4 The market

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Introduction

4.1. Our terms of reference refer to public transport services between:

(a) London and Derby;

(b) London and Sheffield;

(c) London and Chesterfield;

(d) London and Nottingham; and

(e) London and Leicester.

This chapter describes the market within which these services (`the reference services') operate. It starts by providing a brief overview of the long-distance travel sector in general, prior to focusing on the reference services. The TOCs operating the reference services are then described; first looking at MML and secondly at

ICEC. Following that, the coach operators are described, together with the reference services which they provide. Other public transport operators on the reference services are then looked at. The chapter continues by examining the effects of actual and potential competition from other TOCs on MML and from other coach operators on NEL. Lastly, competition between different modes of transport is discussed, with reference first to coach/rail competition and then to the competitive impact of the private car on both of the other main transport modes.

The long-distance travel sector

4.2. The long-distance passenger travel sector comprises four main modes of travel: coach, railways, airlines and private car. Table 4.1 sets out the proportion of journeys by main mode of transport for journeys of 100 miles and over (one way), as reported in the National Travel Survey. For such journeys, car is generally the preferred mode of transport, accounting for some 80 per cent of all journeys. Rail and coach account for similar shares (both with 7 per cent), with air travel only constituting 1 per cent of long-distance journeys. The extent of car use will, however, be dependent on many factors such as the distance of the route, the quality of the road network, the purpose of the journey and the quality of the rail network. There is consequently expected to be a considerable degree of variation in these proportions from route to route. (Table 4.1 also sets out corresponding figures for samples of journeys of different lengths.) Figures derived in 1991 for InterCity[1] by the transport consultants, Steer Davies Gleave, suggest that for journeys between London and Nottingham, for example, car accounted for about 65 per cent of passenger journeys whereas for journeys between London and Leeds the figure stood at 44 per cent. The proportion of these journeys undertaken by rail was estimated at 31 per cent to Nottingham and 46 per cent to Leeds, that undertaken by coach at 3 per cent to Nottingham and 9 per cent to Leeds and that undertaken by air at zero to Nottingham and 2 per cent to Leeds.

TABLE 4.1 **Journeys on long-distance routes by main mode of transport, 1992 to 1994**

per cent

	Journeys 100-149 miles	*Journeys 150-249 miles*	*Journeys 250-349 miles*	*Journeys 350 + miles*	*All journeys*
Car	85	83	68	80	80
Coach/bus*	7	9	12	8	8
Rail	7	6	13	9	9
Air	-	-	3	1	1
Other	1	2	3	1	1
Total	100	100	100	100	100

Source: National Transport Survey, 1992/94.

*Includes express buses and coaches, excursion/tour buses and private (hire) buses.

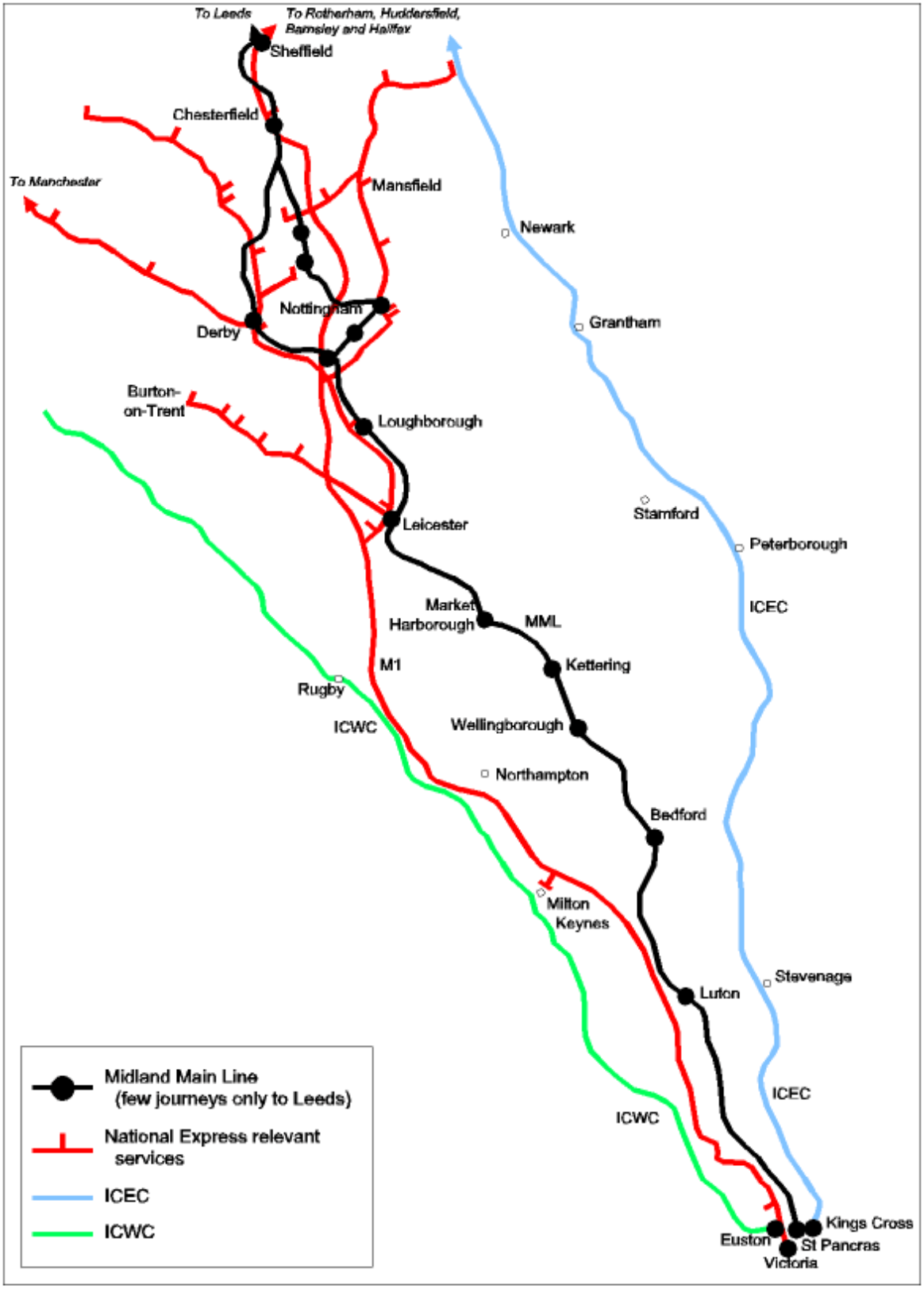
The reference services

4.3. Figure 4.1 illustrates the routes taken by road and rail operators on the reference services to and from central London; it is primarily on services between the five specified places and central London that MML and NEL overlap. It is to be expected that journeys by private car will follow directions which are not dissimilar from those taken by the coach. No direct air service is presently available between the five specified places and London, although the situation may change in the future. Air travel is discussed in paragraph 4.29.

[1]InterCity Market Share Update, Steer Davies Gleave, June 1992.

FIGURE 4.1

Rail and road routes



Source: MMC.

4.4. Table 4.2 sets out the distance, by quickest road route, of each of the reference services and the approximate time taken for journeys by car, coach and rail. For all reference services, rail is the fastest mode of transport by a sizeable margin.

TABLE 4.2 **Distance, by road, of reference services and average journey times**

	Distance (miles)	*Average journey times (minutes)*		
		Car	*Coach**	*Rail*
London-Sheffield	166	170	210	144
London-Chesterfield	150	157	180	129
London-Nottingham	130	141	175	112
London-Derby	129	139	180	108
London-Leicester	102	114	130	82

Source: AutoRoute, NEG.

*Coach figures are best times. NEG told us that it does not have average journey times for coach.

The reference rail services

MML

4.5. The main rail service between each of the five specified places and London is that operated by MML. The history and financial details of MML are described in Chapter 3. The following paragraphs provide an overview of MML's operations with particular regard to the reference services.

4.6. MML operates InterCity passenger rail services on a common route from London St Pancras to Leicester which then splits north of Loughborough into two: one route to Sheffield via Derby, with limited additional services to Leeds; and one route to Nottingham. In the year to 31 March 1995 journeys to, from and through London accounted for 89 per cent of MML's passenger revenue. The five reference services, in particular, are among the larger revenue-earning passenger flows of MML's services. Taken together, these point-to-point flows accounted for about 54 per cent of total passenger revenue in 1995/96 and for about 50 per cent of all passenger journeys on MML. Table 4.3 sets out some basic information concerning the frequency, number of journeys and associated passenger revenues of each of MML's reference services.

TABLE 4.3 **MML reference services, 1995/96**

	Number of services (one way) daily (northbound/southbound)	*Passenger journeys '000*	*Passenger revenue £'000*
London-Sheffield	17/16	[	
London-Chesterfield	16/16	*Figures omitted. See note on page iv.*	
London-Derby	18/17		
London-Nottingham	17/16		
London-Leicester	32/31		]

Source: NEG.

MML fares

4.7. MML's main ticket types are similar to those of other TOCs and generally fall into one of four groups: unrestricted, which are valid on any train;[1] restricted, which are only available on certain trains; reservation-specific, which must be booked in advance and are subject to quotas; and season tickets. The conditions attached to MML's ticket types are described in Appendix 4.1. In summary, the principal ticket types offered by MML are as follows:

[1]Unrestricted tickets are, however, subject to time limits, typically of one month after the sale of the ticket, after which they are no longer valid.

(a) Unrestricted

- First class single/return

- Standard single/return

(b) Restricted

- Saver tickets. These can be used on any day of the week and may be purchased immediately before travel. They are available only on off-peak services and usually only for journeys over 50 miles.

- SuperSaver tickets. These have additional restrictions to the Saver ticket. Usually they are only available from Sunday to Thursday and on Saturdays outside July and August.

- Cheap day single and return tickets. These are valid only for travel on a single date and only on off-peak services.

(c) Reservation-specific

- SuperAdvance Return. These are offered on any day, but must be booked on the day before travel. Using such a ticket passengers may travel on most long-distance trains at SuperSaver prices on trains where SuperSavers are not valid.

- APEX must be booked seven days in advance. A restricted number of APEX fares, only on off-peak trains, are available.

(d) Season tickets, which may last for periods of seven days or between one month and a year.

NEG told us that restrictions on tickets differed by time of day and ticket type, although on average the APEX and SuperAdvance are each limited to about 30 tickets for each off-peak train. [

Details omitted. See note on page iv.

]

4.8. The breakdown of MML's passenger ticket revenue by ticket category in 1995/96 is set out in Table 4.4. These figures are for the MML business as a whole, and it is to be expected that the breakdown for the reference services will be somewhat different. In particular, in view of length of the journeys, it is likely that season tickets will comprise only a negligible proportion of revenue for the reference services.

TABLE 4.4 **Breakdown of MML passenger revenue by ticket type, 1996**

	£m	*%*
First class	[	
Standard		
Saver	*Figures*	
SuperSaver	*omitted.*	
APEX	*See note*	
Cheap day return	*on page iv.*	
Seasons		
Other		
Total		]

Source: NEG.

4.9. The present levels of MML's principal fares on each of the reference services are set out in Table 4.5, and Table 4.6 shows annual average fares from 1993 to 1996. During the three-year period MML's fares on the reference services have increased, in nominal terms, at an average of about 2.4 per cent a year which is broadly in line with the increase in the RPI.

TABLE 4.5 **MML principal return fares on reference services, September 1996**

£

	First class	*Standard*	*Saver*	*Super-Saver*	*Super-Advance*	*APEX*
London-Sheffield	114.00	78.00	43.50	35.00	33.00	24.50
London-Chesterfield	113.00	77.00	43.50	35.00	33.00	24.50
London-Derby	88.00	61.00	38.00	29.00	27.00	19.95
London-Nottingham	88.00	61.00	38.00	29.00	27.00	19.95
London-Leicester	72.00	49.00	32.00	24.00	22.00	16.95

Source: NEG.

Regulation of MML fares

4.10. Under the terms of the franchise agreement MML is constrained in its ability to raise certain fares. All Saver returns (or unrestricted open returns where no Saver is available) and weekly season tickets other than those to and from London are separately regulated for three years from 1 January 1996 so that they do not increase at a rate faster than the rise in the RPI. For four years from 1 January 1999 the price cap will be RPI-1. All season tickets to and from London are regulated by a `fares basket' which creates an overall revenue cap to the same RPI formula, whilst allowing a small amount of rebalancing within the basket each year. For MML, the standard open single and return fare between Luton and each London station are also part of the `fares basket'. The remaining fare categories (ie first class, standard single, open return, SuperSaver, APEX and others), which in 1995/96 together accounted for 74 per cent of MML's revenue, are not directly regulated. Similarly new categories of fares which may be introduced by MML in the future would not be subject to price regulation. The franchising arrangements of MML are discussed further in Chapter 3.

InterCity East Coast

4.11. There are no other operators of direct rail services between London and the five specified places. ICEC operates services from London King's Cross (adjacent to London St Pancras) calling at major points such as Peterborough, Grantham, Newark, Retford and Doncaster en route to north-east England and Scotland. By making connections with other lines at these stations, passengers are provided with an alternative service to MML for certain point-to-point routes.

4.12. Of the five reference services, ICEC's operations are limited to services between:

(a) London and Nottingham;

(b) London and Chesterfield; and

(c) London and Sheffield.

Passengers travelling from London to Nottingham or to Chesterfield can do so by taking ICEC to Peterborough or Grantham and then changing to Regional Railways Central. Those travelling to Sheffield can take ICEC either to Retford to connect with Regional Railways North East, or to Doncaster to connect with Regional Railways North East, Cross Country Trains or MML.

4.13. For certain journeys the ICEC connection has the advantage over MML of slightly shorter journey times (the Sheffield-London route takes approximately 10 minutes less time on ICEC), although this will be counterbalanced by the inconvenience and increased chance of unreliability associated with having to make a connection, as well as by the significantly lower frequency of this service.

TABLE 4.6 **MML annual average principal return fares, 1993 to 1996**

		£				per cent				
						Year-on-year changes				
London to:		*1993**	*1994*	*1995*	*1996†*	*1993/94*	*1994/95*	*1995/96*	*Annual average*	*October 1993 to August 1996*
Sheffield	First class	110.00	110.00	110.00	114.00	0.0	0.0	3.6	1.2	3.6
	Standard	73.00	73.00	75.75	78.00	0.0	3.8	3.0	2.2	6.8
	Saver	40.00	41.17	41.58	42.56	2.9	1.0	2.4	2.1	8.8
	SuperSaver	32.00	32.00	33.58	34.38	0.0	4.9	2.4	2.4	9.4
	SuperAdvance	32.00	32.58	33.00	33.00	1.8	1.3	0.0	1.0	3.1
	APEX	23.00	23.58	24.13	24.50	2.5	2.3	1.6	2.1	6.5
Chesterfield	First class	109.00	109.00	109.00	113.00	0.0	0.0	3.7	1.2	3.7
	Standard	72.00	72.00	74.75	77.00	0.0	3.8	3.0	2.3	6.9
	Saver	40.00	40.58	41.58	42.56	1.5	2.5	2.4	2.1	8.8
	SuperSaver	32.00	32.58	33.58	34.38	1.8	3.1	2.4	2.4	9.4
	SuperAdvance	32.00	32.58	33.00	33.00	1.8	1.3	0.0	1.0	3.1
	APEX	23.00	23.58	24.13	24.50	2.5	2.3	1.6	2.1	6.5
Nottingham	First class	85.00	85.00	85.00	88.00	0.0	0.0	3.5	1.2	3.5
	Standard	57.00	57.00	59.50	61.00	0.0	4.4	2.5	2.3	7.0
	Saver	35.00	25.58	36.58	37.38	1.7	2.8	2.2	2.2	8.6
	SuperSaver	26.50	26.79	27.58	28.38	1.1	3.0	2.9	2.3	9.4
	SuperAdvance	26.50	26.79	27.00	27.00	1.1	0.8	0.0	0.6	1.9
	APEX	19.00	19.29	19.61	19.95	1.5	1.7	1.7	1.6	5.0
Leicester	First class	70.00	70.00	70.00	72.00	0.0	0.0	2.9	1.0	2.9
	Standard	46.00	46.00	47.50	49.00	0.0	3.3	3.2	2.1	6.5
	Saver	29.00	29.58	30.58	31.38	2.0	3.4	2.6	2.7	10.3
	SuperSaver	21.00	21.58	22.58	23.38	2.8	4.6	3.5	3.6	14.3
	SuperAdvance	21.00	21.58	22.00	22.00	2.8	1.9	0.0	1.6	4.8
	APEX	16.00	16.29	16.61	16.95	1.8	2.0	2.0	1.9	5.9
Derby	First class	85.00	85.00	85.00	88.00	0.0	0.0	3.5	1.2	3.5
	Standard	57.00	57.00	59.50	61.00	0.0	4.4	2.5	2.3	7.0
	Saver	35.00	35.58	36.58	37.38	1.7	2.8	2.2	2.2	8.6
	SuperSaver	26.50	26.79	27.58	28.38	1.1	3.0	2.9	2.3	9.4
	SuperAdvance	26.50	26.79	27.00	27.00	1.1	0.8	0.0	0.6	1.9
	APEX	19.00	19.29	19.61	19.95	1.5	1.7	1.7	1.6	5.0
					Averages‡	1.2	2.2	2.2	1.9	6.4
					RPI	2.4	3.5	1.8	2.6	7.9

Source: NEG.

*October to December.
†January to September.
‡Arithmetic mean.

4.14. At present the reference services operated by ICEC are generally covered by the same tickets as those of MML. With certain minor exceptions, an `Any Permitted Route' rail ticket can be used on all routes between London and Nottingham or London and Chesterfield. For journeys between London and Sheffield, however, two types of ticket exist: one labelled `Any Permitted Route' and another labelled `Route Chesterfield'. `Route Chesterfield' tickets are limited to journeys made directly on MML whereas `Any Permitted Route' tickets are intended for passengers wishing to make the journey using suitable connections on ICEC. `Any Permitted Route' tickets are currently more expensive than the direct fare. A Saver Return on `Any Permitted Route', for example, costs £47 compared with a `Route Chesterfield' ticket which costs £43.50.

The reference coach services

NEL

4.15. As mentioned in Chapter 3, NEL is a wholly-owned subsidiary of NEG which provides coach services throughout the UK. Precise figures relating to the proportion of scheduled coach services nationally accounted for by NEL are not available. The MMC's report into the Saltire merger, however, reported that NEG had a national share of some 77 per cent calculated on the basis of vehicle miles in 1993. NEG told us that it believed this figure to have fallen slightly and that its current share of national scheduled coach services stood at about 75 per cent, again on the basis of vehicle miles.

4.16. As also mentioned in Chapter 3, NEL does not own or operate any coaches itself, but contracts with individual coach operators who provide coaches, staffed with a driver and, on certain services, a hostess or steward who are also employed by the coach operator. The coach operator is also responsible for the maintenance of the coaches at its own depots. The nature of NEL's contracting arrangements with coach operators is referred to in more detail in Chapter 3. For the present purposes it is sufficient to note that NEL maintains control of all strategic elements of the business and in particular those concerning the organization, pricing, marketing, selling and co-ordinating of all services in the NEL network. More specifically, NEL takes on the functions of establishing timetables for services, setting fares and determining fare structures, determining and monitoring quality standards, and marketing and promotion.

4.17. Between the five specified places and central London there are five NEL services, all of which are part of longer routes (the relevant services). Table 4.7 gives the routes followed by these five NEL services and their daily frequency. Table 4.8 shows the proportion of the passenger revenues and passenger numbers on the entire routes for services 440, 450 and 460 which are attributable to the reference services. As regards the 564 service, NEL estimated that approximately £[*] out of a total service revenue of £[*] relates to the Sheffield and Chesterfield to London element of this service. As far as the 465 service is concerned, NEL told us that it did not have any accurate figures but it estimated that no more 20 per cent of revenue was attributable to the reference services out of a total revenue of about £[*]. As a consequence, NEL's reference coach services are not entirely self-standing business, and their commercial viability owes itself, in part at least, to the other destinations served as part of the same coach service.

*Figures omitted. See note on page iv.

TABLE 4.7 **NEL's relevant coach services**

Service no	*Route*	*Daily frequency*
440*	Manchester-Buxton-**Derby**-Loughborough-**Leicester**-Milton Keynes-**London**	5 from Derby and 7 from Leicester* (1 extra service Friday and Sunday)
450†	Retford-Alfreton-Mansfield-**Nottingham**-Milton Keynes-**London**	6†
465‡	Huddersfield-Leeds-**Sheffield**-**Nottingham**-**Leicester**-Northampton-**London**	1‡
560	Barnsley/Rotherham-**Sheffield**-**Chesterfield**-Milton Keynes-**London**	5 (6 on Friday)
564§	Halifax-Huddersfield-**Sheffield**-**Chesterfield**-Milton Keynes-**London**	2§

Source: NEG.

*Service 440: 1 starts in Manchester, 1 starts in Buxton, 2 start in Derby (3 on Fridays and Sundays), 1 starts in Burton-on-Trent, 1 starts in Leicester and 1 starts in Heanor. Only 3 call at Loughborough.

†Service 450: 1 starts in Retford and 1 starts in Alfreton.

‡Service 465: this is an overnight service.

§Service 564: some other service 564 coaches which do not stop at Sheffield and Chesterfield are not included in this table. The bulk of business on this route is generated from Halifax and Huddersfield. The number of journeys calling at Sheffield and Chesterfield reduces to one a day from October 1996.

TABLE 4.8 **Proportion of relevant coach services which are reference services, 1995**

	Passenger journey numbers ('000)			*Revenue (£'000)*		
Service no	*Full route*	*Reference service*	*Proportion %*	*Full route*	*Reference service*	*Proportion %*
440	[					
450			*Figures omitted. See note on page iv.*			
560						]

Source: NEG.

4.18. NEG has provided us with information drawn from the five services listed in Table 4.7 and relating to each of the reference services. This is set out in Table 4.9. The company told us that, owing to the absence of accurate information on passenger numbers and revenue, the information in Table 4.9 had been estimated from the data available about the entire route followed by each coach service. The company was of the view that the figures for passenger numbers and passenger revenue were likely to have been overstated because NEL did not have data about the number of passengers alighting at intermediate stops. In terms of passenger journeys the table shows the London-Sheffield service to be the largest of the five reference services served by NEL, although in terms of revenue London-Nottingham is the largest service. This difference is accounted for by the relative levels of ticket prices for the two journeys. Fare levels and structure are discussed in paragraphs 4.22 to 4.27.

TABLE 4.9 **NEL's reference services to and from central London**

Route	*NEL service number*	*Number of daily services* (northbound/ southbound)*	*Annual passenger journeys, year to March 1996† '000*	*Annual revenue‡ £'000*
London-Sheffield	560 (465) & (564)	8/9	[	
London-Chesterfield	560 (564)	8/9	*Figures omitted. See note on page iv.*	
London-Derby	440	5/6		
London-Nottingham	450 (465)	7/7		
London-Leicester	440 (465)	8/9		]

Source: NEG.

*Summer timetable.

†These estimated figures include passengers travelling beyond the destinations stated in the terms of reference. They also include passengers leaving or joining at Golders Green rather than at VCS. NEG told us that NEL did not have any precise split of the numbers alighting at each stop but that it had estimated the number leaving or joining at other intermediate stops. These figures, we were told by NEG, were higher than a true annual figure because they included two busy Easter periods.

‡The revenue figures are based on an estimated average fare per passenger over the specified services because NEL revenue data relate to the entire service route, not individual point-to-point flows.

4.19. NEL also operates two services between Heathrow and Sheffield, Chesterfield, Nottingham and Leicester, but there is no service between Heathrow and Derby. Table 4.10 sets out the number of passengers travelling and the level of passenger revenue for coach journeys between Heathrow and these places.

TABLE 4.10 **NEL coach services between Heathrow and the five specified places, 1995/96**

	Passenger numbers '000	*Revenue £'000*
Heathrow-Sheffield	[	*Figures*
Heathrow-Chesterfield	*omitted. See note on*	
Heathrow-Nottingham		
Heathrow-Leicester	*page iv.*	]

Source: NEG.

Note: There is no service between Heathrow and Derby.

NEL's network

4.20. The relevant coach services form part of NEL's extensive coach network. NEL provides a network of interlinking coach services throughout England, Wales and Scotland, incorporating over 200 routes and serving over 1,100 destinations. NEG told us that NEL's timetables were co-ordinated to enable passengers to transfer between different NEL services and that during the first six months of 1996, 28 per cent of NEL's passengers made connections between different coach services during the course of the journey.

4.21. VCS in London, which is owned by London Regional Transport, has a central role in the organization of NEL's network. NEG told us that one of the reasons many of its passengers chose to travel by coach was because of the benefits of being able to make transfers from one coach service to another at a single coach station. This was particularly the case for older passengers and, the company told us, for women passengers, who respectively constituted over 20 per cent and 60 per cent of NEL's passengers.

NEL's fares and fare structure

4.22. For the majority of NEL's services throughout Great Britain, fares are based on a standard structure. Point-to-point routes are allotted a `Universal Fare Code' which may be read off a common fare table to determine the fares for different categories of tickets. The main categories of fares are: the economy return, the economy advance return, the economy single, the standard advance return, the standard single and the standard return. The conditions attached to each ticket category are set out in Appendix 4.1. In broad terms, standard tickets are not subject to restrictions whereas economy tickets are not valid on certain days (such as Fridays, and Saturdays during the summer period).

4.23. For certain routes, `special fares' are available which are not determined in the manner described in the previous paragraph. In some instances special fares will be supplemental to the general fare structure, but will be subject to different restrictions; in other instances special fares will be set in place of those determined by the general structure. For the NEL reference services, special fares exist in place of all fare categories on the Sheffield-London and the Chesterfield-London services. NEG told us that these special fares were first introduced in response to a competing coach operator and, at the time, involved a reduction in fares from £23.50 to £15.00 for the London-Sheffield service. The competing coach operator had subsequently withdrawn from the service, although the NEL fare had remained at a similar level (it presently stands at £15.50). The trend in fare levels on the London-Sheffield service is described in more detail in paragraph 4.40.

4.24. Discounted fares are also available for under-16-year-olds and for coachcard holders.[1] Persons aged 50 or over, young persons aged 16 to 25, students, forces personnel and youth trainees are eligible to purchase discount coachcards. The cost of a discount card is £8 for one year and £19 for three years. The level of discounted fares varies from route to route. In general, discounted fares are some 30 per cent lower than non-discounted fares. For certain special fares, however, the level of discount is less. The London-Sheffield service, for example, which costs £15.50, is only discounted by 21 per cent to £12.25.

4.25. The undiscounted fare levels for each of NEL's reference services are set out in Table 4.11. NEG told us that in setting fares NEL takes account of a number of factors, namely the costs of operating the services, the price of travelling by competing modes of transport (car, coach, air or rail), and the need to attract discretionary leisure travellers.

TABLE 4.11 **NEL fares on reference services, September 1996**

£

	Economy Single	*Economy Return*	*Economy Advance Single/Economy Advance Return*	*Standard Single*	*Standard Return*	*Standard Advance Single/Standard Advance Return*
London-Sheffield	10.50	15.50	10.50/15.50	10.50	15.50	10.50/15.50
London-Chesterfield	10.50	15.50	10.50/15.50	10.50	15.50	10.50/15.50
London-Derby	17.50	19.00	17.00/17.00	21.50	23.00	20.50/20.50
London-Nottingham	18.00	19.50	17.50/17.50	22.00	23.50	21.00/21.00
London-Leicester	14.50	15.75	14.00/14.00	18.00	19.00	17.00/17.00

Source: NEG.

4.26. Table 4.12 shows the trends in Economy Return fares since 1990. Fares between London and Derby, London and Leicester, and London and Nottingham have generally risen at a faster rate than the RPI over the six-year period. The picture is, however, somewhat different for London-Sheffield and London-Chesterfield, where fares have fallen in nominal terms by about 20 per cent during the six-year period (and in real terms by about 40 per cent). The fall in fare levels on these services is attributable in the main to a substantial lowering of price in late 1993; this is discussed further in paragraph 4.40.

[1]In addition to which one child under five years old, not occupying a seat, may travel free if accompanied by a fare-paying passenger aged 16 or above.

TABLE 4.12 **NEL annual average Economy Return fares, 1990 to 1996**

£

Annual averages	*London-Sheffield*	*London-Chesterfield*	*London-Derby*	*London-Leicester*	*London-Nottingham*	
1990*	19.00	19.00	14.75	12.00	14.00	
1991	20.63	20.63	16.06	12.85	15.17	
1992	22.33	22.33	17.08	14.08	16.83	
1993	21.59	21.59	17.82	14.57	17.32	
1994	18.18	15.00	18.41	15.16	18.09	
1995	15.00	15.00	18.50	15.25	19.00	
1996†	15.25	15.25	18.75	15.50	19.25	
						per cent
Year on year changes	*London-Sheffield*	*London-Chesterfield*	*London-Derby*	*London-Leicester*	*London-Nottingham*	*RPI*
1990*/91	8.55	8.55	8.90	7.12	8.33	5.87
1991/92	8.28	8.28	6.36	9.56	10.99	3.75
1992/93	-3.32	-3.32	4.30	3.44	2.88	1.59
1993/94	-15.79	-30.59	3.32	4.06	4.46	2.42
1994/95	-17.50	0.00	0.49	0.60	5.03	3.47
1995/96†	1.67	1.67	1.35	1.64	1.32	1.84
Averages‡	-3.02	-2.56	4.12	4.40	5.50	3.16
1990 to 1996	-19.74	-19.74	27.12	29.17	37.50	20.42

Source: NEG.

*October to December.
†January to September.
‡Arithmetic mean.

4.27. NEG argued that focusing on the period since 1990 gave a somewhat distorted picture of the pattern of NEL's fare increases. Although there had been significant increases in fares in the period 1990 to 1991, these steps, the company said, had been taken in order to remedy the dire financial position which NEL had been in at that time and that these increases were greater than previous or subsequent fare increases. Because of this NEG believed it was more appropriate to focus either on NEL's level of fare increases over a longer period (for which it provided us with a comparison of movements of a sample basket of NEL's fares with movements of the RPI since 1987) or alternatively on the more recent period after 1990 and 1991. NEG also told us that fare increases in the last two years had been very modest.

Other coach operators on the reference services

4.28. We are aware of only one other coach operator, New Bharat, which presently provides reference services. This company offers a seven-times-weekly round-trip service between Southall in London to Bradford, stopping at, among other places, Leicester and Derby.

Other modes of public transport on the reference services

Air

4.29. At present there is no direct air service between the specified places and London, although with the development of a short take-off and landing airport at Sheffield by Sheffield Development Corporation, which is expected to open in 1997, an air route between London and Sheffield will be introduced. EMIA in Derbyshire is also located relatively near to Sheffield, Chesterfield, Derby, Nottingham and Leicester, but direct scheduled flights to and from London do not operate from this airport.

Competition between rail operators

Actual competition

4.30. As discussed in paragraphs 4.11 to 4.14, actual competition between rail operators on the reference services is limited to those between London and Nottingham, London and Chesterfield, and London and Sheffield, where an alternative service using ICEC is available. Estimated shares of rail passenger revenue on each of the reference routes in 1995/96 are given in Table 4.13. NEG told us that although ICEC may not be as attractive as MML for passengers living in cental Nottingham or Chesterfield, it did provide direct competition to MML for those passengers living on the eastern side of the areas around Chesterfield and Nottingham. It also told us that there was active competition from ICEC for London-Sheffield traffic.

TABLE 4.13 **Estimated revenue shares of reference rail services, 1995/96**

per cent

	MML	*ICEC*	*Other TOCs*	*Total*
London-Sheffield	84.0	13.0	2.9	100.0
London-Chesterfield	99.6	0.2	0.2	100.0
London-Derby	99.4	0.0	0.6	100.0
London-Nottingham	96.8	2.2	1.0	100.0
London-Leicester	100.0	0.0	0.0	100.0
All reference services	95.8	3.2	0.9	100.0

Source: NEG.

Note: Market shares of other TOCs in this and subsequent tables may include some revenues which have arisen from passengers using the services of other TOCs to connect with the services of MML.

4.31. Although ICEC accounts for only a small share of total revenue on the three reference services where it operates, its presence could be regarded as indicating that competition might become more intense following the sale of the rail franchises. The evidence which we have received from ICEC, however, suggests that for the London-Nottingham and London-Chesterfield routes this is likely to be limited. ICEC told us that its timetable was not governed by the need to ensure connections with other TOCs serving the MML destinations, as such passengers represented only a small proportion of the revenue raised on the ICEC routes. This had the result that for the Nottingham and Chesterfield services, ICEC connections were few and far between. The situation was slightly different for Sheffield where, although no special timetabling action was taken, the frequency of the two connecting routes ensured a better service. ICEC told us that it was considerably constrained in its freedom to adjust prices in competition with MML without introducing anomalies into the pricing structure on its main routes. The fare from London to Sheffield, for example, which required a change to be made at Doncaster, had to be set at or above the London to Doncaster fare. For these reasons ICEC told us that it had chosen not to introduce its own tickets on these routes but, in so far as competition was possible, to compete on non-price factors particularly targeted at the business traveller.

4.32. Competition of a less direct nature may, however, exist between different TOCs on different routes. MML is flanked by two TOCs, ICEC which runs from Scotland to Leeds and down the East Coast, and ICWC, which runs from Scotland down the West Coast through Rugby, Northampton and Bletchley and into Euston station in London. NEG told us that the catchment areas of these routes have some overlap with those of MML and that many of the rail services which feed into MML from stations in West and South Yorkshire (operated by Central Trains, North West Regional Railways and Regional Railways North East), from stations east of Nottingham (operated by Central Trains) and from Uttoxeter, Burton-on-Trent and Hinckley (operated by Central Trains and Cross Country Trains) could deliver passengers either to MML or to one of these two other TOCs.

Potential competition

4.33. The regulatory framework within which MML operates is described in Appendix 3.3. Within this, the potential for another TOC to enter an existing route is determined by the Rail Regulator who, under the Railways Act, must approve any agreement giving access to the rail network. The Rail Regulator has, however, stated that although an increase in competition could prove beneficial, entry by rival TOCs will in the initial period of the franchise be restricted in order to assist the franchising process through its early stages. Thus up to 1999 entry by new TOCs on the MML line is effectively precluded.

4.34. After March 1999, a second stage of moderation of competition is to be introduced. During this phase, although restrictions on accessing the rail network will remain, they will be loosened. At the start of this period each TOC will be able to nominate a certain number of its point-to-point flows to be protected by the Rail Regulator from access by rival operators. The Rail Regulator may either approve or not approve the nomination. If the nomination is not approved by the Rail Regulator then that portion of the network will be open to access from other train operators. Even if the point-to-point flows which are nominated by the company are protected by the Rail Regulator, however, limited entry by other train operators will still be allowed. Specifically, new train operators will be allowed to enter on rail flows up to the point that these flows constitute 20 per cent of the total passenger revenue earned from what the Office of the Rail Regulator (ORR) terms `contestable flows'. `Contestable flows' is defined to comprise the set of flows protected from competition by the Rail Regulator combined with those flows which are already subject to competition by rival train operators. (In the case of MML, actual competition-with Thameslink-already takes place on the Bedford-London and the Luton-London flow which together account for only about [*] per cent of total passenger revenue.) The ORR told us that the Rail Regulator will attempt to allow all new entry subject to its meeting the conditions set out in the overall framework although, in conjunction with the Franchising Director, he will retain the ability to assess each case on its merits.

4.35. The ORR told us that, compared with other TOCs, MML was characterized by high levels of passenger revenue for each point-to-point flow. This implied that, on the assumption that the Rail Regulator agrees to protect all elements of the line which MML nominates, there would be only limited scope for access by other train operators. By way of illustration, the ORR provided us with the figures pertaining to MML's operations on the reference services, which are set out in Table 4.14. These figures show the point-to-point flows in question to account for fairly high proportions of the passenger revenue on `contestable flows' and that, in view of the 20 per cent limit, at most only two of these (St Pancras-Derby and St Pancras-Chesterfield) could simultaneously be vulnerable to access from a rival train operator in the second stage of competition.

TABLE 4.14 **Proportion of contestable passenger revenue from reference services**

Flow	*Revenue £m*	*% of MML's contestable revenue*
Sheffield and St Pancras	[	
Nottingham and St Pancras		
Derby and St Pancras		*
Chesterfield and St Pancras		
Leicester and St Pancras		]

Source: ORR.

*Figures omitted. See note on page iv.

Competition between coach operators

Actual competition

4.36. There is at present, with the minor exception of New Bharat coach services, no actual competition from other coach operators on the reference services. Within the past five years, however, there have been three instances of coach competition between London and Sheffield. During 1992 a company named Overlander operated on the route for a period of two months. At the end of 1994 Express Travel, a former NEL contractor, commenced operating on the route, but withdrew in May 1995, becoming an operator for NEL again in July 1995. A third company, Yorkshire Express, started competing on the route in late 1993, again after having ceased being an NEL contractor, until it sold its business to NEL in 1995.[1] NEG told us that Overlander was a company of unknown origin which ceased operating because it failed to pay the companies which were operating coaches on its behalf. Express Travel failed, NEG suggested, because the slow and meandering route taken by its coaches resulted in low occupancy levels. With regard to Yorkshire Express, NEG told us that its business levels had been mixed, although occupancy rates had been high at weekends. Yorkshire Express had sold its business to NEL, NEG told us, because one of its partners wished to sell his share of the business.

4.37. NEG drew our attention to competition on a number of other individual routes into London, for example from Bristol, Scotland and Newcastle. But since the collapse of the Coachways consortium, set up after deregulation, no other coach company operates a network of scheduled coach services in the UK.

Potential competition

4.38. Notwithstanding the absence of actual competition from other coach operators on the reference services, the question arises whether the threat of potential entry by new operators acts as a competitive restraint on NEL on these services. NEG argued that entry barriers for individual coach routes were low, making the following points:

(a) No regulatory approval is required to enter as a new coach operator.

(b) The capital costs of launching a service are relatively low, with second-hand coaches costing around £100,000 each and numerous companies already owning suitable vehicles. In any event vehicles could be leased, and maintenance and depot facilities could likewise be rented.

(c) Access to coach stations is generally available and, in any case, not an essential factor for new entrants who could pick up and set down passengers at a roadside thus avoiding the access charges to coach stations.

(d) Launch costs for a new operator are fairly low. An initial promotional expenditure of £60,000 would be sufficient to launch an operator on an individual route.

(e) The entrant has the opportunity to `cherry-pick' by offering services at the busiest times of day rather than throughout the day.

4.39. It has, on the other hand, also been argued that NEL gains some strength in deterring entry on individual routes by virtue of the size of its operations and because of its national network. A number of arguments have been raised in this regard, which are as follows:

(a) A significant proportion (about 28 per cent) of NEL's customers to London change from one NEL coach to another at VCS. A new entrant serving a single route would generally be unable to offer the same through service.

(b) By virtue of its scale NEL has found it beneficial to set up a national computerized ticketing and enquiry service. A small operator may not find such an option profitable. Similarly information relating to NEL's services nationally is available from a single timetable which, it has been suggested to us, is particularly useful to travel agents in booking tickets.

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[1]NEG told us that NEL purchased the goodwill and name of Yorkshire Express, whereas the coaches were retained by the operator, Yorkshire Travel, for their coaching activities.

(c) Scale economies may exist in advertising and from maintaining a national brand. A submission which we received from Dr Stephen Glaister, an economic adviser to the ORR, alluded to the `one-ended' phenomenon as being a problem for local coach companies. This referred to the fact that although a local company could effectively market its services in its home locality, it was less able to do so for traffic originating in London, putting the local company at a disadvantage.

(d) It has been suggested that coach station access may remain a barrier to entry, due to the unequal terms given to different operators. VCS has, however, stated that as far as it was concerned this was not the case and that the discounting process was fully transparent with no discounts being negotiated over and above those included in the published tariff; the levels of discount might nonetheless vary between operators but since the quantity-related discount required only four departures a day to qualify, NEL was not advantaged in this regard any more than other medium-sized operators. Indeed, VCS told us that a further discount which was available to operators of shorter-distance routes tended to favour other coach operators relative to NEL. NEG told us in addition that it was of the belief that there were only a very small number of coach stations where NEL benefited from any kind of bulk discount.

4.40. In addition, it has been suggested by some academic commentators on the coach industry that NEL has built up a reputation for retaliating vigorously against new entrants. Thompson and Whitfield[1] have argued that soon after coach deregulation, NEL followed a strategy of systematically matching the prices offered by entrants and, in contrast with other operators, who allowed entrants to undercut their fares, NEL has maintained a record of deterring entry successfully. NEG told us that new entrants had commonly used low fares as the marketing ploy by which to compete with NEL and that, when this occurred, NEL would usually but not always match the lower fares, although it would never undercut them. The company also drew attention to the introduction of lower fares on the London-Sheffield service in response to entry initially by Overlander and then by Yorkshire Express, and pointed out that since that time fares had remained at around the lower level. More generally, NEG told us that since 1993/94 the London-Sheffield service had been the subject of pricing experiments, from which potential policies for application across the network were to be generated. NEG said that the new lower price had stimulated the market quite significantly and that the service remained profitable. Figure 4.2 sets out the price trend for an Economy Return fare to Sheffield since late 1990. It is seen that fares were rising steadily, in nominal terms, up until late 1993, at which point they fell by 36 per cent. They remained at the lower level for about four months before being raised again in February 1994. They were subsequently lowered again in October 1994 and have since remained at a similar level, only recently being increased slightly.

4.41. It has also been suggested that NEL's practice of contracting with coach operators reduces the threat of entry; first, because those companies best placed to enter an individual route may already be operating on that route as a contractor for NEL, and secondly, because companies contracting with NEL may be unwilling to challenge it in a different part of its network if this would place at risk an element of the contractor's business. NEL, however, told us that there were instances of coach operators simultaneously operating a competing service distinctly from the NEL service for which they were the contracted operators. The London-Bournemouth route, the company said, was one such instance of this.

4.42. We put a questionnaire to those companies currently operating reference coach services under contract to NEL, and to other bus and coach companies in the area. This produced a great variety of responses as to the extent of barriers to competition. We received replies from ten larger bus and/or coach operators and ten smaller coach operators. Almost all the respondents said that they would not consider operating on the reference services in competition with NEL. However, about half of the respondents said that there were no barriers to entry, and of the various possible barriers to entry we put to them, there was not a single individual barrier which a majority of respondents regarded as important or very important. Factors which three or more respondents rated as of medium importance to very important included:

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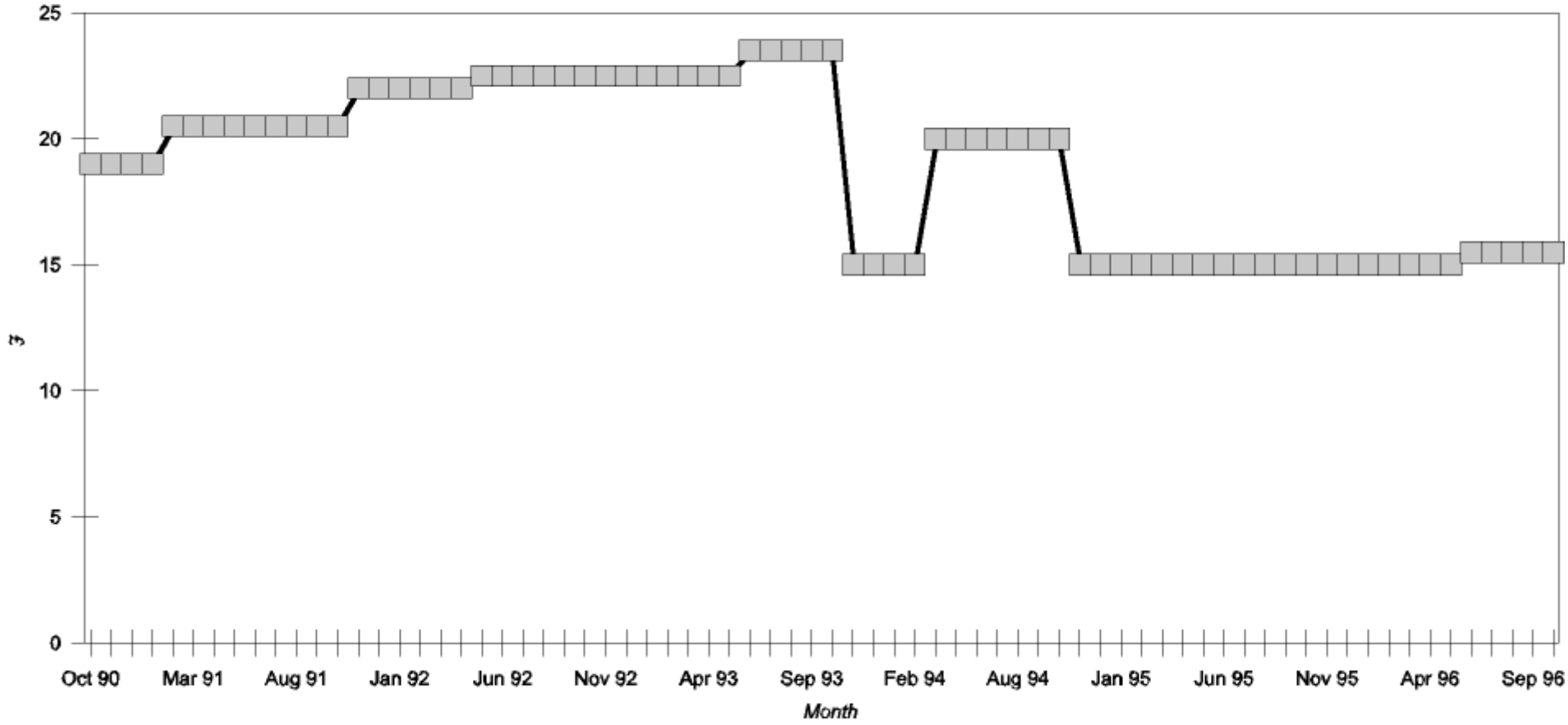
[1]D Thompson and A Whitfield, `Express Coaching: Privatization, Incumbent Advantage, and the Competitive Process'; in M Bishop et al (eds) *The Regulatory Challenge* 1995. This study also estimated a reduction in real average fares of over 20 per cent immediately after deregulation, but real fares then increasing by 1987 to about 90 per cent of the pre-deregulation level although with significantly improved quality. NEG figures suggest that average Economy Return fares on a sample of routes may have increased a little below the RPI since 1987.

FIGURE 4.2

Economy Return fares, Sheffield–London, 1990 to 1996



Source: MMC.

(a) `only room for one operator on the routes' (six respondents, including four of the larger companies);

(b) `inadequate ticketing capability' (six respondents, including four larger companies);

(c) `inadequate brand recognition' (four respondents, including two larger companies);

(d) `fear of retaliation (eg price reductions)' (four respondents, but only one of the larger companies);

(e) `lack of access to national coach network' (three respondents, including two of the larger companies);

(f) `no access to stations/stops' (three respondents, including two of the larger companies); and

(g) `fear of retaliation (eg loss of contracts)' (three respondents, only one of these being among the larger companies).

The main other factors mentioned by the respondents were the prospect of insufficient returns, lack of interest in the business, unwillingness to devote management resources to it or cost of vehicles or marketing.

4.43. Four operators said that they would be `quite likely' to operate some of the services if NEL withdrew, two of these being NEL's contractors on the services at present. Two of these four operators told us that they would be more likely to operate the services if NEG was required to make benefits of its network available: but even then would not necessarily operate the current level or pattern of service.

4.44. The costs of exiting a particular route do not appear to be large. The physical assets involved in operating a route may generally be used for other purposes. In particular, the coaches may be used for different purposes or sold, if they are owned. NEG told us that contractors could use coaches previously used on behalf of NEL, for their own coaching works such as excursions, holidays and private hire. There was, NEG said, a ready market for second-hand coaches.

4.45. In summary therefore, although this industry may have many of the features allowing `hit-and-run' entry of the kind associated with contestable markets, there are a number of reasons to doubt that the threat of entry is an effective curb on NEL's behaviour. In particular the prices of a new entrant can be matched by NEL almost immediately and it is difficult for an operator to enter with either a competitive advantage or offering a better product.

4.46. NEG strongly disputed the view that threat of entry was not an effective curb on NEL's behaviour. The company argued that, whilst entry may not be particularly attractive for other coach operators when NEL's fares remained at their present levels, if NEL were to increase its fares there would be a real possibility of entry. The prospect of such new entry acted, the company argued, as a constraining influence on its fares. It also pointed to a number of instances of competition from operators with a strong local presence.

Competition between coach and rail

4.47. Table 4.15*(a)* sets out the revenue shares of public transport services on each of the reference services. Given the higher average fares of rail travel, the rail shares in the table will be higher than those derived on the basis of passenger journeys. This is indeed borne out by Table 4.15*(b)* which shows a substantially larger share for coach travel.

TABLE 4.15*(a)* **Revenue shares of coach and rail travel on the reference services, 1995/96**

per cent

	Coach			*Rail*	*Other*	
	NEL (London)	*NEL (Heathrow)*	*Other coach*	*MML*	*rail*	*Total*
London-Sheffield	8.2	2.6	0.0	74.9	14.2	100.0
London-Chesterfield	4.8	2.1	0.0	92.7	0.4	100.0
London-Derby	4.2	0.0	0.0	95.2	0.6	100.0
London-Nottingham	7.4	3.9	0.0	85.8	2.9	100.0
London-Leicester	4.0	1.7	0.0	94.2	0.0	100.0
Reference services	5.8	2.3	0.0	88.1	3.8	100.0

Source: MMC.

TABLE 4.15*(b)* **Passenger journey shares of coach and rail travel on the reference services, 1995/96**

per cent

	Coach NEL (London)	*NEL (Heathrow)*	*Other coach*	*Rail MML*	*Other rail*	*Total*
London-Sheffield	19.3	3.1	0.0	65.2	12.4	100.0
London-Chesterfield	13.7	3.0	0.0	83.0	0.3	100.0
London-Derby	7.3	0.0	0.0	92.1	0.6	100.0
London-Nottingham	12.2	4.9	0.0	80.3	2.7	100.0
London-Leicester	8.7	2.8	0.0	88.5	0.0	100.0
Reference services	11.8	3.1	0.0	81.8	3.3	100.0

Source: MMC.

4.48. It is clear that in several respects coach services and rail services are significantly different. NEG has, in this context, pointed out that coach journey times are, on average, one and a half times as long as an equivalent rail journey (see Table 4.2); that, for the reference services, NEL's coach services are about half as frequent as MML's rail services (see Tables 4.3 and 4.9); that rail services are generally regarded as being of higher quality; and that rail fares are generally higher than those for similar coach routes (see Tables 4.5 and 4.11).

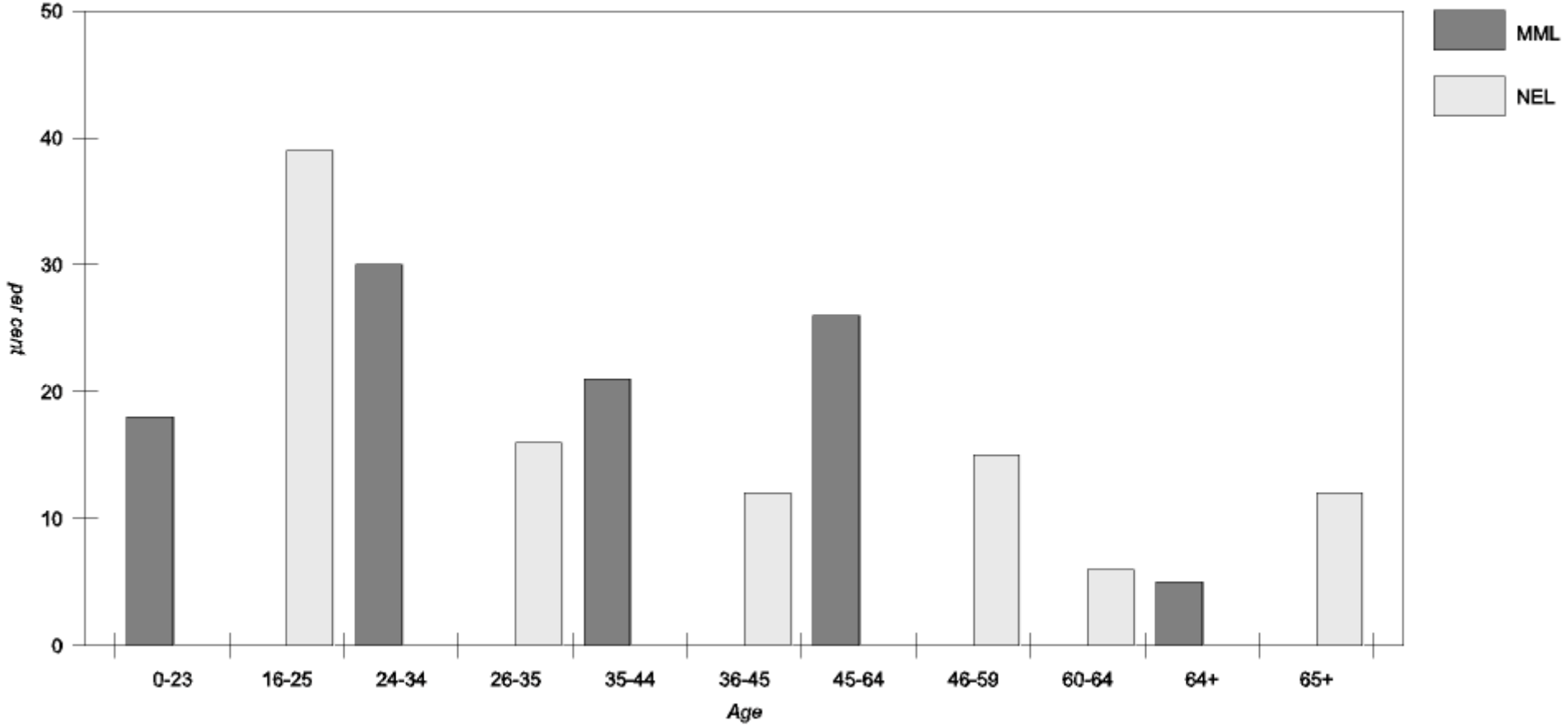
4.49. As a result of these differences rail and coach have substantially different passenger profiles. Coach travellers are largely drawn from the younger and older members of the population, whereas rail passengers are more commonly from the mid-range of the population's age spread (see Figure 4.3). Relatedly, as Figure 4.4 shows, coach passengers are drawn in general from the less well-off (social groups C1, C2, D and E in marketing terms) whereas rail passengers are more likely to be among the better off in society. Despite the different passenger profiles, however, the market cannot on this basis be regarded as fully segmented as almost all groups are significantly represented in both modes of travel.

4.50. An alternative means of segmenting the market is in terms of the purpose of the journey. The extent to which coach and rail compete will depend on the degree to which passengers are likely to substitute between the two modes. This is likely to vary considerably according to the purpose of the journey. In this regard, a distinction may be drawn between passengers travelling for business purposes who will be concerned most about the time taken for the journey, the frequency of the service and perhaps the ability to work while in transit, and those travelling for the purposes of leisure, who will, in general, be primarily concerned about the price of the journey. This view is borne out by surveys examining the purpose of passengers' journeys. A survey carried out on behalf of NEG suggests that as few as 8 per cent of NEL passengers were travelling for reasons of business (a further 3 per cent were commuting). This may be contrasted with figures for MML services showing that, on the route as a whole, 47 per cent of journeys were made for business purposes and 39 per cent for leisure purposes.[1] Survey evidence is discussed in further detail in paragraphs 4.53 and 4.54.

[1]A further 14 per cent of MML's passengers were commuters, although as stated above it is to be presumed that these are largely constituted from passengers making journeys from destinations in closer proximity to London than those other destinations named in the reference routes.

FIGURE 4.3

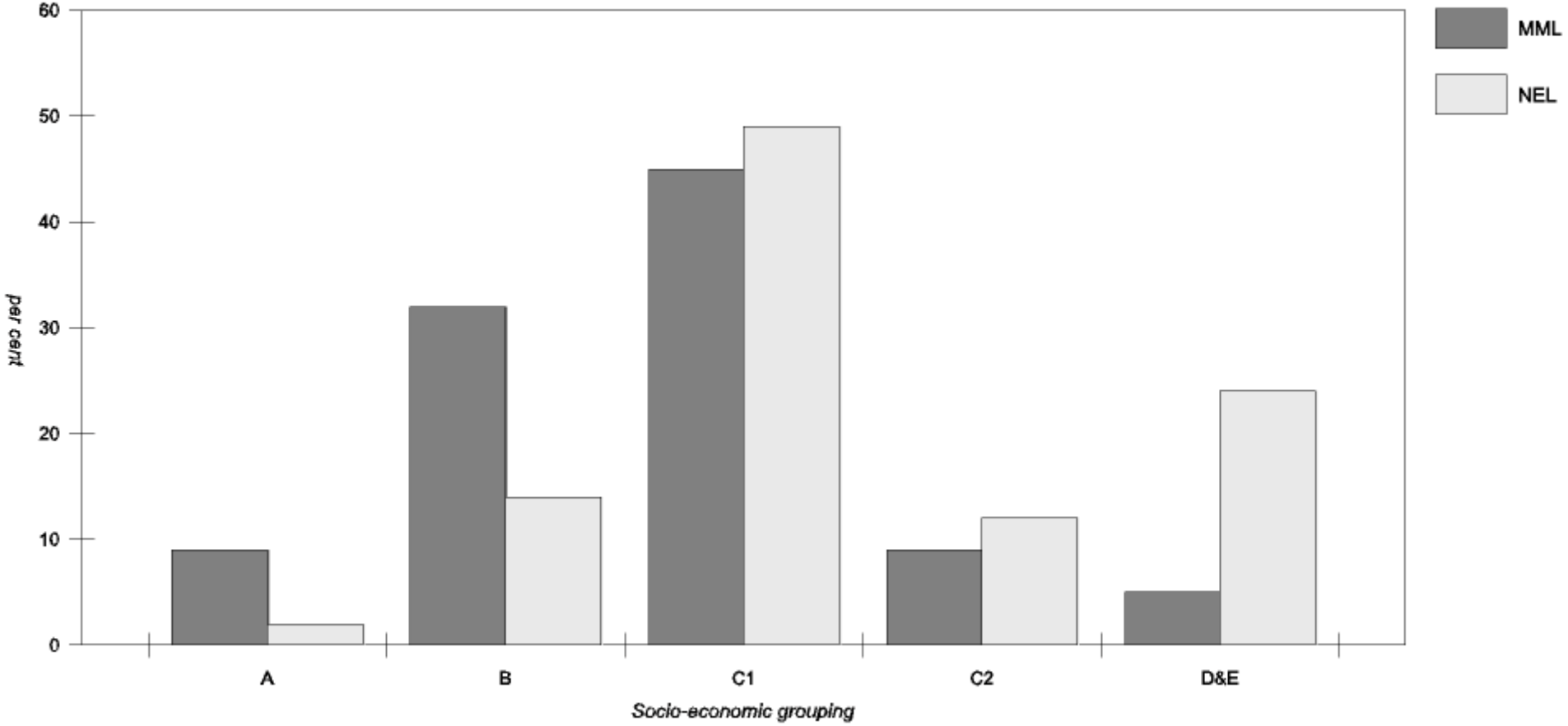
Passenger age profile



Source: NBG.

FIGURE 4.4

Passenger profiles



Source: NEG.

4.51. In assessing competition between coach and rail it is, therefore, worth distinguishing leisure from business passengers. Table 4.16 sets out the shares of leisure travel in terms of passenger journeys accounted for by rail and coach on the reference services. On this basis NEL is seen to comprise 24 per cent of public transport leisure travel on the reference services.

TABLE 4.16 **Passenger journey shares of coach and rail leisure travel on the reference services**

per cent

	Coach NEL	*Other coach*	*Rail MML*	*Other rail*	*Total*
London-Sheffield	35.7	0.0	54.0	10.3	100.0
London-Chesterfield	26.9	0.0	72.8	0.3	100.0
London-Derby	14.9	0.0	84.6	0.5	100.0
London-Nottingham	24.7	0.0	72.9	2.4	100.0
London-Leicester	17.9	0.0	82.1	0.0	100.0
Reference routes	23.7	0.0	73.3	3.0	100.0

Source: MMC.

4.52. The following paragraphs discuss evidence of competition between coach and rail reference services, with particular emphasis placed on leisure travel. The evidence is divided under three headings: survey evidence of factors determining consumer choice, quantitative evidence of competition between the two modes, and evidence of pricing behaviour.

Survey evidence

4.53. During the course of the inquiry we considered a variety of survey evidence relating to the reasons underlying passengers' choices between coach and rail. The results of these surveys support the view that coach travel is generally chosen because of its low fares whereas rail is generally selected for non-price factors, such as its speed and comfort. One study carried out between January and May 1996[1] for NEL found about 60 per cent of coach travellers citing cheap prices as the main reason for choosing that mode of transport. Another survey, commissioned by NEL in 1994,[2] similarly found 60 per cent of coach users stating that they had chosen NEL because it was cheaper. The same survey found only 13 per cent of rail users citing cheaper fares as the main reason for travelling by that mode, the most common reasons given being that rail was quicker and more convenient, or that it was relaxing and more comfortable. These findings are broadly similar to those reported in a comparable survey prepared for NEL in 1993.[3]

4.54. The 1994 survey also asked non-coach travellers under what conditions they would consider switching to coach. Only 7 per cent of respondents said that they would consider changing from their preferred mode of transport if rail fares were the same as coach fares; by contrast 60 per cent said that they would consider switching to coach if coach fares were 30 per cent cheaper than rail fares. The extent to which rail passengers are willing to switch to other modes of transport is likely to differ between different types of passengers. Notably in this regard, a 1991 survey of APEX users[4] between London and Scotland found 17 per cent of respondents stating that they would have travelled by coach, had it not been for the availability of the cheaper APEX fare; a further 17 per cent said that they would otherwise have travelled by air; and 5 per cent said that they would otherwise have travelled by car. Only 3 per cent said that they would not have travelled at all; the majority (57 per cent), however, said that they would have paid a higher fare. Similarly, a 1993 survey[5] carried out specifically on MML routes found that some 18 per cent of passengers using APEX tickets said that but for the cheaper APEX fare they would

[1]Customer Satisfaction Survey-Research and Marketing Associates Limited, 1996.

[2]Rapide Market Research Study-The MVA Consultancy, 1994.

[3]National Express Market Research, Senior King, 1993.

[4]Project APEX, MAI Research for Marketing, November 1991.

[5]Midland Main Line Apex, InterCity Market Research, April/May 1993.

otherwise have travelled on coach, a greater proportion than those who said that they would otherwise have travelled by car (13 per cent). Only 10 per cent said that they would not have travelled at all had APEX fares not been available. The majority of respondents said that they would have bought a SuperSaver instead. A more recent study of MML's `London Day Out'[1] fares showed that some 14 per cent of trips were generated from those who would otherwise have travelled by coach, 13 per cent from those who would otherwise have travelled by car and, for such fares, 5 per cent of trips would not have taken place but for the availability of the cheaper ticket category-although the main result was, again, to abstract passengers from more expensive rail fares.

Quantitative evidence

4.55. The quantitative evidence of competition between coach and rail has centred around the two concepts of cross-price elasticity and own-price elasticity. Cross-price elasticities are measures of the effect of an increase in the price of one good or service on the demand for another good or service.[2] A positive cross-price elasticity may be taken as an indication that consumers substitute one product for another on the basis of price, with a higher cross-price elasticity, other things being equal, indicating a higher degree of substitutability between transport modes. Own-price elasticities, on the other hand, are measures of the sensitivity of a product's demand to changes in its own price.[3] Own-price elasticities are expected to be negative, as a rise in price generally reduces the quantity demanded. The larger the negative value, the more sensitive demand is to price changes; a product with an own-price elasticity of less than -1.0 (in absolute terms) is regarded as relatively insensitive to price changes (`price-inelastic') and a product with an own-price elasticity of more than -1.0 (in absolute terms) is demand-sensitive to price changes (`price elastic'). An increase in the price of services or products which are price-inelastic is expected to increase revenue, whereas an increase in the price of a price-elastic product is expected to reduce revenue. The following paragraphs (4.56 to 4.68) present an overview of the evidence relating to elasticities which we have considered in the course of this inquiry.

4.56. One study of cross-price elasticities between coach and rail (by Wardman (1993)) found a relationship between the volume of rail travel and the extent of coach competition, and reported positive and significant cross-price elasticities for rail travel with respect to coach prices. The author, however, suggested that within certain market segments, such as leisure travel by students and the elderly, there may be more interaction, although he was not able to get direct estimates of this effect. Another study of the determinants of rail demand carried out by Owen and Phillips (1987) using data from 1973 to 1984 found only a small relationship between the extent of coach competition and demand for rail services. The authors suggested, however, that this was because BRB adopted a more aggressive pricing strategy over that period, possibly in response to the increased competition from coach deregulation, and, as a result, managed to curtail the expected fall in demand.

4.57. A number of studies have looked at the own-price elasticities of rail. The Owen and Phillips study estimated an own-price elasticity of -1.48 for second class journeys on the Nottingham-London route, implying that a 10 per cent reduction in the rail fares would cause a 14.8 per cent increase in the number of passengers. The Passenger Demand Forecasting Handbook (PDFH), which is designed as a guide to forecasting rail flows and is based on a survey of research in the area, reports other studies finding figures between -0.5 and -1.1 (although the lower elasticity in absolute terms would appear to be from studies of routes of shorter distance than the reference services). These figures are aggregate elasticities in that they are based on the total volume of rail passengers and do not capture any differences between business and leisure passengers. Disaggregated elasticities, reported in the PDFH, indicate a significantly greater degree of price sensitivity among non-business passengers (own-price elasticity of between -1.3 and -1.6) than among business passengers (own-price elasticity of -0.5).

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[1]London Day Out On-Train Survey, Steer Davies Gleave, July 1996.

[2]The cross-price elasticity of demand for product X with respect to product Y is defined as the proportionate change in demand for X divided by the associated proportionate change in the price of Y.

[3]The own-price elasticity is defined as the proportionate change in the demand for a product divided by the proportionate change in its price.

4.58. We commissioned ITS to carry out a study as to appropriate elasticities on these routes. The study drew on existing research in the area, almost all of which was based on data from the late 1980s up to the present. ITS recommended the elasticities for leisure travel set out in Table 4.17 for our use in this inquiry. Own-price elasticities for rail are seen to be closer to zero than the above studies would suggest, indicating that, particularly for journeys into London, demand for rail services will be price-inelastic. Demand for coach travel is, however, found to be slightly more sensitive to price.

4.59. The cross-price elasticities recommended by ITS indicate that some degree of substitution takes place between the two transport modes, but since the actual magnitudes are substantially affected by the relative market shares of coach and rail, the cross-elasticity figures in Table 4.17 cannot be directly interpreted as measures of consumer substitutability. The time and headway elasticities reflect the sensitivity of demand for coach and rail to changes in journey time and the frequency of services. Although the higher (in absolute terms) own-time elasticity of coach shows its demand to be more sensitive to journey time than rail demand, the ability of coach to attract passengers in this manner would depend on its being able to shorten journey times relative to their present levels.

TABLE 4.17 **ITS recommended elasticities for leisure passengers**

Elasticity	*Fare*	*Fare (to London)*	*Fare (from London)*	*Time*	*Headway**
Recommended overall rail own elasticities	-0.90	-0.74	-1.06	-0.65	-0.15
Recommended overall coach own elasticities	-1.1	-	-	-1.1	-0.4
Recommended overall rail cross-elasticities with respect to coach	0.14	-	-	0.09	0.05
Recommended overall coach cross-elasticities with respect to rail	0.30	-	-	0.30	0.10

Source: ITS.

*Headway is the time interval between services.

4.60. ITS also recommended fare elasticities specifically relating to those market segments comprising students and retired people. These are set out in Table 4.18 and indicate a sizeable amount of switching between transport modes on the basis of changes in their relative prices.

TABLE 4.18 **Recommended fare elasticities for student and retired market segments**

Elasticity	*Students*	*Retired*
Recommended overall rail own elasticities	-1.2	-1.2
Recommended overall coach own elasticities	-1.5	-1.5
Recommended overall rail cross-elasticities with respect to coach	0.46	0.29
Recommended overall coach cross-elasticities with respect to rail	0.90	0.60

Source: ITS.

4.61. In concluding its report, ITS said that on the basis of the evidence presented, any tendency for a joint owner of rail and coach services to raise price was likely to be stronger in the case of coach services, where a significant proportion of passengers may divert to rail, although, it added, this assessment would need to take account of the threat of potential entry into coach operation.

4.62. We put the ITS study to NEG, the ORR and Dr Glaister for comment. Dr Glaister told us that in his view the study confirmed that there was substantial price and service competition between coach, rail and car for journeys on the reference routes. Rail/coach competition was particularly clear in the core coach market: non-business trips by the young and elderly. He had one central criticism of the ITS study, which concerned the price sensitivity of rail travel as reflected in the rail own-price elasticity, and told us

that although he had no further evidence to offer on this matter, his intuition suggested that this market should be more price-elastic.

4.63. The ORR said that it supported the comments made by Dr Glaister and was of the view that the report confirmed that there was substantial price and service competition in the leisure market for students and senior citizens. The ORR said, however, that it was slightly concerned that the ITS report had drawn on the results of studies based on regional railways to reach conclusions about routes which included London as their origin or their destination. It was of the view that this may have led to lower cross-elasticities, because on the reference routes the road system was more competitive and differences between the service frequencies and journey times of rail and coach services were unlikely to be as large as for regional railways.

4.64. NEG commissioned the economic consultants NERA to respond to the ITS study on its behalf. The main criticisms raised by NERA were the following:

(a) The rail own-price elasticity of -0.9 suggested by ITS was too low (in absolute terms). NERA argued that this was at variance with the values suggested in the PDFH (which posits an own-price elasticity of -1.5 for leisure travel on InterCity transport). It argued that no convincing reason had been given in the ITS paper for the preferred value which would imply that demand for InterCity rail travel was significantly price-inelastic. According to NERA, this was not a perception shared by MML management and would indicate that current prices were substantially below the profit-maximizing level.

(b) The ITS study assumed too high a share for coach traffic (NERA suggested that the ratio of rail:coach volumes was 7:1).

(c) The ITS study implied that about 40 per cent of those who switched away from coach as a result of a fare increase would switch to rail (in place of not travelling or travelling by car). NERA stated that this was `… quite wildly implausible'.

NEG and NERA also expressed a number of other concerns about the ITS conclusions, including that a number of the studies on which the ITS figures relied were for routes which had fundamentally different characteristics (relevant to the issue of price elasticity) from those of the reference routes. NEG also argued that there were a number of factual inaccuracies in the assumptions underlying some of the ITS calculations.

4.65. We put NERA's criticisms of its report back to ITS for its comment. First, regarding the recommended rail own-price elasticity, ITS said that the -0.9 value was based on a substantial amount of empirical evidence. In the report provided to us, ITS had provided evidence on fare elasticities from six comparatively recent or very recent studies and 12 elasticity estimates had been cited. ITS added that it was not uncommon for the recommendations set out in the PDFH to be challenged, and put forward additional evidence from 12 other studies including other studies of London-based InterCity flows, almost all indicating price-inelastic demand for rail travel. ITS told us that its recommended values were not the averages for a set of widely divergent values but that there had been a high degree of consistency across the separate values cited. Secondly, in relation to NERA's criticism about the market shares used, ITS said that its estimates had been based on a ratio of market shares of rail and coach in the leisure market for 2.4:1. The larger ratio suggested by NERA related to all travel and not just leisure travel; indeed, ITS said that on the basis of information contained in the report prepared for NEG by MVA (which is discussed in paragraph 4.66), the true ratio was likely to lie in the region of 3:1. ITS checked that the recommended results were consistent with rail:coach market share ratios of 3:1 and saw insufficient reason to depart from their original suggested values on this basis. Thirdly, ITS said that the 40 per cent diversion factor was consistent with the estimates of two academic studies from the 1980s and further pointed out that a survey carried out on NEG's behalf in 1996 by the market research organization RAMA had found that 70 per cent of coach passengers had rail available as an alternative mode of transport and that 50 per cent of coach passengers had `seriously considered' making that journey by rail.

4.66. NEG also commissioned a study from the transport consultancy MVA into the demand elasticities of coach and rail on the reference services. The study was based on surveys of coach and rail passengers on the reference services which involved presenting passengers with different combinations of

fares, service frequencies and booking arrangements for rail and coach and asking which mode they would choose for each combination. The responses were modelled using econometric techniques so that the preferences stated by the respondents could be used to assign monetary values to factors such as reduced journey time and waiting time, as well as to ascertain the importance of fare levels to this choice. The model could also be used to derive cross-elasticities of rail and coach travel with respect to each other. However, given that the survey did not offer as an option any alternative travel modes, such as car travel or not travelling at all, the resultant elasticities overstated the degree of coach/rail substitution. To allow for this, a further adjustment was made. The key to this adjustment was the rail own-price elasticity. The MVA study assumed a rail own-price elasticity of between -1.3 and -1.5 and, using this as the adjustment factor, reported the lower cross-price elasticities in Table 4.19.

TABLE 4.19 **MVA reported elasticities**

Assumed rail own-price elasticity	**-1.300**	**-1.400**	**-1.500**
Cross-price elasticity of rail travel with respect to coach prices	0.016	0.010	0.003
Cross-price elasticity of coach travel with respect to rail prices	0.247	0.147	0.047
Derived coach own-price elasticity	-0.656	-0.663	-0.670

Source: MVA.

4.67. Dr Glaister had concerns of a technical nature about the MVA study regarding the form of model used in the econometric analysis. The study, he told us, was close to being tautological, the critical results having been largely a consequence of a highly restrictive model form. The model assumed that all travellers surveyed had the same preferences, which could be represented in a linear utility function. The utility function had then been used in the nested logit framework to derive the corresponding demand functions and their properties. Using this approach, it had been possible through adding one external piece of information, the rail own-price elasticity, to deduce all the other elasticities. Dr Glaister said that although the approach was logically coherent and the nested logit model was well tried and tested, it imposed very severe *a priori* restrictions on the nature of the behaviour which was consistent with it. The MVA study, Dr Glaister continued, assumed the nested logit function but did not test it against an alternative description of the data. Dr Glaister further observed that the derived coach own-price elasticities were implausibly low given that this was a mature market which had been commercially exploited for years.

4.68. Finally we also noted in relation to the MVA study that, as a result of the method used, the resultant cross-elasticities are highly sensitive to the assumed rail own-price elasticity. The extent of this sensitivity is evident from Table 4.19, which shows the coach cross-price elasticity in particular rising rapidly as the rail own-price elasticity comes closer to zero.[1] If the adjustment had been based on the ITS recommended rail own-price elasticity of -0.9, for example, the implied cross-elasticities would be higher, indicating a larger degree of substitution between the two modes. MVA did not report the cross-price elasticities which would result from assuming this lower rail own-price elasticity.

Evidence of actual pricing strategies

4.69. The Saltire report concluded that competition took place between coach and rail services on London-Scotland routes. This conclusion was based in part on evidence of the interdependence of the price-setting strategies of the two modes. NEG, at the time, told the MMC that, as a general strategy, coach prices were set at levels about 30 per cent or more below those of competing rail fares. The MMC Group investigating that merger accepted that competition from rail would serve to act as a constraint on NEL's pricing, despite its being the sole coach operator on the routes involved.

[1]The reason for this relationship is that the higher the degree of price sensitivity associated with a higher (in absolute terms) rail own-price elasticity, the more likely it is that the average passenger will choose not to travel by rail as fares increase. As the number of passengers `priced off' rail travel increases, more will transfer to other transport modes, including coach travel.

4.70. NEG has reiterated in its evidence to us in this inquiry that, just as at the time of the Saltire merger, NEL has a general policy to set its Economy Return fare at least 30 per cent below the rail SuperSaver fare in order to compensate for the disadvantages of coach travel compared with rail. Hence, the company said, changes in certain rail leisure fares do have an impact on NEL's pricing strategy. The company, however, was of the view that looked at from the other direction, namely in terms of the effect of coach prices on rail services, there was only limited competition.

4.71. In this context two pricing episodes may be examined. The first relates to the experience of coach deregulation in the early 1980s. A number of academic studies have argued that there was a significant increase in competition and reduction in coach fares at that time. Kilvington and Cross (1986)[1] suggested, on the basis of their research, that the period was associated with a reduction in fares of about one-third on some services to the East Midlands, and a doubling in the number of coach passengers, with some 50 per cent of the newly-generated coach demand being passengers transferred from rail. The response to this from the railways was centred on its fares policy and included the introduction of the Saver tickets. Another study carried out in 1988 by Steer Davies Gleave showed that the introduction of rail Saver tickets attracted passengers primarily from the coach rather than from the car.

4.72. A second episode relates to the introduction of the APEX and Super APEX rail fares in the early 1990s. The Saltire report referred to a resultant 30 per cent loss of coach passengers on routes to Scotland. In addition, NEG's Annual Report and Accounts for 1992 referred to APEX fares as being targeted primarily at coach services. In its evidence to this inquiry NEG, however, told us that this comment was limited to certain parts of the country and did not pertain to medium-distance routes such as those with which we are now concerned. Survey evidence of APEX ticket users is summarized in paragraph 4.54.

4.73. Lastly, a study carried out by RSGB, a market research company, on behalf of MML in October 1995 (prior to NEG's bid for MML) envisaged that 16 per cent of the potential increased volume of MML passengers following the sale of the franchise (corresponding to 93,000 passengers a year) would come from coach.

4.74. In his evidence to us, Dr Glaister argued generally that, for trains, the commercial decisions about speed, frequencies, standards of service and capacity provision were driven by the need to service business customers. Once these decisions were made, the costs of running the service were largely fixed. Hence any additional revenue would enhance the profitability of the operation. As a consequence, in setting leisure fares, rail operators were not limited by cost considerations and they could in principle therefore set prices to match coach fares. In practice, Dr Glaister argued, they did not do so because there were limits to the spare capacity made available by serving the core rail markets and, more importantly, there were limits to the degree to which rail operators could discriminate between different types of passenger in setting fares. By introducing a new lower leisure fare category there was the opportunity of increasing the number of passengers, but there was also the threat that existing passengers travelling on other higher leisure fares would be tempted to switch to the new lower fare.

Competition from the car

4.75. As discussed in paragraph 4.1, the private car accounts for the majority of long-distance journeys. The marginal cost of using a car is, in addition, low, particularly in comparison with train fares. NEG told us, for example, that the petrol cost for a 1300cc vehicle was about 7.29p a mile, which would imply that a return trip between the five specified places and London would cost between £14.84 (between London and Leicester) and £24.20 (between London and Sheffield). This picture, however, changes somewhat if the costs of buying and maintaining the vehicle are included in the calculation, in addition to fuel costs. On this basis, NEG told us that the Automobile Association suggested a figure of 31.62p a mile, implying the substantially higher cost of a return car journey of between £64.38 (between London and Leicester) and £104.98 (between London and Sheffield). NEG, however, told us that in comparing the costs of car travel with rail or coach fares, those who travelled by car tended to take into account only the petrol costs of the journey. Tables 4.5 and 4.11 provide comparative fares for rail and coach. Importantly, however, a direct comparison would assume that the car was carrying only one

[1] *Deregulation of Express Coach Service in Britain*, R P Kilvington and A K Cross, Oxford Studies in Transport, Gower, 1986.

passenger. The cost of a car journey is largely independent of the number of passengers travelling in the car, and consequently, as the number of passengers increases, the cost per passenger will fall.

4.76. NEG argued that, owing to its large share of all journeys undertaken, car was the dominant mode in the transport market. Both rail and coach were subject to competition from the car. With respect to rail services, NEG told us that MML (and previously InterCity) had set fares and directed its marketing effort on the assumption that the private car was the principal competitor. Relatedly, NEG's business plan for MML assumed sizeable revenue growth (£[*] million increase between 1996/97 and 1999), a large proportion of which is expected to come from private car users. Regarding the impact of car competition on coach services, NEG told us that a survey of its coach passengers in 1994 found that 43 per cent owned a car, and that a survey carried out in 1996 reported that 49 per cent of NEL's passengers belonged to car-owning households. As a consequence, NEG argued that almost half of NEL's passengers were in a position to substitute private car for coach travel should fares rise or service quality fall.

4.77. The survey evidence which we have seen indicates that the main reasons for passengers choosing to travel by car rather than by other transport modes were generally factors other than price. One survey, for example, found 73 per cent of respondents stating that they had chosen car travel because it was easier or quicker, whereas 17 per cent had chosen it because it was reasonably priced.

4.78. Regarding consumers' willingness to substitute between train and car, a survey relating specifically to MML[1] found 13 per cent of respondents saying that the main reason for their not travelling by rail was that car travel was more independent and flexible (22 per cent gave cost as the main reason and 18 per cent said that rail travel was not convenient). Other survey evidence relating to APEX ticket users is summarized in paragraph 4.54. We have not been presented with any survey evidence relating to the circumstances under which coach passengers would switch to car travel.

4.79. Evidence of cross-price elasticities between car and rail lends support to the view that, looked at in aggregate, some competition takes place between these two modes. One study carried out on the M1/A1(M) corridor in 1994 reported a small but significant cross-price elasticity of about +0.03. The low value of this elasticity may be attributed to the large volume of car journeys relative to rail journeys. Another study which is frequently cited in this context is the TransPennine study which found significant positive elasticities of a higher value on those routes.

4.80. The ITS study which we commissioned as part of this inquiry also recommended cross-elasticities for both rail and coach with respect to car travel using fuel costs as the relevant price measure. These are set out in Table 4.20.

TABLE 4.20 **ITS recommended elasticities for leisure travel**

	Fuel cost	*Time*
Recommended overall rail cross-elasticities with respect to car	0.25	0.65
Recommended overall coach cross-elasticities with respect to car	0.30	0.60

Source: ITS.

4.81. The cross-price elasticities again show that some degree of substitution takes place from car travel to both rail and coach travel as a result of changes in their relative price levels. The magnitude of these elasticities will, however, largely be a reflection of the large market share assumed for car travel

[1]MML Demand, Revenue, Product Analysis, Halcrow Fox, 1996.

*Figure omitted. See note on page iv.

and, as such, cannot be directly compared with those reported in Tables 4.17 and 4.18. NEG's comments on the ITS study are summarized in paragraph 4.64.