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47/7

JR 84

Prime Minister (2)

Treasury and Policy Unit are now satisfied that the technical annexes can be published as part of the Bus White Paper

AT 4/7

PRIME MINISTER

BUS WHITE PAPER

At E(A) on 28 June, /E(A)(84)6th/, it was agreed that I should urgently revise the draft annexes to the White Paper in the light of drafting amendments from members of the Sub-Committee.

I have received, through Treasury officials, a number of helpful drafting comments from the Chancellor of the Exchequer. I have incorporated the amendments in the revised texts I am circulating with this letter.

Unless I hear to the contrary by this Thursday evening (5 July), I will assume that colleagues are content with the revised texts of the annexes.

I am copying this minute to all E(A) members and to Sir Robert Armstrong.

NICHOLAS RIDLEY
3rd July 1984

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bc. Bob Young

CONFIDENTIAL

10 DOWNING STREET

From the Private Secretary

5 July, 1984.

Bus White Paper

The Prime Minister has seen your Secretary of State's minute of 3 July, and is content that the technical annexes should be published as part of the Bus White Paper.

I am sending copies of this letter to the Private Secretaries to the members of E(A), and to Richard Hatfield (Cabinet Office).

Andrew Turnbull

Miss D.A. Nichols,
Department of Transport.

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RJ

THE BUS INDUSTRY: FACTS AND FIGURES

Introduction

1. This annex describes the recent trends and current position in the bus industry. Paragraph 2 gives a general picture of the contribution of public transport to total travel. Paragraphs 3-24 focus on the bus industry - its structure, the level and nature of bus demand, the subsidy provided and the industry's performance in terms of costs and productivity. Paragraph 25 discusses taxis, and paragraphs 26-27 other local public transport services.

2. 84% of all passenger travel is by private transport; only 8% is by bus, 7% by rail. The shares of bus and rail in total travel have continuously declined over the past three decades, while the share of private transport has risen (see Table 1). Taxi journeys are estimated by the Transport and Road Research Laboratory to have numbered between 370M and 700M in 1982, or between 6% and 12% of the number of bus journeys.

Structure of the Bus Industry

3. There are some 70,000 buses and coaches operating in Great Britain today. Some 40,000 of these vehicles are owned by public bus operators and the rest by private operators. Four distinct sectors can be identified within the industry: transport executives, (ie the Passenger Transport Executives and, until 1984, the London Transport Executive*), municipal, nationalised and private. Their bus fleets are shown in Table 2.

Table 2: Bus operators in Great Britain 1983:

Operator	Number of buses
National Bus Company	14,600
Scottish Bus Group	3,100
London Transport Executive	5,600
Passenger Transport Executives	9,600
Municipals	5,300
Private Operators	30,000(E)
All Operators	68,000

Source: Transport Statistics Great Britain

4. The transport executives are responsible for the provision of passenger transport services in the English metropolitan counties and the Strathclyde Region of Scotland. Some bus services are provided in the transport executive areas by subsidiaries of the nationalised bus companies under operating agreements concluded under provisions of the Transport Act 1968 and the Transport (London) Act 1969. Agreements made under the 1969 Act continue to have force under the London Regional Transport Act 1984. In Scotland, the Strathclyde Regional Council provides support for SBG services in its area under the Local Government (Scotland) Act 1973.

*As from 29 June 1984, LTE was renamed London Regional Transport.

TABLE 1

PASSENGER TRANSPORT BY MODE 1953 - 1983 GREAT BRITAIN

	1953		1963		1973		1983	
	bn Pass km	% of total	bn Pass km	% of total	bn Pass km	% of total	bn Pass km	% of total
Private motor[1]	58	30	158	60	309	77	414	83
Bus and Coach	82	42	64	24	53	13	40	8
Rail	39	20	36	14	35	9	35	7
Air[2]	0.2	0.1	1.3	0.5	2.4	0.6	3.0	0.6
Pedal Cycle	17	9	6	2	4	1	5	1
TOTAL[3]	196	100	265	100	403	100	497	100

[1] car, van, taxi and motorcycle.

[2] includes Northern Ireland and the Channel Islands.

[3] totals may not add due to rounding.

Source: Department of Transport

5. The municipal undertakings are those run by certain district councils (in Scotland, regional councils) whose powers to operate services derive from local Acts passed before 1930. The number of buses run by the 49 councils (37 English, 9 Welsh and 3 Scottish) which have such operations varies considerably as shown by Table 3.

Table 3

Municipal Bus Operators in Great Britain 1983:

No. of Operators	No. of buses
9	less than 41
15	41-70
8	71-100
7	101-150
3	151-200
5	201-240
2	over 250

Source: Department of Transport

6. The nationalised sector comprises the National Bus Company (NBC) and the Scottish Bus Group (SBG). Both Groups operate in urban and rural areas. They provide a very high proportion (over 75%) of stage bus services in rural areas throughout Great Britain.

7. In the private sector there are about 5,500 operators who generally own a few vehicles each as shown by Table 4.

Table 4

Private Bus Operators in Great Britain 1982

No. of vehicles	No. of operators	% of operators
less than 5	3432	62
5-14	1650	30
15-24	281	5
25-49	111	2
50+	23	1

Source: Department of Transport

Activities of Industry

8. The main activity of the bus industry is the provision of stage carriage bus services (which provide for local travel) as indicated by Table 5.

The industry's non-stage activities are long-distance express coach services, contract operations (particularly school buses and works services), private hire work, and excursions and tours.

Table 5: Bus Services and Patronage: Great Britain 1982

(million)	Stage services	Non-stage services
Passenger journeys	5,490 (90%)	593 (10%)
Vehicle kilometres	2,113 (65%)	1,119 (35%)

Source: Department of Transport

9. Table 6 shows the pattern of provision of services by the four sectors of the industry. The provision of stage bus services is dominated by the public sector operators who accounted for 92% of the mileage operated and 97% of passenger journeys made on such services in 1982. Private operators play a greater role in the provision of express services although again public operators (NBC and SBG) have the larger share of the market. The contract, private hire, and excursion and tours markets have traditionally been and still are dominated by the private sector.

Turnover by Activity

10. The turnover of the bus industry in 1982/83 was approximately £2.4 billion. Provision of stage carriage services accounted for nearly 80% of the turnover. Table 7 gives a breakdown of turnover as between the main sectors and stage and non-stage services.

Table 7: Turnover* of Bus Industry (£ million) 1982/83

	Stage services	Non-stage services	Total
Nationalised			
NBC	567(30%)	87(17%)	654(27%)
SBG	123(6%)	14(3%)	137(6%)
Transport Executives			
LTE	401(21%)	2(0.4%)	403(16%)
PTEs	546(29%)	7(1.4%)	553(23%)
Municipals	213(11%)	6(1.2%)	219(9%)
Private Operators	65(3%)	393(77%)	458(19%)
	1,915(100%)	509(100%)	2,424(100%)

* income including grants and subsidies for stage carriage services, but excluding fuel duty rebate.

Source: Department of Transport

TABLE 6 : THE IMPORTANCE OF EACH OPERATOR GROUP IN THE PROVISION OF BUS SERVICES: GB

Vehicle kilometres by type of operator and service : 1982

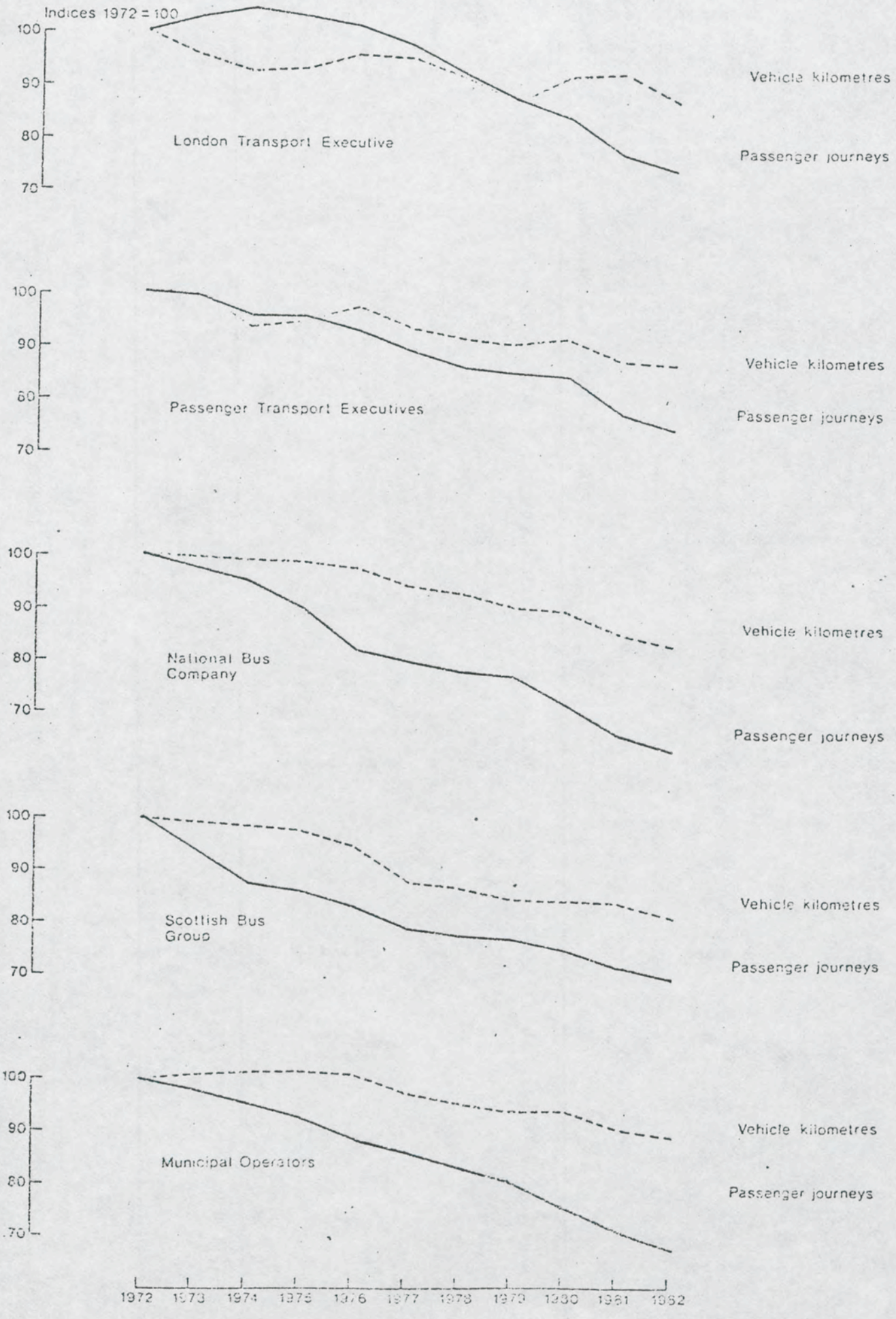
	Stage		Express		Excursions and tours		Contract		Private Hire		All Services	
	million	%	million	%	million	%	million	%	million	%	million	%
Public Operators:												
London Transport Executive	264	12	-	-	1	1	-	-	-	-	265	8
Passenger Transport Executives	474	22	-	-	1	1	6	1	3	1	485	15
Municipal operators	222	11	-	-	1	1	4	1	5	1	232	7
National Bus Company	821	39	84	64	18	14	25	6	24	5	972	30
Scottish Bus Group	169	8	15	12	2	1	11	3	3	1	200	6
All public operators	1951	92	100	76	22	18	47	11	35	8	2155	67
Private operators:	163	8	32	24	100	82	399	89	383	92	1077	33
All operators	2113	100	132	100	123	100	445	100	419	100	3232	100

Passenger Journeys by type of operator and service: 1982

Public Operators:												
London Transport Executive	1042	19	-	-	1	3	-	-	1	1	1043	17
Passenger Transport Executives	1722	31	-	-	-	-	10	3	4	2	1736	29
Municipal operators	839	15	-	-	-	-	10	3	5	3	854	14
National Bus Company	1417	26	12	67	6	18	33	9	10	5	1479	24
Scottish Bus Group	298	5	1	6	-	-	13	4	2	1	314	5
All public operators	5317	97	13	72	8	24	66	19	22	12	5426	89
Private operators:	173	3	5	28	26	76	289	81	164	88	657	11
All operators	5490	100	18	100	34	100	355	100	186	100	6083	100

Source: Transport Statistics Great Britain 1972-1982

CHART 9 TRENDS IN STAGE SERVICE PATRONAGE AND LEVELS OF SERVICE: GB



Source "Transport Statistics Great Britain"

Demand for Bus Travel

11. Over the last 30 years there has been a continuous decline in the proportion of passenger transport accounted for by buses and coaches from 42% of all passenger kilometres in 1953 to only 8% in 1983, during which time the total distance travelled by this mode has halved. This has occurred simultaneously with an increase in total travel of 154%. From 1973 to 1983 bus and coach passenger kilometres have declined by nearly 25% and their share from 13% to 8%. A major contributory factor has been the growth in car ownership (Table 8). Private transport now accounts for 84% of all passenger kilometres, having grown 7 times in volume over 30 years. (Table 1). The reduction in stage bus service patronage was of the order of 2-3% per annum in the 1970s and was accompanied by decline in vehicle kilometres, though the former declined more rapidly than the latter. Chart 9 shows these trends for different operators. Evidence for 1983 suggests that there was a slight increase in stage journeys of 1-2%, accounted for by a significant increase in journeys on London Transport, and an increase in PTE journeys. NBC stage journeys were slightly reduced.

12. There are indications that following the Transport Act 1980 there has been a significant growth in express services, though the redefinition of "express" and "stage" makes interpretation of the statistics difficult. There have been marked improvements in the variety and quality of services on offer, including luxury coaches with refreshments, video entertainment and toilets making possible faster non-stop journeys. The NBC "National Express" services have been dominant in this area, the numbers of passengers carried increasing by 45% between 1980 and 1983.

Table 8: Trends in Car Availability 1962-1982: Great Britain

Household with regular use of a car[1] % of all households

	1962	1972	1982
No car	67	47	39
One car only	30	44	45
Two or more cars	3	9	16
All households	100	100	100
Numbers (m)	16.6	18.6	20.3

[1] Car or van available for private use.

Source: "Transport Statistics GB 1972-82"

The Pattern of Stage Bus Travel

13. Tables 10 - 12 review the purposes of stage bus travel, the users and the differences between urban and rural areas. Patterns of usage have been changing. In 1965 work-related journeys

accounted for 40% of bus trips and shopping for 18%. By 1978/79 the respective percentages were 28% and 29%. Two thirds of bus journeys are made for work, education and shopping, whereas just over one-half of journeys by other modes of transport are for these purposes. Less than one-quarter are for leisure purposes compared with more than one-third of the trips by other modes.

14. Bus usage is above average for adult women in all age groups and for men between 16 and 20 years and over 65. Children between the ages of 11 and 15 also make above average use. People living in households headed by semi-skilled and non-skilled manual workers make two and a half times as much use of the bus as those in the households of managers and professional groups. This is partly due to the interrelationship between socio-economic groups, household income and car ownership, all of which influence bus usage.

15. Reduced fares also influence use by children and old age pensioners in many areas. In 1978/79, three in four stage bus journeys by OAPs were at a concessionary rate or free. One in five stage bus journeys by children were also free and a 1978 survey of operators found that most offered children reduced rate fares. Many journeys by children to and from school are in buses provided by local education authorities.

16. Residents of rural areas travel more by all modes each week (187 km per person) than those of urban areas (146 km per person) but make less use of stage bus (10 km compared with 16 km). Consequently although 15% of the population live in rural areas they account for only 10% of bus travel. However in rural areas the works and school bus is used more and clearly provides an alternative to the s t a g e bus for this type of journey. Rural areas tend to have higher levels of car-ownership than urban areas and the rural use of the car/van/motorcycle is almost 50% greater than in urban areas.

Table 10: The Purpose of Stage Bus Journeys: Great Britain

Percentage

	Bus		Other modes of transport	All modes of transport
	1965	1978/79	1978/79	1978/79
Work	40	28	22	22
Education	9	10	9	9
Shopping	18	29	21	22
Personal business	7	9	11	11
Leisure and other(1)	26	24	37	35
All purposes	100	100	100	100

Source: National Travel Surveys

(1) Other includes escorting and journeys not classified under any other heading.

TABLE 11 CHARACTERISTICS OF BUS TRAVELLERS 1978/79 : GB

Stage bus journeys/persons/week

Age of individual		Socio-economic group of head of household	
0 - 4	1.3	Managerial	1.4
5 - 10	1.1	Professional	1.3
11 - 15	3.2	Clerical	2.2
Males		Skilled	2.5
16 - 20	3.9	Semi-skilled	3.2
21 - 29	2.2	Non-skilled manual	3.6
30 - 59	1.5	Other(1)	2.2
60 - 64	2.3	Total	2.4
65+	2.5	Rest (working status or SEG not available)	2.6
Females			
16 - 20	5.6		
21 - 29	2.6		
30 - 59	2.7		
60 - 64	3.2		
65+	2.8		
All ages	2.4		

Source: National Travel Survey

(1) Other includes members of the armed forces, full-time students and those whose SEG was inadequately described.

TABLE 12 DIFFERENCES BETWEEN URBAN AND RURAL AREAS IN USE OF BUS 1978/79: GB

Percentage

	Population	Bus passenger kilometres
Urban	85	90
Rural	15	10
Total	100	100

Source: National Travel Survey

URBAN AND RURAL DIFFERENCES IN THE VOLUME OF TRAVEL BY ALL MODES: GB

Kilometres/person/week

	1965	1978/79		
	All areas	All areas	Urban	Rural
Car/van/motorcycle	71	109	101	149
Stage Bus	19	14	16	10
Works/school bus	2	2	2	5
Rail	10	11	11	8
Other*	11	18	18	16
Total	113	153	146	187

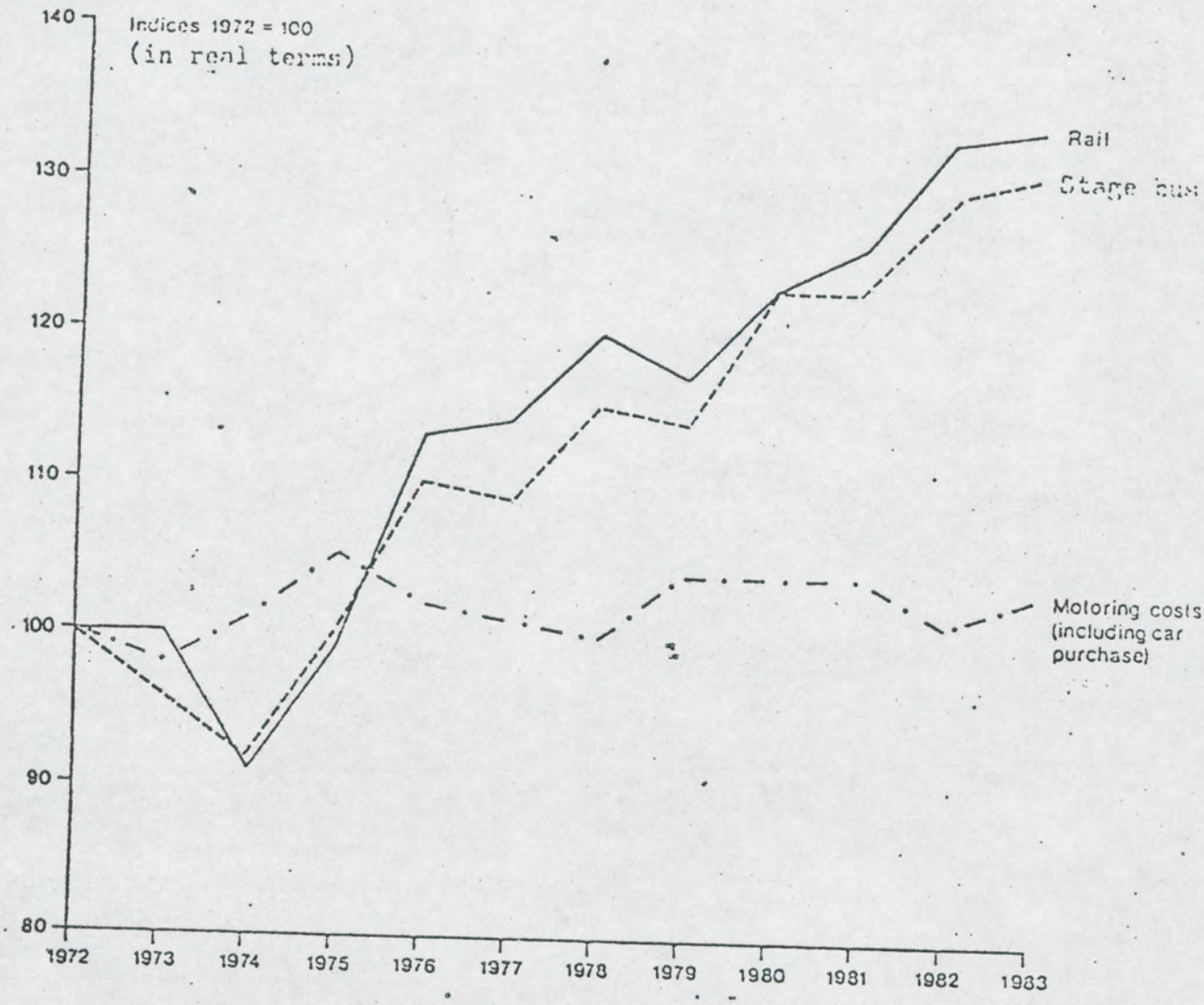
Source: National Travel Surveys

*Other includes walk, bicycle, taxi and buses other than stage carriage and works school bus, express bus, private hire bus.

Note: Urban areas are generally defined as those with a population density of at least 0.6 persons per acre at the ward or parish level and a population of more than 3,000.

CHART 13

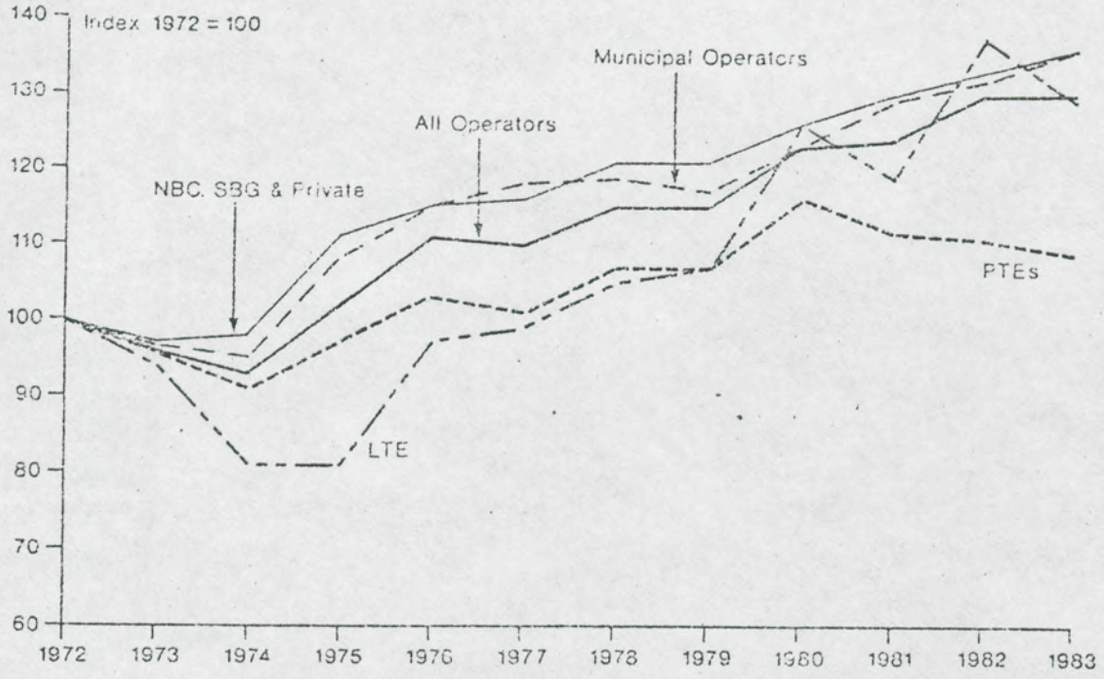
COMPARISON OF PUBLIC TRANSPORT FARES WITH MOTORING COSTS GB



Source: Department of Employment: Retail Prices Index

Department of Transport
Stage Bus Fares

CHART 14 TRENDS IN REAL STAGE SERVICE FARES GB



Source: Department of Transport

Fares

17. One of the factors that has contributed to the decline in public transport use has been the upward trend in real fares. Between 1972 and 1983, stage bus fares rose by over 30% above the rate of inflation, while motoring costs grew by only 3% (see Charts 13 and 14). An exception to this upward trend in recent years has been in the PTE sector, where the maintenance of low fares has been a policy objective of the controlling authorities.

Subsidies to the Bus Industry

18. The two principal types of bus subsidy are revenue support and payments towards the cost of concessionary fares schemes: both payments are made by local authorities to operators of local services. Some authorities also make capital grants. The GLC in particular has given 100% grants to London Transport for capital expenditure. Other counties cover depreciation of capital assets in their revenue support payments. Some make capital grants to infrastructure projects such as bus stations and repair depots. Bus operators also receive fuel duty rebate direct from Central Government. New bus grant, formerly paid by Central Government, has now been discontinued.

19. Table 15 shows the contribution of revenue support and concessionary fares subsidies to the income of public operators in Great Britain in 1982/3. The income of the private sector of the bus industry given the limited amount of stage carriage work it undertakes, comes almost wholly from the farebox. The staple income of many private operators will be received from local education authorities for contract school transport services. Table 16 provides a more detailed breakdown of subsidies including fuel duty rebate. Tables 17-20 show the rising trend in the provision of subsidy for stage bus services over the past decade.

20. In 1983/4, expenditure on revenue support was 96% above the public expenditure provision, and in 1984/5 authorities budgeted to spend more than 83% above provision. The overspending occurs almost entirely in England, and here the bulk of the overspend is accounted for by the GLC and the metropolitan counties. This is shown in Table 20.

Costs and Productivity

21. The pattern of parallel growth in real fares and subsidy needs to be related to what has happened to the costs of providing bus services, as well as the declining trend in passengers per bus illustrated by Chart 9.

22. The bus industry is labour intensive and wage costs account for as much as two-thirds of total costs for the main public sector operators. Real earnings in the road passenger transport industry have risen over the past decade (Chart 2). Increasing labour productivity by introducing one man operation of buses has been a key objective within the industry over the past 15 years. New Bus Grant, introduced by the Government in 1968, was paid only for buses suitable for one man operation. One man operation is now prevalent, the main exception being London where about half the bus mileage is crew operated. In 1982, the industry employed 186,500 staff, 15% below the 1972 level. Most of this reduction

is accounted for by a 74% decline in the number of conductors to just under 11,000. Drivers' numbers have fallen by 4% to 92,000 whilst there has been a slight increase in other staff.

24. There has been a general trend within the public sector of the industry in recent years of improving staff productivity in terms of vehicle kilometres operated. This is shown by Chart 22. Overall real costs per kilometre operated have risen since 1972. The trend is illustrated in Chart 23. The growth in real costs per vehicle kilometre was particularly fast in the early 1970s, especially for London Transport. In recent years NBC, SBG and the municipals have been successful in reducing real costs per vehicle kilometre. One factor underlying the trend has been growth in maintenance costs in real terms associated with the introduction of the rear-engined one man operated buses.

Taxis and Hire Cars

25. Taxis and hire cars are playing an increasingly important role in passenger transport. Their number has grown rapidly in recent years as shown by Table 24. During the period 1972-1982 real passenger expenditure on taxis and private hire cars increased by 30% whereas on stage bus and coach services it has fallen by 13%. Trends in real taxi fares, compared to stage bus fares, are shown at Chart 25. Taxi and hire car passengers are drawn from a wide range of social and economic groups and in addition to business journeys taxis are widely used for shopping and social purposes and for travel to and from work and school.

Other public transport services

26. School transport services play an important role in meeting transport needs, particularly in rural areas. Total payments on education transport for educational purposes in England in 1981/82 were £221m, of which £175m was for home to school journeys. Shire counties typically spend significantly more on school transport than they do on public transport.

27. Unconventional and innovatory forms of public passenger transport are playing an increasing role in rural areas. Although not typical of all rural areas, a study in Lewes showed that unscheduled services provided 4.5m journeys compared with 4m by rail and 10m by bus. The Department has sought to act as a catalyst in the development of such services. The main forms are social car schemes, post buses and community buses. There are a large number of social car schemes throughout the country co-ordinated by individuals and voluntary organisations such as the WRVS. Approximately 20 community bus schemes have been established since the first commenced operation in 1975 at Sharrington in North Norfolk. The Post Office operates some 150 post buses, the majority of these operating in Scotland. In England, there are post bus services in a number of counties including Devon, East Sussex and Surrey.

TABLE 15 THE CONTRIBUTION OF SUBSIDIES[1] TO OPERATORS' INCOME FROM STAGE SERVICES 1982/83: GB

Percentage

	LTE Bus	Passenger Transport Executives	NBC and SBG	Municipal operators	All public operators
Passenger and other receipts[2]	46	55	76	65	62
Concessionary fares payments	11	13	7	14	10
Revenue support	44[3]	32	17[4]	21	28
TOTAL	100	100	100	100	100

Sources: Annual Reports and Accounts of operators
Returns by operators and local authorities to the Department of Transport, the Department of the Environment and Scottish Office.

1 Excludes fuel duty rebate.

2 'Other' receipts are from advertising and carriage of parcels etc.

3 Includes depreciation and renewal grant.

4 Includes reimbursement of expenses under operating agency agreements.

TABLE 16 SUBSIDIES AND GRANTS BY TYPE OF OPERATOR AND TYPE OF AUTHORITY : 1982/83

Great Britain

£ million

	Revenue Support [1]	Concessionary fares payments	New bus grant	Fuel duty rebate	Total
Type of operator					
London Transport Executive	201	49	7	15	272
Passenger Transport Executives	180	72	9	25	286
NBC and SBG	118 [3]	52	8	47	225
Municipal operators	48	31	3	11	93
Private	11	16	3	5	35
Total	558	220	30	103	911
Type of authority [2]					
Central Government	-	-	30	103	133
GLC and London Boroughs	201	49	-	-	250
Metropolitan Counties	225	82	-	-	307
Shire counties	80	49	-	-	144
District Councils	15		-	-	
Scottish Councils	38	41	-	-	79
Total	558	220	30	103	911

Sources: Annual Reports and Account of operators
Returns by operators and local authorities to the Department of Transport, the Department of the Environment and Scottish Office. Estimates by the Department of Transport

1 Includes LTE depreciation and renewal grant of £39 million (estimated).

2 Subsidies and grants paid by local authorities and the Department of Transport

3 Includes re-imbursement of expenses under operating agency agreements

TABLE 17: EXPENDITURE ON SUBSIDIES AND GRANTS: 1972 - 1982 : GB

£ Million

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Fuel duty rebate	21	20	32	38	45	57	59	60	78	93	93
New bus grant[1]	18	21	23	31	39	43	52	62	80	56	40
Price restraint (National Bus Company)	7	-	-	-	-	-	-	-	-	-	-
Payment to operators in respect of concessionary fares	12	20	37	79	95	109	124	137	162	190	235
Infrastructure[1]	1	1	2	2	2	1	1	1	-	-	-
Revenue Support from local authorities	10	14	76	185	191	166	165	185	250	400	490
Depreciation and renewal from GLC	-	6	7	8	10	13	14	25	28	27	39[2]
Capital grants from GLC[1]	2	-	-	-	7	-	-	-	1	14	-
All Grants	71	82	177	343	389	389	415	470	599	780	897

Source Transport Statistics Great Britain 1972-1982

[1] Capital grant

[2] Change in accounting procedure

TABLE 18: REVENUE SUPPORT AND RECEIPTS PER PASSENGER JOURNEY 1972-1982: GB

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Revenue Support (£m)	10	20	83	193	201	179	179	210	278	427	529
RPI (1980 = 100)	32.5	35.5	41.1	51.1	59.6	69.0	74.7	84.8	100.0	111.9	121.5
Revenue Support at 1980 prices (£m)	31	56	202	378	337	259	240	248	278	382	435
Stage Receipts (including concessionary fare contributions) (£m)	440.3	464.0	509.0	667.9	813.3	895.7	983.9	1069.9	1266.4	1320.9	1438.1
Stage Receipts at 1980 Prices (£m)	1354.8	1307.0	1238.4	1307.0	1364.6	1298.1	1317.1	1261.7	1266.4	1180.4	1183.6
Stage Passenger Journeys (million)	7873	7839	7682	7498	7112	6833	6596	6443	6200	5685	5490
Revenue support (p) per stage passenger journey at 1980 prices	0.4	0.7	2.6	5.0	4.7	3.8	3.6	3.8	4.5	6.7	7.9
Receipts (p) per stage passenger journey at 1980 prices	17.2	16.7	16.1	17.4	19.2	19.0	20.0	19.6	20.4	20.8	21

Source: Transport Statistics Great Britain 1972-1982

Note: Fuel duty rebate is excluded, but revenue support includes depreciation and renewal payments from GLC to LTE.

TABLE 19: TRENDS IN REVENUE SUPPORT BY TYPE OF AUTHORITY: 1978/79 TO 1984/85: GB

£ million

	1978/79	1979/80	1980/81	1981/82	Provisional 1982/83	Estimated Outturn 1983/84	Budgeted Expenditure 1984/5
Bus, underground, metro and ferries[1]							
England: GLC[2]	58.0	52.0	94.0	86.0	162.6[3]	193	190
Metropolitan counties	58.9	79.4	124.6	188.6	227.6	207	206
Shire counties and districts	51.0	66.0	61.3	89.6	88.0	91	96
Wales:	6.0	7.7	8.5	9.5	9.6	11	11
Scotland:[4]	13.3	18.9	40.2	38.7	38.6	34	39
GB Total	187.2	224.0	328.6	412.4	526.5	536	542

Source: Department of Transport, Welsh Office, Scottish Office

1 Revenue support for underground, metro and ferries is relatively small (less than £10m).

2 Excludes depreciation and renewal payments from GLC to LTE.

3 Includes the cost of the "Fares Fair" policy incurred in 1981/2.

4 Buses and ferries only

Table 20: LOCAL AUTHORITY REVENUE SUPPORT FOR BUSES[1] COMPARED WITH PUBLIC EXPENDITURE PROVISION GB

£ million

	1983/84		1984/85	
	Provision	Estimated Expenditure	Provision	Budgeted Expenditure
England				
GLC	)	193	)	190
Metropolitan	) 153	207	) 166	206
Shires	90	91	94	96
Total	243	491	260	492
Wales	10	11	11	11
Scotland[2]	24	34	26	39
GB Total	277	536	292	542

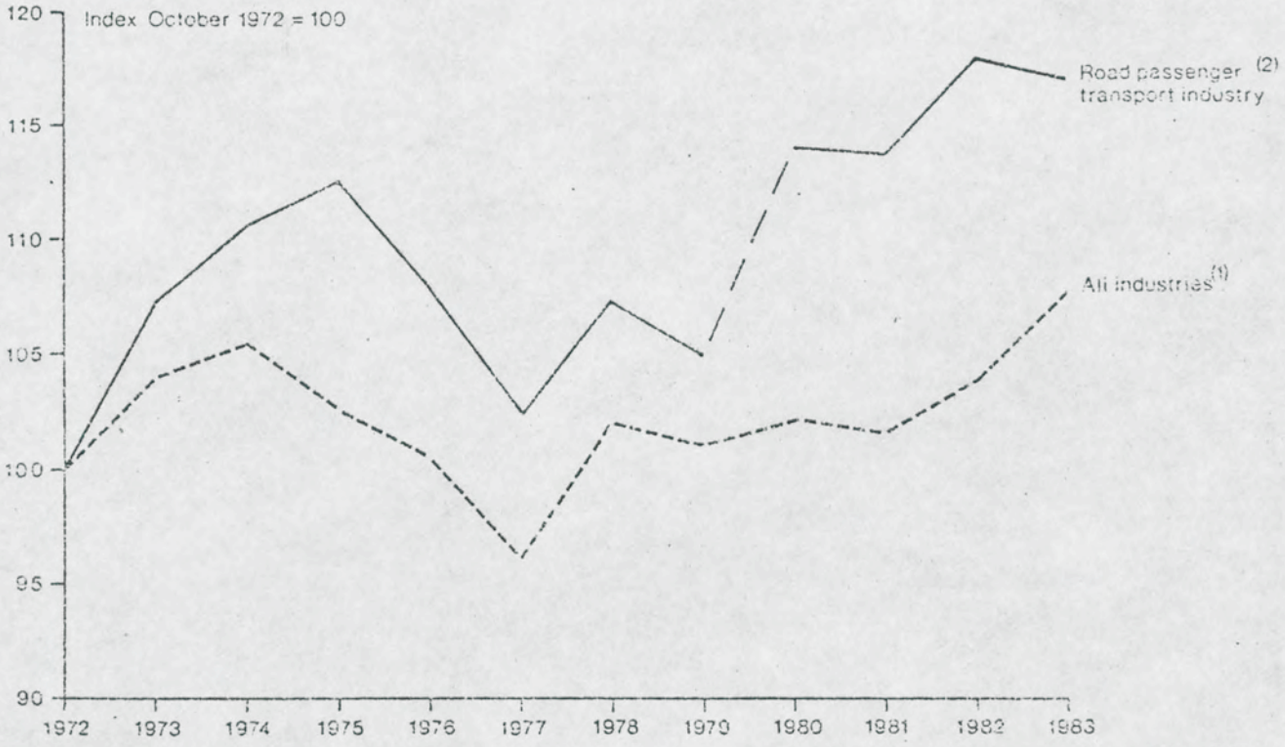
1 Includes expenditure on underground, metro and ferries

2 Buses and ferries only

Source: Department of Transport, Welsh Office, Scottish Office.

CHART 21 TRENDS IN REAL EARNINGS: U.K.

Male manual workers on adult rates



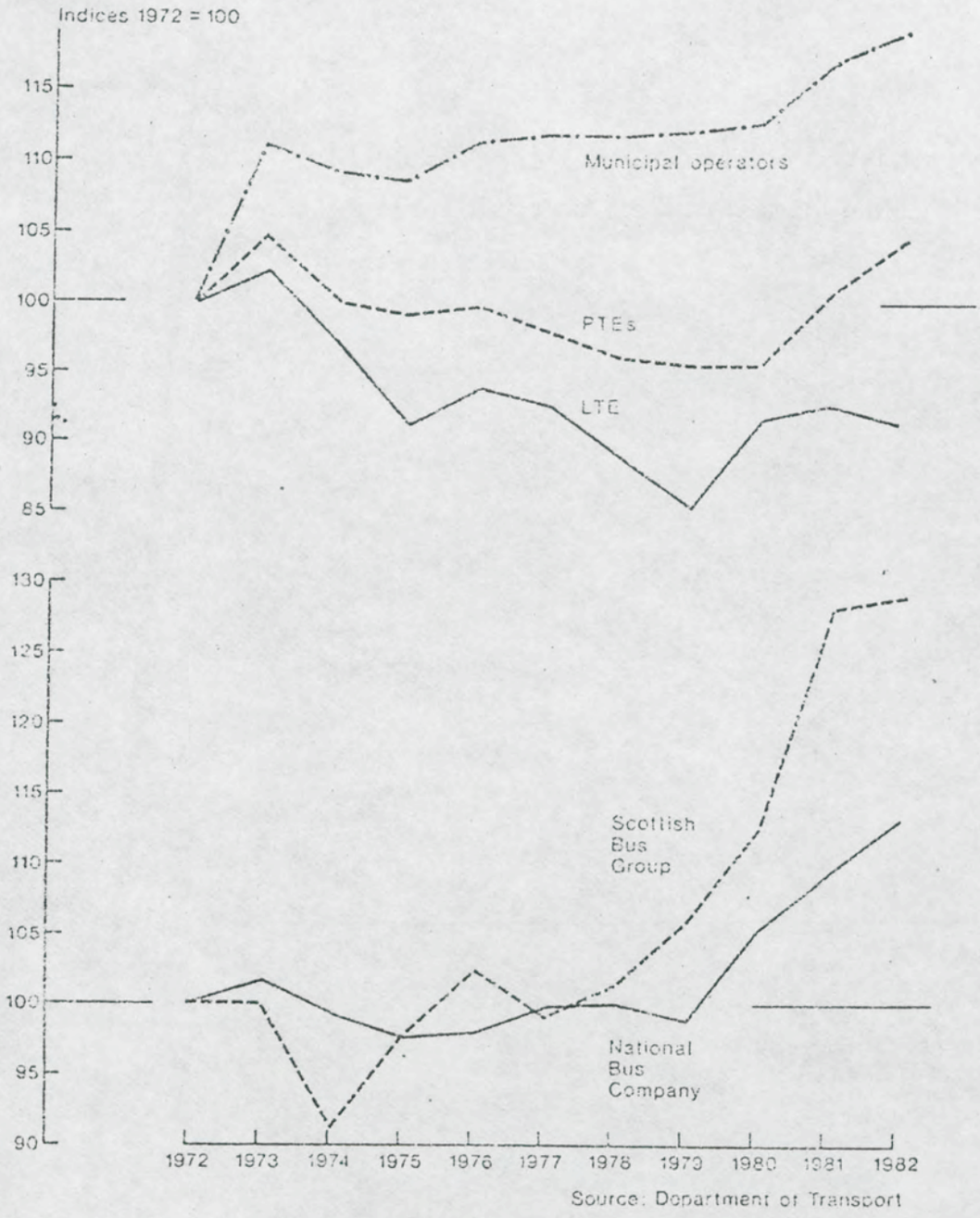
(1) All industries in survey: generally all manufacturing, mining & quarrying (except coal mining), construction, gas, electricity & water, transport & communication

(2) Figures for 1972 – 1979 exclude LTE staff; for 1980 – 1982 LTE staff are included. Figures for 1972 – 1979 relate to full-time male workers aged 21 and over.

Source: Department of Employment annual survey

22 TRENDS IN VEHICLE KILOMETRES/STAFF EMPLOYED

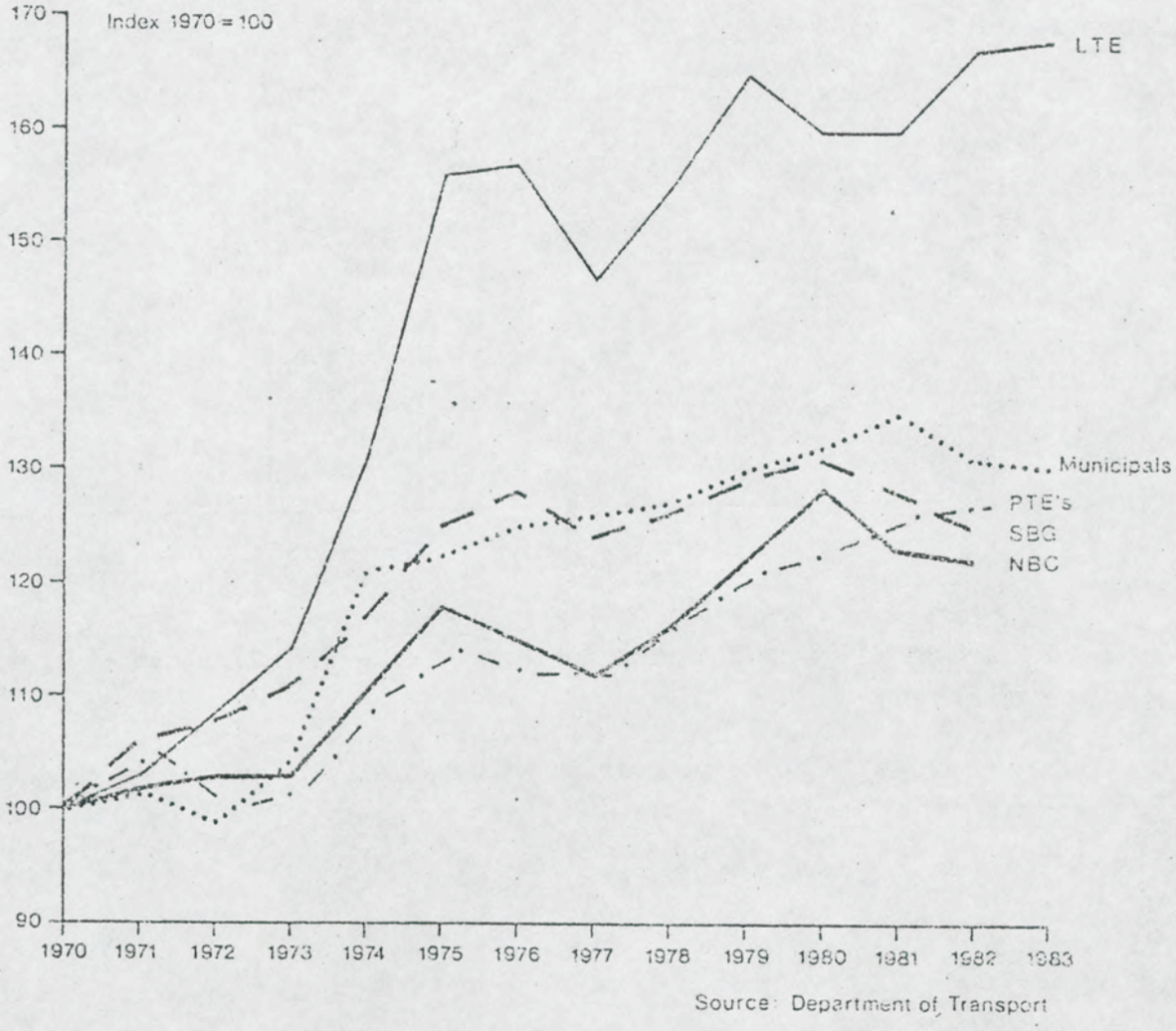
GB



Source: Department of Transport

Artwork by RPHP3 Drawing Office
Department of Transport 7/1/84

CHART 23 TRENDS IN REAL COSTS PER VEHICLE-KILOMETRE GB



Source: Department of Transport

1983 figure is provisional.

TABLE 24: THE TAXI AND PRIVATE HIRE CAR INDUSTRIES 1980 : ENGLAND AND WALES

	OUTSIDE LONDON			LONDON	
	Taxis	Licensed Private Hire Cars	Unlicensed Private Hire Cars	Taxis	Private Hire Cars
No. of licensed vehicles	17,000	19,300	6,000 (E)	12,300	27,000[3] (E)
Mean no. of vehicles/ proprietor	1.4	1.5		1.6	
No. of licensed drivers	47,200[1]	41,300[2]		17,100	
Mean no. of drivers/ vehicle	2.8[1]	2.1[2]		1.4	
% increase in no. of licensed vehicles					
1972-1980	37	46		22	
1976-1980	10	25		N/A	

Source: Transport and Road Research Laboratory Report 1011

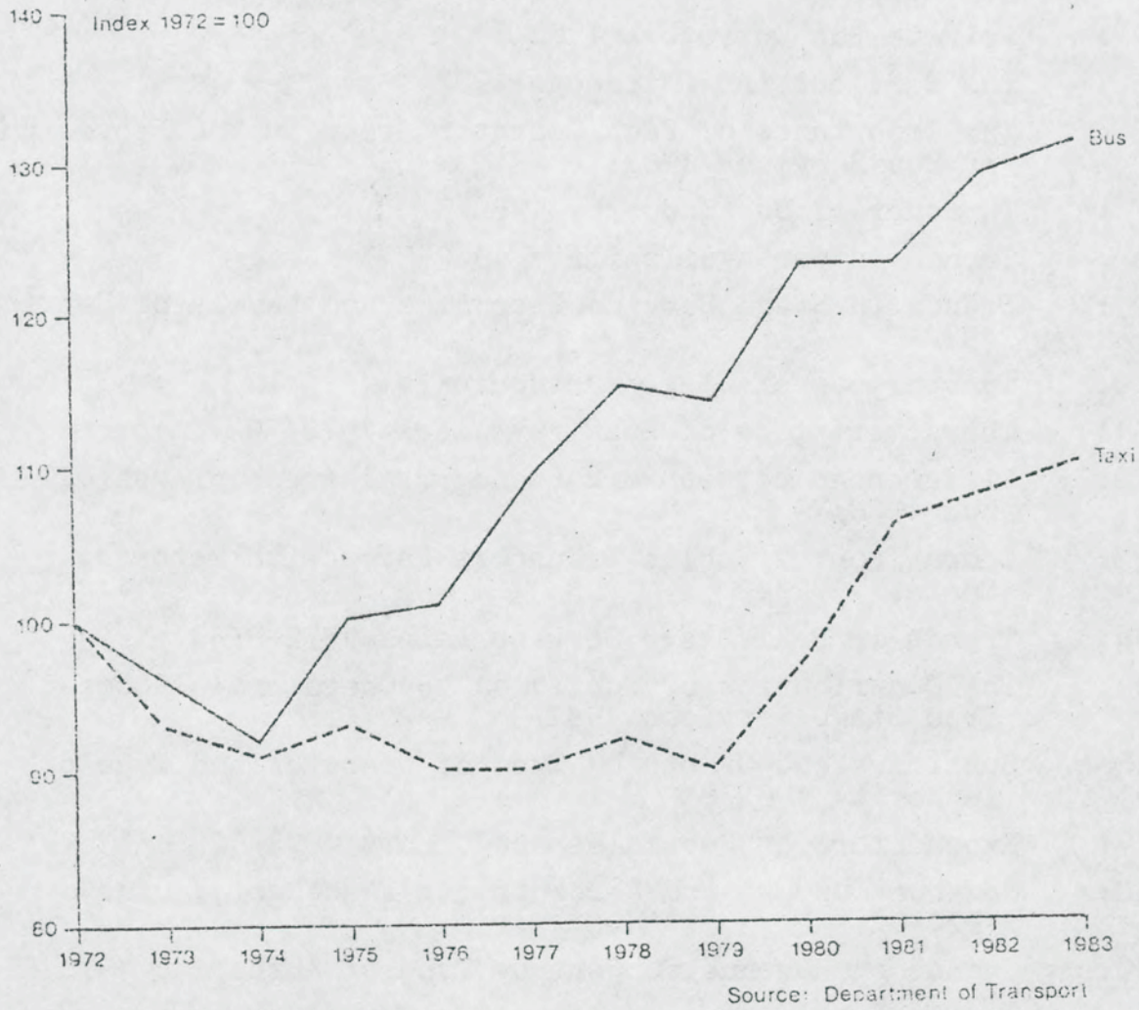
[1] Excluding 5,300 persons eligible to drive taxis by virtue of holding a private hire car driving licence.

[2] Excluding 10,800 persons able to drive private hire vehicles by virtue of holding taxi driving licences.

[3] 1975

(E) estimated

CHART 25 TRENDS IN REAL TAXI FARES[1] AND STAGE BUS FARES[2]



Source: Department of Transport

[1] England (excluding London) and Wales.

[2] Great Britain

LIST OF TABLES AND CHARTS

All tables and charts cover Great Britain unless otherwise stated.

ANNEX 2

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REGULATION, SUBSIDY AND CROSS-SUBSIDY - A CRITIQUE

PREFACE

The main part of this critique is an assessment of some of the advantages and disadvantages of the present regulatory system that has governed the bus industry for the last fifty years and also, as far as the evidence permits, of the consequences that would follow from the radical changes that the Government is proposing. It examines three main subject areas - the scope for greater efficiency in bus operations, the potential for greater innovation in a competitive environment and the implications of the loss of cross-subsidy that would follow. It draws on evidence from a range of sources including some analysis undertaken specially for this review.

There is rather more evidence in relation to the first and third of these subject areas than to the second. In respect of each of the former there is a separate appendix analysing the available evidence in rather greater detail. In respect of the second subject area, innovation (both its potential and its possible problems), there is no separate appendix, but the assessment which follows draws on Annex 3, which describes and analyses the changes that have followed the limited relaxations of licensing for local bus services under the Transport Act 1980 - especially the experience in the three trial areas, where licensing has been suspended.

This critique has been prepared through the joint efforts of the Department's economists and three external advisers, Professor Michael Beesley of the London School of Economics, and Dr Stephen Glaister of the London School of Economics, and Mr Malcolm Buchanan of Colin Buchanan and Partners, who have been assisting the Government in its review of bus policy.

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INTRODUCTION

1 Since 1930 local scheduled bus services have been provided under a comprehensive system of regulation administered on a quasi-judicial basis by the traffic commissioners. This system comprises both quality regulation - of the operators, of the vehicles and of drivers - and quantity regulation of the number and types of services that are operated. This assessment is concerned only with the effects of the latter. Under the current provisions the operator of any service requires a licence, which will be granted unless the commissioners are satisfied that the service would be against the interests of the public. It is open to operators (including British Rail), local authorities and others to object to applications or to seek to persuade the commissioners to impose restrictive conditions to limit their competitive effect. In recent years, most arguments have turned on whether and to what extent new services would take revenue from an existing operator and so reduce that operator's ability to finance other unremunerative but, in some cases, socially valuable services from that surplus: that is to cross-subsidise. The traffic commissioners have had to balance their judgement of the effects of the loss of such cross-subsidy against the loss of benefit to potential passengers on the new service if a licence were refused. An understanding of the operation and effects of cross-subsidy is therefore important when assessing the consequences of deregulation.

2 Since 1930 there have been such profound changes in transport that the experience of the 1920s is of limited relevance to present conditions. In the 1920s buses, both in town and country, were rapidly opening up new local markets for which there was no effective competitor to the bus. The industry, although then already consolidating fast, still had far more independent units than it has today. It neither needed

nor got public subsidy - the only way in which unremunerative services were financed was from the profits of the rest of the business.

3 With a fully unregulated system so far in the past, there is little direct British evidence for what would happen now if quantity regulation did not exist for stage carriage bus services. There are some recently initiated examples of bus deregulation in OECD countries, but these have so far yielded little useful information. Substantial successful examples can be found in major cities in some other countries. Relevant also is the success of complete deregulation of inter-city coach services in reducing costs and fares while improving services. These examples of course do not constitute direct evidence of what would happen - whether in town or country - if local bus services were not regulated. The only such evidence relates to the three largely rural trial areas deregulated under the 1980 Act. The experience there is examined in Annex 3. Its conclusions are on balance favourable. Many of the fears previously expressed about the adverse effects of deregulation were seen to be misguided and major cost savings have been achieved.

THE MAIN ISSUES

4 Regulatory systems cost money and resources to run. Apart from the direct costs of public administration, they impose costs and delays on operators, which have eventually to be paid by users or through subsidy. There should therefore be a general presumption that it is up to the defenders of regulation to show that its benefits exceed its costs. On the other hand, as any major change is bound to produce some transitional problems, it is not enough for the opponents of regulation to show that, in principle, the system is harmful.

They have also to show that the disbenefits of regulation are so substantial that they outweigh the risks and transitional costs associated with implementing the change.

5 The general case against regulation is that of consumer sovereignty. In principle, consumers should be free to choose what they will buy and existing producers should not be protected from competition from those who believe they can offer services that give better value for money to consumers. With control over entry existing high cost operators are protected from challenge by cheaper operators and innovation is discouraged. Critics of regulation argue that the results of this have proved especially damaging in the period of the declining market that has characterised the bus industry for over two decades.

6 Against this, defenders of the present system argue that the disadvantages are outweighed by the support the system gives to the provision of a network of services and in particular, to the ability to sustain many unremunerative services through cross-subsidy. Some of their other less fundamental arguments are discussed later.

UNIT COSTS AND COMPETITION

7 In the simplest aspect of value for money - the general level of fares - bus users have done badly in recent years. During the decade 1972-82 unit costs (measured in terms of costs per bus mile) among public sector operators outside London rose by between 15 per cent and 30 per cent more than the general level of inflation, much of this due to the growth in relative wages in the industry since the supply of bus services was reduced less than patronage, real costs per passenger mile rose even more. So in spite of rising subsidy, real fares also rose by about 30 per cent.

8 If subsidy had not been allowed to rise, would unit costs have risen so steeply? Certainly the rise in both has been greatest in urban areas where counties have been least willing to contain subsidy. Also the differential movement in unit costs between metropolitan and shire counties has been greater than can be explained solely by the greater unwillingness of the former to see services cut back as patronage fell. Evidence from the U.S. and from international comparative studies of subsidy lends support to the contention that subsidy 'leaks' into costs.

9 In Great Britain, there is evidence that present costs are substantially higher than they need to be. This is analysed in detail in Appendix A, but in summary is as follows.

10 First there are major differences in unit costs within each of the main public sectors. Simply to achieve the best practice within each separate sector would substantially reduce average costs.

11 Second, there are also similar wide differences between the main public sectors. Generally NBC unit costs are much lower than those of municipal and PTE operators. And these differences persist when PTE costs are compared with those of NBC operations within their own areas and seem too large to be accounted for simply by differences in the types of services provided.

12 Third, costs of public sector operators are 30-40 per cent higher than those of private sector operators. Because private sector operators in this country are usually small, these cost comparisons are not of like with like. But Australian experience, where a direct comparison can be made between some private operators and public sector ones, shows even larger differences.

13 These comparisons of unit costs relate to costs per bus mile (comparisons in terms of seat miles, a better measure of supply, are not explicitly available).

Equally important for fares are the average numbers travelling in each vehicle. Again, there are wide variations between PTEs deriving largely from the greater willingness of some areas to restructure their pattern of services to reflect falling patronage. But the experience of NBC and of other operators such as Southampton has shown that major economies in vehicle mileage can be made without correspondingly substantial reductions in patronage and revenue.

14 The latter gives an indication of what can be achieved within the present system if subsidy is strictly controlled and if management is determined. But the full achievement of the potential for cost saving, which could bring public sector costs much nearer those of the private sector, seems most unlikely to be achievable without the spur of competition, because of all the institutional barriers and inertia that currently exist.

INNOVATION: POTENTIAL AND PROBLEMS

The Potential of Innovation

15 Regulation discourages innovation by its very nature. Under regulation the incumbent operator protected by his effective monopoly over existing services, has less incentive to pioneer new ones. It discourages the challenger by placing

additional costs and risks on the way to his potential market. The regulator has to consider for any proposed new service whether it would be in the interests of users, but the more radical the proposal the harder it is to judge. Ultimately there is one critical test, that of the public's response to the entrepreneur's willingness to risk his resources in innovating. Innovatory services will not be introduced without the operator doing his best to find out what the market for them is likely to be and the operator's own desire to earn profits will be the most effective deterrent to providing services users do not really want. In this industry change should not be difficult because the capital costs of innovation are low.

16 It must always be remembered that the bus is only one of the ways in which the demand for personal travel can be met. While bus travel has been declining, not only personal motoring, but also the use of taxis and private hire cars has been growing. These are much more expensive public transport modes, but are not solely for the rich and the business traveller - they are used by many without access to private cars, often for essential journey purposes. But in Britain - mainly because of the regulatory system and the entrenched position of the big bus - there has been only limited development of the intermediate alternatives to both taxis and buses that have flourished in many other countries. Not all of these are likely to prove popular in Britain; but the growth of taxi and hire car use suggests that there may in Britain be a substantial market for mini-buses, shared taxis and other intermediate modes. With rising prosperity the demand for personal travel is bound to continue growing. This will mainly take the form of higher car ownership, but the public transport industry, as long as it offers new and attractive services, can also tap this growing market.

17 Such potential demand exists in towns and cities; in some cases people will be prepared to pay a premium above the conventional bus fare for faster or more convenient or more comfortable journeys. But there should also be scope elsewhere for offering new kinds of service where conventional types are only sustainable by heavy subsidy.

18 Smaller vehicles are far from the only potential means of innovation. Fare structures are another. It has all too readily been assumed that a uniform fare structure (which has obvious merits of convenience) makes sense; but, as has been observed in other industries and other modes of transport, forms of selective fare differentiation that reflect the costs of provision can help to improve the utilisation of services and so keep costs per passenger down. Similarly too there will be increased scope for innovation in types of service: limited stop, express, flexible routeing etc. Although important innovations can and have been made within the present regulatory system, full deregulation would substantially speed up the pace by allowing management greater freedom to experiment with new types of service and fare structures. Free entry to the industry will also enable new sources of capital and entrepreneurial skill to be tapped.

Possible Problems with Deregulation

a) **"Wasteful" Competition and Unreliability**

19 Many defenders of regulation argue that, without the protection for incumbent operators from competitors, the provision of services will be both excessive and unduly volatile. In part, this may reflect a distrust of small operators, who, it is argued, will have neither the financial resources nor the tradition of public service to sustain reliable services of the kind the public has come to expect. Given the retention, and in some respects enhancement, of effective controls over the competence and financial standing of operators such fears are exaggerated. Operators of any size out to make a profit will not hazard the goodwill of travellers by unreliability or by over-frequent changes in

timings, routes or fares and the market test will provide an effective check on additional services for which there is inadequate customer demand.

20 Indeed, the bus industry is an industry in which the risks of over-provision should prove less than in most industries and services. Just because in buses costs of entry are low, sunk costs are comparatively small in relation to operating costs and economies of scale are limited, there are few reasons in principle for fearing that competition will lead to frequent and unsettling changes in the supply of services. In the absence of regulation any operator will know that, in respect of any service he is providing, he is liable to challenge from other operators or potential operators who think they can offer better value for money. The bus market is therefore a highly contestable one.

21 Substitution of one operator for another will not be frequent once markets have settled down after deregulation. In practice, the actual degree of competition on the ground - and therefore the amount of change travellers will have to face - will be much less than the potential degree of competition. Incumbent operators will be kept up to the mark by this consideration.

22 Consider, first, the case of heavily-used routes. On such routes intending passengers do not need to arrange their journeys to catch a specific bus on the timetable. Knowing that buses run frequently enough for waiting times to be short they go to catch the next bus available. This is the kind of route on which, in the absence of regulation, competition on the ground is likely to develop. There will be opportunities for several operators to survive. With deregulation much of the competition will take the form of new types of service. For this reason, the total market should expand and on many services fares will fall.

23 In order to test this prediction, Dr Glaister was asked to investigate by a computer model what might happen on a range of urban bus routes if mini-buses were free to operate in competition with conventional double-deckers, under some reasonable assumptions about cost structures and the spread of values of time among travellers.[1] On a heavily used route a pattern of two types of differentiated service emerged, with the mini-bus providing a faster service at a higher fare than the conventional bus. This gave better results both financially and in terms of overall benefits to passengers than the conventional service and the market was substantially expanded. The work merits further development; but what has been done so far does provide some confirmation for the thesis that regulation has led to a comparative neglect of good routes. This result also emerged from earlier work[2] which showed that, even under the regulated regime, much better value for money for users was achieved by concentrating economies on less heavily used routes.

24 On less heavily used routes, there are rather more prima facie grounds for concern. On such routes, intending travellers will benefit from a regularly spaced service. So, it is argued, passengers have a direct interest in a regulatory system that ensures that competing operators will work to a co-ordinated timetable designed to minimise waiting times for passengers. Without regulation, it is argued, services

1 Unpublished. Available on demand from the author.

2 M.E. Beesley, P. Gist, and S. Glaister. Cost-benefit Analysis and London's Transport Policies. Progress in Planning Vol. 19 Part 3.

will be bunched, since, if there are competing operators, each will have a financial incentive not to let his competitor get in just ahead of him and so cream the traffic.

25 But this is not what will probably happen with totally free entry. If two competitors were to behave like that, the profitability of both would be at risk. So one of the two might decide to offer a different type of service and the market would then be differentiated. Otherwise, one might be forced to withdraw. But if there is enough demand to support two operators of the same kind of service, they will usually, in practice, agree to co-ordinate their services (subject to the provisions of the Restrictive Trade Practices Act). By so doing service to passengers will be enhanced, and financial returns will be greater. Instability, excess provision and deliberate fare-cutting below cost occur when only parts of the market are effectively contestable.

b) Ease of Interchange

26 Many journeys by public transport, though not the majority, involve an inter-change - sometimes between modes, and sometimes from one bus to another. PTEs and other operators have put much effort into this aspect of their co-ordination responsibility. Lack of through-ticketing arrangements and common fare schedules can pose problems for such travellers even under the present system.

27 It is argued that, with several independent operators and without regulators to insist on proper provision for co-ordination and interchange sensible arrangements could prove harder to make. But this need not be the case, because the commercial

incentive will be there for operators to cater to the needs of such passengers. Informal measures of co-operation between operators will develop to ensure that their services connect, especially as under competition there should be more flexibility in the type of service that can be provided. Through-ticketing, which involves transaction costs, may be less common; but even in this, arrangements can be expected to arise through the market where such are clearly to every-one's advantage.

28 Some other issues concerned with the use of cross-subsidy to sustain networks are discussed below (paragraphs 35-41).

c) Congestion

29 Serious concern is also expressed that free entry will add to congestion, especially in town and city centres in the peak, to the detriment of all road users (and of the environment). The particular fear is that, if new entry leads to the introduction of many new mini-bus services, then the demand for road space will go up - especially for road space in which to stop in order to put down or pick up passengers. It is also argued that the local authority and the police will find it harder to fulfill their traffic management responsibilities if they have to deal with a large number of competing operators.

30 However, other factors serve to counter-balance these effects. Not all travellers on new types of services will have transferred from conventional buses or railways or walking. Some may have been car drivers and their transfer will positively assist the flow of traffic. The congestion caused by any new service will depend on the frequency with which it wants to stop in areas where congestion is a real problem. And at least in most parts of the country, even within the cities, severe congestion is limited in both time and place.

31 Over most of the country no significant addition to congestion or traffic management problems need be feared. After all, buses and coaches form a very small proportion of all vehicles on the road; even if their number were to double, they would represent 2.4 per cent of all traffic. A small minibus, even if only partly loaded, is more economical in its use of road space than a private car with only the driver or a taxi with only one passenger. There may be some local problems requiring local solutions, especially in the centres of towns and cities. But even here simple appropriate actions, such as the designation of stopping areas and the provision of stopping bays, should suffice. In those rare cases where severe congestion or problems of road behaviour develop, the reserve powers described in chapter 4 can be applied.

NETWORKS AND CROSS SUBSIDY

32 Now we turn to the final group of issues - that of the relation between networks and cross-subsidy. Twenty years ago there was little direct subsidy from public funds for unremunerative services and operators sustained comprehensive networks of services only through the power of cross-subsidy. As demand weakened and real unit costs rose, that power was reduced. So in almost all areas direct subsidy was brought in to help maintain the networks.

33 Subsidy grew most sharply in London, metropolitan counties and some municipal areas. Many authorities proved unwilling to adjust their services as demand fell, so the pattern of services has in many places become outmoded in relation to the present day. Although few services now earn substantial surpluses, cost recovery rates vary widely between different routes and times of day. So, as external support is reduced within the existing framework of regulation, it is to be expected that once again the good services would be developed to generate surpluses to sustain the less remunerative parts of their network. So the issues related to cross-subsidy are relevant to all types of area - and not just to those where it is now currently the main source of support for unremunerative services.

34 Some evidence relating to the scale and distribution of cross-subsidy is presented in Appendix B. It is drawn from a limited number of NBC operating units, all in shire counties. It suggests that in these areas cross-subsidy measured on a route by route basis could be three or more times as important as direct subsidy as a source of support for unremunerative routes. Further details about its distribution are given later.

35 Because of its importance, many fear that without cross-subsidy it will no longer be possible to sustain a comprehensive range of transport services, operating an inter-linked network along the lines of the present planning ideal. This is often seen as an important component of local authorities' planning duties. As argued above (paragraphs 26-7), the fears that without comprehensive planning inter-change will be much harder are misguided. Some authorities have also felt that the promotion of common fare scales was an integral part of their planning duties but the main fears relate to the effects on unremunerative services, especially as many local authorities understandably see cross-subsidy as a valuable means of augmenting their limited resources for direct subsidy.

36 It would be possible to increase competition in the supply of public transport services while still retaining a system of regulation and therefore cross-subsidy. Perhaps the best idea is that of competitive franchising, under which periodic bids would be invited for the supply of specified services within an area. The successful bidder would then be protected for the period of the franchise from competition on both profitable and unprofitable services, but would be contractually obliged to sustain the latter by cross-subsidy from the former.

37 Although such a system would exert some competitive pressure on operators, it would do so much less than full deregulation. Although perhaps suitable in other contexts, one must doubt how effective would be the threat of competition in practice were franchising introduced for the provision of local bus services. The incumbent operator would be strongly placed in the bidding, particularly vis-a-vis the small operator. The latter, however efficient, would find it hard to grow enough to emerge as a genuine challenger and would be wary of incurring the costs and the effort needed to mount such a challenge. There would be much less room for innovation and experiment. Moreover there would be some danger of unrealistic bidding. If operators failed to fulfil the terms of their contracts, the authorities could be faced with difficult decisions whether to allow contract revision or to risk disruption of services - on a scale that would not arise if bidding is confined to the loss-making services where public support is required.

38 But the case against the practice of cross-subsidy is more fundamental than this. It has two main grounds. First, users of good routes are being penalised by being made to pay excessive fares in relation to the costs of providing the service they use. This is not to deny the social case for subsidising some routes because otherwise those who live along or near them would be deprived of a valuable service. But the merits of such expenditure need to be judged against the social value of other forms of public expenditure. There is no reason why other travellers who happen to live along well-trafficked routes should in effect be taxed. The argument is not just about equity. Through the regulatory system, the development of public transport has been held back where it has a comparative advantage, so that overall there has been a needless encouragement of personal transport.

39 One particular result is worth mentioning. When people buy cars, they usually give up using public transport for journeys for which they would previously have used it. Other things being equal, the demand for public transport is likely to be more buoyant in areas of low car ownership even though such areas will usually be of lower income levels. So the principle of cross-subsidy, rather than of direct subsidy from public funds, to support loss-making services can mean that the public transport services of the less prosperous areas are being taxed to cover deficits in more prosperous areas. This can happen both within and between operating companies under common ownership.

40 The second main argument against cross-subsidy is that it leaves to operators for decision matters which should not be so left. Where operators can finance their services through the fare-box, what is provided should be left to be determined in the market. Services which the market does not provide and which therefore need subsidy if they are nevertheless to continue should get that subsidy only by decision of elected representatives after proper testing that they constitute good value for public money and within the resources available to them. Part of that test relates to the social needs that will be so met. But an equally important part relates to the efficiency of meeting them. The latter requires that they too be put to the test of the market eg. through competitive tendering by potential operators.

41 In this way there will in future be a sharp distinction between the core of the system consisting of viable services determined under commercial competitive pressures and the additional services provided with external support to meet specific needs. But a comprehensive system of services can be expected to emerge. In particular, many of the features of networking that are often claimed to depend on regulation and cross-subsidy will still be found because they will be justified by normal commercial criteria. An apparently loss-making service is only genuinely loss-making if its withdrawal will improve the overall financial results of the operator i.e. if the costs that will be avoided exceed the revenue that will be lost to his network as a whole. Management will have good grounds for believing that using a measure of apparent cross-subsidy to sustain the network will, for example, influence passengers' decisions regarding their choice of mode, allow the economic provision of through-ticketing and season tickets, reduce administrative costs and facilitate co-ordination of linking services. None of this involves cross-subsidy in a strict economic sense and should not therefore be at risk.

42 What does evidence in Appendix B from the existing pattern of subsidy and cross-subsidy tell us about the services that will continue to need external support?

43 First, as regards different routes. Most rural services, comprising perhaps a fifth of bus mileage (much less of passenger mileage) outside the major urban complexes are unprofitable. Town and, even more, inter-town services usually contribute to the support of the rural services. With the gains in efficiency brought about by competition some of these rural services and most of the relatively few loss-making urban services should become commercially viable. External support will

then be focussed on the remaining particularly rural services where it is most needed.

4 4 Second, as regards the times of day and week. Cross-subsidy in this context is harder to measure. Early morning, late evening and Sunday services mostly lose money. Saturday services, especially those to shopping centres, are mostly profitable and competition should result in a better provision and possibly lower fares for these important journeys. During weekdays service between peaks often subsidise the peak services so inter-peak fares are likely to fall (relative to peak fares) and the level of provision on major routes could well increase. Again competitive pressures should lead to low costs and a greater variety of service provision . Independent operators and novel forms of transport may provide a substantial amount of the capacity at peaks and force incumbent operators to improve labour flexibility and tackle the problems of high peak costs.

4 5 In a deregulated system it will be seen to be inappropriate to attempt to subsidise large networks as such. Rather public support will be directed to the attainment of specific objectives meeting defined social needs by the most cost-effective means possible. Local authorities will need to re-examine the ends to which subsidy is to be applied and the means of evaluating them within their limited resources. Many have been developing their skills in this task but the new context will make the realisation of this work easier and more effective. They will no longer be dealing with a single dominant operator. Instead they will be able, through open tender, to gain the advantages of competition to let contracts to the operator best placed to provide them economically and efficiently. With some limited exceptions, which could arise in both town and country, there is no reason to suppose that the availability of local bus services will be radically affected by the loss

of cross-subsidy implicit in opening up the industry to competition. Its loss should be offset by the gains from the more effective use of direct subsidy made possible.

CONCLUSION

46 The present system of regulation gives cause for concern because it has detrimental effects. It has allowed growth to occur in real operating costs; it has inhibited innovation and suppressed demand on the better routes. As a result, the consumer has a less good service than he could and the public cost of subsidy has soared.

47 If bus licensing is abolished, major changes are likely to occur. Much of the present cross-subsidy will disappear, as fares on better routes go down in the face of competition. But at the same time, new income will be generated by increased demand and there will be significant reductions in costs as management and staff face up to the pressures of operating in the competitive market.

48 Local authorities will be able to buy in the services they currently support at a lower price; the savings will be available to put towards other services which will have lost the benefit of cross-subsidy. Overall, the loss of cross subsidy and the cost reductions through greater efficiency may be not far out of balance. Although some individuals will gain and some will lose, the community as a whole will benefit, since the loss of cross-subsidy and lower fares will balance, while the efficiency related cost reductions will remain a significant benefit.

49 On the demand side, it is impossible to forecast how many people will use buses more as fares decline and service improves. There is little direct British experience of what might happen, particularly in urban areas. But the various strands of evidence - on unit costs, on the experience abroad, on the inter-city coaches and of deregulation in the trial areas, on the continuing competitive success of the taxi and car hire trades - all point to the conclusion that with better services and with lower fares more people are likely to go by bus or other forms of public road passenger transport.

5.0 As to the services themselves there will be substantial changes in their pattern. Existing and new routes will be developed commercially and there will be new forms of provision.

Inevitably, some poorly used services, already at risk may be lost.

The outcome will depend on the skill with which individual councils fulfill their new remit and on the priority they choose to accord to local transport as against other social needs. There are no grounds for expecting widespread deprivation of service - and genuine grounds for suggesting that overall, once the new regime has settled down, those who now depend on services subsidised either directly or by cross-subsidy will have no significant worsening of their access to public transport.

5.1 There is however likely to be a period of uncertainty as the various parties adjust to the new rules. Perhaps the hardest thing to foresee is how fast change will come on the ground. There is bound to be resistance to change when a 50-year old system of restriction is removed. But

change came with less fuss than feared in the trial areas and in the inter-city coach network - one major factor being the confidence that reliance on the market, rather than on political decision taking, brings to business decision, since judging accurately what the market wants and then setting out to produce and market it efficiently and economically constitutes the essence of business skill. Most bus operators have the skills to respond to this challenge; the transition should therefore prove less troublesome to travellers than might have been feared.

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APPENDIX A

THE SCOPE FOR IMPROVED EFFICIENCY

INTRODUCTION

1. One of the purposes of deregulation is to improve the efficiency of the bus industry so that costs are reduced. The extent to which this will be achieved will depend on the scope for such savings. Such information as is available, from a variety of sources, indicates that this scope is substantial. This appendix surveys this information and attempts to assess the savings which might be achievable. Most of the material deals with productive efficiency, that is the extent to which the same services can be operated at less cost. Substantial cost savings can also be made by changing the pattern of services so that buses are more fully used. The scope for such restructuring is also addressed. Lower costs also make new services more likely to be viable. An important purpose of deregulation is to stimulate innovation and the material thus bears on this indirectly.

Trends in Unit Cost

2. Unit costs per vehicle kilometre in the public sector bus industry have increased substantially since 1970 (chart 23, annex 1) Overall for operators outside of London they have increased by 15-30 per cent above the rate of inflation between 1972 and 1982 whereas over the same period motoring costs grew in real terms by only 3 per cent (chart 13, annex 1) and provincial taxi fares by 10 per cent (chart 25, annex 1). In the case of taxis it is reasonable to assume that fares

increases place an upper bound to the increase in cost since no subsidy is paid to taxi operators. It is also important to note that this lower cost growth has been achieved in a sector where there is a fairly fixed ratio between "platform" operators and vehicles and hence where the benefits of increased one-person operation were not available. The growth in bus costs has been associated with a large increase in revenue support. The index of real stage bus fares has grown by 30 per cent (chart 25, annex 1) and revenue per journey (including concessionary fares grant) has grown by 26 per cent. The reduction in patronage, not fully offset by reduced service levels, has meant that receipts per vehicle mile have only increased by 2% in real terms. The result is that revenue support in 1980 prices has increased from 1.3p to 20.5p per vehicle kilometre (Table 18, annex 1) between 1972 and 1982.

Variations within Sectors

3. Within each of the sectors of the publicly-owned industry (PTEs, municipals and NBC) there is significant variation in the level of operating costs. Thus, in the case of the PTEs' operations the costs per vehicle mile in 1982/3, excluding asset utilization charges, varied between £1.56 and £1.81. Bringing all operators down to the level achieved by the best operator would reduce average costs by approximately 6%. This range is likely to be even greater on a cost per seat mile basis as the cheapest operator had the second highest proportion of double-decker buses in its fleet while the highest cost operator had the second lowest proportion. The analysis of

Higginson and White 1 identifies "the very wide range of performance between different operators" in the local authority sector, including both PTE and municipal operators, as "perhaps the most notable feature" of the industry's performance. In 1979/80 for these operators the cost per vehicle mile varied between 84p and £1.88 around an average of £1.22. Even excluding extreme results as possibly reflecting special circumstances, the central $\frac{2}{3}$ of all operators' costs covered a range of $\pm$ 16% of the average. Thus there is considerable scope for improvement in performance simply by achieving best practice in the sector.

Variation Between Sectors

4. As well as variation within each sector there are considerable variations in the average cost levels between sectors. Thus in 1982 the reported cost per vehicle mile achieved by the NBC was 74% of the average of the English municipal operators and 66% of that of the PTEs, as shown in Table 1. Provisional 1983 results are similar. These are obviously very significant differences, even though the services provided by NBC contain a much higher proportion of rural, and thus less expensive, routes. An estimate of the difference in cost per seat mile can be obtained by interpolating values of relative costs for buses of different sizes, as estimated in 'Commercial Motor' 2, to reflect the average number of seats per vehicle in the different operators' stock. This suggests that NBC cost levels are about 78% and 71% of municipal and PTE levels respectively. A more limited comparison of the costs of PTEs' own operations with those of NBC which are provided within the PTE areas, as identified in the PTEs' Three Year Plans 1984/5, also shows substantial differences (though of course

it is still possible that some of the NBC services will more rural.) Data for 1982/3 in the four PTE areas where NBC provide a significant proportion of the services (ie. excluding Manchester and West Midlands) show NBC costs per vehicle mile to be on average more than 25% below the PTE level.* The possibility of considerable savings is confirmed by the statements of the Merseyside PTE 3 that "progress in the field of productivity has been slow as despite determined efforts by the Executive, there has been resistance by the Trade Unions to enter into meaningful discussions ..." Further, there is a reference to "the wide variation which exists between garages in the context of scheduling" and an acceptance of the view that "the potential for financial savings ... is at least theoretically substantial".

5. An even greater difference seems to exist between public sector and private operators. There is some limited evidence from this country about their relative costs which suggests that private operation is much less costly. A TRRL study 4 which compared the fares charged by NBC and private operators providing a similar type of stage service in two trial areas concluded, on the assumption that private firms break even on average, that private sector costs were about 30-40% below those of NBC. There was little difference between comparisons made on an area-wide basis or a more local one. Initial evidence from the trial areas, following the 1980 Act, while still fragmentary, is consistent with those results.

* A direct comparison of Strathclyde PTE with Central SMT (Scottish Motor Traction), a member of the Scottish Bus Group, which operates primarily in the PTE area, shows a considerably greater difference.

6. There still remains the question as to whether these cost levels in the private sector could be maintained as it came to play a greater role. While there is no direct UK evidence some guidance can be obtained by considering a study[5] of private urban bus operators in Australia, in towns where they accounted for 46% of buses in use which compares their costs with publicly owned services. Average costs per vehicle mile for the private operators were, in general, substantially lower than those for the public sector operators. When allowance is made for the differences in the types of services operated by the two sectors, the authors conclude that on average unit costs of private operators in these Australian urban areas were between half and two-thirds of those of public operators. Even if such evidence is not directly applicable it is strong support for the claim that private sector costs are considerably below public costs and can remain so with growth in the role of the private sector.

Sources of Cost Differences

7. In a regulated and subsidised environment there is reason to expect that costs will be higher as there is less pressure to restrict them. There is a growing body of evidence which suggests that this is the case in the field of urban bus operations. International comparisons carried out by TRRL [6] and several studies of U.S. operations [7] [8] [9] found a positive relationship between the level of subsidy and cost levels among bus operators. While these do not actually prove causality there is reason to believe that higher subsidies do lead to higher costs. Both the TRRL study [4] and the Australian research already mentioned sought to identify factors contributing to these cost differences. Inevitably, in an industry where the largest single cost is for labour (usually about 70%) the main focus is on unit labour costs. These are determined by employees earnings, add-on costs and labour productivity. A survey by the Advisory Conciliation and Arbitration Service in 1978 [10] of the coaching industry, which should be of direct relevance here, concluded that the earnings of a substantial number of drivers in the private sector were lower than those generally prevailing in the public sector.

8. There is also some evidence that work practices provide a greater element of 'slack' in the public sector than in the private sector. This shows up differences in the ratio between crew paid-hours and bus-hours operated. We have some information for Australia where this ratio was between 87% and 95% for private firms as against a public sector range of 71% to 74%. This more efficient use of platform staff combined with the differences in labour costs identified above, was estimated to be responsible for a 15-20 % difference in cost per vehicle mile between the public and private operators. The Monopolies and Mergers Commission [11] in its report on four British public sector companies estimated a maximum achievable scheduling efficiency (scheduled bus hours divided by scheduled platform staff attendance hours), given existing agreements, of between 80% and 90%. In no case did actual scheduling efficiency approach the maximum, averaged across undertakings, with West Midlands PTE and Trent Motor Transport coming closest. Further, for the single case where data was available which allowed actual operating efficiency to be calculated, it was 66% for urban services and 71% for rural. As already mentioned, there is a paucity of UK evidence on the private sector but one earlier study of bus services in rural Wales [12] suggested that private operators used their labour more flexibly, thus reducing costs.

9. Further evidence on the importance of labour contracts can be derived from the Joint Report by NBC and the Institute for Transport Studies on 'Cross- ubsidy in Urban Bus Operations' 13. As part of its analysis it considered the level of crew costs which would result from four different labour agreements which currently exist. Further, each agreement was costed over a range of possible patterns of bus service provision. The results showed that for each such pattern of services there was a significant difference in crew cost between the different labour agreements. In fact over the range of policies tested, the variation in cost caused by varying the labour agreement (expressed as a percentage increase of the more expensive agreements over the cheapest) lay between 23% and 77%. This indicates that, whatever the pattern of services being provided, there is significant scope for savings even within the range of existing labour agreements.

10. Recent experience shows that competition enhances the incentive to examine the effect of labour agreements on cost. A Regional Director of the NBC has recently reported, in a speech to the Association of County Councils: "In Hereford the pressure caused by the trial area enabled Midland Red (West)'s management to negotiate a local improvement in productivity of 25-30%".

11. The previous paragraphs relate to the labour costs of direct operations. There is also scope for major reductions in service, Repairsand maintenance costs which Higginson and White [1], in their study of British urban bus operations, estimated to amount to 26% of costs of the highly integrated local authority operators in 1979/80. Further, this proportion had been increasing. In Australia the differences in such costs accounted for 9% of the overall difference in cost per vehicle mile between the public and private operators, even though costs in this category are a lower proportion of the total there than in the UK (where they are about Further, in this country the cost of service, repairs and maintenance for the PTE operations is approximately twice that quoted by 'Commercial Motor' 2 for large buses. While this is likely to exaggerate the savings achievable on average, because of the extra wear and tear of operating urban bus services, it does suggest that there is considerable scope for such savings and that the potential for cost reduction might exceed the 9% difference measured for Australia. Finally, there is likely to be scope for savings in administration as the planning and co-ordinating role of PTEs declines and as the size of company operating in the industry falls, though there will be some offset to this due to the need to deal with tendering.

Bus Usage

12. There is also a potential saving to be obtained from the restructuring of services to better reflect the pattern of demand, which will increase bus loadings. Within the PTEs' own operations there is considerable variation in average load per

bus between a high of over 18 and a low of under 13 which can not be explained by differences in bus size (as proxied by the proportion of double-decker buses in their fleets). Some further idea of the scope for improvement is given by Table 2 below and chart 9, annex 1 which compare the changes in demand (passenger journeys) with changes in the service offered (vehicle stock and bus kilometres). The table shows that from 1972-82 for local authority bus operators the decline in demand was far in excess of any corresponding reductions made in service. For operations as a whole, passenger journeys fell by 28% but bus kilometres were reduced by only 12% and the stock of buses by 8%. The effects were most severe in the municipal sector where the fall in passenger demand was highest and the reduction in mileage was least. Therefore there is a strong prima facie case that in most urban areas there is potential for major improvements, through getting better utilization of buses by adjusting the pattern of services to the pattern of demand. The case of Southampton City Transport, where a Market Analysis Project was conducted in 1980/81, illustrates that with a detailed knowledge of passenger demand major economies in the provision of services can be achieved without much inconvenience to passengers. In the eleven years up to 1980/81, passenger demand on Southampton City buses had declined by about 18% and the bus service provided had been reduced by only about 7%. During the same period, real fares had been increased by nearly 80% ahead of inflation but despite this, subsidies had risen from nearly zero to account for about 15% of total operating costs. This was expected to amount to £1.2 million in 1982/3, and the County Council set an initial target of totally eliminating

the need for this subsidy. The study they set up estimated that this financial saving could be achieved by reducing the vehicle kilometres operated by 18.5% and the total number of vehicles by 27% (ie 45 buses). It was forecast that this would result in a passenger loss of only 7% and an even smaller revenue loss of 3%. In the event, after lengthy discussions, the financial criteria were relaxed and about 8 buses were put back into the fleet. Nevertheless, substantial economies were achieved.

13. In its report 11 the MMC placed considerable emphasis on the benefit of this kind of tailoring of service to demand, although of course in the context of maintaining cross-subsidy and regulation. It approved the efforts of Bristol Omnibus Co., where Market Analysis Projects had proposed a fleet reduction of 37.2%, subsequently negotiated to 30.4% in discussion with the County Councils. The MMC also approved the service planning efforts of the West Midlands PTE although the reductions in resources required (up to 10%) were generally much less significant than those achieved in Bristol. However, the MMC were critical of Cardiff where it was pointed out that the peak vehicle requirement had changed little over the period 1967/1981. Cardiff were accordingly recommended to adopt the methods of the other operators.

14. Thus there is obviously scope for savings from such restructuring of services. While some of these improvements could be obtained through management action under the current regime, deregulation will ensure that the pressure for such adaptation is universal and continuous and that the benefits obtained are passed on to travellers.

Conclusion

15. Thus the broad facts seem to be as follows:

a) private sector costs both here and in Australia are much lower than public sector costs - by 30% more;

b) costs within the public sector show considerable variations. In particular NBC costs are much lower than most PTEs and unicipals.

c) the possibilities for economy relate to direct operating costs and to costs of service, repairs and maintenance as well to general overheads.

d) it would be possible to reduce the cost of service provision through a more efficient structuring of services to meet the pattern of demand.

16. Thus there is major scope for economy in the bus industry. Some can be achieved by stricter financial control and by tighter management but the differences between private and public sector costs, even allowing for the fact that they may not be completely comparable, suggest that under competition the incentives will be much greater. While it is not possible to make estimates in detail of the effects of such a radical change there is good reason to suppose it should be of a scale that would eliminate much of the difference between the present costs of the public and private sector.

TABLE 1: COST PER VEHICLE MILE 1982 (excluding asset utilization)
(England and Wales)

	£
London Transport	2.24
PTE	1.64
Municipal operators	1.45
National Bus Company	1.08

Source: Department of Transport

TABLE 2: TRENDS IN LOCAL AUTHORITY BUS OPERATIONS

% changes 1972-82

	LT	PTEs	Municipals	Total
Passenger journeys	- 26.2	- 26.1	- 31.8	- 27.6
Vehicle stock	+2.5	- 13.3	- 10	- 8.4
Bus km	- 13.4	- 12.9	- 9.4	-12.2

Source: 'Transport Statistics Great Britain 1972-82, Department of Transport.

TABLE II: REVENUE SUPPORT AND RECEIPTS PER PASSENGER JOURNEY 1972-1982.

at 1980 prices

	1972	1982
Revenue support per stage journey (p)	0.4	7.9
Receipts per stage journey (p)	17.2	21.6
Stage journies vehicle km.	3.2	2.6
Receipts per vehicle km (p)	55	56.2
Revenue support per vehicle km (p)	1.3	20.5

Source: Transport Statistics Great Britain 1972-82, Department of Transport.

References

1) Higginson, M P and White P R: The efficiency of British urban bus operators (Polytechnic of Central London 1982).

2) Commercial Motor: Tables of operating cost 1983/4.

3) Merseyside PTE: 1984/5-1986/7 Merseyside Transport Plan (Merseyside PTE: 1983)

4) Tunbridge, R J and Jackson, R L: The economics of stage carriage operation by private bus and coach companies (TRRL LR 952: 1980).

5) Wallis, I P: Private bus operations in urban areas - their economics and role. (Traffic Engineering and Control: December 1980).

6) Bly, P H; Webster, F V; Pounds S: Subsidisation of urban public transport. (TRRL Report SR 541: 1980).

7) Anderson, S C: The effect of government ownership and subsidy on performance: evidence from the bus transit industry. (Transportation Research: May 1980).

8) Anderson, S C: The effect of operating subsidy and transit tax financing on performance in the bus transit industry 1975-81. (Transport Research Forum: Washington 1983).

9) Pucher, J; Markstedt, A; Hirschman, I: Impacts of subsidies on the costs of urban public transport. (Journal of Transport Economics and Policy: May 1983).

10) Advisory Conciliation and Arbitration Service: Report No 16: Industrial relations in the coaching industry (1978).

11) Monopolies and Mergers Commission: Bristol Omnibus Company Limited, Cheltenham District Traction Company, City of Cardiff District Council, Trent Motor Traction Company Limited and West Midlands Passenger Transport Executive: A report on stage services supplied by the Undertakings (1982).

12) Rees, G and Wragg, R: A study of the passenger transport needs of rural Wales (Welsh Council 1975).

13) National Bus Company and the Institute for Transport Studies, the University of Leeds: Cross-subsidy in urban bus operations. (March 1984).

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APPENDIX B

CROSS SUBSIDISATION IN STAGE BUS OPERATIONS

1. In broad terms, cross-subsidisation has been described [1] as the practice of using surpluses obtained from parts of a system to offset deficits incurred elsewhere, thus allowing operations to continue which might otherwise be cut back or withdrawn. Cross subsidy has, by a mixture of accident and design, been a long standing characteristic of stage bus operations. There is considerable evidence [2] [3] [4] suggesting that, in some shire counties at least, internal cross subsidy is far more important than external revenue support.

2. The practice of cross subsidisation has its origins in the Road Traffic Act 1930. The traffic commissioners appointed under the Act came to interpret their remit as firstly to maintain 'standard charging' of a uniform per mile fare for profitable and unprofitable services alike and secondly to protect operators who provided services, unremunerative in themselves, to help maintain a comprehensive network. This interpretation has had a strong continuing influence on the discussion and nature of public transport policies. Its context was a rapidly expanding industry; profitable routes were growing and the scope for cross subsidy increasing. This context has changed drastically in the last two decades.

3. Measurement of cross-subsidy is subject to numerous difficulties and these become more acute as analysis is disaggregated more finely. These difficulties centre on the problems of dealing with 'joint' costs and revenues and 'units' of output and of defining these units in terms of whole or part routes and services. The difficulty is enhanced by the existence, particularly at present, of significant inflexibilities in many aspects

of bus operation, notably in manning arrangements and pay agreements. The significance of this is that costs and revenues can only be allocated to an activity if a feasible change in output can be postulated. The scope for this is reduced by these arrangements. The scale of the problem of joint costs and revenues is largely related to the structure of the incumbent operators who use centralised facilities to service large fleets of vehicles running on integrated networks. Problems of "jointness" would be much less notable in a competitive industry structure, partly because more services will be provided within a separate ownership pattern.

4. It is however not the case that measures of cross-subsidy are too dependent upon choice of accounting convention to be of great value. A number of studies have shown that it is possible to derive useful conclusions from an examination of cross-subsidy. The problems of allocating costs and revenues by route, or by broad geographical grouping of routes, are in practice fairly tractable. That is to say, associated with a decision to expand or contract say a whole route, reasonably clear statements about costs and revenues can be made. The main difficulties arise in attempting to allocate costs by time of day, in particular in assessing the costs of supplying peak services. Most cost allocation methods load the peak heavily on the ground that total capacity is largely determined by the need to meet demand at these periods. Hence the bulk of overhead costs including engineering and maintenance costs is attributed to the peaks. In the absence of part-time manning

the number of full-time crews employed is also determined by the level of peak operations. Existing costing methods may or may not reflect realistic options available to operators; most of them attribute a greater hourly labour cost to peak operations. But, to repeat, despite these difficulties useful conclusions can be drawn from the available evidence and some of these turn out to be surprisingly robust.

5. The analysis of cross subsidy gives:

(i) a measure of the distribution effects of existing practices and an identification of the main groups of losers and gainers;

(ii) an indication of the resource losses involved in the practice of cross subsidy;

(iii) an estimation of changes likely as the industry becomes more competitive and the degree of cross-subsidy declines.

6. A study of bus services in and around Taunton in 1978 [2] concluded that internally generated surpluses, mostly from inter-urban and inter-peak services, dominated external subsidy as the means of support of unremunerative operations. The recent study carried out by the NBC and the Institute for Transport Studies of Leeds University [4] applied a more detailed analysis to other NBC operating centres and tested the conclusions under differing cost conventions. The study also employed more complex approaches to cost calculation designed to show the full incremental cost of postulated service changes.

7. Table 1, taken in part from the NBC - ITS study, illustrates a pattern of inter-urban routes supporting rural ones which show persistent losses. None of these cases is in the highly subsidised conurbations.

Table1 Average Operating Ratio* by Type of Service

	Urban	Inter-urban	Town-rural		Rural	Overall
Taunton	1.08	1.28	0.82		0.46	0.95
Bridgend	0.73	1.15		0.48		1.03
Hawick	1.05	1.41		0.58		1.19
BOC**	0.77				0.65	0.76
Cheltenham	0.81 (0.94)	-	-		-	
Bristol City	0.75 (0.9)	-	-		-	
West Wiltshire	-	0.74	-		0.65	0.69
Swindon	-	(0.85)	-		(0. 7)	(0.78)
East Avon		0. 8			.66	0.72
		0.78			(.72)	(0.74)

* Operating ratio = $\frac{\text{Allocated revenue}}{\text{Allocated cost}}$

** Total for the Bristol Omnibus Company. The lines below the total give results for the Company's four main operating areas for the period November 1980 - October 1981. Figures in brackets indicate the improvements following on the subsequent MAP (Market Analysis Project) service reorganisation. Here, although no single group is in surplus the urban and interurban services perform significantly better than the rural.

8. In general, the route by route pattern of cross subsidy is not greatly affected by the cost convention employed and is similar in a number of separate cases studied. Although variation in profitability by time of day is sensitive to the considerations mentioned above, using a wide variety of assumptions suggests that the interpeak periods (and, under some allocation methods, Saturday services) are the main surplus generators in most situations. Greater flexibility of operation particularly in manning arrangements would modify this conclusion. It would add options to management's repertoire. Similarly a more flexible fare scale, allowing higher fares in the peaks, would affect relative profitability. Current knowledge of fares elasticity variations by time of day does not permit confident quantification of the effects of peak pricing regimes on the pattern of cross subsidy. However preliminary results from Bristol City[5] where some flexibility has been introduced into the fare structure suggest that there urban peak services are surplus generating and off peak as a whole are not.

9. The relationship between internally generated surplus and external subsidy as sources of support for unrenumerative services is also subject to problems of definition and analysis. The finer the degree of disaggregation the more important internal subsidy will appear. For example in the case of Taunton the ratio of internal surplus to external support is about 3:1 if measured at the route level. Further

disaggregation, breaking down each route by time of day and week yields a higher measure of cross subsidy in a ratio of 5:1 with respect to external support. This dominance of internal subsidy persists over a wide range of different assumptions in most cases studied. The exception is Bristol where only a few urban routes generate surpluses and overall cross-subsidy in route terms is apparently negligible.

10. Table 2 compares these sources of support for various operating centres. Column 1 shows the percentage of total operating costs covered by revenue support payments under Section 1 of the Transport Act. Column 2 shows the total of cross subsidy at the route level as a percentage of such costs while Column 3 shows the effect of further disaggregation by time of day and week. The fourth column shows the proportion of costs covered by surpluses made from weekday interpeak operations.

Table 2: Source of Support

% of cost covered under 'Taunton Study' costing assumptions

	1 External Support	2 Inter Route	3 Route x Time Split	4 Inter Peak
Bridgend	2.8	13.8	14.2	6.7
Cheltenham	12.0	n.a.	9.0	5.7
Hawick	0	21.0	28.1	7.7
Taunton	5.0	15.6	26.2	16.1

11. It is clear that a significant degree of cross-subsidisation between routes and times of day can be identified. Although

results by time of day are particularly sensitive to the method followed for the allocation of costs, the broad conclusion that rural services are largely unprofitable holds in the areas studied. It is clear that, however defined, cross-subsidy is often substantially more important than revenue support in the shires. But it should be remembered that only a small number of cases have been studied, and the preliminary evidence from Bristol[5] already indicates that there may, in other cases, be significant departures from the pattern adduced for the shires. The relative importance of cross-subsidy and its broad direction from urban to rural areas may not be the same elsewhere and cannot betaken as a fully proven universal fact. The evidence concerning cross-subsidy in the conurbations is limited, but does show wide variation between routes in profitability. This pattern is confirmed by the evidence from the study of Bristol which also indicates the particular unprofitability of Sunday, early morning and late evening services.

12. Some indication of the effects of reducing cross-subsidy in urban areas comes from the study of Cheltenham, although it should be remembered that this is a small scale operation involving at the peaks fewer than thirty vehicles on the town services. The NBC-ITS study applied demand modelling and sophisticated costing techniques to develop a number of alternative network and service patterns. This allowed identification of a 'Viable Network System' in which revenue covered costs and which

accommodated as much of the existing demand as was economically possible. It also minimised cross-subsidy except to the extent that supporting 'unprofitable' services was commercially justifiable on more general grounds and assumed no revenue support. The 'VNS' showed a notably coarser pattern of routes than currently operated (and particularly with respect to the much finer network operated by NBC before the revision of services in November 1981). However average frequencies on the coarser network would be higher and indeed total patronage (measured in passenger miles) would be slightly higher, about 1½% greater than on the unrevised system. This does not suggest that moving to the 'viable' network causes great deprivation although there will be some losers as well as gainers from such a change. In the case of Cheltenham it also does not appear that access, in terms of walking distance to a bus route, is greatly worsened for more than a small number of passengers. The VNS leaves practically every residential area of Cheltenham within half a mile of a route.

Cross subsidy and Competition

13. The above observations on cross-subsidy obviously relate to existing institutions, with single operators supplying services under a framework of regulation. They will not therefore fully reflect the changes in revenue and cost patterns which would be observed under competitive conditions but can be used to give an indication of likely changes. In particular even the most flexible of existing labour agreements with the centralised pattern of operation using large-scale termini, garaging and maintenance facilities may give rise to unnecessarily high costs of peak operation. New entrants by contrast may benefit by

having small scale, decentralised facilities, allowing greater utilisation by reducing 'dead time' running between central depots and outlying route termini. It has already been mentioned that the NBC-ITS study particularly emphasised the importance of manning agreements, not only on total crew costs but on the peakiness of those costs.

14. In attempting to outline the possible impact on services of introducing competition into bus operations it is necessary to bear in mind the mutability of the assumptions on which the cross-subsidy analysis rests. Greater flexibility of manning and variety of different fare structures will modify these findings. However, it is difficult to avoid the conclusion that under present operating arrangements, many services to rural areas depend on both internal and external subsidy to cover a significant proportion of their operating costs. These services comprise perhaps 20% of bus mileage and carry about 12% of total passenger miles on buses operating outside the major urban complexes. The cost reductions possible under competitive conditions should enable some of these to become self-supporting and the others to cover a much greater proportion of their costs from fares. But Sunday services appear vulnerable at present and many share with the rural services the distinction of revenue/cost ratios of 0.5 or less. Low levels of demand and high labour costs of Sunday operation suggest that few Sunday services could be made fully profitable, although their financial performance may improve considerably. Despite the loss of cross-subsidy it should however be possible to redirect external subsidy to maintain a reasonable system of rural and Sunday services within acceptable levels of expenditure.

15. The encouragement of more competitive conditions will modify substantially the pattern of cross subsidy within weekdays. Some differential pricing is likely to emerge, and there may be ways in which part-time independent operators and novel means of transport will augment capacity at peaks. Together with improved labour flexibility this would allow major operators to mitigate the problems of high peak costing. The effects on the pattern of service provision by time of day must be predicted with caution. It may be reasonable to speculate that inter-peak fares will fall (relative to peak) and that service levels will increase as competitors move in, attracted by the prospectively high margins to be earned between the peaks. Such changes obviously depend on the extent to which competition increases labour flexibility and on the availability of vehicle capacity.

16. The Cheltenham study does give an interesting pointer to the way in which the route pattern of services may change and reinforces conclusions drawn from earlier studies [6] that the level of provision on the more densely trafficked routes will increase. To the extent that the 'viable' network described in the NBC-ITS study was one in which cross-subsidy was minimal it is reasonable to speculate that a 'competitive' network might be similar in many respects. Under fully competitive conditions no significant components of a system would be operated for long at a loss or at above normal profit levels. The viable network, as described above (paragraph 12), actually has a higher patronage than existing operations with lower route penetration but higher service frequencies.

Cross Subsidy and Equity

17. It has been observed that the practice of cross subsidy effectively redistributes benefits. Compared to a competitive system, or indeed an administered one where cross subsidy is deliberately minimised, certain groups of users now pay higher fares and receive lower levels of service in order to maintain services for other groups. It seems clear that the users of rural bus services benefit, as a whole, at the expense of urban and interurban passengers. Passengers in the peaks appear in most cases to benefit at the expense of interpeak users. With only slight caricature it has been said that under the present system women doing the shopping subsidise men going to work [4] It appears likely that passengers living on or near busy (radial) routes in urban areas suffer higher fares and lower service levels to help subsidise those living in less accessible neighbourhoods. The practice of supporting the poorer routes also means that the total benefits achieved for any given level of external subsidy are lessened. This is demonstrated in a study [6] of London bus routes which compared the net social benefit effects of varying service levels on routes showing different financial returns. Benefits were enhanced by supporting the route showing the best cost recovery ratio.

18. There is ample evidence therefore to support the conclusion that the current practices of cross subsidy redistribute benefits between passengers in a manner which appears arbitrary and which is not subject to rational scrutiny nor explicit justification [7,8]

Competition and tighter financial constraints on incumbent operators will result in a much lower level of cross-subsidy and hence modify these redistributive effects. On the basis of the limited evidence available it cannot be claimed that such changes are generally undesirable.

References

1 Monopolies and Mergers Commission 1982, para 8.41.

2 DTp/NBC/Colin Buchanan and Partners. The Taunton Study 1979.

3 Scottish Bus Group - Evidence to Select Committee on Transport. 1983.

4 NBC/Institute for Transport Studies. Cross-subsidy in Urban Bus Operations. 1984.

5 Bristol/Exeter Bus Network Study 1984, being carried out on behalf of NBC/DTp by Colin Buchanan and Partners.

6 Beesley, Glaister and Gist. Cost Benefit Analysis and London's Transport Policies. 1983.

7 Ponsonby, Transport Policy. 1969. Institute of Economic Affairs Hobart Paper 49.

8 Hibbs, Transport without Policies, 1982. Institute of Economic Affairs Hobart Paper 95.

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THE EFFECTS OF THE TRANSPORT ACT 1980 ON LOCAL BUS SERVICES

INTRODUCTION

1. The Transport Act 1980 modified the regulation of local bus services and made provision for certain "trial areas" in which road service licensing would be abolished. This annex describes in Part I general developments in the period immediately following the Act (largely based on published Transport and Road Research Laboratory (TRRL) reports). Part II examines developments in the trial areas based on a TRRL study shortly to be published.

PART I: LOCAL BUS SERVICES THROUGHOUT GREAT BRITAIN

Introduction

2. The Transport Act 1980 eased the criteria against which road service licences for local services were granted. Previously, the burden of proof was on the applicant to demonstrate the case for the proposed service, against objections. From 1980 the traffic commissioners have been required to grant licences unless they were satisfied that to do so would be against the interests of the public. So the burden of proof changed from applicant to objector. The Act also removed fares control by the traffic commissioners, save as a reserve power to be used in exceptional circumstances.

3. This part of the annex assesses the effects of these measures on local bus services and fares. It also discusses the growth of commuter coach services.

Local Services

4. The Act coincided with a sharp acceleration in the rate of decline in the demand for local bus services and in the level of provision, attributable to the general economic recession. This had the effect of masking, and perhaps inhibiting, developments resulting from the new licensing arrangements. During the first year the Act was in force, some 2800 licences for local services were surrendered or not renewed - roughly five times as many as in the last complete year before the Act for which statistics are available. However, some 1700 licences were granted for new services - an increase of nearly 50 per cent. A significant proportion of these new services were essentially replacements for withdrawn services. On some, independent operators replaced public sector ones.

5. The majority of objections to new licence applications were to those made by independent operators and many of these objections were by public sector operators. Nevertheless, applications achieved a success rate of 92 per cent - significantly higher than before the Act. That does not necessarily mean that operators can easily obtain licences. Applications to run services on profitable routes have been vigorously opposed by established operators, sometimes at considerable cost.

6. The traffic commissioners' interpretation of the "public interest" has been crucial. In several cases in the early months established operators objected to licence applications on the grounds that the proposed new services would abstract revenue from their existing ones, reducing their ability to cross-subsidise unremunerative, but socially desirable, services. Although the supporting evidence for such arguments was often meagre, objections were upheld by the traffic commissioners in some cases (but not all). The argument was given considerable public exposure in the case of Yeowart's Coaches, whose application for a licence to run a service to Whitehaven in competition with Cumberland Motor Services was refused by the commissioners, but granted on appeal by the Secretary of State, a decision ultimately reversed by the courts.

7. Since that appeal, there has been some re-appraisal by the traffic commissioners of the "public interest". Cross-subsidy, the interests of ratepayers and taxpayers and the demands of passengers for subsidised services must be weighed against the benefits to people who would use the proposed new services. Objectors are now being called upon to support their cases in a more analytical and quantitative manner and are doing so successfully.

8. In the few cases where operators have obtained licences allowing them to compete with established operators, they have faced formidable resistance, in the form of predatory pricing, increased service frequencies and other means. Such tactics tend to be successful, especially when the resources of the established operator greatly exceed those of the newcomer.

9. So despite the relaxations of the 1980 Act, operators wishing to offer new services are in practice limited to those very few routes not covered at all by existing operators but where reasonable returns can be made on investment.

Stage Carriage Fares[1]

10. Since the first years of bus licensing, fares had been fixed in detail for almost all licensed services. The 1980 Act abolished that control other than in exceptional circumstances where it might be necessary, in the public interest, to prevent an operator exploiting a monopoly position by overcharging, or to regulate the terms of competition on a route (ie to stop undercutting).

11. Observations over the period January 1978 to January 1983 indicate that:

(a) the rate of increase in bus fares appeared to have declined. This was probably attributable to the combined effects of a falling rate of inflation, heavy patronage losses arising from economic recession, the fares policies of local councils elected in May 1981 and possibly the threat of competition;

(b) there have been some moves away from uniform pricing. These have taken various forms, and none appears to have been a direct result of the emergence of competition. Nevertheless, in January 1983 some form of overall fare scale still dictated the level of most fares;

(c) the majority of fare agreements reached before the Act between public and private sector operators seem to have been maintained. Most unilateral fare reductions by private operators have been matched and some form of equilibrium has generally returned;

(d) by January 1983 there had been only a few examples of the use of traffic commissioner reserve powers to control the terms of competition. In no case have the commissioners been known to use their powers to prevent overcharging.

Commuter Coaching[2]

12. Commuter coach services have developed significantly since the Act. Demand was effectively suppressed before 1980 by the difficulty of obtaining the necessary licences - particularly when there were objections by British Rail. Just after the Act, the majority of the new services catered for journeys of 30 miles or more and so avoided licensing but gradually a substantial number of shorter, licensed services were introduced. Some shorter services have also avoided licensing by being organised as clubs (though the law here is not entirely straightforward). Most services ran into London, only a few into other cities. This reflects the unique volume of long-distance commuting into the capital.

13. By January 1983, 22 private sector operators were using about 76 vehicles to move about 3000 commuters into London daily on publicly advertised services. In the public sector, 7 operators with about 91 vehicles carried some 3700 passengers. 4 commuter clubs (employing private sector operators) were using about 18 vehicles to carry approximately 800 passengers daily. It is estimated that about 6800 of the overall daily total of 7500 were regular commuters. In January 1983, commuter coaches carried roughly 5-6 per cent of the total long-distance commuter market into London, but with a substantially higher market share from some locations. The potential market from some areas may not yet have been fully exploited.

14. A high proportion of London coach commuters previously travelled by train. The low fares (compared with rail) were the major attraction, offsetting the generally longer journey times. The convenience of coach stops nearer to homes and places of work is also appreciated, as are other features like comfort, reliability and a more friendly atmosphere.

15. Overall, the main financial effects of long-distance commuter coaching developments until January 1983 may be broadly summarised as follows:

revenue gain to operators (peak only)	about £5million per annum
saving to London commuters	about £3million per annum
revenue loss to British Rail	about £6million per annum
revenue loss to London Transport	about £1million per annum

reduction in expenditure on petrol about £1million per annum

revenue loss to buses outside London about £1.4million per annum

PART II DEVELOPMENTS IN TRIAL AREAS

Introduction

16. The Transport Act 1980 made provision for the Secretary of State to designate, at the request of the local authority, trial areas in which road service licences are not required and bus operators may run whatever services they choose. So far three trial areas have been designated, in parts of Norfolk, Hereford and Worcester and Devon. This is the only experience in this country of full deregulation of local services.

17. All three County Councils selected mainly rural areas though there were some interesting differences between them in the comprehensiveness of existing local services, in the extent to which private operators were prepared to expand their stage carriage activities and in the degree to which they were encouraged by the County Councils to do so.

18. The general relaxation of licensing caused by the Act and economic conditions since it came into effect (October 1980) have brought about many changes in bus services and fares throughout the country. Considerable care is therefore needed to distinguish their effects from those of trial area deregulation. Further, there has not been time to assess longer term effects of deregulation. With those caveats, this part of the annex reviews developments in each area from its inception to the present time (June 1984) and assesses the extent to which they are due to deregulation or to other factors.

The Norfolk Trial Area

19. This was the first trial area to come into effect, on 6 April 1981. It is a sparsely populated area in the north-west of the county, containing a number of small towns. There is also a small detached part of the area in the centre of Norwich which allows operators to run unlicensed services into the city from the trial area. King's Lynn and Cromer were excluded from the trial area.

20. Before the trial area began, most of the stage carriage bus services in Norfolk were provided by Eastern Counties Omnibus Company, an NBC subsidiary. Before 1980, revenue support payments by the County Council represented a substantial proportion of the company's operating deficit. But the shortfall began to increase; in 1980-81 the company received £0.5 million in revenue support and £0.5 million in concessionary fare reimbursement, but still lost £0.8 million.

21. The independent operators were less involved in stage carriage operation, concentrating on contract work and private hire. Their few stage carriage services received very little support from the County Council. The Council's purpose in seeking a trial area was to encourage private operators but it continued its revenue support policies unaltered and did not intervene to stimulate new or competitive services beyond circulating information to independent operators.

22. At first there was little change that could be attributed to deregulation. It appeared that many of the independent operators did not fully understand the information they received; others were not especially interested in expanding their stage services to provide new services or to compete with each other or Eastern Counties on existing routes. There were some marginal changes in services not made as a response to deregulation.

23. In the period April 1981 - November 1983 Eastern Counties reduced services by some 10 per cent and increased fares throughout its operating area, including the trial area, in attempts to reduce operating deficits. In November 1983, Eastern Counties sought again to improve its financial situation by submitting proposals to the County Council for various networks of bus services the Company could provide for different levels of revenue support. The existing level of service would have required an annual subsidy of £1.3 million but the Council opted for a lower level of service costing £0.5 million and has instead contracted with independent operators to provide most of the services withdrawn by Eastern Counties. The resulting pattern of services is still subject to minor adjustments and it is not yet possible to evaluate the overall savings in revenue support.

The Hereford Trial Area

24. The Hereford trial area (comprising much of the old county of Herefordshire) is of particular interest for three reasons. First, the County Council have at the same time applied a new system of competitive tendering for subsidy; second, there has been very active competition between independent operators and the local NBC Company (Midland Red (West)); third, this is the only trial area which included a sizeable town (Hereford).

Subsidised services

25. The tendering system principally affected rural areas where most services are unprofitable and subsidised. The Council began by inviting tenders for 53 services which, it appears, no operator was willing to continue without subsidy. 15 of these were being run by NBC Companies which decided to continue 12 of the services (or parts of them) without subsidy. There was competition for 32 of the contracts, and 19 changed hands. The resulting contracts started in September 1981 initially for 18-month periods. During this time there were a few changes in the pattern of bus services, some operators replacing others and new contracts being awarded for previously unsubsidised services - all by competitive tender. When the original contracts expired in April 1983 the process was repeated, but over several months in order to moderate the administrative workload. 38 contracts were awarded, fewer than before because some had already been re-let, some operators opted to continue services without subsidy, some services were grouped together and some carried so few passengers that the Council decided not to continue subsidising them. Competition for these contracts was fiercer than in 1981 and several new operators made bids.

26. The 1981 round of tendering resulted in an annual saving of £62,000 (38%) in revenue support and there were savings of

£ 65,000 in education transport payments (for season tickets on stage carriage services) which were also subject to the tendering process .

27. The main NBC Company, Midland Red, reduced services in the trial area by about 170,000 vehicle miles per annum, but more than 85 per cent of the mileage withdrawn was replaced by independent operators, the net loss, 25,000 miles per annum (mostly in Hereford City) being considerably less than the annual mileage of an NBC bus (42,000 miles). These services were not replaced because the County Council felt they were too little used to justify subsidy.

28. There have been a few speculative services in rural areas designed to cope with special demands. These modest developments would probably have been licensed under regulation but the new competitive atmosphere may have encouraged operators to seek new opportunities and the redistribution of contracts may have produced spare capacity to be redeployed.

Town services

29. Before the trial area, town services were provided by Midland Red and Yeomans Motors, and were supplemented by the urban sections of longer-distance services provided by these and other operators. Since the trial area, four independent operators have competed with Midland Red in Hereford and three are still doing so. Midland Red have responded by making substantial fare reductions, introducing more buses (timed to run just in front of those of their competitors) and, on occasion, free buses. There have been questions about the quality standards of operators competing in Hereford. One lost his Operators' licence and another only secured licence renewal on a limited basis, subject to review.

30. Demand for bus travel in Hereford has increased as a result of this competition, but not sufficiently to support all the additional buses, especially at the current low level of fares. Surveys on two routes in Hereford in the autumn of 1983 indicated average (weekday/daytime) revenues, of half the NBC 1983 average cost per vehicle mile.

Inter-town services

31. Competition, or the threat of it, has also affected some of the inter-town services in the area. There have been increases in service frequency and fare reductions on four main routes with independent operators stimulating existing operators to compete. Passenger demand has increased on one route surveyed by about one third. It is uncertain whether this is sufficient to cover the additional costs incurred by the operators.

The Devon Trial Area

32. Devon County Council applied for trial area designation after a Market Analysis Project network revision by Western National, the local National Bus Company subsidiary. The results of this exercise were disappointing, with substantial reductions in services not leading to the anticipated savings in revenue support. The

County Council sought the assistance of independent operators to maintain much of the network of rural services before the trial area came into effect (October 1982).

33. The Devon trial area consisted of the East and Mid Devon Districts (a large rural area) and an "island" in the centre of Exeter which allowed unlicensed services to operate into the city. The area contained a number of small towns and coastal resorts with perhaps more suitable opportunities for bus operators than the Norfolk or Hereford areas. Existing revenue support arrangements were continued and the Council devoted considerable effort to informing operators of the new opportunities and encouraging initiatives.

34. The main operator in the trial area is Devon General[+]. Independent operators still play a minor role in providing local bus services. Since the trial area came into force, both Devon General and independent operators have made some changes and introduced some innovations. Some of these may have been prompted by potential competition but few of the independent operators are inclined to provide competitive services: they appear reluctant to risk the goodwill of Devon General who sub-contract work to the private sector and who operate the bus station in Exeter, providing facilities there for some of the independents. There is also doubt whether additional services on existing routes would be profitable. Only two operators have attempted to compete, neither establishing a permanently successful service.

35. Since the trial area was introduced, some services have been withdrawn or reduced because of dwindling patronage and in some cases this has been prompted by the Council's withdrawal of revenue support for poorly used services.

36. The changes resulting from deregulation in Devon have thus been rather limited in scale. Nevertheless the County Council is encouraged by the fact that slightly more new services have been made available in the trial area than in other similarly rural areas in the County during the same period. Since designation has had no apparent disbenefits, it is currently considering whether further trial areas might be appropriate.

Conclusions

37. Any conclusions drawn from experience in the three trial areas must be qualified by the fact that they are based on a limited set of largely rural areas over a limited period of time.

[+] Western National was reorganised into smaller operating companies on 1 January 1983. Devon General was the successor company in the trial area.

Furthermore, the trial areas have not been isolated from economic factors (eg. pressure on financial resources, declining demand) which have influenced the provision of bus services everywhere.

38. The gradual decline in rural bus services in the trial areas simply reflects the general pattern and is not demonstrably a consequence of deregulation. In all three counties, Councils have been able to replace services formerly provided by NBC companies with privately operated services, thus preserving basic networks with substantially smaller amounts of revenue support. In Hereford and Worcester, this was achieved by a formal system of tenders for contracts operating only in the trial area. Norfolk and Devon used more conventional county transport co-ordination procedures in and outside the trial areas, but the results appear to have been less dramatic.

39. Deregulation has provided opportunities for operators to experiment with new services. It is arguable that some of those which have been tried in the more rural areas would have been allowed under the licensing system, but the procedures for obtaining licences can be a deterrent to small operators in marginal cases. Deregulation has not been sufficient to halt the overall decline in rural bus services, but neither has it worsened the situation. Operators have benefitted marginally from simplified administrative procedures.

40. The effects of deregulation are more discernible in urban areas and on inter-town routes, where bus services may still be profitable. Independent operators have provided new services, sometimes complementary to those run by established operators and sometimes in direct competition. Where there is competition, established operators have responded by reducing fares, increasing service frequencies, adjusting schedules, running free buses or various combinations of these actions. The public have consequently enjoyed lower fares and better levels of service. Demand has increased but not necessarily by enough to cover the costs of the additional service provision. The eventual outcome in Hereford is unpredictable. Under present conditions, deregulation in itself may not be sufficient to allow small operators, however efficient, to compete successfully with established operators with greater resources.

REFERENCES

1. G A Coe and R L Jackson. Developments in stage carriage bus fares before and after the Transport Act 1980. Department of the Environment/Department of Transport TRRL Report LR1093. Crowthorne 1983 (Transport and Road Research Laboratory).

2. R D Fairhead, R L Jackson and P F Watts. Developments in long-distance commuter coaching following the Transport Act 1980. Department of the Environment/Department of Transport TRRL Report LR1038. Crowthorne 1983 (Transport and Road Research Laboratory).