BUS DEREGULATION IN GREAT BRITAIN : A REVIEW OF THE FIRST EIGHTEEN MONTHS

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ABSTRACT:

The Transport Act 1985 was the most radical change in the United Kingdom bus legislation for over 50 years, and affected the provision of local bus services in three major ways: quantity control (road service licensing) of local bus services outside London was abolished; bus service subsidies could be paid only to operators who won local authority contracts by competitive tender; and there were major changes in the structure of the bus industry, with the subdivision and privatisation of the National Bus Company, and the removal of bus operation from local authority control

This paper describes the results of a major TRRL research programme, designed to monitor the consequences of the Act, and its impact on passengers, the bus industry and local authorities. Although bus services in Great Britain are still in a state of flux, an attempt is made to assess the extent to which the Act has achieved its objectives.

BUS DEREGULAIION IN GREAI BRIIAIN

INIRODUCIION

Bus services in Great Britain (outside London) were deregulated on 26 October 1986. Ihe Iransport and Road Research Laboratory monitored developments leading up to deregulation, and is still monitoring subsequent developments. Ihis paper summarises the results obtained so far, and is of an interim nature: the information collected in the year following deregulation is not yet fully analysed, and more information will be gathered in the second year. The purpose of the paper is to describe and assess changes in bus services, effects on passengers and implications for bus operators and public expenditure. However, proper appreciation of these effects requires a basic knowledge of the institutional and regulatory framework of the bus industry in Britain before deregulation, and of the main provisions of the Iransport Act 1985. The following section is therefore included to assist readers who are unfamiliar with the British situation.

BACKGROUND

Regulatory framework

Before the Transport Act 1985, local bus services in Great Britain were subject to "road service licensing", a system of quantity control introduced in 1930 and not significantly modified over the intervening years. Any applicant for a licence for a new service on a route similar to that of an existing one provided by another operator was liable to provoke an objection and face a public enquiry by a traffic commissioner. A commonly successful ground for objection was that the proposed service would abstract passengers and revenue from the existing profitable service, rendering its operator less well able to cross-subsidise unremunerative services.

Bus operators

The main types of bus operator before 1986 are shown in table 1. The public sector operators were all in receipt of some form of local authority subsidy, usually paid as a block grant covering a whole network of services. Some independent operators also received subsidy, often negotiated for individual services.

Table 1: British bus operators 1985-86*

	Number of operating companies	Number of vehicles	Annual vehicle km(M): local services
(i) Public sector			
(a) Nationalised industries:			
National Bus Company (subsidiaries throughout England and Wales)	52	14731	783
Scottish Bus Group (subsidiaries in Scotland)	11	3353	169
London Regional Iransport (London Buses Ltd)	1	5219	261
(b) Passenger Iransport Executives (subsidiaries of Passenger Iransport Authorities: metropolitan county councils in England; Strathclyde Regional Council in Scotland)	7	9084	471
(c) Municipal operators (departments of district councils in England and Wales, regional councils in Scotland)	47	5154	220
(ii) Private sector (independent companies, a minority running local services)	5635	30288	173
All operators	5753	67829	2076

*Source: Department of Iransport et al, 1987

BUS DEREGULATION IN GREAI BRIIAIN

Government policy

Ihe government published a White Paper (Department of Iransport et al, 1984) setting out its proposals for reform of the bus industry. The principal concerns were the long-term decline in passenger numbers, and the level and rate of growth of subsidy. (Revenue support increased from £10M in 1972 to £520M in 1982, a thirteen-fold increase in real terms.) While accepting that the need for support for socially necessary but unremunerative services would continue, the government believed that the "way in which the bus industry is organised, the protection it works within and the way in which subsidy has been paid have conspired to keep costs higher than they need be". Ihere was particular criticism of big subsidies in metropolitan areas which, it was claimed, could be reduced by improved efficiency and reduced costs without massive fare increases and drastic service cuts. Ihe objective of the legislation proposed in the White Paper was to set the bus industry free "to give a better service to the passenger at less cost to the ratepayer and taxpayer".

Iransport Act 1985

The main elements of this Act were:

(i) abolition of road service licensing, allowing any qualified operator to run bus services wherever and whenever he chooses - except in London, where there is still a form of licensing. (Quality control, through operator licensing, continues unchanged);

(ii) privatisation of the National Bus Company most of whose operating subsidiaries have now been sold individually (the government's intention to privatise the Scottish Bus Group was announced in January 1988) and conversion of Passenger Transport Executive and municipal operators to Public Iransport Companies, operating independently from the authorities that own them and receiving subsidy only on the same terms as other operators (see iii); and

(iii) competitive tendering for local authority contracts (whose duration is limited to five years) to operate subsidised services which are not provided commercially.

There were special provisions for the transition from the old to the new regime. Services to be run commercially from 26 October 1986 had to be registered with traffic commissioners by 28 February. There was then a short period for second thoughts, during which operators could modify or cancel registrations in the light of what they had discovered about the intentions of others. Local authorities then undertook the tasks of identifying the services necessary to supplement those provided commercially, inviting tenders and letting contracts. The resulting pattern of services was effectively frozen from 26 October 1986 to 25 January 1987, after which operators were free to adjust or

cancel services, or introduce new ones provided such changes were registered 42 days in advance.

Other relevant legislation

The Local Government Act 1985 also had a major effect on the provision of public transport. The metropolitan county councils were abolished from 1 April 1986, and their transport functions transferred to joint boards, known as Passenger Transport Authorities, on which district councils were represented. The expenditure of these new authorities was constrained (for the first three years) to limits set by central government, which thereby substantially reduced the funds available for bus subsidies in metropolitan areas.

The bus industry had previously been exempted from general legislation on competition and fair trading. With the abolition of quantity control by traffic commissioners, this exemption was also terminated.

CHANGES IN BUS SERVICES

By the end of February 1986, the equivalent of some 85 per cent of previous services were registered as commercial (ie non subsidised) services. There was however, great variation in the proportion so registered throughout the country: fewer commercial services were registered in areas where previous levels of subsidy had been higher, for example in rural and some metropolitan areas, although this factor explains only part of the variation. Some services were not registered at all, while other were registered to run only at times of high demand and not, for example, in the early morning, late evening, or on a Sunday. In some areas commercial services were on completely new patterns, bearing little or no resemblance to previous networks.

local authorities generally adopted the policy of subsidising non-commercial services so as to reproduce previous patterns of service, or, where it was impracticable to achieve this in detail, to provide broadly equivalent levels of service. There were varying degrees of technical difficulty, generally more acute in large urban areas with complex public transport networks, and especially where radically new commercial networks had been introduced, and considerable uncertainty about the costs which would be incurred. Nevertheless most authorities achieved their objectives, in many cases with substantial savings in subsidy. A rough indication of the degree to which previous services were replaced may be obtained by comparing estimates of the number of vehicle kilometres operated from October 1986 and the corresponding figure for the year before deregulation. The overall difference appears to be an increase of about four per cent.

That is not to say that there were no changes, or even no important changes. In many cases it proved impossible to devise subsidised services which exactly replicated previous services, or parts of services, which had not been registered as commercial: to do so would have required inefficient operational schedules for operators, or unacceptable competition between subsidised and commercial services. In such circumstances authorities were obliged to settle for overall service levels similar to, but not exactly the same as, those provided before. Further, during the process of designing new networks, several authorities identified previous services which carried very small numbers of passengers, which were not therefore judged to be good value for money (even though in most cases budgetary constraint did not prove crucial), and which were not therefore replaced. In some metropolitan areas the initial replacement of non-commercial services proved less satisfactory, for various reasons discussed in a later section.

Conversely services improved in many places. This is partly because authorities now have more say in what they subsidise, partly because of new commercial services, including those which are in competition with others and those which are now operated with minibuses at higher frequencies than before.

Inevitably there has been a certain amount of disruption as new patterns of service were introduced, due largely to unfamiliarity on the part of the public and bus operating staff, but in most places it was neither severe nor prolonged. Apart from adjustments made to overcome such problems, the situation remained fairly static until 26 January 1987. Ihere was no dramatic change on this date; it simply marked the start of a steady process of change. The rate of changes to registrations (relating to new services, cancellations and adjustments) is now running at approximately double that under road service licensing before deregulation. This is a substantial increase, but not unexpected in view of the novelty of the conditions under which the industry now operates. Various types of change are taking place. Commercial services are being adjusted (sometimes involving major revisions of whole networks) better to match demand and improve operators' commercial positions, sometimes in response to competition. Io a lesser extent, contracts for subsidised services are bieng terminated either because operators are losing money on them, because authorities are not satisfied that the demand warrants continued subsidy or because new commercial services render them unnecessary. Local authorities are letting new contracts to compensate where necessary for changes of this kind, or to correct defects in originally devised subsidised services. Operators are taking new commercial initiatives.

The net effects of these types of change vary considerably from place to place, and may only be evaluated in detail for a limited number of study areas. Overall, however, there has been considerable growth in levels of service: nationally the number of registered vehicle miles increased by nine per cent between November 1986 and November 1987.

There has been growth in every region, but it has not been uniform over the whole country (figure 1). Furthermore, there has been growth in services operated on all days of the week, and at all times of day (figure 2), suggesting that authorities have, on the whole, been able to make good cuts in services running at unprofitable times. The growth in metropolitan counties between November 1986 and November 1987 (13 per cent) was slightly higher than the national figure, but followed an initial decline of about five per cent, resulting in a net increase of about eight per cent from the pre-deregulation level. Elsewhere, there was an initial increase of about eight per cent, followed by an increase of seven per cent between November 1986 and November 1987, giving a total change of about sixteen per cent.

FARE CHANGES

In attempting to assess the impact of deregulation on fares, it is important to recognise that in metropolitan areas authorities were obliged to impose substantial fare increases in order to contain their expenditure within newly prescribed limits. Around April 1986, fares rose in Greater Manchester and Merseyside by 15 per cent, in Tyne and Wear by 20 per cent and in South Yorkshire by 250 per cent. Whilst these figures are large, it is noticeable that fares in the PTE areas, particularly South Yorkshire, had previously been lower than elsewhere (average revenue per journey being 21.7p in PTE areas and 32.5p in other areas) and in most cases these were the first increases for several years. Further increases have taken place since deregulation in Greater Manchester, Tyne and Wear and Merseyside. The Merseyside increase, which applied to commercial services run by the major operators, took the form of a change from flat fares to graduated scales, and averaged 55 per cent. West Yorkshire by contrast, has had no fare increases over this period, apart from a small increase in the off peak fare by one company.

Even in the non-metropolitan areas, where this complication did not arise, it is difficult to say whether deregulation affected fare levels. Operators tend to revise their fares at irregular intervals, and it is not possible to determine whether a particular increase was caused, hastened or delayed by deregulation. On the whole, it is probably fair to say that there has been little change, though there are a number of exceptions.

In the non-metropolitan counties generally, it would appear that deregulation has had little effect on fares. There have been fare increases in more than half of the counties, mostly in line with inflation; the small number where the increase was greater than inflation are balanced by the number with no increase. There are perhaps a score of instances, spread over eleven counties, where general fare increases have not been applied in particular locations, and one instance of an actual fare cut. These exceptions have been the result of competition, with operators attempting to undercut each other's fares. In most cases the reductions, or delayed increases, have been short lived.

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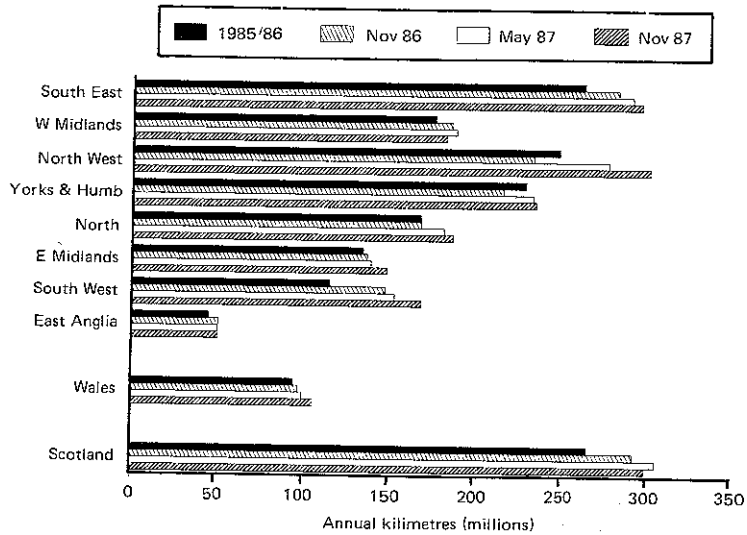

Fig. 1 Registered bus kilometres by region

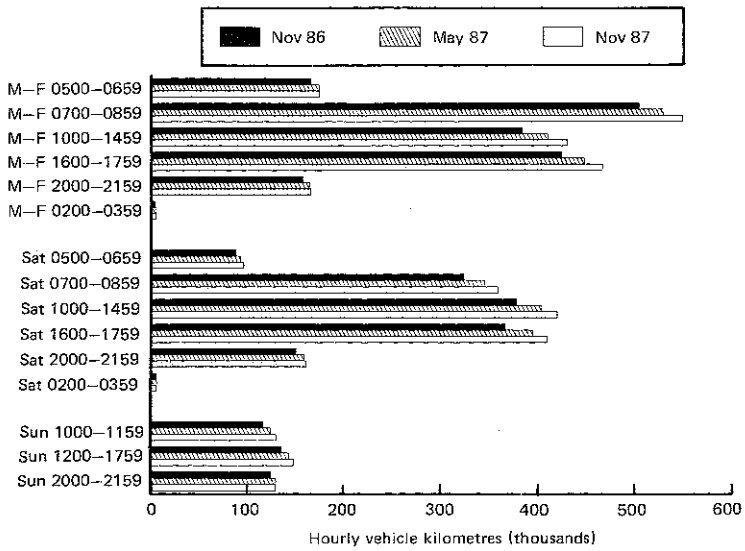

Fig. 2 Vehicle kilometres by time and day, November 1986 and May 1987

Many passengers are affected not simply by changes in standard fares, but by changes in the price and availability of special fares through concessionary schemes and discounted pre-paid tickets. Changes to concessionary fare schemes have generally been of a minor nature, but beneficial to passengers. The most common change is the addition of new categories of eligibility, as defined by the Act. However with increasing numbers of operators providing local bus services, passengers have been finding that they cannot always take advantage of pre-paid tickets. The most widespread problem is with simple return tickets, often where outward and return journeys are made using services run by different operators (typically where established operators run commercial day time services, but new operators have run evening services under contract). Some county councils have negotiated special arrangements with operators under which they accept each others' tickets, but they are in the minority. In many places, particularly large urban areas, multi-ride tickets or travel cards are now proving less advantageous to passengers than hitherto, as many are now exclusive to particular operators.

EVALUAIION OF CHANGE

In most areas services are better in some places and worse in others, and it is difficult to form an objective judgement on whether the gains outweigh the losses. Where comprehensive, detailed information is available (for example in the study areas) it is proposed to apply quantitative methods of evaluation. Elsewhere, the very broad picture obtained from aggregate statistics may be supplemented by the judgements of county and regional transport officers, based on their local knowledge and professional expertise. When questioned in the summer of 1987, just over 40 per cent of them believed that on balance services in their areas had improved, while just over 20 per cent felt that services were worse; in most cases the changes, whether positive or negative, were only marginal. About one third of transport officers thought service levels were unchanged, or were unable to form a judgement. Views on whether bus services now represent better or worse value for money (for local authorities) were divided in about the same proportions, although many were concerned at the prospect of increasing costs in the medium term.

It is arguable, however, that passengers may be better judges of the merits of bus services, but it is both expensive and difficult to gauge their opinions accurately. Spontaneous expressions of opinion (such as letters to newspapers and complaints) are more likely to be made by dissatisfied rather than satisfied passengers, and cannot therefore be regarded as properly representative. This type of bias may be reduced if not entirely eliminated, by means of systematic surveys. A further problem lies with the timing of surveys; if they were conducted too soon after deregulation, passengers, and in some cases operators, may not have become adjusted to new service patterns, and views expressed may relate to temporarily unsatisfactory situations; on the other hand, if surveys are delayed until transitional problems have been resolved,

passengers may not accurately remember the quality of services before deregulation. The first of these problems probably accounts to some extent for the generally unfavourable reactions of those questioned in TRRI surveys in metropolitan areas early in 1987, perhaps to a lesser extent for the results of similar surveys in Scotland a month or two later, and may have influenced the first reports to Buswatch (Guiver and Turner, 1987).

The results (Simpson and Walmsley, 1987) of the IRRI surveys, show that nearly half of respondents thought their bus services were generally good, while less than a quarter thought they were bad. Bus users in South Yorkshire had the highest opinion of their services, with over half the respondents saying their services were "good" or "very good" while Merseyside was the only area with more (half as many again) replying "bad" than "good". A Harris survey (the results of which are summarised by Simpson and Walmsley, 1987) shows that Manchester bus users had a similarly low opinion to those in Merseyside.

Responses to the question "What do you think of the services since the changes?" shows that, while 40% of bus users think the services are about the same or have not noticed changes, 44% of the bus users think their services are worse or much worse, and 16% think they are better or much better. The lowest opinion of the changes is in Merseyside, where 70% think the services are worse, and the Harris survey shows a similar result in Greater Manchester. Strathclyde has the highest positive response, with a quarter thinking the services better but a similar number thinking them worse. Those in Strathclyde who think the services are better are presumably responding to the increased frequencies and services in Glasgow, but there are other areas of Strathclyde region - including some in Glasgow itself - where frequency reductions have occurred.

As regards bus use since the autumn changes, nearly three-quarters of bus users fall in the neutral category comprising those who use the buses the same amount and those who did not notice or were not affected by the changes. A small proportion (five per cent) use the buses more, and over a fifth use them less. The largest increase and smallest decrease are in Strathclyde, and the largest decrease in Merseyside. Perhaps surprisingly in view of the comments noted above, the Harris survey indicates changes in bus use in Greater Manchester which are close to the average for other PIEs.

The aspects of bus services of most concern (highest negative responses) are service frequencies (especially evenings and Sundays), fares and reliability. The most positive indication is for choice of destination. Results for individual PIEs show considerable differences. In South Yorkshire and Merseyside it is fares that are of greatest concern, while reliability is a concern in all areas except Strathclyde. The use of discount tickets is thought to have got worse in Tyne and Wear and better in Strathclyde.

Fifteen per cent of bus users surveyed in Scotland said that they used buses less often than before deregulation; only 9 per cent use them more. Despite this, the number of Scottish respondents to the survey, and particularly those in more rural regions, who felt that the service changes were improvements exceeded those who perceived deterioration. This is to be expected in the urban regions (where there were increases in levels of service, albeit on a smaller scale than in Glasgow), but is perhaps surprising in the rural regions where on the whole services did not change a great deal.

The main concerns of Buswatch observers are uncertainty caused by changes to services and timetables, and failure of services to keep to the timetables. The survey reported a fall in perceived reliability (buses running to time) from 64 to 54 per cent; actual reliability, from observations of arrival times, fell similarly, though from a higher level of 78 per cent, indicating that buses keep to time better than people think. Buswatch reported a general decline in cleanliness, comfort and staff helpfulness since deregulation, which contrasts with the TRRL Case Study findings in areas where there is competition.

In general, then, it could be said that people in PTE areas have a poor opinion of bus services since deregulation; they are seen as uncertain and unreliable, and many people suffered reductions in service. Scottish passengers, particularly in rural areas, react more favourably. The same problems occur in some other parts of the country where reductions in service have been made, but where there is competition there appears to have been a positive step towards brightening up the image of the bus service. Minibuses are generally favoured by the public, but have some problems with luggage space and carrying capacity.

PATRONAGE

In the final analysis the best indication of the value of bus services is the number of passengers who use them. Provisional estimates of numbers of passenger journeys in 1986-87, based on operators' statistical returns to the Department of Transport, are shown in table 2 below, together with the corresponding statistics for 1985-86. (In making comparisons between these statistics, note that those for 1986-87 include only five months - November to March - during which local bus services were deregulated).

Table 2: Bus Passenger Journeys (Millions)*

	1985-86	1986-87	% change
LONDON	1152	1168	+ 1
METROPOLITAN COUNTIES	2069	1811	-12
REST OF GREAT BRITAIN	2421	2348	- 3
GREAT BRITAIN TOTAL	5642	5327	- 6

*Source: Department of Transport 1988

Ignoring London (where services were not deregulated) there was a decrease of seven per cent in the total number of passenger journeys; this decrease was most marked in the metropolitan counties (12 per cent) and smaller elsewhere (three per cent).

More detailed analysis of the statistics for the metropolitan counties reveals that the number of passenger journeys made in the seven months (April-October) of 1986 before deregulation was six per cent less than that recorded for the corresponding period of 1985. This change was largely attributable to the fare increases made in April 1986. The number of journeys made between November 1986 and March 1987 was 20 per cent less than in the corresponding part of the previous year. This seems to have been due in part to further fare increases, confusion about new patterns of service, and reductions in levels of service, some of which were temporary. It remains to be seen how the resolution of early problems and the subsequent restoration of levels of service may have affected patronage in the longer term.

The smaller decrease in patronage in the non-metropolitan areas appears consistent with the smaller changes in service levels (generally positive), and fare increases not noticeably affected by legislation. Statistical returns from operators in these areas are not sufficiently detailed to allow the estimation of separate patronage figures for before and after deregulation in 1986-87.

While the decrease in patronage immediately following deregulation cannot be ignored, it is legitimate to enquire how much of it is due to transient effects, how much to external factors influencing demand, and how much to permanent changes in public transport resulting from legislative change. Several more years' statistics will have to be analysed before this question can be answered with any confidence.

SUBSIDY

At this stage it is not possible to make a definitive assessment of the effect of deregulation on bus subsidies: out-turn expenditure figures for 1986-87, which was in any case a hybrid year, are not yet fully available; 1987-88 the first fully deregulated year has still five months to run, so that any estimates are of a very provisional nature; and expenditure has been switched between various heads in local authortiy accounts, complicating the process of comparison. Further, while the main concern is with expenditure on contracted local bus services, various secondary effects, for example on concessionary fare schemes, education transport budgets and administrative costs should also be taken into account. In the metropolitan areas the situation is further complicated by increased costs resulting from the formation of Public Transport Companies.

Non-metropolitan counties, England

The latest available financial information from local authorities indicates that a total of £89.0M was spent on bus revenue support in 1985-86 (£77.5M by county councils, £11.5M by district councils), the last complete financial year before bus deregulation. Ihe amount budgeted for the current financial year (1987-88) is £74.8M (£63.8M counties, £11.0M districts).

IRRI discussions with county council transport officers have suggested that although the initial savings reported early this year are being eroded, as counties let contracts to replace commercial services which have been withdrawn, most councils are expected to contain revenue support within their budgets in this financial year, with little if any loss of services. Ihus, for 1987-88, county council revenue support should be below £63.8M. In four counties (Dorset, Hertfordshire, Oxfordshire and Wiltshire), district councils contribute to revenue support by percentages agreed with the county councils. Otherwise district councils provide revenue support in a very minor way, topping up the county-supported networks where they (but not the county councils) perceive needs. Information on district council spending is incomplete, but seems to indicate that it will be of the order of £2.5M-£3.0M in 1987-88: much less than budgeted. The total revenue support in English counties will probably turn out to be about £60M-£65M for 1987-88, substantially less than 1985-86 expenditure, even without allowing for inflation.

Increased expenditure is expected over the next few years as further adjustments are made to commercial services, contract prices change and rural bus grant, amounting to some £12M in 1986-87, is phased out. At present quantitative information is too patchy and contradictory (there have been both rises and falls in contract prices) to make a confident forecast.

Ihe 1987-88 budget for concessionary fares is £72M (£12.5M counties, £60M districts) compared with an expenditure of £64.7M for 1985-86. This increase may be due to expectations of fare increases, to the transfer of compensation paid to operators for discounted children's fares from revenue support to concessionary fare schemes, to the creation of new schemes or extension of existing ones to new areas, new categories of concessionaire and, perhaps, to contingency provisions. Ihere are early indications that as authorities revise schemes to comply with the provisions of the 1985 Act, particularly in relation to generated travel, actual compensation paid to operators is decreasing. It would not therefore be surprising to find the 1987-88 budget underspent.

The interaction between public transport and education transport (including contracted services exclusively for the carriage of children to and from schools, and the provision of scholars' season tickets valid on local bus services) is complex and varies from place to place, and at present insufficient information is

available for a systematic assessment of the consequences of the 1985 Transport Act. However, discussions with local authority officials suggest that more attention is now being given to joint optimisation of public and school transport, and that in some areas the new discipline of letting contracts by tender is permeating the process of providing school transport. Overall savings are therefore to be expected in the longer term, although they may not be obvious at this stage.

Authorities have taken on additional staff to cope with work generated by deregulation. Although many were appointed on short-term contracts, there now seems to be a general move to make appointments permanent, since substantial effort is still required for tendering subsidised services, and more attention is being given to longer-term activities like monitoring services and improving publicity. At present there are about 150 additional staff in county councils, requiring increased expenditure of the order of £3M/a. Expenditure on publicity varies enormously between counties, ranging from virtually nothing up to about £1M/a. At this stage, with only patchy information and a changing situation, one can only guess at a likely total - perhaps between £5M and £10M/a.

Wales

The overall picture in Wales is very similar to that in England, albeit on a smaller scale. Estimated expenditure by counties and districts on revenue support in 1985-86 was £10.8M. The budget for 1987-88 is £8.3M, and is unlikely to be fully spent.

Scotland

Revenue support is reduced from pre-deregulation levels in almost all regions. This conclusion can be stated despite difficulties arising from the definition of costs and their comparison over time. The best estimate that can be made at present for the whole of Scotland is that revenue support requirements reduced from about £27M to £15M per annum in the period immediately following deregulation.

Metropolitan areas, England

The changes in metropolitan areas, which include the reformation of the PTAs and PTEs and the establishment of new bus operating companies, were more complex than those occurring anywhere else; further, they were constrained by centrally imposed expenditure limits. This complicates any comparison of levels of subsidy before and after deregulation, and prevents identification of effects due solely to deregulation. Payments now being made by PTEs to bus operators for services provided under contract total some £70M/annum. This is less than half the PTEs' previous net expenditure on bus operations (approximately £210M/annum), but subsidy is not separately identifiable within that figure, which includes other items of expenditure - for example planning, administration of contracts and provision of

information for the public - which are still borne by the PIEs. A further complication is the establishment of separate bus operating companies, which has entailed substantial costs, both recurring and non-recurring, for the PTEs. The net cost reduction is therefore considerably less than these figures might seem to imply. The cost of concessionary fare schemes rose from £105M in 1985-86 to about £130M in 1987-88, partly because, as elsewhere, schemes were extended to new categories of passengers, but mainly because of fare increases.

OPERAIORS AND COMPEIITION

New operators

One of the purposes of the Transport Act 1985 was to encourage new operators to enter the bus industry. In 1985-86 there were 118 bus operators in the public sector (Department of Iransport et al, 1987), whose main business was the provision of local bus services, and who operated 92 per cent of total local service vehicle miles. The private sector consisted of some 5600 operators, of whom the majority were very small firms, with local bus services accounting for only 15 per cent of their mileage. There was thus considerable potential for private operators to enter the local bus market for the first time, or to increase their involvement in it.

The public sector of the industry was directly affected by provisions of the 1985 Act other than those relating to quantity control and subsidy. Local authority bus operators were reformed as companies separate from, but owned by, the local authorities; nearly all have so far remained within the public sector. Both the National Bus Company and the Scottish Bus Group reorganised themselves, creating greater numbers of smaller subsidiaries. Most of the NBC subsidiaries have now been transferred to the private sector, and the remainder are expected to be transferred early in 1988 (National Bus Company, 1987). The majority of what was the public sector of the industry is therefore composed of operators who are, technically, new, but the increase in the number of such operators is not, in itself, of much significance. The changes have however created incentives and opportunities for such operators to compete with each other, and the early consequences are discussed later in this section.

Analysis of changes in the private sector is difficult for different reasons: its size and dispersion complicate the task of compiling comprehensive statistics, and the problem is compounded by changes in definitions of services embodied in the 1985 Act. The best estimate that can be made (subject to considerable statistical error) is that some 1300 private operators were, in early 1986, running services which would be classified as local bus services after the Transport Act 1985 took effect. This number has now been increased by some 400, of which over 50 are new to the passenger transport business.

Market shares

Ihe increase in the number of vehicle kilometres operated since deregulation has not been uniformly distributed between different types of operator. Ihere has been a slight reduction by former PIE operators, no significant change by the Scottish Bus Group, and increases by all other types of operator (table 3). The largest absolute increases are by NBC (or former NBC) subsidiaries, and private companies (excluding former NBC subsidiaries). Much NBC growth is due to the replacement of conventional services by higher frequency minibus services. Independent private operators have achieved the highest proportionate growth, and collectively they now run more vehicle kilometres than London Buses Ltd, municipal operators or the Scottish Bus Group. Their share of the total number of vehicle kilometres operated has increased from eight to thirteen per cent. This growth is due in part to their success in winning contracts for subsidised services which account for a greater proportion of their total mileage than for any other group of operators.

Iable 3: Operators' market shares

Operator type:	1985-86 vehicle km operated (millions)	November 1987 vehicle km registered (millions)	November 1986 vehicle km in receipt of subsidy(%)
National Bus Company	783	825	17
PIE/PIC	471	422	16
Independent	173	291	28
Municipal	220	234	12
London Buses Ltd	261	249*	
Scottish Bus Group	169	167	12

*for financial year 1986-87

Competitive strategy

The Iransport Act 1985 has required operators to plan services having due regard for actual and potential competition, for passengers and for subsidised services. These considerations were crucial for operators who were deciding early in 1986 which services to run commercially, and later in the year, which subsidised services to compete for and what prices to tender. Then, when the new services started they had to decide how to respond to competition "on the road". Any comprehensive exploration of operators' behaviour under these conditions would require the collection and analysis of much more information than has been possible at this stage. Nevertheless, it is of interest to discuss what is known to have occurred.

Initial registration of services

When planning services to be operated from deregulation, operators had to forecast how their proposed commercial services might be affected by competition, what contracts they might win for subsidised services, and at what prices, and the implications for costs, revenues and resources. There were in general two major areas of uncertainty: local authority policy on support for unremunerative services; and the actions of potential competitors. In addition, some of the newly formed Public Transport Companies had to rely on inexperienced staff.

The nature and degree of these difficulties varied widely from place to place. There is evidence to suggest that in some places major operators reached understandings with each other, effectively preserving the territorial status quo both in registering commercial services, and in tendering for subsidised ones. Such understandings seemed to have excluded small operators, and have not all been durable. In other places, operators were initially cautious about encroaching on others' territories, resulting in uneasy truces. In a few places there was intense competition from deregulation day, with operators clearly trying to expand their markets with little or no regard for competitors. Strathclyde was the extreme example, wih competition beginning well before deregulation.

Most local authorities attempted to make policy statements before operators had to determine their commercial networks, setting out the level of services they would attempt to support, and the financial resources likely to be available. However, a minority, consisting mainly of the new Passenger Iransport Authorities who were desperately trying to grapple with major policy issues, were unable to be as helpful. In these cases it seemed clear that bus subsidies would be smaller than before, but the magnitude of the change was uncertain.

Accordingly, operators seemed to adopt one of the following three broad strategies:

(i) registration of profitable services, basing cost predictions on current operating parameters, in the hope that enough contracts for subsidised services would be won to maintain the size of the company;

(ii) registration of all current services, hoping to achieve commercial viability by reducing operating costs;

(iii) registration of a reduced (and possibly radically revised) network of services with the objective of financial self-sufficiency, reducing fleet, staff etc to match.

The first of these strategies tended to be adopted where there was confidence in the maintenance of overall subsidy levels, and less fear of competition. There was however an implicit risk in relying on winning contracts for unremunerative services:

competitors might operate them without subsidy; if not, local authorities might decide not to subsidise them; and, even if they did, other operators might win the contracts.

The second strategy often proved unsuccessful. Measures designed to improve efficiency (eg tighter scheduling) failed in practice (sometimes because of adverse traffic conditions) resulting in unacceptable unreliability. A short-term remedy was to reduce planned frequencies, leaving local authorities to restore frequencies with subsidised services, if practicable.

The third method involved redesigning complete networks, for example in order to change from a three-shift to a two-shift day and achieve economies. It tended to leave operators with inadequate resources to provide subsidised additions to networks, and made the design of such additional services very difficult. Leeds was an extreme case, where services immediately after deregulation proved woefully inadequate, requiring a long series of adjustments to both commercial and subsidised services.

Competition for subsidised services

There was competition for the majority of the contracts for which authorities, with the average number of tenders per contract typically being between two and three. There was an unexpected wide range of prices. Some tenders seemed unrealistically low, but had to be accepted because they represented the best value for money. In due course some of the resulting contracts were surrendered by operators, and prices rose on retendering. Similarly, some unsubsidised services proved to have been too optimistically costed, and were abandoned. Nevertheless, as we have seen, overall subsidy levels are still significantly lower than before deregulation.

It is interesting to consider the wide range of prices offered (the most extreme example is for a service for schoolchildren, with bids ranging from £0.80 to £350 per pupil per week). In many cases the difference between highest and lowest tenders is far greater than could be explained in terms of real differences between companies' operating costs. Some tender prices seemed to have been based on marginal costs, especially where the contracts were for simple additions to commercial services. Higher prices may have been due to anticipated lack of competition - which was not always justified, or to the need to employ additional resources (especially vehicles and staff) to operate the required services.

Reactions to competition

There are now several examples of intense competition between major operators where newcomers (in some cases new operators) have "invaded" established operators "territories". In such cases the reaction from the incumbent operator has been marked. There is

evidence of a rapid reassessment of the part of the network under attack, and the redeployment of resources to reduce the impact (or threatened impact) of the newcomer. Powerful competitors can create a considerable effect because of their mobility: they are not constrained by motives of self-preservation or social responsibility to attempt to conserve previous networks of services.

The reaction of the large operators to small independent operators is mixed. While there are cases where new operators are not inhibited in any way by the larger operator, the more usual reaction is for the larger operator to compete very hard with the newcomer, deploying rather more resources than the situation would appear to warrant. Current evidence would suggest that many new operators are sustaining this competition, but that some have succumbed to it.

There has been speculation about how operators are managing to pay for the losses which they seem to be incurring as a result of intense competition, in spite of measures designed to make more productive use of labour. The choice must be between cross subsidy from other routes (or operators?) and use of reserves. There is no available evidence to date on which is being employed. Commentators on the situation in Glasgow agree that the competition cannot be maintained at the current levels indefinitely, but it has endured for almost one year now.

Growth of competition

Between October 1986 and January 1987 there was only a modest number of examples of competition by rival operators on common routes. Figure 3 shows the locations of those cases that were reported to TRRL in the autumn of 1986: they are quite thinly scattered over the country, except for a concentration in Scotland. Figure 4 shows the corresponding situation about six months later, by which time there were many more examples, of which the most notable were, perhaps, the introduction of major minibus services in Greater Manchester and Preston by United Transport Buses, and in Oxford by Thames Transit. At the other end of the scale there are examples of competitors running occasional buses along routes where there are already frequent services. Although some operators have now withdrawn services in the face of competition, and it seems unlikely that some others will be able to maintain their competitive services indefinitely, it seems probable that competition will continue to increase, at least over the next year or so.

BUS COMPETITION

Fig. 4 Summer 1987

Fig. 3 Autumn 1986

BUS DEREGULAIION IN GREAI BRIIAIN

INNOVAIION

Minibuses

Ihe most significant innovation that can be related to deregulation is the expansion of the use of minibuses on urban services. This development was actually possible under the old legislation (in fact, expansion began in 1984), and other factors, such as the condition of the labour market, have been significant influences. Nevertheless, deregulation was undoubtedly the major factor that stimulated minibus growth.

Ihe first major urban minibus scheme was introduced in Exeter in February 1984. Steady growth occurred during the following year, and this accelerated in late 1985 and through 1986. Initially NBC was the innovator, and it was estimated that by the end of 1986 some 3,000 minibuses were in operation by current and former subsidiaries of NBC. Extensive growth has subsequently occurred amongst other operators too. By the summer of 1987 the number of minibuses in use on local bus services was approaching 5,000, representing of the order of 10-15 per cent of the total stock of vehicles in use on such services. The number of places served by this time was about 250 spread widely over the county.

In most conversions frequencies have increased considerably, typically by a ratio of 3:1, though in some places by as much as 5 or 6:1. As well as higher frequencies, other improvements have been provided, notably greater penetration of residential areas, higher running speeds, and hail-and-ride in residential areas. Introductions have also been accompanied by major marketing efforts, and a further feature has been an emphasis on improving driver-passenger relations, with new drivers selected partly on the basis of their ability to deal with people.

Passengers have generally responded to these changes with enthusiasm, and there has been considerable patronage growth. Operators can be sensitive about divulging patronage information, but reported increases show a very wide range, from as low as about 20 per cent to well over 100 per cent (it is not always possible to compare exactly like-with-like, and some of the highest rises related back to a poor and lowly patronised former arrangement). Relatively little is at present known about the nature of the increased patronage, for instance, what purposes of trips are involved, the extent to which new trips are generated or diverted then from what former modes, and so on. Research is in hand to gather better and more quantified information about patronage changes.

Whilst services have been popular with users, the true long-term financial position of the services is not yet clear. As with patronage information, for commercial reasons operators are now loath to divulge their costings. Nevertheless, some insight is

provided by a theoretical analysis (Turner and White, 1987) which took a whole-life view, and compared the cost of a conventional operation with that of a replacement minibus service, making allowance for all the changed parameters, such as numbers and costs of vehicles, their lifespans, wage levels etc. This suggested that a typical conversion with a replacement ratio of three minibuses to one conventional bus would result in an overall cost increase of the order of 60-90 per cent. This indicates the level of patronage increase that needs to be attracted, assuming fares unchanged. This in turn implies a service elasticity of the order of +0.4. This can be achieved, but not universally. Financial evaluations are complex, and, for example, can be influenced by requirements for the provision of peak capacity. No-one yet knows exactly how long-term costs will actually work out because the lifespans and long-run maintenance costs of the small vehicles now being used on intensive urban operations have yet to be demonstrated.

The wholesale adoption of minibuses by NBC in anticipation of deregulation in 1984 was a major initiative since it overturned previous industry wisdom that such operations were not viable. However, with deregulation in mind, even where passenger response might not prove sufficient to cover increased costs, an operator might decide that it was worth bearing any loss, at least in the short term, because a frequent minibus operation gives an increased presence that can be a considerable competitive advantage, and a deterrent to others. The TRRL continues to monitor developments, and intends to produce by early 1989 an updated general review and revised cost analysis, incorporating improved information emerging from the growing period of operating experience.

Taxibuses

The number of Taxi operators interested in providing local services has increased steadily. The latest analysis of the Bus Registration Index reveals that a total of 90 services has so far been registered with the Traffic Area Offices. However, not all of these services are running: in a recent survey of these operations 45 were found to be running - a further 40 had ceased (or had never started) and the current position of the last 5 remains unknown.

As may be expected this instability occurs mainly among unsubsidised services - as many operators appear to enter as are forced to quit when operating on a commercial basis. Of the 45 services known to be running, 36 are commercial and 9 are subsidised.

PROSPECTS FOR THE FUTURE

The developments which have been observed over the last year are the result of experimental and tentative responses to a major perturbation in the bus industry and the conditions under which it operates. There is no reason to suppose that all the transient effects have yet

died out and that a state of equilibrium has been reached: the rate of change of registrations is currently about 160 per cent per annum. The number of vehicle kilometres operated is well above the pre-deregulation level, and appears to be rising; bus service subsidies are lower than before, but they are also rising. It would be injudicious to attempt to extrapolate these apparent trends without proper quantitative analysis of the various underlying factors and the information required for this is not yet available.

It is becoming clear, however, that many operators made decisions which, in the light of experience, turned out to be wrong. Some of these were inevitable, some could have been foreseen. Some managers have paid the cost of these mistakes by being dismissed or moved. A few new companies have gone bust. However, now that the bus industry has had a chance to operate in the new environment, matters are improving. Yet there are still many signs that the situation is far from stable. Some operators are forging ahead and are examples to others. Competition is increasing and this will inevitably weed out those operators who, for any number of reasons, find themselves unable to sustain their operation.

It is clear that operators are gradually reassessing services in a systematic fashion and that they are making changes to improve the profitability of the operation. Frequencies and hence schedules are adjusted to make the operations more efficient. Non profitable parts of routes are withdrawn and usually local authorities replace them with tendered services. More realistic costing seems to have increased prices in some places (substantially so where there were obvious initial errors), but competition has reduced them in others; currently available information is too patchy and contradictory to deduce a longer term trend. Ihe phasing out of rural bus grant may also reduce the number of services which operators regard as commercial and increase the amounts of subsidy demanded for others.

Local Authorities will also gain experience of manipulating subsidised services, possibly becoming more skilled at channelling money towards services where it will produce the most benefit.

CONCLUSIONS

At this stage the formation of conclusions about the effects of deregulation is beset with two major difficulties: the effects have varied enormously from place to place (often at a very local level) so that these are inevitably exceptions to generalisations; and changes are still occurring at a much faster rate than before deregulation, limiting the thoroughness with which up-to-date information may be analysed and the confidence with which forecasts may be made. Nevertheless, the following conclusions give a reasonable impression of the situation one year after deregulation.

BALCOMBE

1. The number of vehicle kilometres operated nationally increased marginally on deregulation; one year later it was roughly thirteen per cent higher than before deregulation.

2. Initially some 85 per cent of vehicle miles were operated commercially but this proportion may be decreasing.

3. Fares in general seem to have been unaffected by deregulation, except where competition has led to fare reductions. In metropolitan areas, however, there have been substantial fare increases (from relatively low fare levels) largely as a result of the imposition of expenditure limits on Passenger Transport Authorities. A number of arrangements facilitating through-ticketing and the use of pre-paid tickets have been terminated, significantly increasing the fares some passengers have to pay. In most areas there has been no change or marginal improvements in concessionary fare arrangements.

4. Changes in bus services have, inevitably, benefited some passengers and adversely affected others. In metropolitan areas, there were decreases in service levels immediately after deregulation, and in some cases there were operational problems. This resulted in marked public dissatisfaction and significant loss in patronage. Since then, however, service levels have been increased to pre-deregulation levels or better.

5. There have been substantial savings in direct bus service subsidies. These have been partially off-set by increases in administrative and publicity costs to local authorities, and by the costs of establishing Public Transport Companies.

6. About 400 more private operators are now running local bus services. The independent sector of the bus industry is now running seventyfive per cent more vehicle kilometres than before, and has successfully competed for contracts for subsidised services.

7. Competition between operators on common routes is increasing.

8. Innovation is mainly in the form of minibus services which are now being operated in over 250 places. They are generally popular with passengers.

9. There is as yet no discernible change in bus safety or maintenance standards.

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