTS OF COMPLIANCE

1.0 Introduction

It is a requirement of the Government that no regulatory proposal affecting business should be countenanced without a Regulatory Impact Assessment. Such an assessment is intended to show the likely cost implications to business of complying with new or amended regulations, to inform Ministers, Members of Parliament, business and other interested parties of the cost implications of proposed regulations and to ensure that any such regulations do not impose unnecessary burdens on business and to assess any benefits that may arise.

The Disability Discrimination Act, 1995, gives the Secretary of State for Transport powers to make "accessibility regulations" which affect public service vehicles, taxis and rail vehicles. This report, which was commissioned by the Department of Transport, examines the probable effects of the application of accessibility regulations to the taxi industry.

2.0 Study Objectives

The objectives of the study were defined by the Department of Transport as including :

(a) The increase in capital costs per vehicle resulting from compliance with the relevant technical specification

(b) Assessments of changes in numbers of passengers who are likely to use the accessible vehicle services

(c) The whole life costs of different vehicle types

(d) Any other relevant cost or benefit factors that may arise as a result of the introduction of the regulations.

3.0 Study Methods

The main part of the study consisted of interviews with taxi vehicle manufacturers, taxi operators and local authority licensing officers. Relevant source data on numbers and use of taxis and private hire cars was obtained from the Department of the Environment, Transport and the Regions, from a number of reports on taxi use and unmet demand that had been commissioned by local authorities and from other published sources. The results of this work are described in the following sections.

With regard to nomenclature the word 'taxi' in this report is used to describe a vehicle which plies for hire and which is licensed under section 37 of the Town Police Clauses Act 1847 or Section 6 of the Metropolitan Public Carriage Act 1869. Vehicles not licensed to ply for hire are referred to as 'private hire cars'.

Scotland and Northern Ireland have a different legislative base for their taxis and private hire vehicles (see Sections 4.4.3 and 4.4.4) but essentially the distinction between the two kinds of service are the same and the word taxi is used to cover these vehicles licensed to ply for hire in Scotland and Northern Ireland.

4.0 The Taxi Industry

4.1 Use of Taxis and Private Hire Cars

Although a minority mode of transport, use of taxis and private hire cars has increased at a proportionately greater rate than any other land-based mode of transport. National Travel Survey data shows that over the period 1975/76 to 1994/963, the average number of taxi and private hire car journeys made per person per year rose from three to ten while the average distance travelled increased from 13 to 37 miles[1]

The same source shows that taxi and private hire car use is an important part of the travel of disabled people. Although the average annual distance travelled by taxi/private hire car among disabled people is a little below that for the population at large, it accounts for a substantially greater proportion of disabled peoples' total travel.

Table 1 Summary of data on taxi and private hire car use

Annual average number of journeys per person per annum :					
1975/76	3	1994/96	10	Change	+233%
Annual average distance (miles) per person per annum :					
1975/76	13	1994/96	37	Change	+185%
Percentage of total annual distance travelled by taxi/private hire cars 1991/93					
Adults with no disability			0.5%		
Adults with slight disability			0.9%		
Adults with severe disability			1.9%		

The proportionately increased use of taxis and private hire cars by people with severe disability confirms earlier findings on modal use by disabled people in the OPCS surveys of disability. In that study it was found that taxi/private hire car use declined markedly less with increasing severity of disablement than did either bus or rail use[2]. The gradual introduction of fully accessible buses and trains should lessen the rate of decline for those modes, but the figures emphasize that taxi and private hire cars are an important mode of travel for disabled people and are likely to continue to be so.

4.2 Numbers of Taxis and Private Hire Cars

Over the country as a whole the number of taxis has shown a continued increase for more than 20 years. Data for London are more comprehensive than for the rest of the country. There, the number of taxis has increased from 10,100 in 1972 to 18,300 in 1994 and to 18,900 in 1997. In the rest of England and Wales numbers of taxis have increased from 12,400 in 1972 to 32,900 in 1994 and to 36,400 by the end of 1997. Information for Scotland is less complete but again shows a pattern of growth from 6,400 taxis in 1985 to 8,600 in

[1] Transport Statistics Report, National Travel Survey : 1994/96, The Department of the Environment Transport and the Regions, The Stationery Office, London, 1997.

[2] OPCS surveys of disability in Great Britain, Report 4, OPCS, HMSO, London, 1989.

1994. The most recent figures for Scotland, compiled by the Scottish Office show 8551 taxis as at August 1997.

Increases in private hire cars, though less well documented than taxis are if anything even greater than those for taxis. In England and Wales outside London their numbers have increased from just over 19,000 in 1980 to 57,400 in 1994 (including 650 known to be unlicensed). In Scotland private hire cars have risen from 3,000 in 1983 to 5,700 in 1992[3] and to almost 7,400 by August 1997.

Private hire cars are not licensed in London, but it is estimated that in 1997 there were as many as 60,000. A minority of districts outside London also have no licensing requirement for private hire cars (eight districts in England and Wales and 13 in Scotland at 1994), so the total number of such vehicles may be a little above the figures quoted in the preceding paragraph.

In summary the stock of taxi and private hire cars is estimated to be as shown in Table 2, in which the rate of growth in private hire cars from 1994 to 1996 has been assumed to be a continuation of the rates applying in the three to four years prior to 1994.

Table 2 Current stock of taxis and private hire cars : 1997

Area	Taxis	Private hire	Totals
London	18,930	60,000	78,930
Rest of England	33,540	63,500	97,040
Wales	2,820	2,800	5,620
Scotland	8,550	7,400	15,950
Northern Ireland	2,200	2,800	5,000
Total	**66,040**	**136,500**	**202,540**

4.3 Numbers of Drivers

The total number of licensed taxi drivers in London at the end of 1997 was 22,252. The number of private hire vehicle drivers in London is not known, but if the ratio of between 1.5 and 1.6 drivers to vehicles which pertains in the rest of England applies in London, then there will be between 90 and 100,000 drivers there.

In England outside London there are 76,300 licensed taxi drivers of whom approximately 25,500 hold dual taxi and private hire licences, in Wales there are some 6,660 licensed taxi drivers of whom just over 3,000 hold dual licences. The number of licensed taxi drivers in Scotland, based on the Scottish Office survey of mid-1997, was just under 7,400.

[3] Bus data - 1998 edition, A Compendium of Bus, Coach and Taxi Statistics, Department of the Environment Transport and the Regions, London, February 1998.

4.4 Licensing and Control

4.4.1 England and Wales outside London

Apart from London, taxis in England and Wales are licensed by local authorities (district councils or unitary authorities) under the Town Police Clauses Act 1847 or that Act as modified by the Local Government (Miscellaneous Provisions) Act 1976. There is no absolute rule requiring local authorities to license taxis but in practice virtually all do. Councils may specify a maximum age limit for a vehicle used as a taxi and may also specify a maximum age for a vehicle where it is first licensed as a taxi. Just to give one example, Kirklees Metropolitan Council will not license a taxi for the first time if it is more than four years old and, under normal circumstances, no vehicle is permitted to continue as a taxi once it is over nine years old.

Local authorities also require taxis to be tested, usually once a year though some have more frequent tests than this. Control over fares charged is also exercised by local authorities, although they are not obliged to do so. There is no right of appeal against a local authority failing to set or increase taxi fares.

Most local authorities license saloon cars as taxis but in recent years an increasing number have adopted a policy requiring taxis to be accessible to disabled passengers, specifically wheelchair users. Usually referred to as a "Mandatory Order", the latest statistics[4] show that 81 (24 per cent) out of 343 districts with licensing powers in England and Wales have done this. The effect of the orders vary, in some cases requiring all taxis to comply by a given date, in others requiring a specified number and in yet others limiting it to all newly issued plates.

Local authorities can also exercise control over the total number of taxi licences issued in their area, though this power has been limited by Section 16 of the 1985 Transport Act. Again from the latest data 153 (45 per cent) of authorities still have a limit on numbers.

Taxi driver licences are also the responsibility of local authorities, who may stipulate that drivers meet requirements similar to those required by the Public Carriage Office (PCO) for London taxi drivers. However there is considerable variation among authorities in their requirements, which in many cases are less stringent than those applying in London. As mentioned in Section 4.3, quite a large proportion of local authorities (84 or 24 per cent) issue dual licences, covering both taxi and private hire.

The Local Government (Miscellaneous Provisions) Act 1976 also enables local authorities to control the private hire trade and it appears that this is done in (virtually) all areas. The 1993 Consultation Paper on taxis and private hire[5] estimated that 95 per cent of councils including all the larger ones had introduced control of private hire at that time. The degree of control varies from one authority to another, in some cases being similar to that applying to taxis, in other cases less stringent. However, local authorities do not control private hire fares; these remain the responsibility of the operators.

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[4] See Table 6.4 in Bus data - 1998 edition

[5] "Taxis and Private Hire Vehicles" Consultation Paper published by the Department of Transport, October 1993.

4.4.2 London

Licensing of taxis in London is the responsibility of an Assistant Commissioner of the Metropolitan Police under delegated authority from the Secretary of State for Transport. The principal legislative base is the 1934 London Cab Order. The Public Carriage Office administers the licensing function covering both the specifications for vehicles used as taxis (known as The Metropolitan Conditions of Fitness) and licensing of drivers.

There are two types of taxi driver licence in London; the Green Badge which permits operation anywhere in the Metropolitan Police District, and the Yellow Badge which limits operation to one or more of the 16 suburban sectors. It is estimated that about ten per cent of the 22,250 licensed taxi drivers in London hold Yellow Badges.

There is no limit on the number of licences issued to taxi drivers in London, but the requirement that all drivers should be 'fit and proper' persons - and particularly the test of topographical knowledge - in effect act as a limit.

Unlike many areas outside London there are no restrictions on the age of taxis, though the annual tests (and spot checks) are stringent.

Fares are set by the Secretary of State for Transport in accordance with a formula devised by the Home Office with the help of an independent group of consultants. Fares are reviewed annually.

Private hire vehicles and drivers are not subject to any licensing or other formal control. They set their own fares, usually below comparable taxi fares. The number of private hire vehicles is not known, but is estimated to be in the region of 40,000 to 60,000. The quality of private hire operations varies considerably, Some maintain a high standard and, indeed, have formed a quality control association; others offer services of doubtful quality and safety, with drivers who would not be permitted to operate in areas outside London where private hire is controlled. It seems likely that the anomaly of an uncontrolled 'minicab' service in the capital will be ended in due course by legislation.

4.4.3 Scotland

The legislative base for taxis in Scotland is the Civil Government (Scotland) Act, 1982. The definitions contained within this Act differ somewhat from those in English legislation one effect being that vehicles in Scotland must operate either as a taxi or as private hire, whereas in England and Wales a hackney carriage can operate as a private hire vehicle depending on the method of hiring. One effect of this is that it is less common to find mixed fleets (taxis and private hire) in Scotland than it is in England.

Another difference between Scotland and England is that the 1982 Act makes it possible for a local authority to delineate zones within its area and to apply different licensing conditions to those zones. This ability may prove of relevance to the application of any regulations introduced with respect to taxis under the Disability Discrimination Act.

In most other respects, practice in Scotland is similar to that in England and Wales. Local authorities can if they choose place restrictions on ages of vehicles - some do, others do not - and some (24 out of 32 licensing authorities) place restrictions on numbers of taxis, though not necessarily in all parts of their area. One aspect which is different is the requirement placed on local authorities to review fares at least once every 18 months. The 1982 Act also gives taxi operators a right of appeal on fares to the Traffic Commissioner; a right which has been exercised successfully on some occasions.

4.4.4 Northern Ireland

The relevant legislation here is the Road Traffic and Vehicles, Motor Vehicles (Taxi Drivers Licences) Regulations (Northern Ireland) 1992, plus subsequent amendments. Unlike the rest of the United Kingdom, local authorities have no role in the licensing of taxis; this is the responsibility of the Department of the Environment, as is the enforcement of conditions.

All licensed vehicles in Northern Ireland are categorized as PCVs (Passenger Carrying Vehicles) so the terms hackney carriages and private hire vehicles do not exist; all are taxis, some available for public hire, some for private. The distinction between the two is shown by windscreen discs.

There are no quantity controls on taxis in Northern Ireland, nor are there any age limits on vehicles. All taxis have to pass an annual road worthiness test (at government test centres). The Department of the Environment sets the metered fares for Belfast but beyond this there are no controls on fares, which are determined by operators themselves. Some taxis outside Belfast are metered, others are not. It is possible in the future that there will be a requirement placed on all taxis to have meters and standard distance measures, but fares will still be left to the discretion of the operators.

4.5 Structure of the Trade

The taxi trade is complex and diverse. It is still characterized by a large number of independent (in every sense) owner-drivers and relatively few large companies.

The majority of **taxi drivers** either drive a vehicle which they own (or are in the process of buying) or which they hire from a **proprietor**. A taxi driver who owns his own vehicle may, of course, be known as a proprietor, but for the purposes of this study a proprietor is defined as an individual or company that owns vehicle(s) which it hires out to independent drivers or, less commonly, to waged drivers.

There are three principal ways in which a proprietor may hire out a vehicle.

(i) on a period rental, usually weekly but sometimes daily (sometimes known as “on the flat”);

(ii) on the basis of a share in the metered taxi takings (“on the clock”);

(iii) on a mileage rate.

Where a taxi is rented out to a driver, the proprietor will be responsible for all the costs associated with running the vehicle (servicing, repairs, insurance, meter etc) except fuel which will be the responsibility of the driver. The rental may also include payment for belonging to a radio circuit (see below) and the amount of the rent will reflect the age of the taxi.

Where the hire basis is a share of takings, the proportion that goes to the proprietor will depend on which vehicle expenses the driver pays. For example if the driver pays all the vehicle expenses including fuel the division on takings may be two-thirds to the driver, one-third to the owner. Where the fuel costs are paid by the proprietor takings will probably be divided 50:50. In either case the driver will retain any tips.

For taxis hired on a mileage basis, the driver retains all of the takings in return for a hire charge of so much a mile, including dead mileage.

Radio circuits operate in many places and provide facilities for taking calls for taxis which are then passed on to drivers via two-way radio. In some cases radio circuit operators may

also manage account customers, collect payment on contracted services, for example with local authorities or large companies, and provide other services to the taxi drivers in return for a regular hire charge. The amount charged varies considerably according to what services are provided and whether the circuit is run by a company or by a co-operative (Taxi Operators Association). The costs of belonging to a radio circuit in London are substantially less than in most other places but, in spite of this, it is estimated that only 40 per cent of London taxis have a radio.

4.6 Mandatory Orders

At 31 December 1997, 81 out of 343 districts with licensing powers in England and Wales had a mandatory order policy, the great majority of which specify a purpose-built "London cab" type vehicle. The number of mandatory orders in place does not appear to have materially altered since the previous survey which reported on the situation at the end of 1994.

Out of the 81 authorities with a mandatory order, 19 related the order only to new or replacement plates (mostly the former) and a further ten specified only a set number or proportion of the total fleet, ranging from 7.5 per cent up to 50 per cent. There is no apparent pattern to the percentage of the fleet specified by the orders.

The remaining 52 licencing authorities, including London, have orders which apply to the whole of the taxi fleet. Some are expressed as a requirement to comply by a given date, ranging from next year up to 2012, others are expressed as requiring compliance from a given date on. A number of these have had such a policy for many years - London obviously - but others date back more than 20 years.

The same level of detail is not available in Scotland and Northern Ireland, but in the former the two largest licensing authorities (Glasgow and Edinburgh) specify purpose-built cabs, wheelchair accessible in the case of Edinburgh. A number of other areas (including Aberdeen, West Dumbartonshire, South Lanarkshire, Stirling and Dundee) also have a proportion of wheelchair accessible cabs, though some of these are MPV or minibus cabs rather than London-style vehicles.

In Northern Ireland, the Department of Environment has mandated that all Belfast cabs (some 220 in total) should be wheelchair accessible by December, 2000, but there are no mandates outside this area, where the majority of taxis are saloon cars.

Table 3 summarizes these data.

Table 3 Vehicle type and mandatory orders

Area	Total taxi fleet	Of which cab body	Of which MPV	Balance (saloon/estate)
London	18,926	18,926	-	-
England and Wales				
Authorities with mandatory orders	12,961	8,386	482	4,093
Other authorities	23,397	1,497	1,017	20,883
Subtotal England & Wales	55,284	28,809	1,499	24,976
Scotland	8,551	2,861 [1]	- [1]	5,690
Northern Ireland	2,200	220 [2]	- [3]	1,980
Total UK	**66,035**	**31,890**	**1,499**	**32,646**
(Per cent)	**100.0**	**48.3**	**2.3**	**49.4**

Notes 1 Figure includes 2,461 cabs in Glasgow and Edinburgh, the balance elsewhere may include some MPVs

2 Belfast only

3 No figures available

It is not known with any precision what the proportion of purpose built cabs that are wheelchair accessible is at present, but it is estimated to be approaching 70 per cent or some 22,000 taxis. Some of the MPV taxis are also wheelchair accessible, but the proportion is not known. Quite a lot of these vehicles have come into taxi operation only over recent years, so it is likely that some at least are wheelchair accessible.

5.0 The Effects of the Proposed Regulations

There are two direct effects of the introduction of regulations under the Disability Discrimination Act; on the cost of buying or hiring taxis and on the costs of operating those vehicles. On the other side of the equation there is the effect on revenue; any increase in use that might arise as a result of introducing more accessible vehicles. The effects of these changes in costs and revenues also have to be considered in the context of the taxi and private hire trade as a whole, particularly the question of whether and to what extent the introduction of regulations might result in a move from taxi to private hire.

These matters are considered in the following sections. That consideration should be read in the context of a trade which is still very much one dominated by the individual entrepreneur. It is a trade which traditionally has had a low cost of entry and which attracts a significant proportion of short term drivers, though this probably applies more to the private hire side than to hackney work.

During the course of the research for this report, discussions were held with taxi operators, local and national associations throughout the country (see Annex 1 for a list of those interviewed). The following sections are based mainly on these interviews, together with financial records supplied by a number of individuals and companies, many through the good offices of The National Private Hire Association and the National Taxi Association.

Apart from specific financial matters, the attitudes and beliefs of taxi operators are important, not least because they will have a bearing on the extent to which there may be a move out of hackney work and into private hire. These issues are considered in Section 5.1. Section 5.2 reviews the policies and views of Licensing and Enforcement Officers including drawing on survey material made available by the National Association of Taxi and Private Hire Licensing and Enforcement Officers. Section 5.3 then considers the likely financial and other impacts on the trade of introducing the accessibility regulations.

5.1 Attitudes to Proposed Regulations

5.1.1 General Views

In general, the majority of the operators contacted accepted that taxi services should be capable of being used by disabled people, including wheelchair users. However, what was not accepted was the all taxi services should be fully, that is wheelchair, accessible.

The operators interviewed worked in areas which ranged from 100 per cent wheelchair access (eg Edinburgh) or where the operator's fleet was fully accessible (eg Derby City Taxis) to places where there were few or no wheelchair accessible vehicles (eg Dumbarton, Darlington). Even in some of the areas where the fleet is already largely wheelchair accessible there is, among some operators, a view that full access is not appropriate but, as would be expected, most of the resistance to the policy of full access arises in those places where only a proportion, often quite small, is accessible.

The principal reasons given for the view that requiring fully accessible fleets is inappropriate are :

(i) The additional capital costs of buying and operating wheelchair-accessible vehicles

(ii) A belief that the additional patronage arising from full accessibility would not be sufficient to offset the extra costs

(iii) An opinion that some disabled people prefer to ride in saloon car taxis and find purpose-built wheelchair accessible taxis difficult to get into and/or uncomfortable to ride in

(iv) Concerns over insurance costs

(v) Worries about handling of wheelchair passengers

(vi) A view that purpose-built (accessible) cabs are inappropriate for some types of service such as longer distance journeys and trips made by businessmen who are thought to prefer the comfort of an up-market saloon car.

The question of costs is dealt with in detail in Section 5.2 but it is worth noting here that this concern about costs is frequently expressed as the difference between buying a second hand saloon car, typically about three years old and costing around £6,000-8,000, and buying a new purpose build accessible cab at a cost of £25,000 or more. There is an understandable view among taxi operators that wheelchair access equates with a purpose-built ("London") cab, even though the regulations are drafted in such a way as to permit the use of other types of vehicle, some of which are cheaper than the London cab.

Concern about costs also arises from the perception that servicing and maintenance costs are higher for purpose-built cabs and that in some areas dealer facilities for these vehicles are few and far between. For example it was said that in Scotland the only LTI and Metrocab

main dealers are in Glasgow and Edinburgh, necessitating long journeys and consequential loss of working time when the vehicles needed servicing.

5.1.2 Additional Patronage

Experience of the patronage that arises from wheelchair use of accessible cabs is not comprehensive and is difficult to quantify. Figures quoted by interviewees included :

Edinburgh (where all taxis are accessible) use by wheelchair passengers is less than one per cent of total patronage

Glasgow (operator with fleet of 100 taxis) does about 200 wheelchair passenger jobs a day, many of these being local authority contracts

Newcastle Airport taxi service recorded 55 requests for wheelchair accessible taxis out of a total of 225,000 hirings (0.02 per cent)

Oxford operator recorded eight out of 4,500 trips by wheelchair passenger (0.18 per cent)

Kirklees : wheelchair accessible taxis typically carry one or two wheelchair passengers a week

Dewsbury : owner/driver with accessible taxi carries four to five wheelchair passengers a week

Leeds operator with 90 cabs of which 21 are accessible carries approximately 1,100-1450 wheelchair passengers per month out of a total of 32-40,000 jobs (ie around 3.5 per cent). Eighty per cent of work is contract

Brighton 35 wheelchair accessible cabs (12 per cent) out of a total fleet of 290 means there is sufficient work from disabled users to justify additional costs

Derby City Taxis estimate that about ten per cent of daytime passengers are disabled (not all wheelchair users) but this falls to three to four per cent at night.

The figures vary and are expressed in ways which make comparisons difficult. However, as was shown in Table 1, national data suggest that disabled people make more use of taxis per capita than do able-bodied people. Table 4 shows the number of journeys per adult per annum by taxi, from the 1991-93 National Travel Survey. These figures illustrate several features of taxi travel. First, use of taxis by disabled people measured as numbers of trips, is one-third higher than that of able-bodied people. Second average taxi use is higher among more severely disabled people than either those who are less severely disabled or able-bodied people. Third, taxi use accounts for 4.5 per cent of all trips over one mile made by severely disabled people and for 2.1 per cent of those made by people with a slight disability; but only for one per cent of trips made by able-bodied people.

Table 4 Number of journeys per adult per annum by main means of transport

Mode	People with :			
	slight disability	severe disability	all with disability	no disability
Taxi	11	13	12	9
Other (road) vehicle	451	268	379	767
Rail	8	1	6	22
Walk	44	7	30	63
Total	**514**	**289**	**427**	**861**

Note : Excludes journeys under one mile

It is clear from these figures that disabled people have a greater propensity to use taxis than the population at large. It is also clear from local taxi use studies that the availability of some form of subsidy has a significant effect on taxi use. A study in Bedford[6] found that disabled people made on average about 1.5 taxi/private hire car trips every month. At that time there was no subsidy for taxi journeys. Research in Cambridge based on a sample of disabled people who were members of a Taxicard scheme[7] found that they were making an average of between five and six taxi trips per month. That level of use - broadly 1.5 to 2 trips per week where there is a subsidy scheme - is borne out by data from Manchester and Strathclyde : in the former members of the Travel Voucher Scheme were making about 1.8 taxi trips a week, in the latter about 2.0 trips per week. This level, however, is substantially more than in the London Taxicard scheme, where the average for all members (some of whom are not active users) is 1.3 trips per month.

5.1.3 Other Issues on Demand

Two other issues, drawn from these surveys of demand for taxis, have some relevance to the proposed regulations. First, even among those disabled people who are members of a scheme providing subsidized taxi travel, expense remains a significant deterrent to increased used. For example, 27 per cent of disabled users in the Cambridge survey said they would make more use of taxis if the costs were less. This figure is similar to that found in the Bedford research (30 per cent).

Second, preferences for the type of vehicle used as a taxi are quite mixed. In the Cambridge study just over 40 per cent of wheelchair users said they preferred a "London" cab compared with 36 per cent who preferred a saloon and 24 per cent with no preference. In Bedford the figures were, respectively 20 per cent, 32 per cent and 48 per cent. A study by Lothian Regional Council of their Taxicard members found that 35 per cent of all members preferred the London cab, while 28 per cent preferred a saloon car. In the Cambridge and Bedford surveys the percentages of disabled non-wheelchair users who preferred the London cab were lower than for wheelchair users, being 13 per cent (Cambridge) and nine per cent (Bedford).

[6] Steer Davies Gleave, Report 2, The use of taxis by people with mobility impairment in North Bedfordshire (September 1992)

[7] Cambridge City Council, Disabled Users Survey (February 1996)

In a recent survey in Edinburgh it was found that approximately 20 per cent of Taxi card members[8], "cannot use a black cab". In Aberdeen a survey in 1994[9] found that 12 out of 15 wheelchair users preferred a London cab. A survey conducted by Mid Sussex District Council (1992/93) found that 59 per cent of wheelchair users preferred a London type cab.

The proportion of wheelchair users in Cambridge and Bedford who apparently prefer saloon cars to purpose-built cabs is, on the face of it, surprising. However, a substantial proportion of wheelchair users can transfer from wheelchair to car seat and would appear to prefer to do so, though lack of training of cab drivers in how to handle a passenger in a wheelchair may also have influenced preferences. The relatively greater proportions of non-wheelchair using disabled people who prefer a saloon to a purpose-built cab is perhaps less surprising. Earlier modes of purpose-built cabs were criticized by ambulant disabled people on the grounds that stepping up and bending down at the same time, when entering the cab, were difficult for some people, as was the distance of the seats back from the entrance. Improved door height, an intermediate step and the provision of a swivel seat (as in current LTI vehicles) should reduce, if not obviate, these problems. The fact remains, however, that a substantial proportion of disabled people prefer a saloon-type taxi.

5.1.4 Methods of Obtaining a Taxi

One of the arguments made by the taxi trade is that the great majority of wheelchair passengers book their taxi by telephone rather than from a rank or on-street hailing. The consequence of this, it is suggested, is the need only for a proportion of the fleet to be wheelchair accessible : sufficient to respond to pre-booked calls. At a more general level it is also said that in those areas where most of the total taxi business is pre-booked, many operators would choose to change to private hire on the grounds that they would lose little business but save on the extra costs of buying a wheelchair-accessible vehicle.

In practice the balance between pre-booked, rank and on-street varies very widely between areas and even within areas depending on whether the individual driver is on a radio circuit or not or has a significant proportion of account work.

At the request of the researcher, the questionnaire included in the consultation document on proposed taxi regulations included a question on the percentages of customers coming from the three sources. The responses to this question, from 299 taxi drivers, illustrated the wide range of sources of calls (see Figures 1, 2 and 3). Out of the total respondents 263 (88 per cent) had customers from ranks and of these rank work accounted for an average of 67 per cent of their total customers. However, for quite a substantial proportion (124 or 47 per cent) of those using ranks, work from that source accounted for 90 per cent or more of their total passengers.

[8] Annual Report and Survey of Demand for Taxis in Edinburgh (1997) : figure from Lothian Taxicard Users Association; applies to all members not just wheelchair users.

[9] Survey of Supply and Demand for the Services of Taxis in Aberdeen (1994).

Figure 1

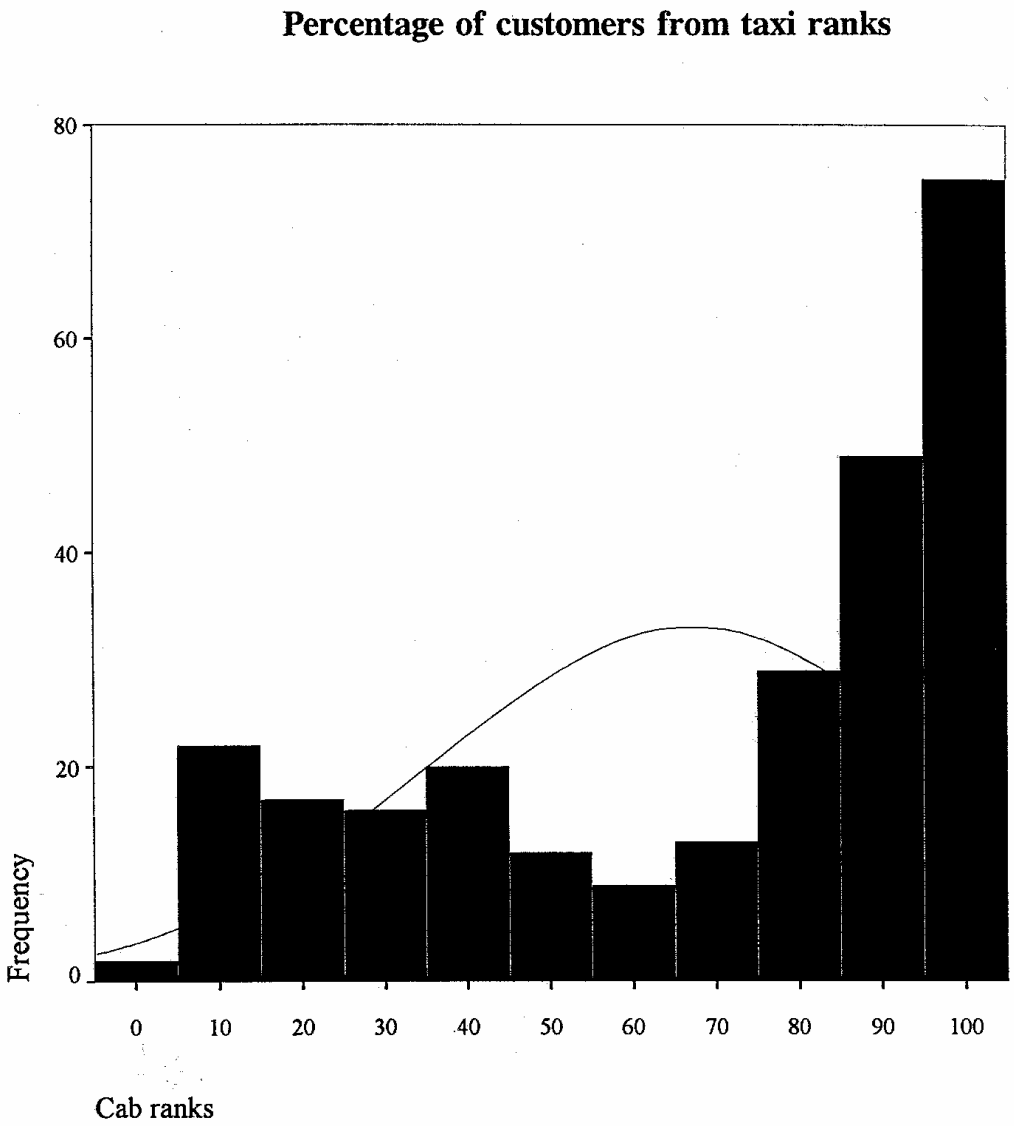

Percentage of customers from taxi ranks
Frequency
80
60
40
20
0
0
10
20
30
40
50
60
70
80
90
100
Cab ranks

Figure 2

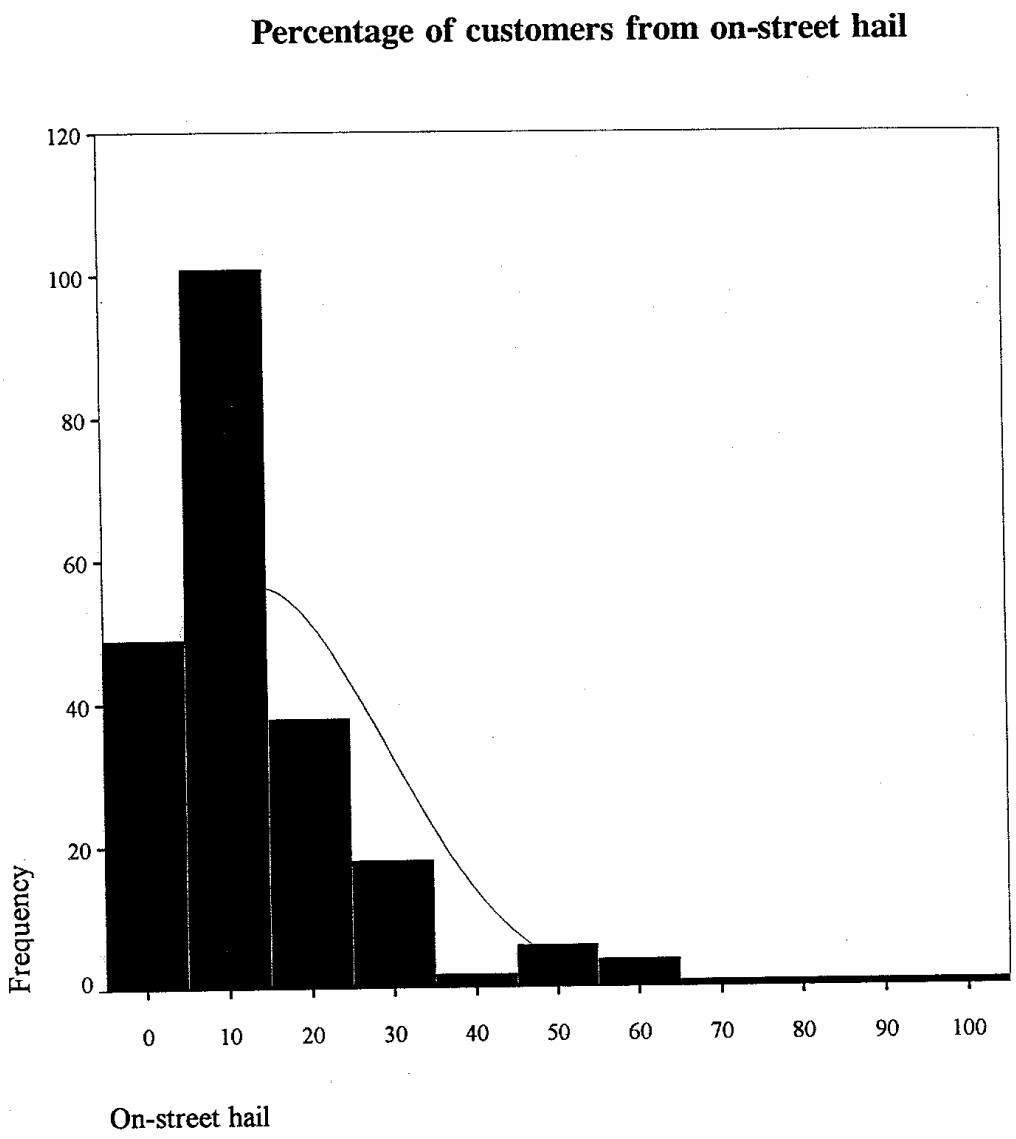
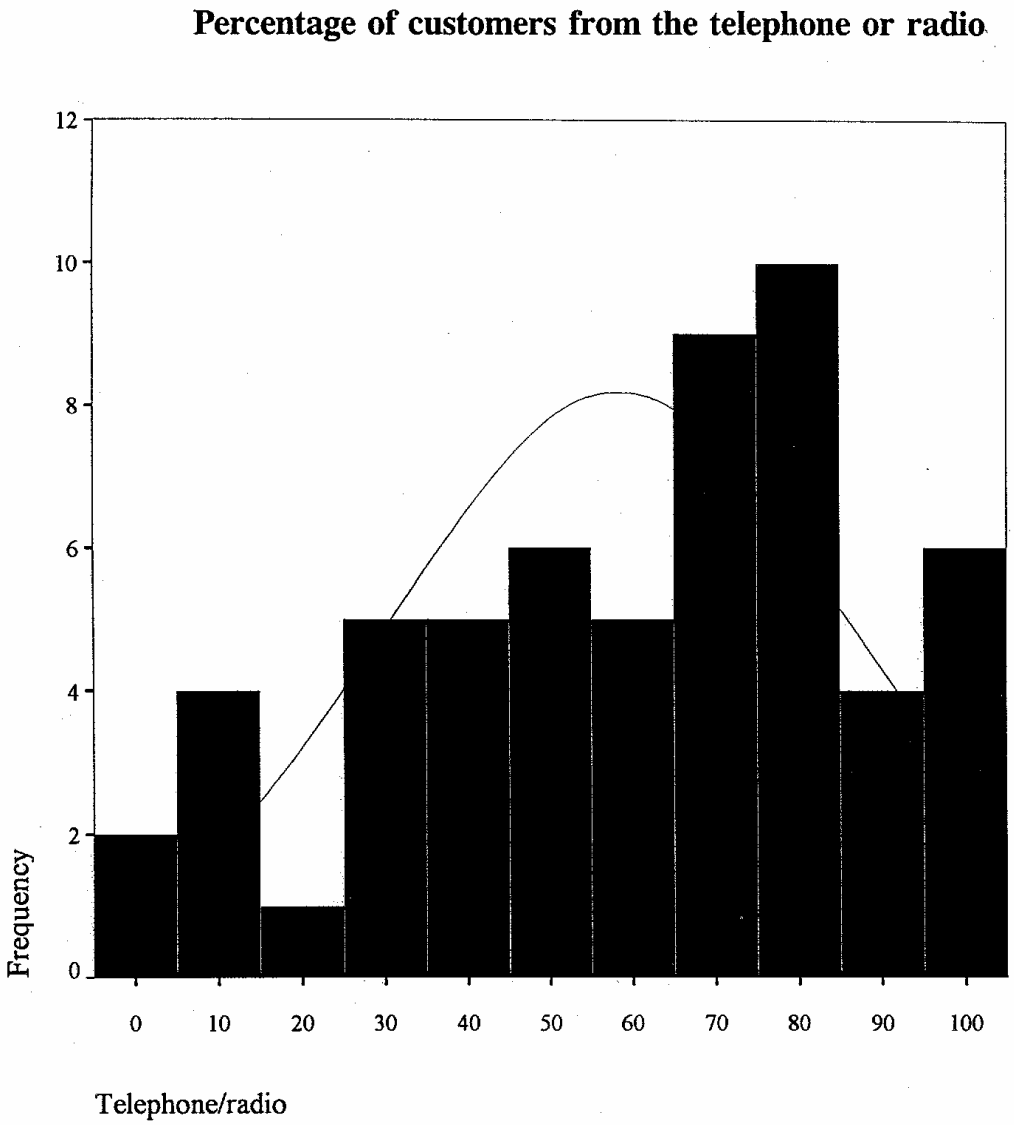

Percentage of customers from on-street hail
120
100
80
60
40
20
0
Frequency
0
10
20
30
40
50
60
70
80
90
100
On-street hail

Figure 3


Percentage of customers from the telephone or radio
Frequency
12
10
8
6
4
2
0
0
10
20
30
40
50
60
70
80
90
100
Telephone/radio

Fewer taxi drivers had customers from on-street hailing : 173 (58 per cent) reported some customers from this source. However, the percentage of customers coming from on-street only averaged 14 per cent, with a modal value of ten per cent. Very few - less than five per cent - obtained more than half their total customers from this source.

Even fewer of the respondents were on radio circuits or took telephone bookings : 55 or 18 per cent, but the average proportion of customers coming from this source for those who used it at all was quite high at 58 per cent. Just over half of the taxi drivers who used this source had 70 per cent or more of their total passengers by this means.

As said earlier, these differences in sources of customers reflect not just the nature of the area in which they work, but also the taxi driver's own preferences.

At a more general, fleet-wide level, the pattern of sources of customers tends to reflect the characteristics of the area. The figures shown in Table 5 are taken from surveys and from discussions with taxi operators.

Table 5 Sources of taxi customers

Area	Percentage of customers from		
	On-street	**Rank**	**Telephone/radio/ pre-booked**
*London : Inner	70	22	8
: Outer	11	72	17
Glasgow	--- 65 ---		35
*Edinburgh	40	14	46
Aberdeen	20	25	55
Inverclyde	--- 30 ---		70
Derby (City Taxis)	0	33	67
Falkirk	--- 25 ---		75
Newcastle	<5	>15	80
*Bath	5	37	58
Bedford	0	90	10
W Dumbartonshire	--- 20 ---		
Darlington	0	15	85
•Cambridge	1	23	76
•Bedford	1	19	80

*Notes : * from surveys*

- *refer to disabled users only and include private hire vehicles.*

On-street work is generally only of significance in larger towns and cities, although it can rise at certain times : Friday and Saturday evenings in particular. Rank work varies very considerably from one place to another, depending inter alia on whether there is a busy rail station rank or not and the extent of competition from private hire vehicles. There is not the

same degree of consistency between proportion of rank work and size of town that there is with on-street hailing. However, as the figures show, the combination of rank and hailing usually accounts for at least 20 per cent of total hirings; often substantially more. While it is probably true, as suggested by a number of the taxi operators, that very rural areas rely almost entirely on telephone bookings, even these areas are likely to contain an urban area where rank work is of some importance.

5.1.5 Potential Change to Private Hire

It was apparent from many of the meetings held with taxi operators that the advent of the regulations was seen as likely to lead to an exodus from hackney carriage to private hire. A survey carried out in 1997 by the National Association of Taxi and Private Hire Licensing and Enforcement Officers (NATPHLEO) lends some credence to this view.

Their survey covered almost 120 licensing authorities and asked questions on the likelihood of taxi operators switching to private hire. The views expressed varied from not expecting any change to nearly all transferring to private hire. As would be expected, those areas where little or no change was forecast were mainly those with mandatory orders and/or where there was a limit on the number of plates. In areas where there was no limit, or no order, or where most of the work came via telephone bookings there was a greater perceived likelihood of transfer to private hire.

The expectations about the extent of possible transfer ranges from "unlikely" or "doubtful" to envisaging nearly all changing to private hire - a "disaster". The 74 authorities that ventured an opinion on this can be summarized as in Table 6.

Table 6 Responses to NATPHLEO survey : change to private hire

Response	No.	Per cent
Sharp decline/nearly all transfer to PH	9	12
Probably/a significant number will transfer	20	27
Possibly/if costly	13	18
Some/few/elderly proprietors	11	15
Doubtful/unlikely	14	19
No	7	9
Total	**74**	**100**

The areas where it was thought likely that a significant proportion (30 per cent or more) or most would turn to private hire were in general areas without mandatory orders and/or rural areas where much of the business came from pre-booking.

Concerns about a substantial switch from hackney to private hire were also found in the responses to the Government's consultation document on accessible taxis[10]. In that, 97 respondents (out of 408 offering additional comments) stated that drivers or whole fleets will move over to private hire.

[10] Stone J and Savill T. Responses to the Government's consultation document on accessible taxis : United Kingdom, TRL Unpublished Project Report (1998). See Appendix L : Additional Comments.

Based on the views discussed in this section, it is possible to determine those factors that are likely to influence any switch from hackney to private hire :

Factors :		**Probability of change to private hire**
		zero/low
Mandatory order, requirement for purpose-built cabs	All/most taxis already wheelchair-accessible	
Limitation on numbers of taxis	High plate value	
Substantial proportion of hail and rank work		
No mandatory order	All/most taxis saloon cars	
No age limit on vehicles	Low value of vehicles	
No restrictions on numbers	No plate value	
Rural area, little rank work		high

Apart from these factors, the costs and revenues for taxi operators have a major bearing. These matters are discussed in the next section.

5.2 Taxi Revenues and Costs

5.2.1 Revenues

Unlike bus and rail services there is no general source of data on costs and revenues in the taxi industry as a whole. The study of London taxis[11] by the Transport Research Laboratory estimated that gross earnings of green badge taxi drivers ranged from £350 to £477 per week and for yellow badge drivers from £342 to £446 per week. Discussions with taxi companies in London suggest that these levels of earning may have fallen back through the recession in the early 1990s but then recovered and are currently somewhat above the figures quoted in the TRL survey. As with taxi operators throughout the country, individual earnings vary greatly according to hours and days worked. It is estimated that a "typical" London taxi driver has gross earnings of around £30,000 pa, more if unsocial and/or long hours are worked. The TRL study found that green badge drivers worked on average of 37 hours 20 minutes a week (excluding to and from work) while yellow badge drivers worked 35 hours.

A number of taxi drivers and taxi companies outside London provided unaudited accounts of their revenue and costs. These show a wide range of gross income from figures close to the London level - for example just under £29,000 in Edinburgh - down to just below £10,000pa.

[11] Finch DJ, "The 1989 TRRL London Taxi Survey", TRRL Research Report 341, 1992.

Rather as would be expected drivers in larger urban areas (also often those requiring purpose-built cabs) have higher gross earning than do those in smaller urban and more rural areas.

Responses to a question on number of hours worked contained in the consultation document produced a very wide range, from ten to a hundred hours (maximum) per week, with a mean value just below 60 hours. This figure, as it is based on maxima, is perhaps something of an overestimate, but it does appear that on average provincial taxi drivers work longer hours than London drivers.

Based on figures taken from the accounts made available by taxi drivers outside London, average gross earnings (assuming full-time work) in larger cities would be around £25,000 per annum and in smaller towns and more rural areas around £17,500. However, it should be emphasized that reported range of gross revenue is very wide.

5.2.2 Costs

As was noted earlier, there is a variety of ways in which taxis may be operated : ownership of the vehicle, flat rental, mileage rental and so on. There are other variations according to whether or not the driver belongs to a radio circuit, and there are some drivers who are waged employees of taxi firms.

The figures given in the annual accounts also suggest an equally large range in the annual costs attributable to the various cost components :

Direct expenses :	fuel and oil	£1,150 - £3,500
	maintenance & repairs	£250 - £3,500
	insurance & licence	£700 - £2,750
	radio circuit/telephone	£150 - £3,600
Other expenses :	use of home as office	£100 - £2,600
	HP/bank charges/loan interest	£60 - £3,800
	depreciation	£260 - £4,600
	other (accountants fees, legal expenses, cleaning, rank rental etc)	£50 - £830

Two points are worth noting from this apparently disparate set of figures. First, that those operators who had very high costs in one area, tended to have very low costs in others, so the overall balance of costs to revenue was not as wide ranging as the figures might suggest. Second, there is much greater conformity in the ratio of fuel costs to total revenue than might be supposed from the range of figures.

Average figures from the accounts show that the breakdown in costs for purpose-built cabs is :

Direct costs (fuel, maintenance, repairs etc)	46%
Radio / telephone costs	16%
Hire of cab / HP / depreciation	31%
Other	7%

And for saloon taxis is :

Direct costs (fuel, maintenance, repairs etc)	58%
Radio / telephone costs	18%
Hire of cab / HP / depreciation	11%
Other	12%

Total costs as a percentage of total revenue average 50 per cent for purpose-built cabs and 57 per cent for saloon car taxis. Thus, on the figures given in the previous section, the net earnings of a taxi driver using a purpose built cab in a medium/large urban area would be around £12-13,000 per annum, and for a driver using a saloon car in a medium/small urban area would be around £7,500. Both of these figures are probably on the low side because it is unlikely that tips are included in the gross revenues and some of the stated claims for expenses are exaggerated and, after auditing, are probably reduced.

The second point is the ratio between expenditure on fuel and gross earnings. This ratio is much more consistent than might be expected given the wide range of stated costs. In the data supplied by taxi operators it ranges from 1 : 6.2 (fuel cost : total revenue) to 1 : 8.7. This is still quite a wide variation, the higher ratio is 40 per cent above the lower, but is nowhere near as wide as the absolute cost expenditures given in the individual accounts.

5.2.3 Costs : Capital

Saloon cars

Some proprietors and drivers prefer to buy new vehicles, arguing that warranties and fewer repair costs offset the higher capital costs. Others buy secondhand vehicles, often ex-company or fleet cars which are about three years old with high mileages. There are examples of rather older cars being bought in some areas, sometimes on a sale or return basis - returned if the car fails to pass the local authority fitness test.

The age of vehicle bought reflects not only the judgement of the driver or proprietor, but also the age limits that apply in the licensing area. There is no national data on the ages of saloon cars bought for taxi use, but discussions with the industry suggest that a typical vehicle would be one about three years old, costing £6,000 to £8,000, operated for some three to four years, by which time its mileage will be of the order of 200,000 plus and its residual value negligible.

Purpose built cabs

As with saloon cars, there is a great deal of variation in the age at which cabs are bought. In some areas it appears to be the practice to usually buy new vehicles, in others secondhand. One of the major cab manufacturers illustrated the “migration” of a vehicle as London -

provincial city - town - more rural area, with typically three or four owners and a working life of 14 years.

The cost of a new purpose built cab is currently £25,000 to £30,000, depending on the specification. The equivalent in terms of purchase price to the three year old saloon mentioned above would be an eight to nine year old purpose-built cab, though if sold on after a further three years it would still have a value of £3,000 - £4,000.

Multi-purpose vehicles

Vehicles of this type still only represent a very small proportion of the total taxi fleet - currently between two and three per cent - but appear to be increasing their market share. It is not known how many are bought new and how many secondhand, but the evidence from discussions with the trade is that the majority are bought new. The prices vary according to the base vehicle used and the conversion costs, but in general range from around £18,000 up to £27,000.

Costs incurred by providing wheelchair access

(i) Purpose-built cabs

The two principal manufacturers of purpose-built cabs have current vehicles that provide wheelchair access and which are close to conformity with the draft regulations contained in the consultation document. There are, however, some aspects of the proposed regulations which are still subject to discussion and which may be changed, including the requirement that the access ramp must be at least 750mm wide although the level portion of the door threshold is only required to be 700mm wide (see Diagram 8 in the consultation document). Having a ramp that is wider than the threshold would make it difficult, if not impossible, to build in an integral ramp. Although the draft regulations do not require that the ramp should be integral, experience with the demountable channel ramps in use as present suggests that having a simple fold-out ramp integrated into the floor of the cab would result in a better service to wheelchair users.

The interim regulations for existing re-licensed vehicles require that a swivel seat should be fitted, but this causes problems for both manufacturers. In one case (Metrocab) it would result in the loss of one seat, in the other (LTI) which is fitted with a swivel seat, the seat does not meet some of the dimensions given in the draft regulations. A further problem with these regulations is the 28 day limit for re-licensing existing taxis without them having to satisfy the requirements on swivel seats, steps etc. The 28 day period is considered to be too short to allow for the normal process of taking a cab in part exchange, servicing and repairing it as necessary, possibly re-spraying it and selling on in, probably, a different licensing authority area.

There are some other design and construction matters that have still to be resolved, including the location of anchorage points for the wheelchair/occupant, which may affect the final costs of compliance.

For the purposes of the compliance cost assessment, it is assumed that agreement will be reached with the cab manufacturers on design requirements that do not require major re-design and re-tooling and that the interim requirements will be removed. Discussions with the two major manufacturers produced figures of £2,000 and just under £2,300 as the estimated additional costs arising from meeting the access requirements. For the purposes of this study, a figure of £2,100 per vehicle has been taken.

(ii) MPV-based taxis

The number of these vehicles in use as taxis is small but is growing and can be expected to continue to increase in the future. The additional costs that apply to converting an MPV into a taxi that conforms with the regulations are more difficult to determine because they vary according to the base vehicle used and the quality and extent of the conversion.

A Volkswagen Caravelle recently converted (August 1998) for use in an EC supported demonstration of accessible taxi services in Bedfordshire[12] had an additional cost of £4,000 over the base vehicle. This included the provision of a rear-mounted lift and internal modifications to allow carriage of two wheelchair passengers. The largest producers of taxi conversions (Jubilee Automotive Group), who base their vehicles on Fiat and Mercedes with ramp access, consider that the full additional costs of conversion, including recovery over five years of expenditure on testing rear facing seats and seat belts, could be of the order of £6-8,000 per vehicle. Another conversion specialist (Automotive Group) estimated the additional cost, based on a Volkswagen Sharan, to be £4,300. However, these costs are for full conversion to taxi use, a substantial part of which would be incurred irrespective of the need to make the vehicle wheelchair accessible. For the purposes of the cost assessment, it is assumed that the costs attributable to the access requirements would average about £2,500 per vehicle.

(iii) Minibus/van-based taxis

There appear to be very few of these vehicles in use as taxis though some are used in private hire fleets. Given the nature of most taxi work and the passenger carrying capacity of purpose built and MPV taxis (five or six) the role of the van-based taxi seems likely to continue to be very limited. Conversion costs, which would include lift access, are likely to be similar to or slightly above those for an MPV, but the base vehicle will be a little less costly.

Summary of capital costs

For the purposes of calculating the costs of compliance, the following figures are used :

Purpose-built cabs :	average total cost (new) £27,500
	cost of access elements £2,100
MPV and van-based taxis :	average total cost (new) £22,000
	cost of access elements £2,500

5.2.4 Costs : Operating

There are two aspects to the assessment of operational costs : those that arise as a result of changes made to purpose-built cabs to ensure compliance with the regulations and those that arise because operators who formerly used saloon cars will have to change to purpose-built or MPV type vehicles.

As the earlier section (5.2.2) showed, there is a very large variation in cost components, but the principal differences that will arise as a result of the regulations are :

(i) changes in fuel consumption

(ii) changes in maintenance and repairs

(iii) changes in insurance costs

[12] Taxis for All, Interim Report, Cranfield University, December 1998

There are also two capital related continuing costs that should be considered :

(i) interest on loans used to buy taxis

(ii) depreciation.

There are two aspects to the first of these costs (fuel). Those who already operate purpose built cabs will have to change to fully compliant vehicles which are slightly larger and heavier than their predecessors with a consequent penalty in fuel consumption. For those who currently use saloon cars, the change to a purpose-built cab or to an MPV, will also lead to increased expenditure on fuel.

The increase in fuel consumption attributable to the increase in size and weight of the purpose-built cab is estimated to be approximately five per cent. The increase in fuel consumption that would arise from changing from a saloon such as a Ford Mondeo or Peugeot 405 to a compliant vehicle is estimated to be approximately 30-35 per cent. The change from a saloon to an MPV would be slightly less than that to a purpose-built but would still result in an increase of 15-20 per cent.

Maintenance costs vary greatly. Comparisons made between purpose-built and saloon taxis[13] have shown average costs to be fairly close, with those for saloon cars ranging from three per cent below to eight per cent above those for an LTI cab. However this comparison is based on new vehicles over their first year of life with maintenance carried out by an accredited dealer. A recent (February 1999) check on standard services with main dealers (Ford, Peugeot and LTI) confirmed that the service costs for a TX1 over 60,000 miles are slightly above those for a Ford Mondeo TD 1.8 but below those for a Peugeot 406 1.9TD. In practice many saloon car taxi operators (and owners of older purpose-built cabs) do not use main dealers but will go to other usually cheaper garages. At the other extreme from the study of new vehicles mentioned earlier, figures provided by accountants based on client's accounts showed that the servicing, repairs and maintenance of a purpose-built cab were more than twice that of a saloon (Sierra Sapphire) taxi.

An analysis of the accounts provided by taxi operators in various parts of the country shows very little difference on average between the amounts spent on maintenance etc of saloon and purpose-built taxis, though as noted earlier there are large variations within each category.

5.3 Forecast Changes in Taxi Services

5.3.1 General Trends in Taxi Use

As was said in Section 4, taxi and private hire use has increased over the past twenty years. In 1975/76, the average number of journeys per person per annum was three; in the 1994/96 National Travel Survey it was ten, though this figure is slightly below that recorded in the 1989/91 survey. This increase in taxi/private hire use has been paralleled by growth in the number of vehicles as shown in Table 7.

Table 7 Changes in numbers of licensed taxis and private hire vehicles in Great Britain

Date	No. of licensed taxis in	No. of licensed private

[13] See "Investment in the taxi business" (Zvesper and Smullen) Proceedings of Conference on the Future of Taxi and Private Hire Vehicles, Birmingham, November 1995

				hire in	
	London	**Rest of Eng. and Wales**	**Scotland**	**Rest of Eng. and Wales**	**Scotland**
1972	10,100	12,400	na	na	na
1980	12,400	17,000	na	19,300	na
1983	13,100	18,100	na	na	3,000
1985	13,800	18,900	6,400	25,800	na
1989	15,600	27,800	na	45,900	na
1990	16,200	na	7,500	na	5,500
1992	17,600	32,200 [1]	8,600	51,800	5,700
1997	**18,900**	**36,400**	**8,550** [2]	**66,300**	**7,370** [2]

Notes 1 : estimated (31,800 in 1991)
2 : figures from Scottish Office Survey, August 1997
All other figures from 1998 Edition of Busdata

Direct comparisons between taxi and private hire are difficult because of surveys being made in different years, but the longer term trends are :

Taxis :	London	+ 3 per cent pa
	Rest of England and Wales	+ 8 per cent pa
	Scotland	+ 3 per cent pa
Private hire :	Rest of England and Wales	+ 14 per cent pa
	Scotland	+ 10 per cent pa

The higher rates of increase in private hire vehicles are in part due to an increase in the local authorities that licence these vehicles. If allowance is made for this, the longer term rate of increase in England and Wales outside London for private hire is about ten per cent per annum. However, these longer term changes in the vehicle parc may not be a good predictor of future changes.

The relatively high figures are mainly the result of very substantial increases during the 1980s. Since the early 1990s the rate of increase in both taxi and private hire vehicles has slowed to just below 1.5 per cent per annum in London although the most recent figures show an increase 1997-98 of 2.7 per cent. Elsewhere in England and Wales the rate has fallen to 2.4 per cent and to 2 per cent in Scotland (for taxis). Growth in private hire vehicles has fallen to around five per cent in England and Wales (excluding London) and in Scotland.

The strong growth in both numbers and use of taxis can be attributed to a number of causes, including a general increase in personal mobility : over the last twenty years an average 40 per cent increase in distance travelled, 13 per cent more journeys per person; and a relative fall in the cost of taxi journeys compared with bus. Taking 1985 as base year with an index of 100, taxi journeys in 1997 had a cost index of 189.8 compared with a bus index of 209.4[14]. Although taxi fares on average have increased at a slower rate than bus fares, they have still

[14] These indices exclude London taxi and bus journeys. The indices there show a relatively greater disparity of 189.9 for taxis and 231.2 for buses.

grown at a faster rate than the Retail Price Index which, for 1997, was at 166.5 on a 1985 base of 100.

While taxis could expect to share in future growth in personal mobility it seems unlikely that they will be able to continue to increase their relative fares competitiveness with buses. So, while it would be reasonable to expect some increase in taxi use in the future, it seems unlikely to be at the rates that have applied historically. Although the longer term figures show considerable increases in personal mobility (the 40 and 13 per cent mentioned earlier) more recent figures suggest a levelling off of those increases. The National Travel Survey figures for 1989/91 and 1994/96 show an increase in miles travelled of only 1.5 per cent, while the number of journeys per person has actually fallen slightly.

For the purposes of this report it is assumed that, discounting any effects of the DDA regulations, the taxi fleet could be expected to increase by about 21 per cent (1.5 per cent pa) over the years from end of 1997 to January 2012 (full compliance). This would mean an increase from the present UK taxi fleet of 66,100 to 79-80,000 by 2012.

5.3.2 Effects of Regulations on the Taxi Parc

It is apparent from the discussions reported in Section 5.1.5 that both taxi operators and local authority licensing officers expect the advent of the regulations to lead to an exodus from hackney to private hire. If the logic of the diagram shown in Section 5.1.5 applies then much the greater part of the move away from taxi to private hire will take place in those areas which use mainly saloon vehicles, have no limit on numbers and rely mainly on pre-booking.

Out of the total fleet of just over 66,000 taxis, approximately 16,000 operate in areas where there is no mandatory order and no limit on numbers. Even in these areas there will be places where there is a significant amount of rank work, so it would not be realistic to assume that all would change to private hire. Equally, the views expressed by the trade suggest that the majority would change. For the purposes of this report it is assumed that 70 per of these taxis would leave hackney work.

Some areas have a mandatory policy, not necessarily affecting all taxis, but do not have a limit on numbers. The fleets in these areas are already predominantly purpose built (approx 60 per cent) but a minority of the trade could be expected to change to private hire. Again for the purposes of this study, it has been assumed that ten per cent of these fleets would leave hackney work.

The net effect of these changes in conjunction with the forecast increase in the taxi fleet given in Section 5.3.1 is to produce a fleet at full compliance date of 2012 of approximately 65,800 virtually the same as that at December 1997.

It should be noted that although the overall figure for the taxi parc is forecast to remain at about the present level, there will be varied effects in different parts of the country. Annex II to this report discusses these in more detail.

5.4 Calculation of the Costs of Complying with Regulations

5.4.1 Capital Costs

There are two elements to the calculation of capital costs of compliance. The first is the additional costs arising from making purpose-built vehicles MPVs and vans fully accessible. This applies to the whole taxi parc.

The second applies to those owners who have to change from a saloon or similar car to a purpose-built, MPV or van.

The total amount of the first of these costs depends on the proportions of purpose-builts and other vehicles in the fully compliant fleet, although the difference between the costs for full accessibility is not very great : £2,100 for a purpose-built cab, £2,500 for an MPV derivative. Although MPVs only account for about 1,500 vehicles out of a total of 33,000 purpose-built plus MPV parc, they could be expected to take a greater market share in the future. There are already a few areas where MPVs account for more than ten per cent of the total fleet and one or two places where they form the majority. It is estimated for the purposes of the calculations, that the fully compliant fleet will comprise 17 per cent MPVs and 83 per cent purpose-built taxis. Further details of the calculations on parc size and composition are given in Annex II to this report.

On this basis, the capital costs attributable to full accessibility in the full compliance year fleet would be :

54,800 purpose-built cabs	x	£2,100	£115 million
11,100 MPV taxis	x	£2,500	£28 million
Total (65,900 taxis)			£143 million

The second cost is rather more difficult to compute. Based on the forecast taxi parc of 65,900 vehicles, just under 25,000 would be replacements for saloon cars (see Annex II for further details). However, approximately 4,200 of these saloon cars operate in areas with mandatory orders where in due course they will have to change to (mainly) purpose-built cabs. The non-mandatory areas, where the regulations will require a change that probably would not otherwise have happened have some 20,700 saloon cars. The replacements for these vehicles, either purpose-built or MPV-based, would be made from the parc of compliant vehicles that comes into being from 2002 onwards. Over the period to full compliance at 2012, replacements purchased by former saloon taxi operators could be anything from brand-new vehicles to ten year old purpose-built cabs. It is likely that some operators will defer purchase of a compliant vehicle for as long as possible, partly to delay expenditure partly because the later they purchase in the 2002-2012 period the greater availability there will be of secondhand compliant vehicles.

For the purposes of this assessment it is assumed that the average purchase will be of a five year old purpose-built or a four year old MPV-based taxi. Based on present data on secondhand values the costs to the purchaser would be around £14,000 for the purpose-built and £11,000 for the MPV. These figures compare with a typical purchase cost for a secondhand saloon of £6,000-8,000. If a mean value of £7,000 is taken then the extra cost per purpose-built cab is £7,000 and per MPV £4,000.

The split between these two categories (again see Annex II for further details) is estimated to be 60 per cent purpose-built, 40 per cent MPV. Applying these proportions to the total saloon replacement parc produces the following additional capital costs :

Replacement of 60% of saloons by purpose-built cabs			
16,000	x	£7,000	£86.8 million
Replacement of 36% of saloons by MPVs			
8,300	x	£4,000	£33.2 million

The additional capital cost is not far below that for the extra costs resulting from the requirements of the regulations, but unlike those, it is more sensitive to the split between MPVs and purpose-builts. Reversing the proportions (ie to 40 per cent purpose-built, 60 per cent MPV) would reduce the additional capital cost by over £12 million down to about £107 million.

The final element in the calculation of capital costs is the loss of usable life of purpose-built cabs. It is estimated that with an average working life of 12 to 14 years (in practice rather more than that for some cabs) there will be about 8,000 purpose-built cabs in operation just prior to the fully compliance date which still have some useful life left. They will not be permitted to operate after 1.1.2012 and so will have to be written off, unless they can be transferred to private hire work, where this type of vehicle is not the preferred choice. Taking an average value of these cabs as £3,000, the total capital value lost amounts to £24 million.

In summary, the capital costs attributable to the requirement to conform with the draft regulations amounts to :

Additional costs of making purpose-built and MPVs fully accessible	£143 million
Additional costs of replacing saloon car taxis	£120 million
Loss of usable life, non compliant purpose-built taxis	£24 million
Total capital costs	**£287 million**

5.4.2 Operating Costs

Fuel costs

The two changes of significance are the increase in fuel consumption of purpose-built cabs due mainly to the increased weight of the compliant vehicle, and the increases occasioned by changing from a saloon to a purpose-built or MPV-based taxi.

The fuel penalty incurred by the greater weight of a compliant purpose-built cab, compared with its predecessor, is estimated to be five per cent. The change from a saloon car to an MPV-based vehicle is estimated to add 17 per cent to fuel costs and from saloon to purpose-built 36 per cent. As mentioned earlier annual mileage varies greatly. The Inland Revenue's Business Economic Note (April 1997) states that in the provinces average mileages are normally in the range of 45,000 to 50,000 per annum. The financial returns made available for the cost compliance study suggest that these figures are somewhat on the high side. Expenditure on fuel reported in these figures would equate with an annual average mileage nearer 30,000 miles. The TRL study of London taxis gave an average annual mileage of about 22,000, which agrees with the figure quoted in the Inland Revenue's note.

For this study, the figure of 22,000 miles per annum has been used for the London trade and an average of 40,000 miles elsewhere. Based on the predicted size and composition of the 2012 taxi parc, the additional fuel costs, per annum, are estimated to be :

Replacement of existing purpose built/MPV New purpose built/MPV	+ 5%	£8.5 million pa
Replacement of saloons with purpose builts	+36%	£16.2 million pa
Replacement of saloons with MPVs	17%	£6.4 million pa

Total additional fuel cost	**£31.1 million pa**

This figure of £31.1 million represents the additional costs, at present day prices, of the fully compliant 2012 fleet. It averages out at a little over £470 per annum per vehicle.

Maintenance costs

Although there is a view in some sectors of the trade that purpose built cabs are more expensive to service and maintain, both the standard service costs quoted for typical saloons and purpose built cabs and the figures given by taxi operators who submitted accounts show little clear difference between the two types of vehicle. An analysis of those accounts which separated out maintenance and service (including repairs) gave an average annual figure of £1,500-1,700 for both categories of vehicles, with saloons being the slightly higher of the two. If anything, these figures suggest that there would be a marginal saving in this element of cost by changing from saloons. It could also be argued that as a consequence of the regulations, the average age of taxi vehicles will fall, with a consequential drop in maintenance costs. It is concluded that there will be a small average saving in these costs, taken as £100 a year, equivalent to £1.2 million for that part of the 2012 fleet that has changed from saloon to purpose-built.

Insurance

Discussions with insurance companies specializing in the taxi trade showed that premiums (owner-driver) ranged from just over £500 to £2,000 dependent mainly on the claims record of the driver and the area in which he drives. The value of the insured vehicle makes little difference to the amount of the premium. Purpose-built cabs were quoted by some insurers at about 15 per cent less than a saloon taxi, others quoted them as less than a Ford Granada (2.5TD is Group 13), the same as a Vauxhall Vectra (1.7TD is Groups 7-9).

One of the concerns of some taxi drivers is over the costs of insurance “door to taxi” but for some insurance policies this has been an integral part of the premium for five or six years (£2 million cover). It was stated that a lot of local authorities already require this element of insurance cover for the transport of school children. One insurance company which did give a separate quote for door to cab liability gave an annual premium on top of the basic insurance of £26. The comparative cost analysis by Zvesper and Smullen (see reference on page 23) gave insurance premiums for purpose-built cabs as 20 per cent less than for saloon taxis.

On the basis of recent discussions this estimate appears to be on the high side; with due allowance for the modest increase for some taxis that do not have the door to cab public liability cover, it is estimated that the change from saloon cars will result in average savings of 12 to 13 per cent on a typical premium of £1,200. This would amount to £150 per annum per vehicle; approximately £1.9 million for the former saloon car part of the 2012 fleet.

Depreciation

The rate of depreciation of existing purpose built taxis is typically around £2,000 per annum after the first year, falling to about £1,000 per annum once they are six or more years old. The first year fall is in the range of £5-6,000 (new price on the road to part exchange value). Averaged over the life of the vehicle, purpose builts average about £2,000 per annum depreciation. This rate of depreciation is comparable to that of the typical £7,000 second hand saloon which, after three years taxi use and 120,000 additional miles, will have a residual value of no more than £1,000. Because of their shorter life, the annual depreciation

on MPV-based taxis is likely to be somewhat greater. Assuming an average cost new of £22,500 (mid-point in the price range £18-27,000) and a residual value of about £2,000 gives an annual average depreciation of £2,600; £600 above that for purpose-builts and the secondhand saloons.

This additional depreciation cost would apply to the estimated 8,300 MPVs bought by taxi operators who would in the absence of the regulations, probably have bought saloons. For the fleet at full compliance date this amounts to an annual cost of £5 million.

Hire purchase costs

As taxi operators will have to spend more capital to buy their vehicles there is a further annual cost representing interest paid on this additional capital outlay.

For current owners of purpose-built and MPV taxis this extra amount is the additional cost of providing full access : £2,100 for purpose-built and £2,500 for MPVs. For those who change from saloons to purpose-builts or MPVs the average additional purchase costs are estimated at £7,000 and £4,000 respectively (see Section 5.4.1). Current loan interest rates range upwards from 4.9 per cent flat rate (= 9.5% APR) over four years. For the purposes of the calculation an interest rate of 5.75 per cent flat over four years has been taken (APR just over 11 per cent) for purpose built taxis and a rate one per cent above this for saloons and MPVs, recognizing that purchases of purpose built taxis attract a preferential rate of interest on hire purchase over other types of taxi vehicle. The loan period is taken as four years.

Applying these rates to the additional costs mentioned above gives annual charges on the fleet at full compliance of :

Purpose-built cabs “access” cost £2,100	£2.205 million pa
MPV “access” cost £2,500	£0.931 million pa
Saloons to cabs : additional purchase costs (£7,000)	£4.106 million pa
Saloons to MPVs : additional purchase costs (£4,000)	£2.242 million pa
Total continuing annual interest costs	**£9.484 million pa**

These costs are based on some 4,570 new purpose-built cabs purchased each year (12 years replacement cycle on a total parc of 54,800 cabs) and approximately 1,380 new MPVs purchased each year (8 year replacement cycle on a total parc of just over 11,000).

The saloons changing to cabs figure represents the difference between interest paid over four years on a four year replacement cycle secondhand saloons priced at £7,000 compared with interest paid over four years on a four year replacement cycle for secondhand cabs costing £14,000. The saloons changing to MPVs is similarly based, but on the difference in purchase costs of £7,000 (saloon) and £11,000 (MPV).

In summary the continuing annual and operating cost changes are estimated to be :

Fuel costs		£31.1 million pa
Maintenance, service, repairs	-	£1.2 million pa
Insurance	-	£1.9 million pa
Depreciation		£5.0 million pa
HP interest charges		£9.5 million pa
Net annual increase in costs at full compliance taxi parc		£42.5 million pa

5.4.3 Changes in Revenue

While the previous sections have been largely concerned with additional costs, making taxis fully accessible could be expected to generate some extra revenue. In section 5.1.2 it was noted that experience of additional work is both limited and variable, ranging from less than 0.1 per cent up to three per cent for wheelchair users. Disabled users as a whole make up a much larger proportion of taxi users, as evidenced by the experience in Derby and the national statistics on taxi use, but it could be argued that non-wheelchair using disabled people are already able to use existing vehicles (again as evidenced by national data) and that any net increase is likely to be mainly from passengers in wheelchairs.

It is also apparent that whether or not there is some form of taxi subsidy (a taxicard or voucher scheme) makes a very substantial difference to use by disabled people. The level of use where there are such schemes is generally in the range of 1.5 to 2.0 trips per person per week, roughly four times the level that appears to apply in places where there are no schemes.

The number of people who use wheelchairs is not known with great precision. The 1991/93 National Travel Survey estimated that 0.76 of their national sample used wheelchairs, equivalent to about 440,000 people. However, NHS data (1996) gave a national figure of 700,000 wheelchair users; this number not including those people who use privately bought wheelchairs. Certainly the evidence from surveys over the last 10 to 15 years is that numbers of wheelchair users have increased and at present probably amount to between 700 and 750,000 in the UK.

UK adults (aged 16 and over) average ten journeys a year by taxi and private hire, equivalent to a national total of about 460 million trips. Based on the National Travel Survey data (1991/93) 13 per cent of the population aged 16 or more has a disability which make it difficult for them to travel by foot, bus or car. This sub-set of the population, amounting to about six million people, makes an average of 12 journeys a year by taxi/private hire. This totals to 72 million journeys a year or about 15.6 per cent of the total.

Wheelchair users make up approximately 12 per cent of the disabled population. If they use taxis to the same extent as disabled people as a whole, they would be making about 8.4 million trips a year or about 1.8 per cent of all taxi/private hire journeys. The evidence from various places suggests that their use of taxis is generally well below this, except where taxi card schemes are in operation (eg Manchester, Cambridge etc) or where there is a fleet of wheelchair accessible taxis with substantial contract work (eg the Leeds operator).

At the lower end of the range of use - wheelchair passengers accounting for 0.2 per cent of all journeys - this would give a national level of journeys of just over one million per annum. At the other end of the range, the Leeds experience, including contract work would, if applied nationally produce about 16 million trips per annum. Data from some areas with Travelcard and similar schemes would produce an even higher level of use, but it would be unrealistic to assumed that schemes like these will spread to cover the country. A more pragmatic view would be that wheelchair users, given full access, could make a similar number of journeys by taxi and private hire as do disabled people as a whole, that is about 8.4 million trips. The present level of use seems most likely to be at the rate found in areas without subsidy schemes, that is around 0.2 to 0.4 per cent of total journeys, which gives a national total of one to two million a year.

This would suggest, long term, that as a result of making all taxis fully accessible use by private wheelchair passengers could increase by about six million journeys a year. However,

all of these figures relate to taxi and private hire, so on a proportionate basis, taxi operators could only expect about one-third of this increase : two million journeys a year.

If these extra journeys conform to the average pattern of length (3.7 miles - 1994/96 NTS) the average fare would be around £4.60, giving an additional annual revenue of £9.2 million. It is likely that this amount could be increased by further contract work with local and health authorities. Where wheelchair-accessible taxis are available it appears that the contract work exceeds that arising from private use. It could be estimated, conservatively, that contract use could more than double the amount of use made by private wheelchair passengers, taking the total additional revenue to about £20 million per annum. To put this in context, an additional revenue of £20 million would amount to no more than two per cent of total taxi revenue, which is estimated to be around £1 billion per annum.

5.5 Summary of Costs and Revenues

Based on Section 5.4 the following figures summarize the anticipated effects of the DDA regulations on the UK taxi trade. The figures relate to the forecast taxi fleet at the date of full compliance, 1.1.2012.

A Capital Costs

Costs of making purpose-built cabs fully accessible	£115.0 million
Costs of making MPV-based cabs fully accessible	£28.0 million
Replacement of saloons by purpose-built cabs	£86.8 million
Replacement of saloons by MPV-based cabs	£33.2 million
Loss of usable life, non compliant purpose built cabs	£24.0 million
Total capital cost of 2012 compliant fleet	**£287.0 million**

B	**Continuing Costs**		
	Additional fuel costs	£31.1 million	pa
	Additional depreciation costs	£5.0 million	pa
	Hire purchase interest	£9.4 million	
	Total continuing costs (2012 on)	**£45.5 million**	

C	**Continuing Savings and Additional Revenues**		
	Reduction in maintenance etc costs	£1.2 million	
	Reduction in insurance costs	£1.9 million	
	Increase in revenue : private use and contract	£20.0 million	
	Total continuing additions (2012 on)	**£23.1 million**	

It should be emphasized that the additional revenue probably underestimates the true figure, because of additional earnings that may be possible from contract work, but there is no means of assessing how much this might be. Expressed in a way which is perhaps easier to comprehend, the long term additional net annual costs equate to between £1.50 and £2.00 per working day per taxi.

The capital costs will arise over the period from new build/licence (1.1.2002) to full compliance (1.1.2012) and so average £26.1 million per annum. In practice, these capital costs are likely to be skewed towards the later part of that period. If a longer period between the two dates were permitted it would be possible to remove most if not all of the cost associated with loss of usable life, so reducing the total capital costs by up to £24 million.

However, on the present basis, the annual capital costs average out at about £435 per taxi per annum over the period 2002 to 2012, with continuing net annual costs post full compliance at around £340 per taxi per annum. But these costs, both capital and continuing, fall disproportionately on the current saloon car sector of the taxi industry even though it is assumed that those that do remain in the trade will buy secondhand compliant vehicles.