
**ASSOCIATION OF GREATER MANCHESTER AUTHORITIES
GREATER MANCHESTER TRANSPORTATION UNIT**

**TRANSPORT STATISTICS
GREATER MANCHESTER 2005**

SUMMARY

The report presents the results of GMTU's traffic and transport monitoring during 2005.

These include:

- countywide traffic growth
- daily, weekly and seasonal flow profiles on motorways and A roads
- traffic growth by district
- comparison of local and national traffic growth
- LTP road traffic indicators
- traffic and pedestrian activity in key centres
- trends in countywide rail and Metrolink patronage
- trends in bus service supply

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The Greater Manchester Transportation Unit provides a strategic and local transportation service to and on behalf of the ten district councils of Greater Manchester. The unit is funded by the ten districts and attached to Manchester City Council as lead authority.

[BOLTON](#), [BURY](#), [MANCHESTER](#), [OLDHAM](#), [ROCHDALE](#), [SALFORD](#), [STOCKPORT](#), [TAMESIDE](#), [TRAFFORD](#), [WIGAN](#)

FOREWORD

The Greater Manchester Transportation Unit provides a comprehensive service in all aspects of transportation for the ten local authority districts in Greater Manchester. The work of the Unit includes the core services of traffic monitoring, and maintenance and analysis of the Unit's traffic accident database. This report forms part of the traffic monitoring service to districts and as such maintains the series of annual reports for Greater Manchester begun in 1983. It is available as an Adobe Acrobat file for those who would like an electronic copy.

This report does not include detailed traffic flow information for individual road links. Instead, separate reports have again been produced for each district, incorporating all the traffic flow information for that district.

All of the road traffic data used in the production of the annual reports are available for district use. The results of manual counts can be obtained through interrogation of the map based data retrieval system GMCOUNTS. Also, road casualty data can be obtained from GMTU's Geographic Information System – GMAPS and Microsoft Access Database - GMAXI.

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EXECUTIVE SUMMARY

A ROAD TRAFFIC

Traffic Growth on A Roads 2004-2005

1.9 Table 9 shows the percentage changes, by time period, in average flows on 92 A road links throughout the county between 2004 and 2005. The figures are based on manual classified counts.

Table 9 Percentage Changes in Average Flows on 92 A Road Links Between 2004 and 2005							
Time Period	Cars	LGV	OGV	Buses and Coaches	Motor Cycles	Pedal Cycles	All Motors
07:00-10:00	-1	2	-6	1	-3	14	-1
10:00-16:00	-1	0	-8	3	-2	4	-1
16:00-19:00	-3	-1	-17	1	-2	7	-3
07:00-19:00	-1	0	-9	2	-3	8	-1
08:00-09:00	0	1	-6	0	-8	29	0
17:00-18:00	-3	-3	-21	0	13	0	-3

Changes in A Road Weekday Traffic Flow Profiles 2004-2005

1.10 Table 10 shows average weekday traffic flows by hour on 92 A road links in 2004 and 2005 together with the percentage change in flow since 2004. The all motors and all goods profiles are illustrated in Figures 8 and 9.

Table 10 Average Hourly Traffic Flows on 92 A Road Links in 2004 and 2005									
Start Hour	2004				2005				
	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	
07:00	1252	200	57	1549	1250 (0)	209 (5)	55 (-4)	1554 (0)	
08:00	1487	196	67	1792	1485 (0)	198 (1)	63 (-6)	1787 (0)	
09:00	1143	204	84	1467	1119 (-2)	203 (0)	79 (-6)	1438 (-2)	
10:00	955	207	88	1281	948 (-1)	206 (0)	81 (-8)	1265 (-1)	
11:00	1011	206	86	1332	993 (-2)	204 (-1)	79 (-8)	1305 (-2)	
12:00	1113	190	73	1405	1121 (1)	190 (0)	70 (-4)	1412 (0)	
13:00	1157	192	77	1456	1139 (-2)	194 (1)	72 (-6)	1438 (-1)	
14:00	1144	204	81	1464	1136 (-1)	201 (-1)	72 (-11)	1446 (-1)	
15:00	1304	206	67	1617	1294 (-1)	205 (0)	58 (-13)	1598 (-1)	
16:00	1518	204	49	1814	1502 (-1)	207 (1)	42 (-14)	1795 (-1)	
17:00	1667	150	28	1883	1615 (-3)	145 (-3)	22 (-21)	1822 (-3)	
18:00	1364	97	16	1509	1315 (-4)	92 (-5)	13 (-19)	1449 (-4)	
Total	15115	2255	774	18568	14918 (-1)	2256 (0)	705 (-9)	18307 (-1)	

Note: The figures in brackets are the percentage changes between 2004 and 2005.

TRANSPORT STATISTICS GREATER MANCHESTER 2005

EXECUTIVE SUMMARY

Traffic Flow Changes on Major Roads in Greater Manchester 2004-2005

Table 1 gives a summary of percentage changes in traffic flows in Greater Manchester between 2004 and 2005.

- There was a decrease of 1% in traffic flows on motorways, A roads and B roads. Motorway flows in particular have been affected by long-term roadworks on the M60 between junctions 5 and 9.
- Traffic flows decreased by 2% on minor roads.
- Other goods vehicles (OGV) flows decreased on all classes of road.
- Buses and coaches decreased by 15% on motorways.
- Motor cycle flows increased by 11% on motorways but decreased on all other road classes.
- Pedal cycle flows have increased by 8% on A roads and 10% on B roads. Note, though, that as the flows are small, measured changes are less statistically reliable than for other vehicle types.

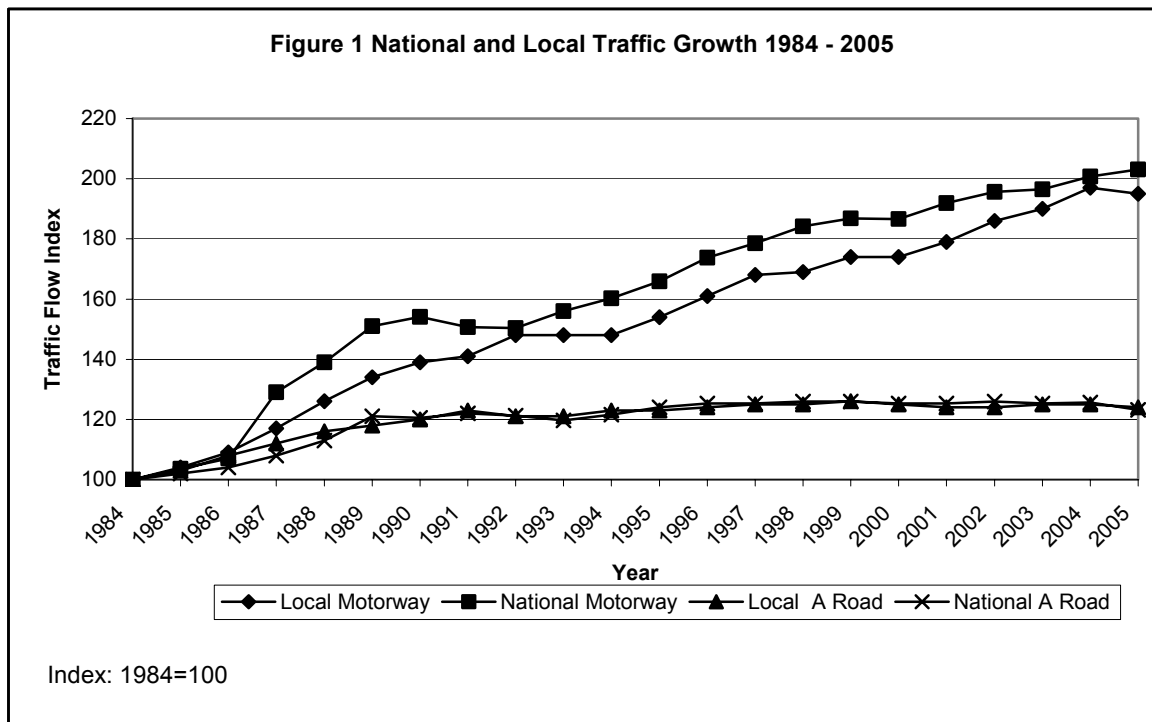
Table 1 Percentage Changes in 12-Hour Traffic Flows on a Sample of Motorways, A Roads and B Roads between 2004 and 2005							
Road Class	Cars	LGV	OGV	Buses and Coaches	Motor Cycles	Pedal Cycles	All Motors
Motorways	1	-3	-7	-15	11	-	-1
A Roads	-1	0	-9	2	-3	8	-1
B Roads	-1	1	-5	-2	-1*	10*	-1
Minor Roads	-2	-3	-6	-2*	-5*	0*	-2

* Flows are small and observed changes are consequently less statistically reliable than on other roads

Longer Term National and Local Growth in Traffic Flows

- Indices of national and local growth in traffic flows on motorways and A roads since 1984 are illustrated in Figure 1.
- National statistics published by the DfT show that traffic flows on motorways more than doubled between 1984 and 2005. Local motorway traffic flows have shown an increase of 95%, however this is a decrease of 1% on 2004 figures. National growth has been more variable and includes an increase of 21% between 1986 and 1987 and a decrease of 2% between 1990 and 1991. Since 1990, national and local motorway traffic flows have increased by 32% and 40% respectively.

- Traffic flow levels on A roads have shown no increase nationally or locally in the last ten years and are presently decreasing.



Vehicle Kilometres on Motorways, A Roads and B Roads in Greater Manchester in 2005

- Motorways made up 12% of the major road network and carried 44% of traffic including 60% of goods vehicle traffic. The average annual flow per kilometre on motorways was 33.7 million vehicles.
- A roads made up 61% of the major road network and carried 45% of traffic. The average annual flow per kilometre on A roads was 6.8 million vehicles.
- B roads made up 27% of the major road network and carried 11% of traffic. The average annual flow per kilometre on B roads was 4.0 million vehicles.

Composition of Traffic

- In 2005 cars made up about 80% of all road traffic. The proportion of cars ranged from 75% on motorways to 84% on minor roads
- Motorways had a higher proportion of goods traffic than other roads. This relative difference increased with size of goods vehicle. Heavy goods vehicles with more than 4 axles accounted for 6.5% of traffic on motorways, 1.4% on A roads, 0.8% on B roads and 0.6% on minor roads.

Car Occupancy

- Weekday surveys at 10 A road sites in 2005 showed that, between 08:00 and 09:00, 86% of cars had only a single occupant. This compares with 74% of driver only cars during the off-peak period (10:00-12:00).

Cycle Flows on Major Roads

- In 2005, average weekday cycle flows on Greater Manchester A and B road links between 07:00 and 19:00 were 84 and 86 cycles respectively.

Key Centre Monitoring

- Traffic flows into Bolton town centre decreased in all time periods between 1997 and 2004. Roadworks on St Peter's Way may have affected flows in 2004. Rail trips decreased slightly in the morning peak and off-peak. Bus trips decreased in all time periods.
- Bury traffic flows decreased in all time periods between 1997 and 2004 and particularly in the peak periods. Metrolink trips increased substantially in the morning peak and to a lesser extent in the other time periods. Bus trips decreased in all time periods.
- Manchester traffic flows decreased in all time periods between 1997 and 2006. The improvements to the Manchester and Salford Inner Relief Route in 2002 and traffic management measures within the city centre have contributed to this. The number of bus trips has remained substantially unchanged in the morning peak period between the years of survey. In contrast, off-peak trips increased. Rail trips have increased substantially in the morning peak and off-peak periods. Metrolink trips decreased in the morning peak period between 2005 and 2006 but remained above the 1997 level. In contrast, off-peak trips rose, raising the level above the 1997 level.
- Oldham traffic flows and rail trips remained approximately the same between 1997 and 2004 in the morning peak but decreased in the off and evening peak periods. Bus trips decreased in all time periods.
- Rochdale traffic flows remained substantially the same between 1997 and 2005. Rail trips increased in both peak periods, but decreased in the off-peak period. Bus trips increased overall in the morning peak period between 1997 and 2005 having recovered from a decrease in the intervening years. However, they decreased overall in the other time periods.
- Eccles traffic flows were markedly below 1997 levels in 2004. This is largely due to the completion of the Eccles bypass in November 2000. Rail trips increased in all time periods and the introduction of Metrolink in 2000 also boosted public transport trips. The data suggests heavy decreases in bus trips but this is based on a very small sample.

- Stockport traffic flows in the morning peak period were highest in 2000 and have decreased since to be below the 1997 level in 2004 and 2005. Off-peak and evening peak traffic flows in 2005 were just below 1997 levels. Rail trips increased in all time periods in 2005 from a low in 2004 to be at or above the 1997 level in all time periods. Bus trips were below the 1997 level in all time periods.
- Ashton-under-Lyne traffic flows increased in all time periods between 1997 and 2004. Rail trips increased in the peak periods but decreased in the off-peak period. Bus trips decreased slightly in the morning peak period but increased in the other time periods.
- Altrincham traffic flows decreased by more than 10% in all time periods between 1997 and 2005. Road improvements on the outskirts of Altrincham key centre since 2002 have led to traffic being re-routed away from the town centre. Rail and Metrolink trips increased in the peak period between 1997 and 2005, but decreased markedly in other time periods. Bus trips have decreased significantly in all time periods although the results are based on a small data sample.
- Wigan key centre traffic flows decreased by more than 10% in all time periods between 1997 and 2006. Robin Park showed corresponding increases. Rail and bus trips have decreased in all time periods.

Rail Patronage

- The number of rail passengers travelling towards Manchester City Centre from stations in Greater Manchester during the morning peak period increased by 32% between 1991 and 2005.
- The number of off-peak passengers increased by 49% over the same period.
- There was an 8% increase in peak patronage and an 11% increase in off-peak patronage in Greater Manchester between 2004 and 2005.

Metrolink Patronage

- Weekday peak period (07:30-09:30) boarders on Manchester bound trams on the Bury line decreased by 11% between 2004 and 2005 to almost 2,900 passengers. Off-peak (09:30-13:30) boarders increased by 13% to more than 2,900 passengers.
 - Inbound peak boarders on the Altrincham line decreased by 7% between 2004 and 2005 to just below 3,500 passengers. Off-peak boarders increased by 12% to just below 3,200 passengers.
 - Peak boarders inbound to Manchester on the Eccles line increased by 6% to nearly 850 between 2004 and 2005. Peak alighters outbound from Manchester decreased by 3% to just below 1140. Off-peak boarders increased by 35% to just over 1010 and alighters increased by 23% to just over 1080.
-

Bus Service Supply

- Overall bus mileage increased by 1% between 2004 and 2005 to 72.0 million miles.
- Commercial bus mileage operated in 2005 (57.0 million miles) was below the total operated in 1985 before bus deregulation.
- Weekday peak, off-peak and Saturday mileages were, respectively, 2%, 49% and 8% higher in 2005 than prior to deregulation in 1985. Weekday evening and Sunday mileages were lower than in 1985 by 31% and 21% respectively.
- Sunday mileage was only 41% of that on Saturday. This contrasts with road traffic flows where Sunday flows are 93% of Saturday flows on motorways and 83% of Saturday flows on A class roads.
- First and Stagecoach operated 70% of bus mileage in Greater Manchester in 2005.

ROAD TRAFFIC

MOTORWAY TRAFFIC

Traffic Growth on Motorways 2004-2005

1.1 Table 2 shows the percentage changes by time period, in average flows on 16 motorway links between 2004 and 2005. The figures are based on manual classified counts undertaken throughout the county. The percentage change in average all motor flow was -1%.

Table 2 Percentage Changes in Average Flows on 16 Motorway Links Between 2004 and 2005						
Time Period	Cars	LGV	OGV	Buses and Coaches	Motor Cycles	All Motors
07:00-10:00	2	-7	-2	-24	6	0
10:00-16:00	0	-3	-9	-15	10	-2
16:00-19:00	-1	1	-7	-6	18	-1
07:00-19:00	1	-3	-7	-15	11	-1
08:00-09:00	5	-3	1	-17	13	4
17:00-18:00	1	2	-5	-14	19	1

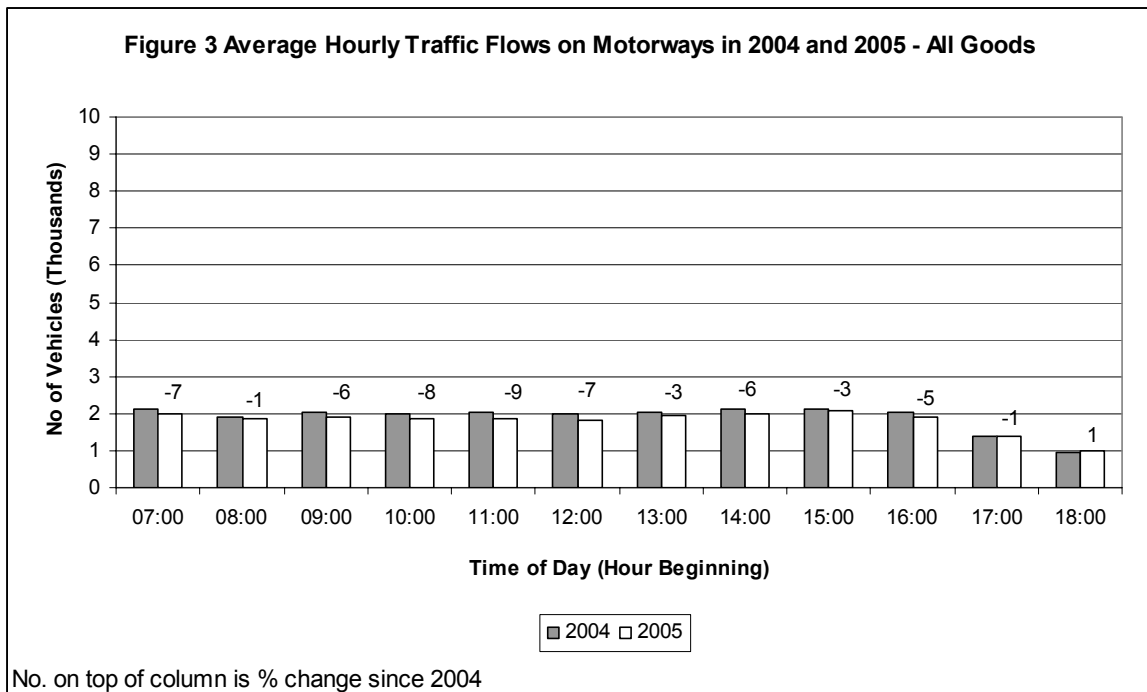
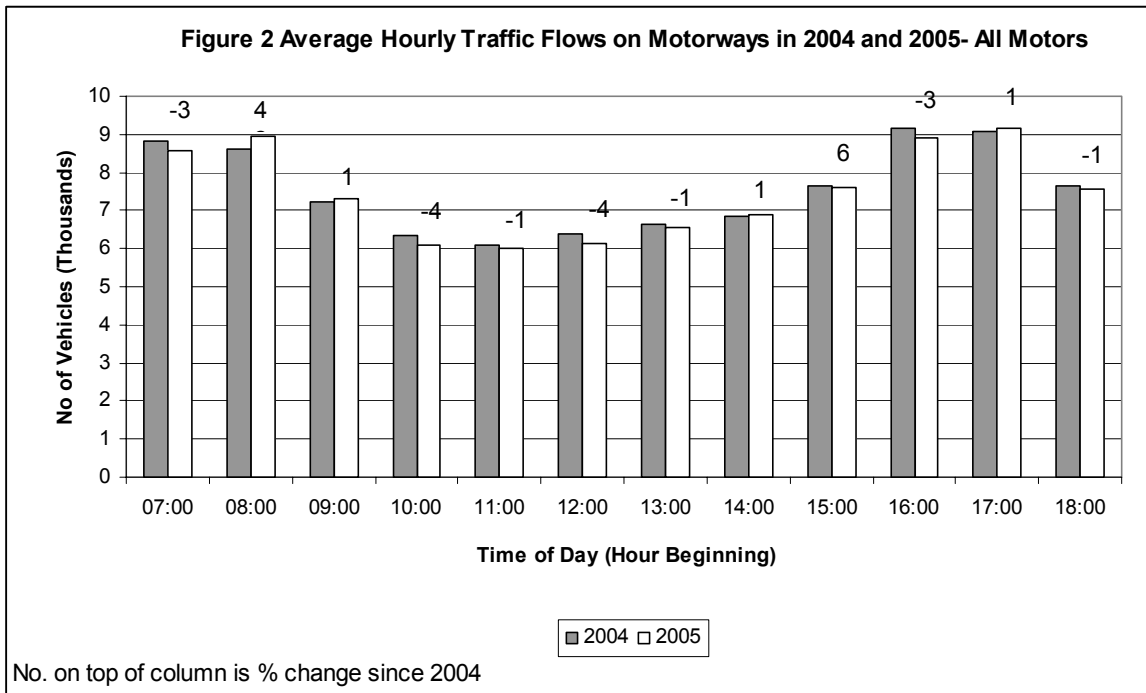
Changes in Motorway Weekday Traffic Flow Profiles 2004-2005

1.2 Table 3 shows average weekly traffic flows by hour on 16 motorway links in 2004 and 2005 together with the percentage changes in flows. The all motors and all goods profiles are illustrated in Figures 2 and 3.

Table 3 Average Hourly Traffic Flows on 16 Motorway Links in 2004 and 2005												
Start Hour	2004				2005							
	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	Cars	Light Goods Vehicles	All Motors	
07:00	6634	1292	845	8831	6529	(-2)	1181	(-8)	815	(-4)	8571	(-3)
08:00	6693	1054	834	8634	7028	(5)	1023	(-3)	846	(1)	8948	(4)
09:00	5139	1056	994	7244	5335	(4)	967	(-8)	953	(-4)	7306	(1)
10:00	4291	971	1040	6355	4220	(-2)	898	(-8)	949	(-9)	6112	(-4)
11:00	3986	1014	1036	6082	4085	(2)	907	(-11)	964	(-7)	5992	(-1)
12:00	4358	960	1021	6383	4252	(-2)	893	(-7)	943	(-8)	6128	(-4)
13:00	4549	1000	1028	6624	4543	(0)	998	(0)	966	(-6)	6552	(-1)
14:00	4655	1068	1071	6846	4846	(4)	1071	(1)	938	(-12)	6905	(1)
15:00	5464	1149	967	7637	5489	(0)	1197	(3)	864	(-11)	7611	(0)
16:00	7089	1259	765	9174	6939	(-2)	1226	(-2)	688	(-10)	8915	(-3)
17:00	7606	860	546	9072	7703	(1)	877	(2)	517	(-5)	9160	(1)
18:00	6636	521	446	7651	6533	(-2)	558	(7)	421	(-6)	7565	(-1)
Total	67099	12204	10591	90531	67503	(1)	11796	(-3)	9864	(-7)	89766	(-1)

Note: The figures in brackets are the percentage changes between 2004 and 2005.

Figures may not sum due to rounding



Peak Hour to Peak Period Ratios on Motorways

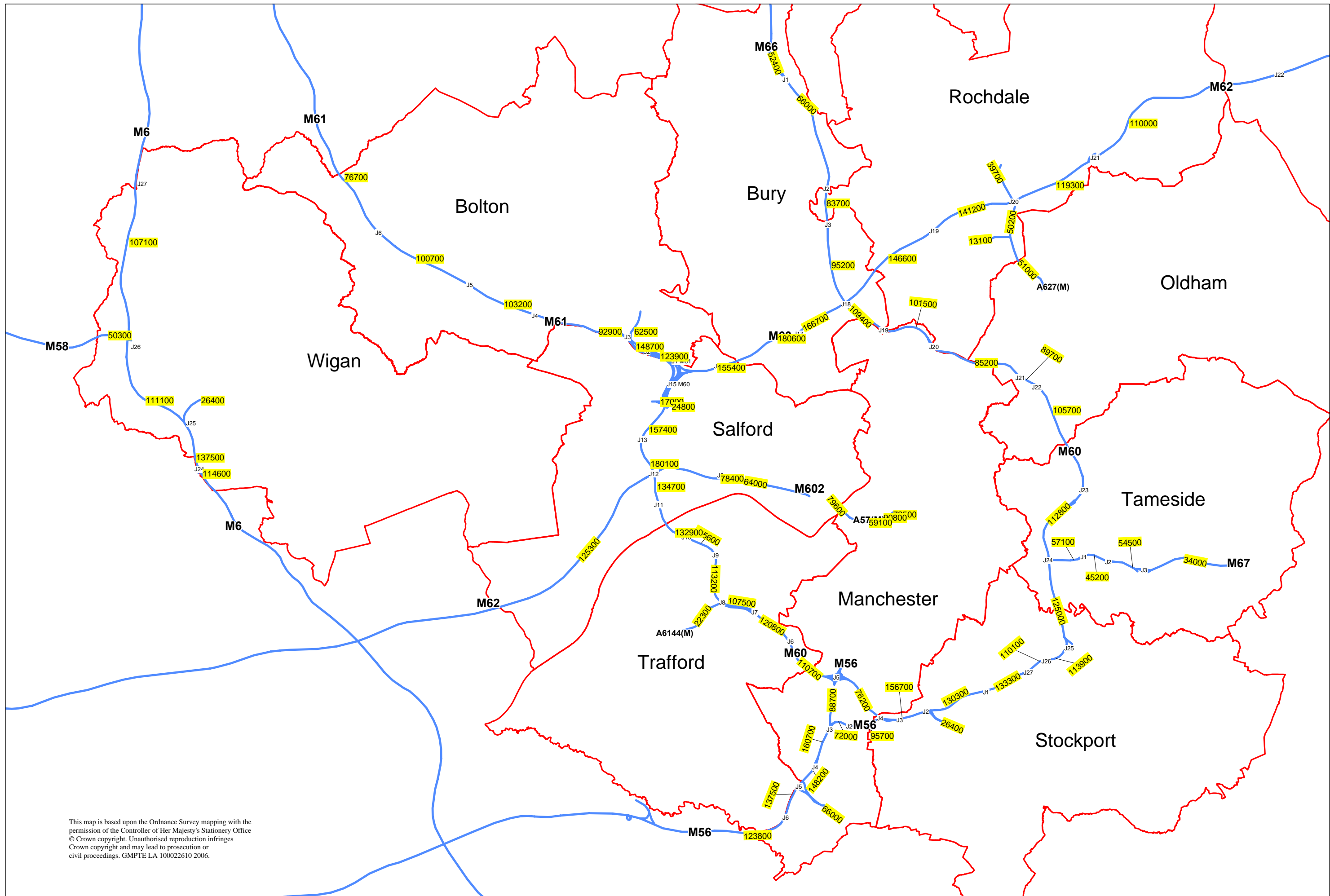
1.3 Table 4 shows peak hour and peak period traffic flow ratios for motorway links surveyed between 1990 and 2005.

Table 4 Ratio of Peak Hour to Peak Period Traffic for Motorways 1990-2005			
Year	Number of Sites	<u>08:00 – 09:00</u> <u>07:00 – 10:00</u>	<u>17:00 – 18:00</u> <u>16:00 – 19:00</u>
1990	21	0.38	0.38
1991	15	0.38	0.37
1992	19	0.37	0.37
1993	22	0.37	0.37
1994	37	0.36	0.37
1995	39	0.36	0.37
1996	40	0.36	0.37
1997	29	0.36	0.37
1998	25	0.36	0.36
1999	42	0.36	0.36
2000	48	0.35	0.36
2001	51	0.36	0.37
2002	43	0.36	0.37
2003	37	0.35	0.36
2004	36	0.35	0.35
2005	21	0.36	0.36

Note: For ease of comparison with other road classes, the morning peak hour quoted is 08:00-09:00. The true peak flow on most motorways occurs 07:00-08:00 (see Figure 5).

Traffic Flows on Motorways in 2005

1.4 Figure 4 shows the average 24-hour weekday flow of motor vehicles on each link of Greater Manchester's motorway network. The flows are either automatic traffic counts or estimates based on 12-hour manual classified counts undertaken as part of GMTU's countywide monitoring programme. The manual counts have been factored using the 12 to 24-hour factors given in Appendix 1.

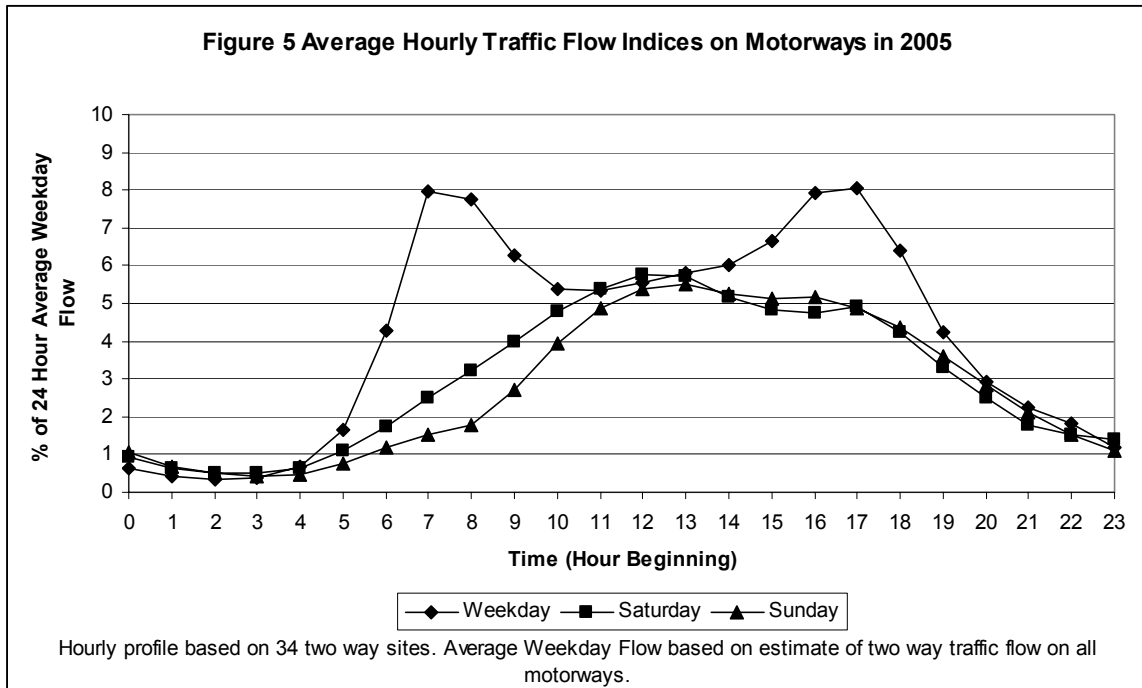


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24-Hour Traffic Flow Profiles on Motorways in 2005

1.5 Data from 34 two-way continuous automatic traffic counts on motorways have been analysed to provide the daily profiles in Table 5. Flows affected by bank and school holidays, roadworks and unusual events were excluded from the analysis. Figure 5 shows the profiles expressed as a percentage of the 24-hour average weekday flow.

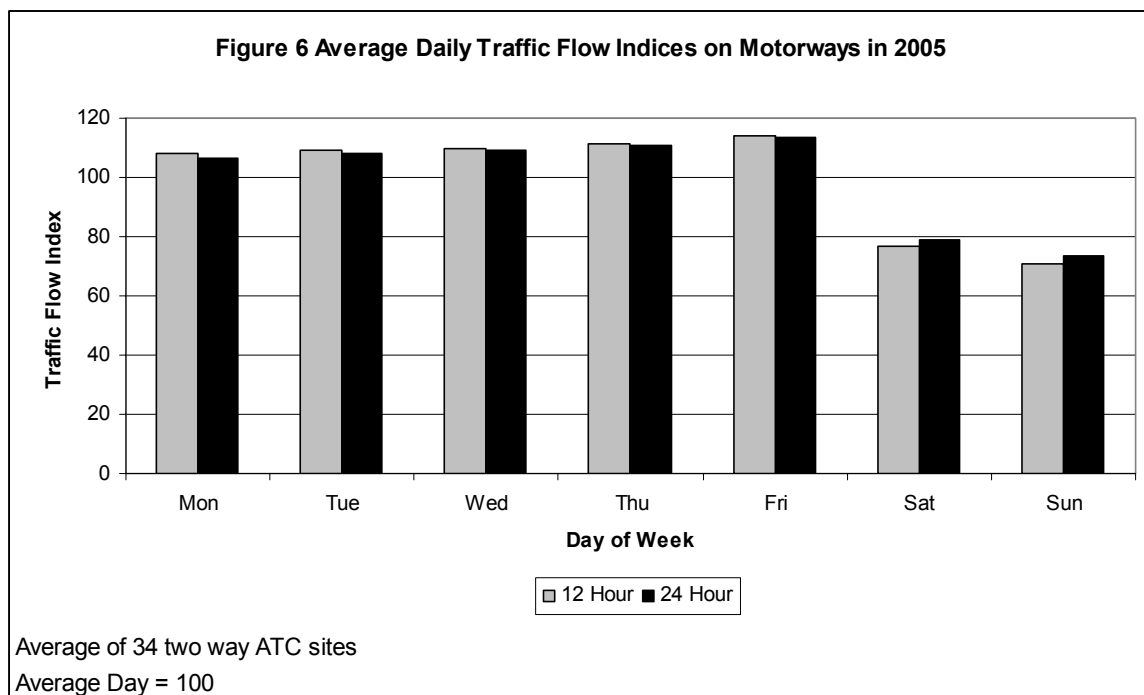
Hour Beginning	% of 24 Hour Flow Weekday	% of 24 Hour Flow Saturday	% of 24 Hour Flow Sunday
00:00	0.7	1.3	1.6
01:00	0.4	0.9	1.0
02:00	0.3	0.7	0.7
03:00	0.4	0.7	0.6
04:00	0.7	0.9	0.7
05:00	1.6	1.5	1.1
06:00	4.3	2.4	1.8
07:00	8.0	3.5	2.3
08:00	7.8	4.5	2.7
09:00	6.3	5.6	4.1
10:00	5.4	6.7	5.9
11:00	5.3	7.5	7.3
12:00	5.5	8.0	8.0
13:00	5.8	7.9	8.3
14:00	6.0	7.2	7.9
15:00	6.7	6.7	7.7
16:00	7.9	6.6	7.7
17:00	8.0	6.9	7.3
18:00	6.4	5.9	6.6
19:00	4.2	4.6	5.4
20:00	2.9	3.5	4.3
21:00	2.3	2.5	3.1
22:00	1.8	2.1	2.3
23:00	1.2	1.9	1.7



Daily Traffic Flow Indices on Motorways in 2005

1.6 Table 6 shows indices of motorway traffic throughout the week. These are also shown graphically in Figure 6 and are derived from two-way automatic traffic counts undertaken continuously on 34 links.

Table 6 Average Daily Traffic Flow Indices on Motorways in 2005				
Day of Week	12 Hour Flow Average Weekday Index = 100	12 Hour Flow Average Day Index = 100	24 Hour Flow Average Weekday Index = 100	24 Hour Flow Average Day Index = 100
Monday	98	108	97	106
Tuesday	99	109	99	108
Wednesday	100	110	100	109
Thursday	101	111	101	111
Friday	103	114	103	113
Saturday	70	77	72	79
Sunday	64	71	67	73



Daily Variation on Motorways by Time Period

1.7 Table 7 gives a more detailed breakdown of the variation in traffic flows in individual time periods for each day of the week.

Time of Day	Time Period	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Within the normal working day	07:00-10:00	100	101	101	101	97	45	28
	10:00-16:00	96	97	98	100	109	91	87
	16:00-19:00	98	101	101	102	99	62	65
	07:00-19:00	98	99	100	101	103	70	64
Peak periods	07:00-08:00	101	100	100	100	98	32	20
	08:00-09:00	100	101	101	101	98	43	25
	16:00-17:00	97	100	100	101	102	61	66
	17:00-18:00	99	101	101	101	97	61	62
Outside the normal working day	00:00-07:00 and 19:00-24:00	94	98	100	103	105	79	78
All Day	00:00-24:00	97	99	100	101	103	72	67

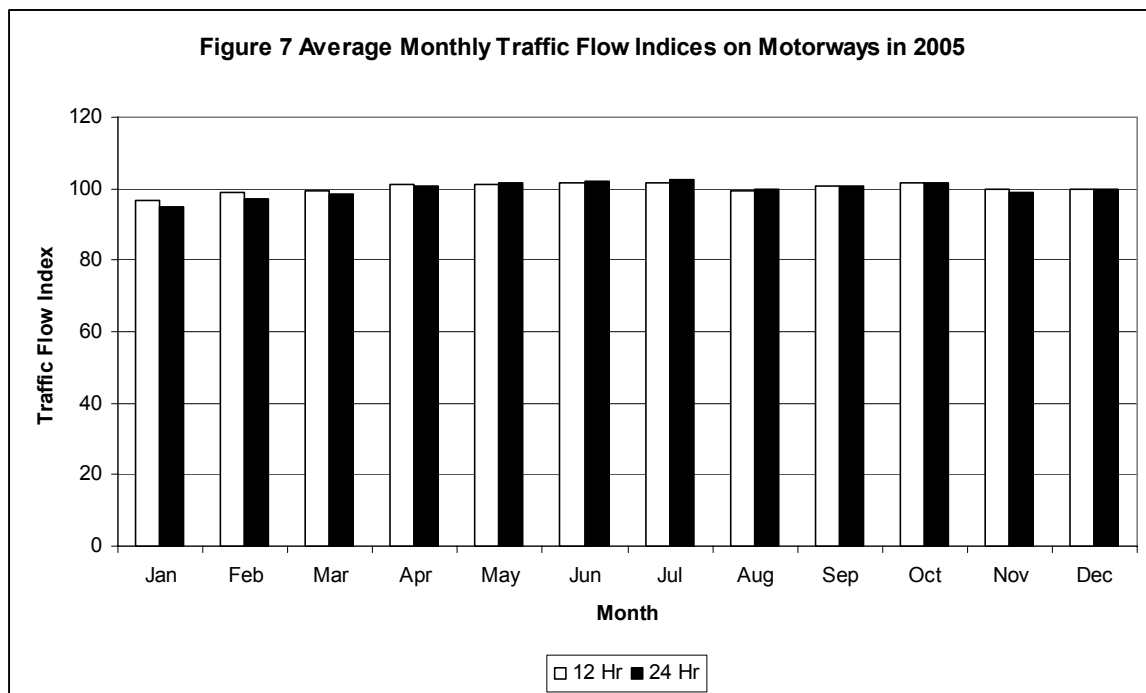
Note: Indices for each time period are based on an average weekday flow index of 100 for the time period.

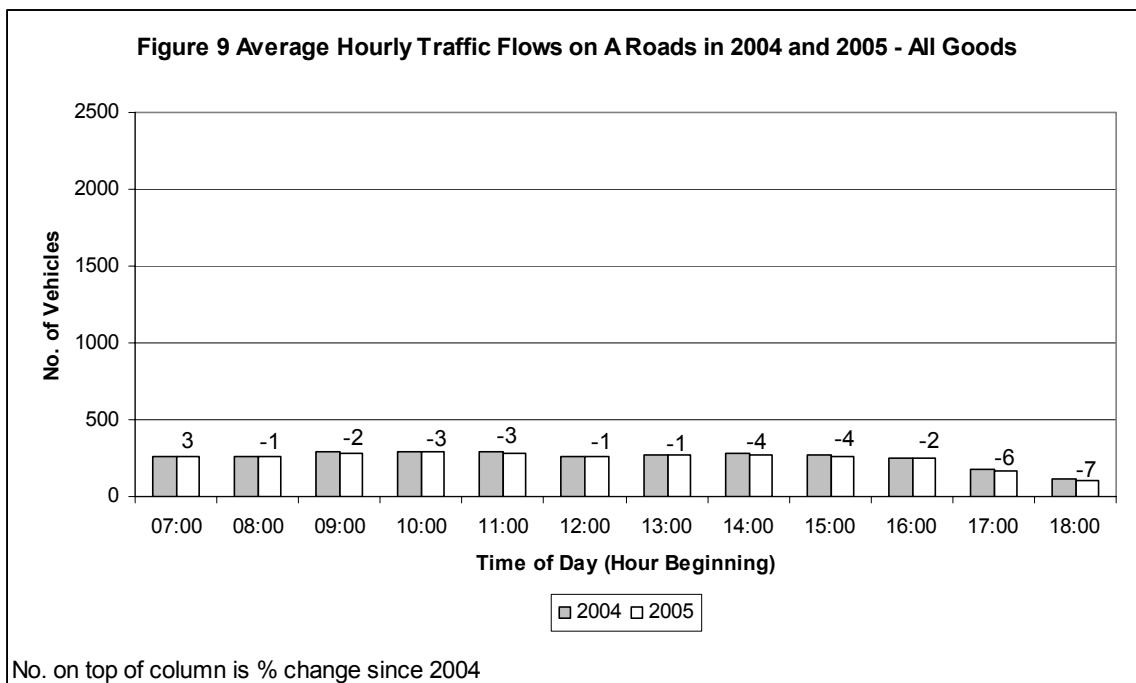
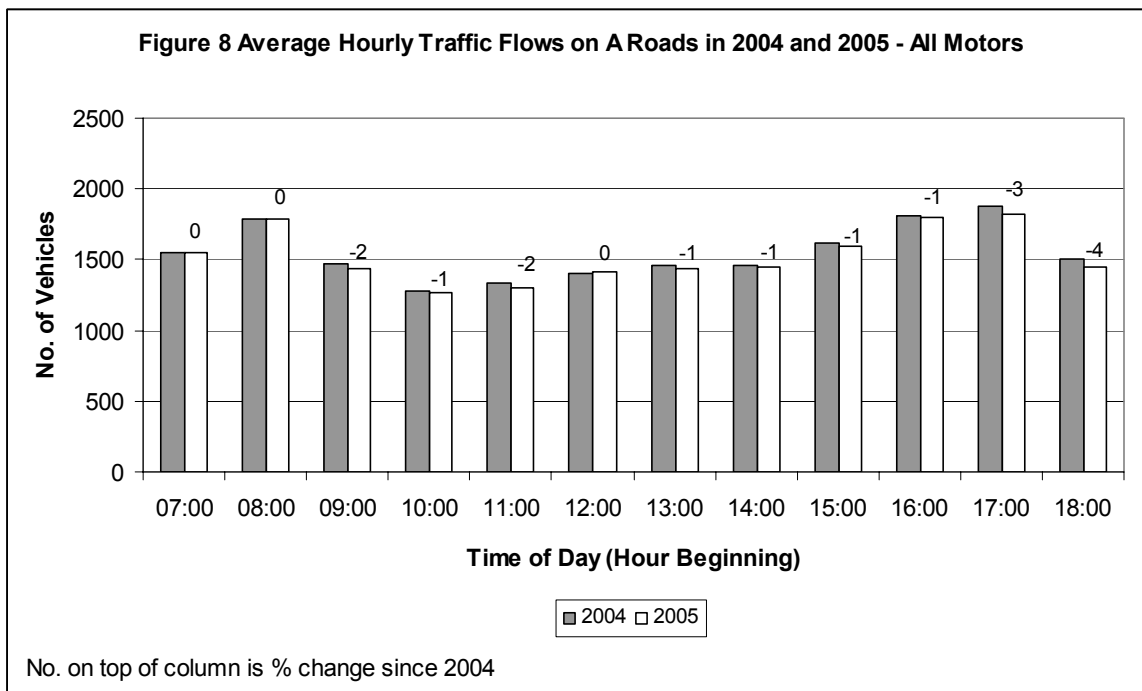
Monthly Traffic Flow Indices on Motorways in 2005

1.8 Monthly indices of 12 and 24-hour flows based on average monthly weekday flows at 34 motorway sites are given in Table 8 and illustrated in Figure 7.

Table 8 Average Monthly Traffic Flow Indices on Motorways in 2005		
Month	12 Hour Flow Average Month Index = 100	24 Hour Flow Average Month Index = 100
January	97	95
February	99	97
March	99	99
April	101	101
May	101	102
June	101	102
July	102	103
August	100	100
September	101	101
October	102	102
November	100	99
December	100	100

Note: Based on ATC data from 34 two-way motorway sites in 2005.





Peak Hour to Peak Period Ratios on A Roads

1.11 Table 11 shows peak hour to peak period traffic flow ratios for A Road links surveyed between 1990 and 2005.

Table 11 Ratio of Peak Hour to Peak Period Traffic for A Road Links 1990- 2005			
Year	Number of Sites	<u>08:00 – 09:00</u> <u>07:00 – 10:00</u>	<u>17:00 – 18:00</u> <u>16:00 – 19:00</u>
1990	185	0.39	0.37
1991	173	0.39	0.37
1992	180	0.40	0.37
1993	205	0.39	0.35
1994	196	0.39	0.37
1995	289	0.39	0.37
1996	185	0.39	0.37
1997	192	0.39	0.36
1998	225	0.38	0.36
1999	246	0.39	0.36
2000	239	0.38	0.37
2001	287	0.38	0.36
2002	255	0.38	0.36
2003	229	0.38	0.36
2004	204	0.37	0.36
2005	213	0.38	0.36

24-Hour Traffic Flow Profiles on A Roads in 2005

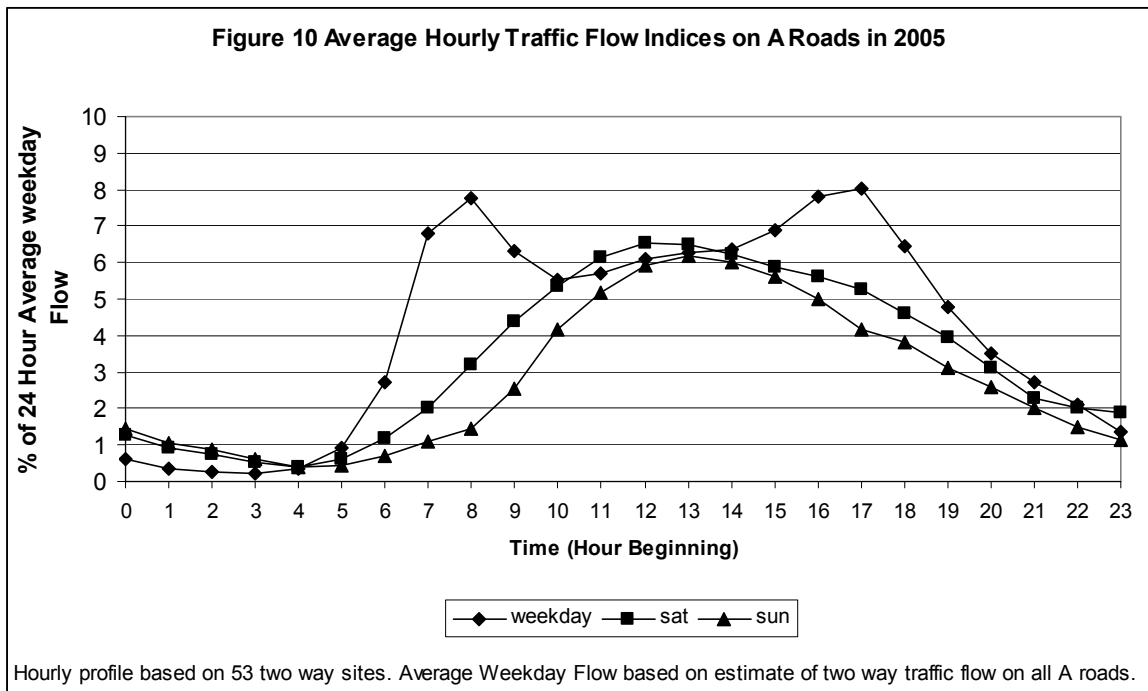
1.12 Table 12 gives profiles of hourly traffic flow based on automatic traffic counter data. Flows affected by bank and school holidays, roadworks and unusual events have been excluded from this analysis. Figure 10 shows the profiles expressed as a percentage of the 24-hour average weekday flow.

Table 12 Average Hourly Traffic Flow Indices on A Roads in 2005			
Hour Beginning	% of 24-Hour Flow Weekday	% of 24-Hour Flow Saturday	% of 24-Hour Flow Sunday
00:00	0.6	1.6	2.1
01:00	0.4	1.1	1.6
02:00	0.3	0.9	1.3
03:00	0.2	0.6	0.9
04:00	0.3	0.5	0.6
05:00	0.9	0.8	0.6
06:00	2.7	1.5	1.1
07:00	6.8	2.5	1.6
08:00	7.8	4.0	2.1
09:00	6.3	5.5	3.8
10:00	5.5	6.6	6.2
11:00	5.7	7.6	7.7
12:00	6.1	8.1	8.9
13:00	6.3	8.0	9.2
14:00	6.4	7.7	8.9
15:00	6.9	7.3	8.4
16:00	7.8	7.0	7.5
17:00	8.0	6.5	6.2
18:00	6.4	5.7	5.7
19:00	4.8	4.9	4.7
20:00	3.5	3.9	3.9
21:00	2.7	2.8	3.0
22:00	2.1	2.5	2.3
23:00	1.4	2.3	1.7

Notes:

Traffic flows are based on data from 53 two-way ATC sites on A roads throughout the county in 2005.

Percentages may not sum to 100 due to rounding.

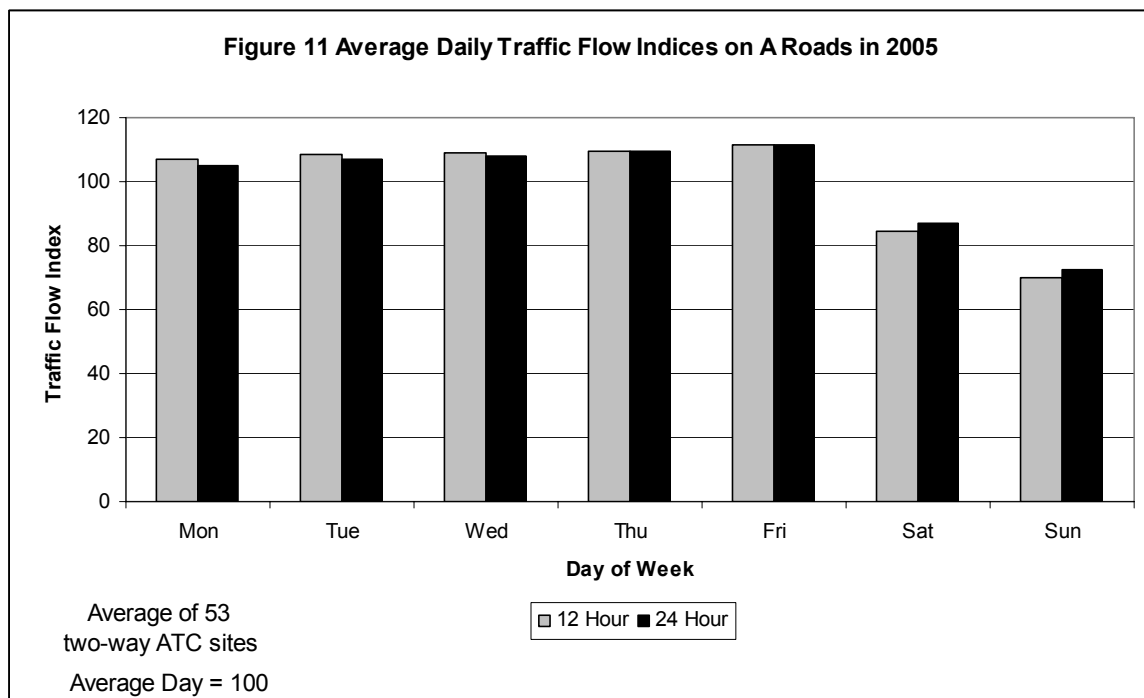


Daily Traffic Flow Indices on A Roads in 2005

1.13 Table 13 and Figure 11 show average daily traffic profiles on A roads.

Table 13 Average Daily Traffic Flow Indices on A Roads in 2005				
Day of Week	12-Hour Flow Average Weekday Index = 100	12-Hour Flow Average Day Index = 100	24-Hour Flow Average Weekday Index = 100	24-Hour Flow Average Day Index = 100
Monday	98	107	97	105
Tuesday	100	109	99	107
Wednesday	100	109	100	108
Thursday	100	110	101	109
Friday	102	111	103	111
Saturday	78	84	81	87
Sunday	64	70	67	72

Note: Indices are based on average flows at 53 two-way ATC sites on A roads throughout the county in 2005.



Daily Variation on A Roads by Time Period

1.14 Table 14 gives a more detailed breakdown of the variation in weekday flow in individual time periods.

Table 14 Average Traffic Flow Indices on A Roads in 2005 by Time Period								
Time of Day	Time Period	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Within the normal working day	07:00-10:00	99	101	101	100	99	47	25
	10:00-16:00	97	98	99	99	106	100	90
	16:00-19:00	99	101	101	102	98	71	60
	07:00-19:00	98	100	100	100	102	78	64
Peak periods	07:00-08:00	100	101	101	100	98	31	17
	08:00-09:00	99	100	101	101	99	43	19
	16:00-17:00	98	100	100	100	101	74	66
	17:00-18:00	100	101	101	102	96	68	54
Outside the normal working day	00:00-07:00 and 19:00-24:00	92	97	99	105	107	94	79
All Day	00:00-24:00	97	99	100	101	103	81	67

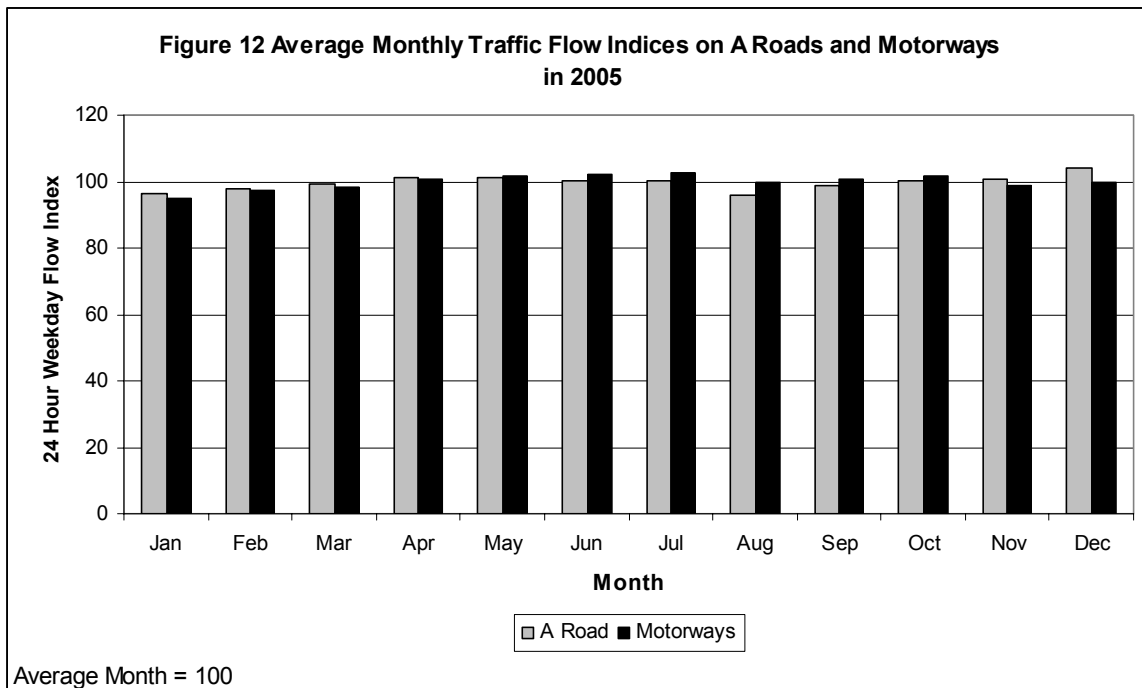
Note: Indices for each time period are based on an average weekday flow index of 100 for the time period.

Monthly Traffic Flow Indices on A Roads in 2005

1.15 Table 15 shows monthly traffic indices on A roads. Figure 12 compares 24-hour weekday monthly traffic profiles for motorways and A roads.

Table 15 Average Monthly Flow Indices on A Roads in 2005		
Month	12-Hour Flow Index Average Month = 100	24-Hour Flow Index Average Month = 100
January	98	97
February	99	98
March	100	99
April	101	101
May	101	101
June	100	100
July	100	100
August	95	96
September	99	99
October	101	100
November	101	101
December	103	104

Note: Indices are based on average monthly flows at 53 two-way ATC sites on A roads throughout the county.



B ROAD TRAFFIC**Traffic Growth on B Roads 2004-2005**

1.16 Table 16 shows the percentage changes by time period, in average traffic flows on 58 B road links between 2004 and 2005. The figures are based on manual classified counts undertaken throughout the county.

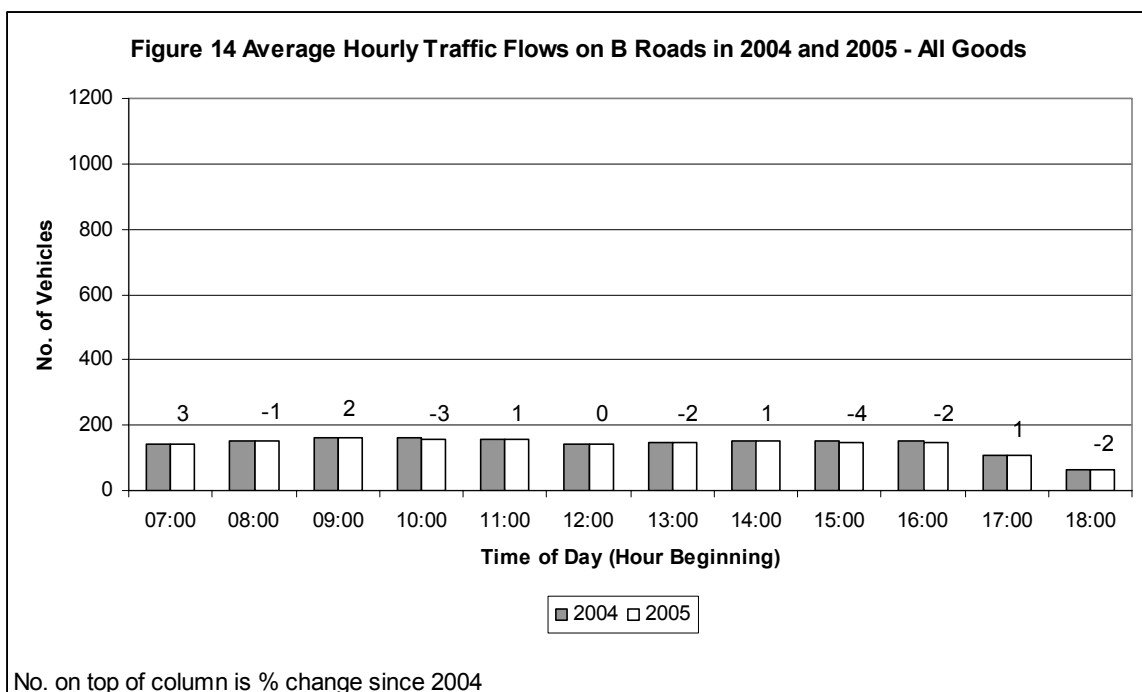
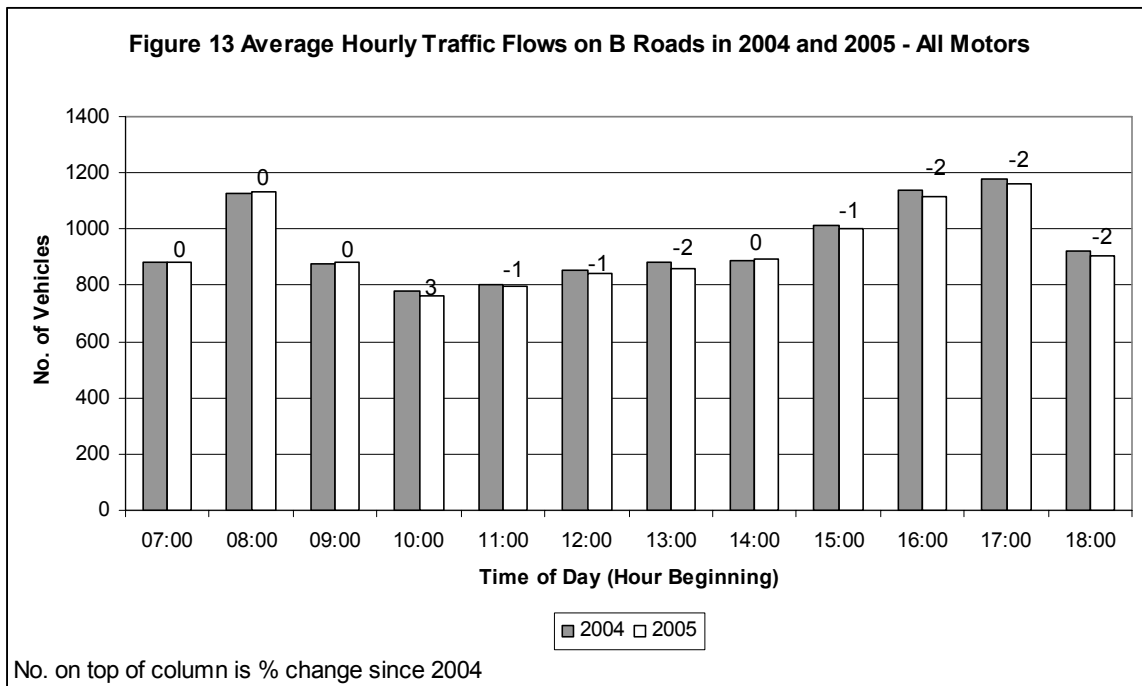
Time Period	Cars	LGV	OGV	Buses and Coaches	Motor Cycles	Pedal Cycles	All Motors
07:00-10:00	0	3	-3	2	0	10	0
10:00-16:00	-1	0	-5	-3	0	4	-1
16:00-19:00	-2	0	-7	-2	-4	17	-2
07:00-19:00	-1	1	-5	-2	-1	10	-1
08:00-09:00	0	0	-3	4	20	13	0
17:00-18:00	-2	2	-8	6	-11	22	-2

Changes in B Road Weekday Traffic Profiles 2004-2005

1.17 Table 17 shows average hourly traffic flows on 58 B road links in 2004 and 2005 together with the percentage change in flow since 2004. The all motors and all goods profiles are illustrated in Figures 13 and 14.

Start Hour	2004				2005			
	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors
07:00	717	114	26	884	709 (-1)	119 (4)	25 (-4)	880 (0)
08:00	947	123	30	1128	948 (0)	123 (0)	29 (-3)	1130 (0)
09:00	692	123	38	877	691 (0)	127 (3)	37 (-3)	881 (0)
10:00	599	122	39	782	585 (-2)	120 (-2)	36 (-8)	762 (-3)
11:00	624	118	38	802	617 (-1)	121 (3)	36 (-5)	795 (-1)
12:00	687	111	33	854	678 (-1)	112 (1)	32 (-3)	844 (-1)
13:00	711	113	35	882	693 (-3)	111 (-2)	34 (-3)	861 (-2)
14:00	714	115	35	889	716 (0)	119 (3)	33 (-6)	893 (0)
15:00	836	121	31	1015	829 (-1)	118 (-2)	28 (-10)	1004 (-1)
16:00	959	127	23	1139	940 (-2)	126 (-1)	21 (-9)	1117 (-2)
17:00	1048	94	12	1179	1029 (-2)	96 (2)	11 (-8)	1160 (-2)
18:00	835	59	7	922	821 (-2)	59 (0)	6 (-14)	905 (-2)
Total	9368	1341	345	11353	9256 (-1)	1351 (1)	328 (-5)	11231 (-1)

Note: The figures in brackets are the percentage changes between 2004 and 2005.



Peak Hour to Peak Period Ratios on B Roads

1.18 Table 18 shows peak hour and peak period traffic flow ratios for all B road links surveyed between 1990 and 2005.

Table 18 Ratio of Peak Hour to Peak Period Traffic for B Road Links 1990-2005			
Year	Number of Sites	<u>08:00 – 09:00</u> <u>07:00 – 10:00</u>	<u>17:00 – 18:00</u> <u>16:00 – 19:00</u>
1990	85	0.41	0.37
1991	100	0.41	0.37
1992	76	0.42	0.37
1993	84	0.41	0.35
1994	102	0.42	0.37
1995	75	0.41	0.37
1996	83	0.41	0.37
1997	94	0.41	0.37
1998	71	0.42	0.37
1999	87	0.41	0.37
2000	53	0.40	0.37
2001	76	0.40	0.37
2002	104	0.40	0.37
2003	101	0.40	0.36
2004	97	0.40	0.37
2005	68	0.39	0.36

MINOR ROAD TRAFFIC

Traffic Growth on Minor Roads 2004-2005

1.19 Table 19 shows the average percentage changes by time period, in average traffic flows on 83 minor roads between 2004 and 2005. The figures are based on manual classified counts undertaken throughout the county. The percentage changes in motor cycle and pedal cycle flows should be treated with caution since they are based on very low flows, which are subject to greater percentage variability than higher flows.

Table 19 Percentage Changes in Average Flows on 83 Minor Road Links Between 2004 and 2005							
Time Period	Cars	LGV	OGV	Buses and Coaches	Motor Cycles	Pedal Cycles	All Motors
07:00-10:00	-1	3	-8	7	25	0	-1
10:00-16:00	-1	-6	-4	0	0	8	-2
16:00-19:00	-4	-5	-10	0	-13	-7	-4
07:00-19:00	-2	-3	-6	-2	-5	0	-2
08:00-09:00	-3	3	-13	0	0	0	-3
17:00-18:00	-2	-3	0	2	0	0	-2

Changes in Minor Road Weekday Traffic Profiles 2004-2005

1.20 Table 20 shows average hourly traffic flows on 83 minor road links in 2004 and 2005 together with the percentage change in flow since 2004.

Table 20 Average Hourly Traffic Flows on 83 Minor Road Links in 2004 and 2005									
Start Hour	2004				2005				
	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	Cars	Light Goods Vehicles	Other Goods Vehicles	All Motors	
07:00	201	30	6	243	206 (2)	32 (7)	6 (0)	249 (2)	
08:00	340	37	8	392	329 (-3)	38 (3)	7 (-13)	381 (-3)	
09:00	229	35	9	279	229 (0)	36 (3)	9 (0)	279 (0)	
10:00	182	35	10	232	179 (-2)	31 (-11)	8 (-20)	223 (-4)	
11:00	194	35	9	242	190 (-2)	32 (-9)	8 (-11)	236 (-2)	
12:00	222	34	8	269	212 (-5)	33 (-3)	8 (0)	258 (-4)	
13:00	216	32	8	262	219 (1)	30 (-6)	9 (13)	264 (1)	
14:00	214	33	9	263	219 (2)	32 (-3)	9 (0)	265 (1)	
15:00	282	34	8	333	273 (-3)	34 (0)	8 (0)	322 (-3)	
16:00	309	37	6	360	305 (-1)	36 (-3)	5 (-17)	353 (-2)	
17:00	347	31	3	387	340 (-2)	30 (-3)	3 (0)	379 (-2)	
18:00	278	19	2	304	256 (-8)	18 (-5)	1 (-50)	280 (-8)	
Total	3014	393	86	3566	2956 (-2)	381 (-3)	81 (-6)	3489 (-2)	

Note: The figures in brackets are the percentage changes between 2004 and 2005.

COMPARISONS OF TRAFFIC AND GROWTH

Comparison of National and Local Growth in Traffic Flows 1984-2005

1.21 Indices of local and national growth in traffic flows are given in Table 21 and illustrated in Figures 15 and 16.

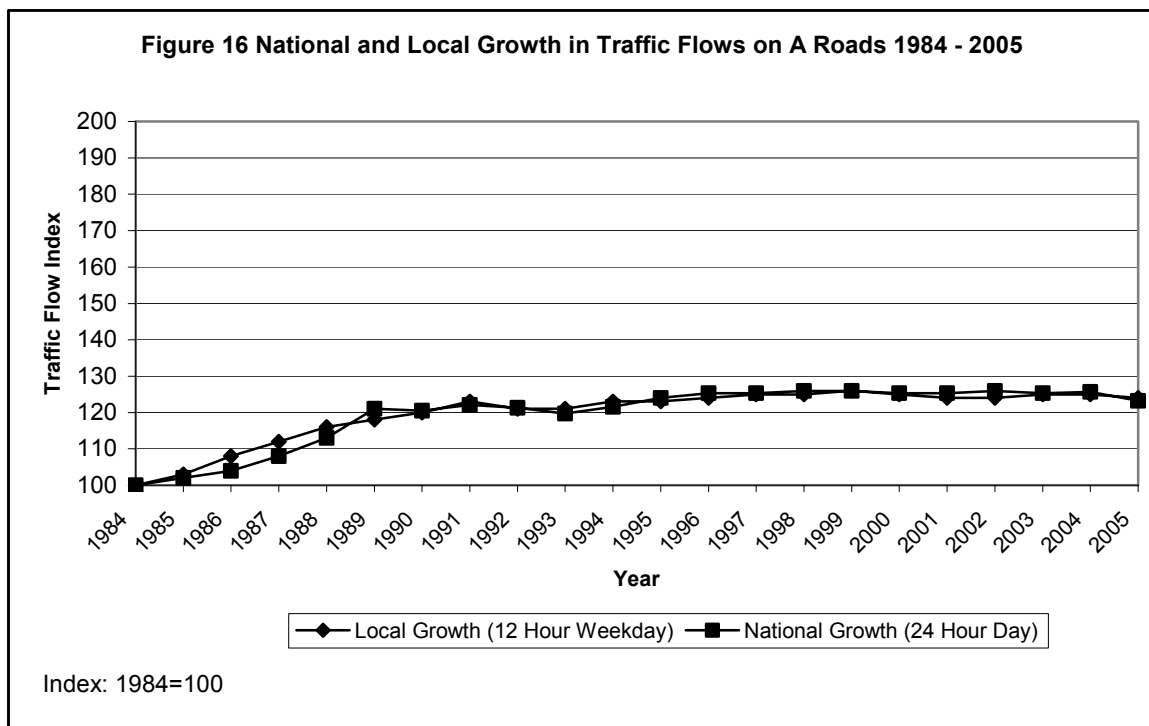
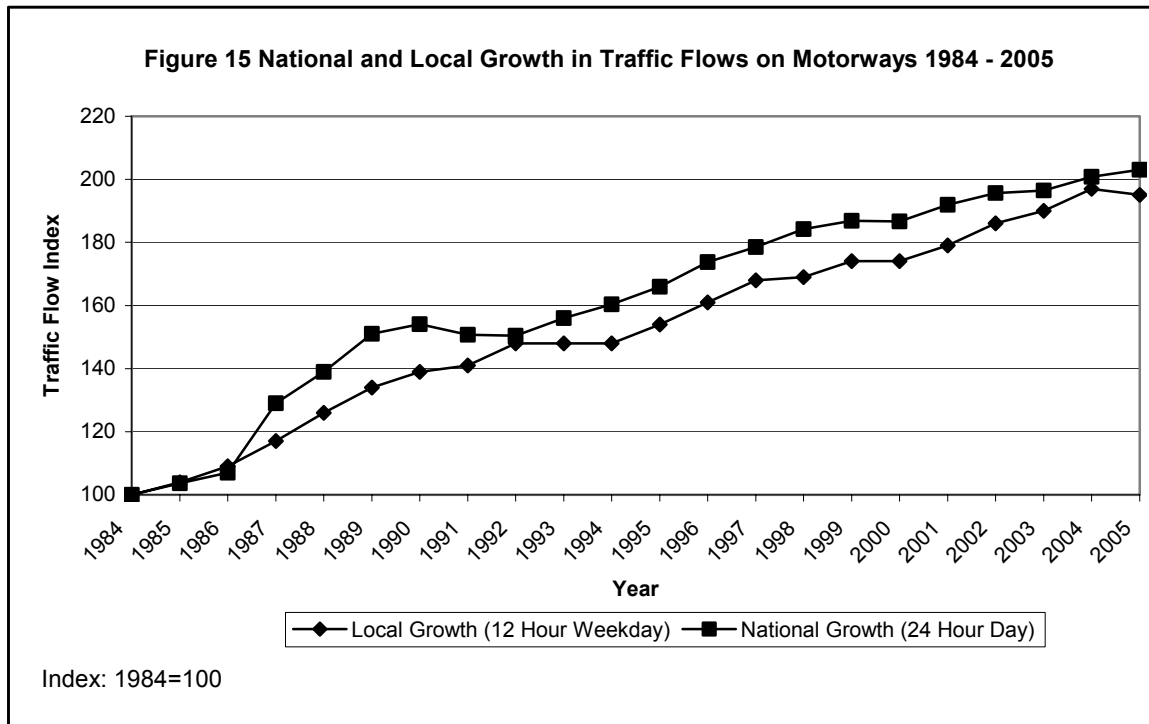
Table 21 Traffic Flow Indices for Local and National Motorways and A Roads, 1984-2005				
Year	Motorways		A Roads	
	Local	National	Local	National
1984	100	100	100	100
1985	104	104	103	102
1986	109	107	108	104
1987	117	129	112	108
1988	126	139	116	113
1989	134	151	118	121
1990	139	154	120	120
1991	141	151	123	122
1992	148	150	121	121
1993	148	156	121	120
1994	148	160	123	122
1995	154	166	123	124
1996	161	174	124	125
1997	168	179	125	125
1998	169	184	125	126
1999	174	187	126	126
2000	174	187	125	125
2001	179	192	124	125
2002	186	196	124	126
2003	190	197	125	125
2004	197	201	125	126
2005	195	203*	124	123*

Notes:

* Provisional Figures from Table 3 Traffic in Great Britain 4th Quarter 2005 DfT.

National figures are based on average 24-hour daily traffic flow data for Motorways and Major Urban A Roads published in Table 2.1 Road Traffic Statistics 2004 DfT. (Figures since 1993 have been revised).

Local figures are based on 12-hour average weekday flows on a sample of links throughout Greater Manchester.



Composition of Motorway, A Road, B Road and Minor Road Traffic 1999-2005

1.22 Table 22 shows the percentage composition of traffic on motorway, A road, B road and minor road links between 1999 and 2005. The percentage composition for 2005 is illustrated in Figure 17.

Table 22 Percentage Composition of Traffic on Motorway, A Road, B Road and Minor Road Links 07:00-19:00 Hours, 1999- 2005							
	Vehicle Type						
	Cars	LGV	OGV1	OGV2	Buses and Coaches	Motor Cycles	Pedal Cycles
Motorways							
1999	75.4	12.6	5.0 (45)	6.0 (55)	0.4	0.3	-
2000	74.8	13.0	5.1 (45)	6.3 (55)	0.4	0.3	-
2001	75.3	13.0	4.9 (45)	6.0 (55)	0.4	0.3	-
2002	75.3	13.3	4.7 (44)	6.0 (56)	0.4	0.3	-
2003	75.9	13.1	4.4 (43)	5.9 (57)	0.4	0.1	-
2004	74.4	13.8	4.6 (42)	6.5 (58)	0.4	0.1	-
2005	75.4	13.0	4.5 (41)	6.5 (59)	0.4	0.3	-
A Roads							
1999	80.6	11.7	3.1 (67)	1.5 (33)	2.0	0.6	0.7
2000	79.7	12.4	3.2 (67)	1.6 (33)	1.9	0.7	0.5
2001	80.4	11.8	3.0 (68)	1.4 (32)	2.2	0.7	0.5
2002	80.8	11.8	2.9 (68)	1.4 (32)	1.9	0.7	0.5
2003	81.2	11.7	2.8 (66)	1.4 (34)	1.7	0.7	0.4
2004	80.9	12.0	2.8 (65)	1.5 (35)	1.8	0.6	0.4
2005	80.7	12.2	2.8 (66)	1.4 (34)	1.8	0.6	0.4
B Roads							
1999	82.0	11.2	2.4 (73)	0.9 (27)	2.3	0.5	1.1
2000	81.9	11.6	2.4 (75)	0.8 (25)	2.2	0.6	0.7
2001	82.3	11.2	2.3 (77)	0.7 (23)	2.2	0.7	0.8
2002	83.1	10.8	2.0 (75)	0.7 (25)	2.0	0.7	0.8
2003	82.5	11.3	2.0 (74)	0.7 (26)	2.1	0.7	0.7
2004	82.2	11.4	2.1 (76)	0.7 (24)	2.3	0.6	0.7
2005	82.3	11.6	2.1 (72)	0.8 (28)	2.0	0.6	0.7
Minor Roads							
1999	83.3	10.3	2.1 (75)	0.7 (25)	1.8	0.5	1.4
2000	83.5	10.4	2.0 (77)	0.6 (23)	1.7	0.5	1.2
2001	82.8	10.8	2.1 (78)	0.6 (22)	1.8	0.6	1.2
2002	83.4	10.7	2.0 (75)	0.7 (25)	1.5	0.6	1.2
2003	84.3	10.3	1.8 (74)	0.6 (26)	1.4	0.6	1.0
2004	83.6	10.9	1.8 (74)	0.6 (26)	1.4	0.6	1.0
2005	84.1	10.7	1.7 (75)	0.6 (25)	1.4	0.6	1.0

Notes:

LGV = Light Goods Vehicles with 2 axles

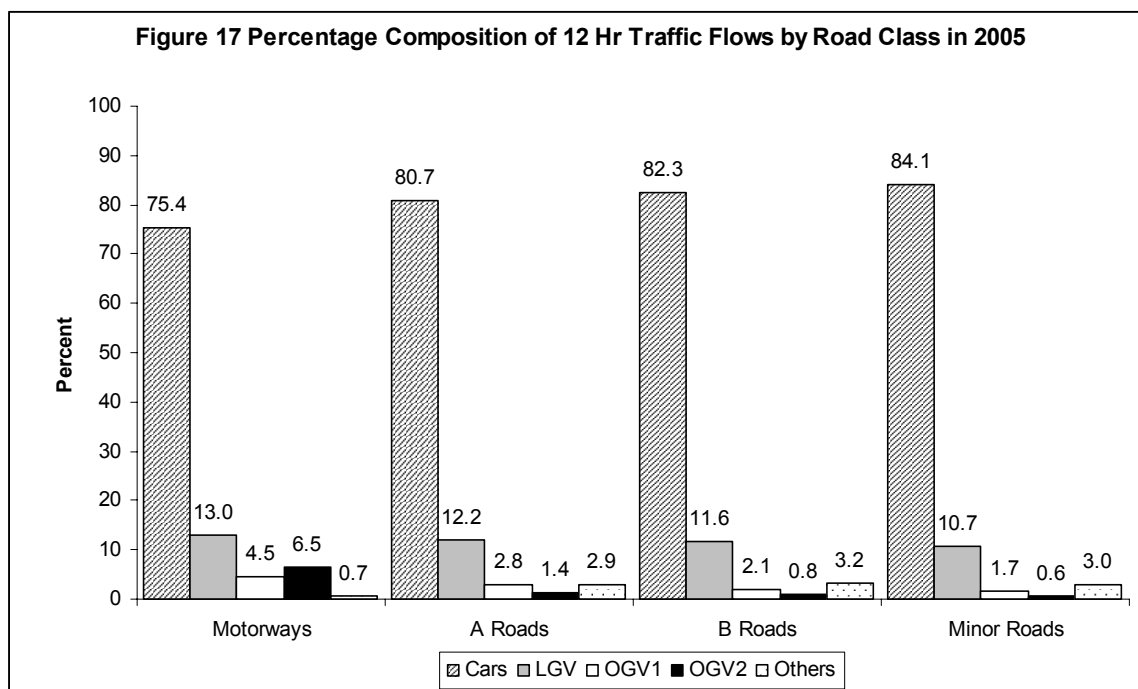
OGV1 = Medium Goods Vehicles with 2 axles and Heavy Goods Vehicles with 3 axles

OGV2 = Heavy Goods Vehicles with 4+ axles

Figures in parentheses are the percentage splits between OGV1 and OGV2.

OGV1 and OGV2 split is used in the DfT's cost benefit analysis program (COBA) and the Transport Economics Note (TEN).

Figures may not add to 100% due to rounding.

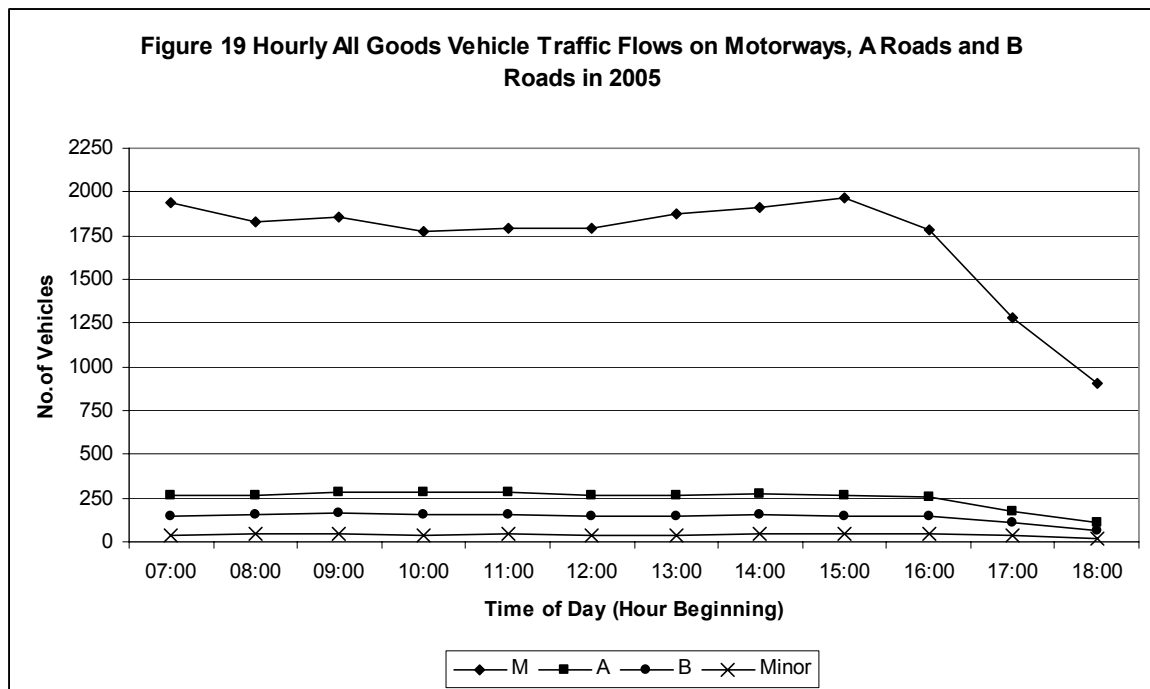
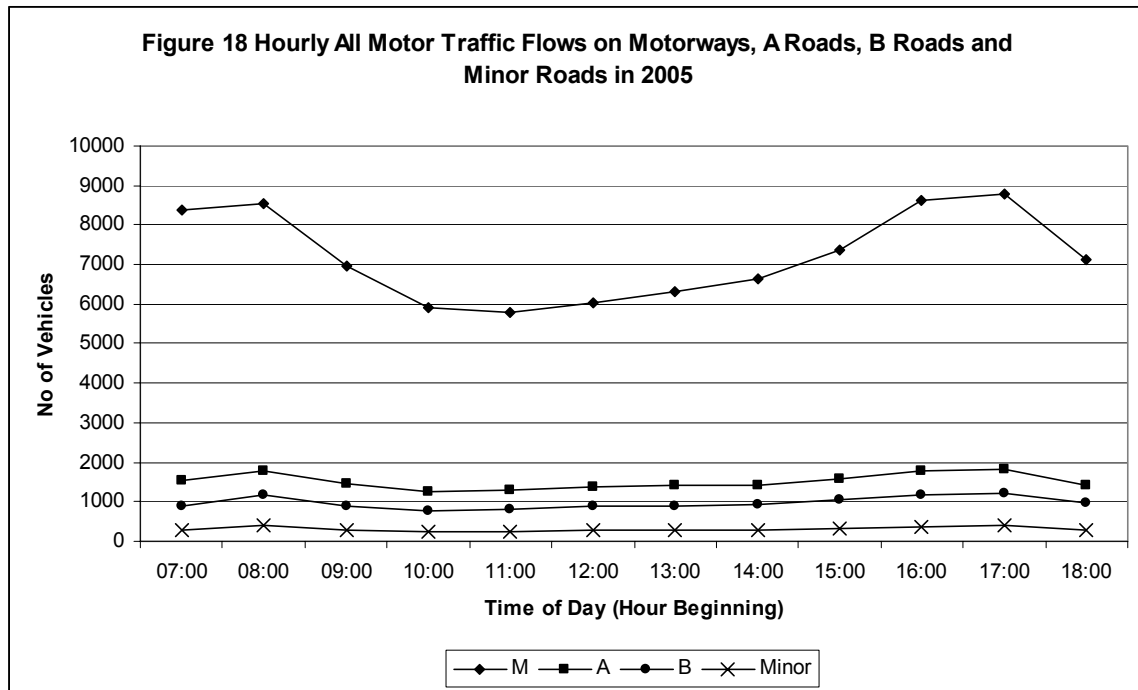


Average Hourly Flows on Motorways, A Roads, B Roads and Minor Roads in 2005

1.23 Table 23 shows average hourly flows in 2005 on 21 motorway, 213 A road, 68 B and 84 minor road links that were unaffected by roadworks. Table 24 shows the hourly traffic flows as a percentage of the 12-hour flow. All motors and all goods flows are illustrated in Figure 18 and 19.

Table 23 Average Hourly Traffic Flows on 21 Motorway, 213 A Road, 68 B Road and 84 Minor Road Links in 2005												
Start Hour	Motorways			A Roads			B Roads			Minor Roads		
	Cars	Goods	All Motors	Cars	Goods	All Motors	Cars	Goods	All Motors	Cars	Goods	All Motors
07:00	6382	1940	8370	1217	266	1524	722	146	895	223	39	268
08:00	6679	1827	8553	1477	267	1787	970	155	1156	346	46	400
09:00	5072	1857	6978	1125	282	1445	713	165	903	241	45	293
10:00	4082	1774	5901	939	285	1255	610	157	788	187	41	233
11:00	3941	1794	5771	976	284	1291	645	158	824	198	42	245
12:00	4189	1790	6021	1090	261	1382	718	147	886	221	41	268
13:00	4407	1875	6327	1122	266	1422	733	148	903	229	41	275
14:00	4681	1910	6642	1122	275	1434	755	154	935	229	42	277
15:00	5340	1966	7367	1263	268	1572	859	147	1035	282	43	334
16:00	6762	1782	8606	1484	253	1782	981	148	1158	318	42	369
17:00	7449	1278	8789	1601	173	1814	1068	109	1201	359	33	399
18:00	6189	903	7144	1291	108	1429	870	66	956	268	20	293
Total	65174	20696	86469	14708	2987	18138	9645	1698	11640	3102	476	3652

Table 24 Average Hourly Traffic Flows on 21 Motorway, 213 A Road, 68 B Road and 84 Minor Road Links in 2005 as a Percentage of 12-Hour Flow												
Start Hour	Motorways			A Roads			B Roads			Minor Roads		
	Cars	Goods	All Motors	Cars	Goods	All Motors	Cars	Goods	All Motors	Cars	Goods	All Motors
07:00	9.8	9.4	9.7	8.3	8.9	8.4	7.5	8.6	7.7	7.2	8.2	7.3
08:00	10.2	8.8	9.9	10.0	8.9	9.9	10.1	9.1	9.9	11.2	9.7	11.0
09:00	7.8	9.0	8.1	7.6	9.4	8.0	7.4	9.7	7.8	7.8	9.5	8.0
10:00	6.3	8.6	6.8	6.4	9.5	6.9	6.3	9.2	6.8	6.0	8.6	6.4
11:00	6.0	8.7	6.7	6.6	9.5	7.1	6.7	9.3	7.1	6.4	8.8	6.7
12:00	6.4	8.6	7.0	7.4	8.7	7.6	7.4	8.7	7.6	7.1	8.6	7.3
13:00	6.8	9.1	7.3	7.6	8.9	7.8	7.6	8.7	7.8	7.4	8.6	7.5
14:00	7.2	9.2	7.7	7.6	9.2	7.9	7.8	9.1	8.0	7.4	8.8	7.6
15:00	8.2	9.5	8.5	8.6	9.0	8.7	8.9	8.7	8.9	9.1	9.0	9.1
16:00	10.4	8.6	10.0	10.1	8.5	9.8	10.2	8.7	9.9	10.3	8.8	10.1
17:00	11.4	6.2	10.2	10.9	5.8	10.0	11.1	6.4	10.3	11.6	6.9	10.9
18:00	9.5	4.4	8.3	8.8	3.6	7.9	9.0	3.9	8.2	8.6	4.2	8.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Traffic Growth on A Roads and B Roads Combined 2004-2005

1.24 Table 25 shows the average traffic flows for cars, light goods, other goods and all motors in 2004 and 2005 for different time periods. The flows are based on a sample of 150 A and B road links throughout the county. The percentage changes between years are also shown.

Time Period	2004				2005							
	Cars	LGV	OGV	All Motors	Cars	%	LGV	%	OGV	%	All Motors	%
07:00-10:00	3292	507	164	4066	3272	-1%	517	2%	156	-5%	4048	0%
10:00-16:00	5712	1009	371	7267	5660	-1%	1008	0%	342	-8%	7185	-1%
16:00-19:00	3889	385	73	4446	3797	-2%	382	-1%	61	-16%	4338	-2%
07:00-19:00	12893	1901	608	15778	12729	-1%	1906	0%	559	-8%	15571	-1%
08:00-09:00	1278	168	53	1535	1277	0%	169	1%	50	-6%	1533	0%
17:00-18:00	1428	128	22	1611	1389	-3%	126	-2%	18	-18%	1566	-3%

Traffic Growth on A Roads and B Roads by District 2004-2005

1.25 Average traffic flows by district on A and B roads combined are shown in Table 26.

District and No. of Links Counted	2004				2005							
	Cars	LGV	OGV	All Motors	Cars	LGV	OGV	All Motors	Cars	LGV	OGV	All Motors
Bolton 20	15270	2419	814	18836	15259	(0)	2464	(2)	769	(-6)	18834	(0)
Bury 13	14148	1881	518	16926	13838	(-2)	1838	(-2)	456	(-12)	16536	(-2)
Manchester 15	13160	1776	514	16019	13114	(0)	1806	(2)	497	(-3)	15980	(0)
Oldham 15	9705	1555	537	12093	9592	(-1)	1513	(-3)	505	(-6)	11909	(-2)
Rochdale 16	12790	1891	634	15680	12540	(-2)	1931	(2)	552	(-13)	15392	(-2)
Salford 14	14960	2303	741	18364	14306	(-4)	2279	(-1)	708	(-4)	17655	(-4)
Stockport 14	16155	2120	661	19373	16047	(-1)	2127	(0)	594	(-10)	19212	(-1)
Tameside 14	10723	1724	621	13418	10545	(-2)	1772	(3)	561	(-10)	13192	(-2)
Trafford 12	12999	1758	531	15598	12947	(0)	1718	(-2)	470	(-11)	15440	(-1)
Wigan 17	9131	1470	446	11419	9122	(0)	1471	(0)	411	(-8)	11370	(0)
GM Ave 150	12893	1901	608	15778	12729	(-1)	1906	(0)	559	(-8)	15571	(-1)

Note: Percentage changes between 2004 and 2005 are shown in parentheses.

Annual Vehicle Kilometres on Motorways, A Roads and B Roads in 2005

1.26 Table 27 and Figure 20 show annual vehicle kilometres in Greater Manchester in 2005 by road class and vehicle type.

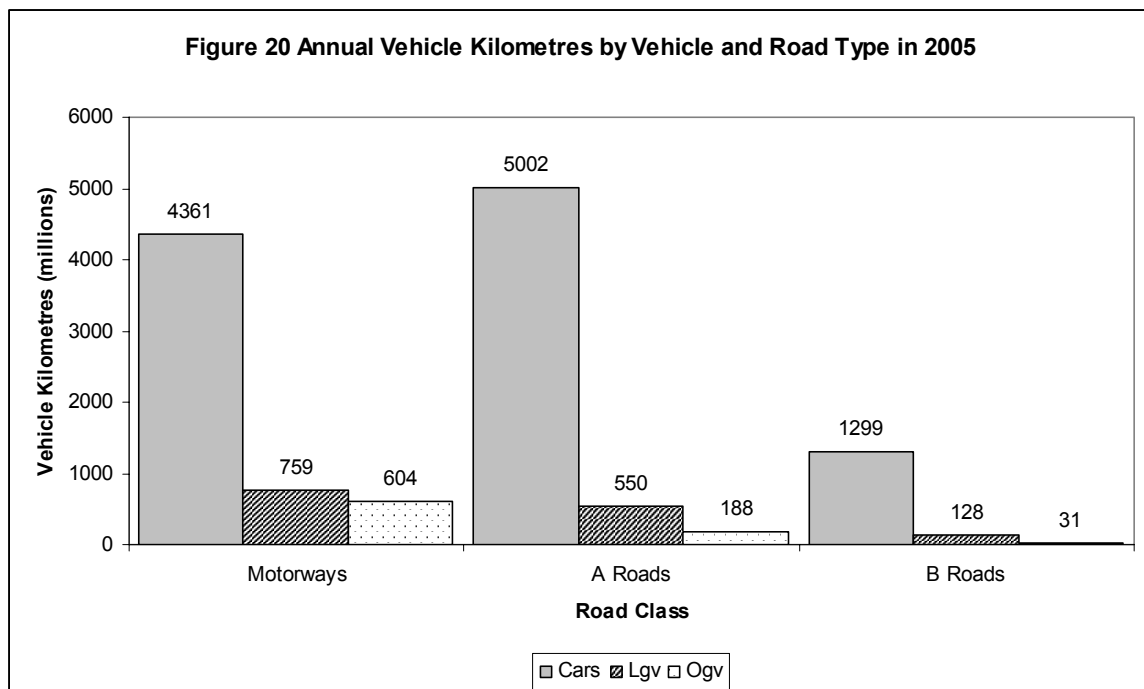
Table 27 Annual Vehicle Kilometres in 2005							
Road Type	Length	Vehicle Kilometres (Millions)					Annual Flow/Km (Millions)
		Car	LGV	OGV	All Goods	All Motors	
Motorway (incl A627(M))	171	4361	759	604	1362	5763	33.7
A Roads	861	5002	550	188	738	5858	6.8
B Roads	374	1299	128	31	159	1492	4.0
Motorways and A Roads	1032	9363	1309	792	2100	11621	11.3
Motorways, A and B Roads	1406	10662	1437	823	2259	13113	9.3

Notes:

These figures are based on manual classified link counts undertaken on each link of the network, factored to the current year (2005) where appropriate.

Road lengths are based on the link lengths of a model road network and may differ slightly from other sources, eg Greater Manchester Network Information System (GMNIS) and as quoted by DfT form R199b.

Minor roads are not included.



Annual Vehicle Kilometres on A Roads and B Roads by District in 2005

1.27 Tables 28 and 29 show annual vehicle kilometres and average daily flows per link on the A and B road network by district.

Table 28 Vehicle Kilometres on A Roads by District in 2005							
District	Length	Vehicle Kilometres (Millions)					Average Daily Flow/Km (7 day 24-hour)
		Car	LGV	OGV	All Goods	All Motors	
Bolton	101	614	71	21	92	719	19500
Bury	55	321	32	9	42	371	18500
Manchester	116	879	85	27	112	1017	24000
Oldham	98	388	45	16	61	459	12800
Rochdale	80	383	44	13	57	449	15400
Salford	87	584	68	26	94	691	21800
Stockport	84	561	53	18	72	642	20900
Tameside	65	308	37	14	51	367	15500
Trafford	58	367	39	14	52	426	20100
Wigan	117	597	75	29	104	716	16800
GM	861	5002	550	188	738	5858	18600

Note: These figures are based on annual average daily flow per link of the network. Figures for Oldham and Rochdale exclude A627(M).

Table 29 Vehicle Kilometres on B Roads by District in 2005							
District	Length	Vehicle Kilometres (Millions)					Average Daily Flow/Km (7 day 24-hour)
		Car	LGV	OGV	All Goods	All Motors	
Bolton	46	146	15	4	18	168	10000
Bury	33	91	8	2	10	103	8600
Manchester	36	153	14	3	17	177	13500
Oldham	30	82	9	3	12	96	8800
Rochdale	23	80	8	2	10	91	10800
Salford	29	99	10	2	12	114	10800
Stockport	36	149	15	3	17	170	12900
Tameside	32	104	12	3	15	121	10400
Trafford	52	189	16	4	20	213	11200
Wigan	56	207	22	6	28	240	11700
GM	374	1299	128	31	159	1492	10900

Trends in Greater Manchester Vehicle Kilometres on Motorways, A and B Roads 1991-2005

1.28 Table 30 shows trends in vehicle kilometres between 1991 and 2005

Table 30 Trends in Vehicle Kilometres (millions) 1991-2005 by Vehicle Type and Road Class											
Year	All					Motorways					
	Car	LGV	OGV	All	Index	Year	Car	LGV	OGV	All	Index
1991	8540	1000	1058	10804	100	1991	2583	392	632	3631	100
1992	8548	997	1023	10764	100	1992	2752	405	637	3818	105
1993	8784	1009	1016	10994	102	1993	2843	418	637	3925	108
1994	8904	1028	1052	11162	103	1994	2900	433	673	4025	111
1995	9160	1049	1038	11432	106	1995	3076	463	677	4245	117
1996	9362	1075	1013	11632	108	1996	3164	488	654	4335	119
1997	9482	1087	1038	11777	109	1997	3293	503	685	4510	124
1998	9554	1111	1002	11840	110	1998	3394	528	668	4620	127
1999	9720	1203	887	11997	111	1999	3449	577	611	4672	129
2000	9723	1270	857	12043	111	2000	3473	611	595	4716	130
2001	10104	1313	864	12482	116	2001	3909	678	621	5246	144
2002	10332	1364	853	12747	118	2002	4096	720	628	5482	151
2003	10409	1372	834	12807	119	2003	4133	721	612	5505	152
2004	10489	1434	867	12978	120	2004	4231	763	633	5665	156
2005	10662	1437	823	13113	121	2005	4361	759	604	5763	159
Year	A Roads					B Roads					
	Car	LGV	OGV	All	Index	Year	Car	LGV	OGV	All	Index
1991	4727	491	362	5721	100	1991	1230	117	64	1452	100
1992	4596	478	327	5534	97	1992	1200	114	59	1412	97
1993	4695	475	321	5618	98	1993	1246	116	58	1451	100
1994	4730	477	321	5655	99	1994	1274	118	58	1482	102
1995	4788	471	306	5687	99	1995	1296	115	55	1500	103
1996	4882	474	305	5780	101	1996	1316	113	54	1517	104
1997	4873	469	300	5751	101	1997	1316	115	53	1516	104
1998	4853	468	283	5715	100	1998	1307	115	51	1505	104
1999	4949	505	233	5804	101	1999	1322	121	43	1521	105
2000	4941	536	220	5819	102	2000	1309	123	42	1508	104
2001	4927	519	206	5779	101	2001	1268	116	37	1457	100
2002	4958	526	191	5800	101	2002	1279	118	34	1465	101
2003	4993	530	191	5834	102	2003	1282	121	32	1468	101
2004	4972	546	201	5834	102	2004	1287	126	33	1479	102
2005	5002	550	188	5858	102	2005	1299	128	31	1492	103

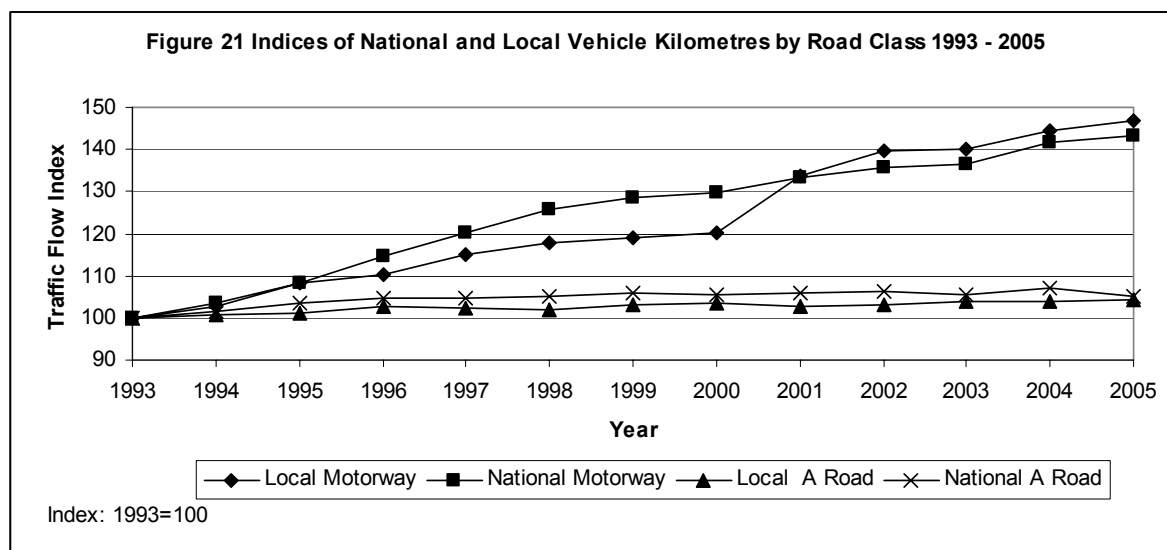
National and Local Vehicle Kilometres 1993 – 2005

Table 31 National and Local Vehicle Kilometres (millions) by Road Class 1993-2005								
	National Motorways	Index	National Major Urban Roads	Index	Local Motorways	Index	Local A Roads	Index
1993	68200	100	77300	100	3925	100	5618	100
1994	70700	104	78500	102	4025	103	5655	101
1995	73900	108	80100	104	4245	108	5687	101
1996	78300	115	80900	105	4335	110	5780	103
1997	82100	120	80900	105	4510	115	5751	102
1998	85700	126	81300	105	4620	118	5715	102
1999	87800	129	81900	106	4672	119	5804	103
2000	88400	130	81700	106	4716	120	5819	104
2001	90800	133	81800	106	5246	134	5779	103
2002	92600	136	82200	106	5482	140	5796	103
2003	93000	136	81700	106	5505	140	5834	104
2004	96600	142	82800	107	5665	144	5834	104
2005	97700	143	81200	105	5763	147	5858	104

Notes:

The indices in this table differ from traffic flow indices quoted elsewhere due to:

1. Different measurement methods ie local traffic flow indices are derived from a sample of 12-hour average weekday counts whereas local vehicle kilometre estimates are based on 24-hour AADT estimates on all links.
2. Increases in road length due to road building.
3. National Data 1993-2004 based on Table 1.2b Road Traffic Statistics GB 2004 (DfT)
National Data 2005 based on Table 3 Traffic in GB Q4 2005 (DfT)



KEY CENTRE MONITORING

Introduction to Key Centre Monitoring

- 2.1 Traffic and rail counts were conducted on a cordon around each of the 10 key centres in Greater Manchester in 1997. Since then, three or four centres have been surveyed annually with each centre being surveyed on a three yearly cycle to monitor progress towards key objectives in the Greater Manchester Local Transport Plan (GMLTP). Bolton, Ashton-under-Lyne, Oldham and Eccles were last surveyed in Spring 2004. Altrincham, Bury, Manchester and Rochdale were surveyed in 2005 and Wigan was surveyed in Spring 2006.
- 2.2 Stockport MBC allocates funds to monitor Stockport key centre annually as part of a performance monitoring programme, and an extra survey was undertaken in Autumn 2004 and the Spring 2006 survey brought forward to Autumn 2005 as part of that programme. Similarly, Manchester was surveyed in March 2006 as part of Manchester City Council's second local performance service agreement (LPSA2) and this has been used to provide a final year estimate for the first GMLTP programme.
- 2.3 Tables providing a summary of road traffic and modal share trends are presented here. It should be noted that CPS (Continuous Passenger Sampling) data has been used to estimate bus trips. This data is not designed to give an accurate picture of bus passenger at a local level but it is the only data available. Further details of the surveys conducted for each centre are shown in the Transport Statistics reports for the relevant districts.
- 2.4 The exact locations of the cordons and the extent of the areas they encompass have an influence on both the total volume of traffic and the relative proportions of each mode of travel. Therefore comparisons between centres should be treated with caution.

Bolton Key Centre

2.5 Table 32 gives the total traffic crossing the Bolton key centre cordon in 1997, 1998, 2001 and 2004 together with an index of change. Table 33 shows modal share of non-walk and cycle trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	7626	726	288	514	43	74	9274
	1998	7741	689	232	508	39	73	9284
	2001	7907	802	160	485	37	63	9454
	2004	7343	675	130	407	39	58	8652
	2004/1997	0.96	0.93	0.45	0.79	0.91	0.78	0.93
10:00-12:00	1997	6499	613	264	549	27	19	7981
	1998	6232	648	273	492	17	15	7688
	2001	6320	774	195	445	19	21	7774
	2004	5903	622	138	412	31	32	7138
	2004/1997	0.91	1.01	0.52	0.75	1.15	1.68	0.89
16:00-18:00	1997	6527	503	141	549	34	49	7803
	1998	5998	563	136	484	28	38	7248
	2001	6524	641	79	443	31	43	7761
	2004	4953	501	63	411	28	60	6016
	2004/1997	0.76	1.00	0.45	0.75	0.82	1.22	0.77

Time Period	Year	Car Trips		Bus Trips		Rail Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	10032	100	5029	100	452	100	15513	100	65	35
	1998	10168	101	4650	92	538	119	15356	99	66	34
	2001	10365	103	4442	88	429	95	15236	98	68	32
	2004	9326	93	3435	68	429	95	13190	85	71	29
10:00-12:00	1997	9492	100	5022	100	406	100	14920	100	64	36
	1998	9114	96	4068	81	488	120	13670	92	67	33
	2001	9210	97	3937	78	394	97	13541	91	68	32
	2004	8914	94	3173	63	396	98	12483	84	71	29
16:00-18:00	1997	8911	100	2003	100	798	100	11712	100	76	24
	1998	8182	92	2280	114	887	111	11349	97	72	28
	2001	8901	100	2036	102	1086	136	12023	103	74	26
	2004	6874	77	1536	77	882	111	9292	79	74	26

Bury Key Centre

2.6 Table 34 gives the total traffic crossing the Bury key centre cordon in 1997, 1999, 2002 and 2005 together with an index of change. Table 35 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	3960	328	146	248	10	32	4728
	1999	3714	333	86	240	16	41	4430
	2002	3733	293	69	237	23	18	4373
	2005	3493	331	105	204	20	43	4196
	2005/1997	0.88	1.01	0.72	0.82	2.00	1.34	0.89
10:00-12:00	1997	3551	332	149	265	13	15	4337
	1999	3504	357	105	240	9	11	4226
	2002	3914	374	107	255	15	7	4672
	2005	3551	394	86	222	9	21	4283
	2005/1997	1.00	1.19	0.58	0.84	0.69	1.40	0.99
16:00-18:00	1997	3424	190	70	247	22	25	3985
	1999	3076	232	34	238	15	31	3626
	2002	3264	220	43	222	17	14	3780
	2005	2976	239	15	184	9	19	3442
	2005/1997	0.87	1.26	0.21	0.74	0.41	0.76	0.86

Time Period	Year	Car Trips		Bus Trips		Metrolink Trips		Car + PT Trips		Modal Split	
		No.	Index	No.	Index	No.	Index	No.	Index	% Car	% PT
07:30-09:30	1997	5504	100	3088	100	508	100	9100	100	60	40
	1999	5162	94	2439	79	686	135	8288	91	62	38
	2002	5189	94	1817	59	746	147	7752	85	67	33
	2005	4681	85	2652	86	858	169	8191	90	57	43
10:00-12:00	1997	5149	100	2630	100	429	100	8208	100	63	37
	1999	5081	99	2575	98	573	134	8229	100	62	38
	2002	5675	110	2065	79	493	115	8233	100	69	31
	2005	4794	93	2422	92	513	120	7729	94	62	38
16:00-18:00	1997	5068	100	1143	100	807	100	7018	100	72	28
	1999	4552	90	956	84	874	108	6382	91	71	29
	2002	4831	95	970	85	772	96	6573	94	73	27
	2005	4256	84	1059	93	952	118	6267	89	68	32

Manchester Key Centre

2.7 Table 36 gives the total traffic crossing the Manchester key centre cordon in 1997, 1999, 2002, 2005 and 2006 together with an index of change. Table 37 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	27989	2004	815	1079	281	704	32872
	1999	29194	2255	730	1053	276	645	34154
	2002	25980	2201	469	985	290	509	30434
	2005	27139	2079	561	1000	277	562	31618
	2006	24968	2136	450	1019	231	435	28804
	2006/1997	0.89	1.07	0.55	0.94	0.82	0.62	0.88
10:00-12:00	1997	14312	2008	973	973	208	285	18759
	1999	14242	2137	842	1096	148	232	18697
	2002	13303	1999	615	1023	138	184	17262
	2005	12526	2067	607	1101	85	234	16620
	2006	13057	2085	500	1083	75	128	16800
	2005/1997	0.91	1.04	0.51	1.11	0.36	0.45	0.90

Time Period	Year	Car Trips		Bus Trips		Rail Trips		Metrolink Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	34426	100	20441	100	9699	100	5875	100	70441	100	49	51
	1999	35909	104	17771	87	13419	138	6319	108	73418	104	49	51
	2002	31955	93	20390	100	16612	171	6301	107	75258	107	42	58
	2005	32567	95	19939	98	16743	173	6556	112	75805	108	43	57
	2006	32958	96	20242	99	17950	185	6048	103	77198	110	43	57
10:00-12:00	1997	18892	100	10657	100	3618	100	2549	100	35716	100	53	47
	1999	18799	100	9801	92	5144	142	2737	107	36481	102	52	48
	2002	17560	93	10877	102	6287	174	2408	94	37132	104	47	53
	2005	16159	86	11106	104	6429	178	2451	96	36144	101	45	55
	2006	18541	98	12463	117	6938	192	2801	110	40743	114	46	54

Oldham Key Centre

2.8 Table 38 gives the total traffic crossing the Oldham key centre cordon in 1997, 1998, 2001 and 2004 together with an index of change. Table 39 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	5970	578	185	337	25	53	7148
	1998	6382	569	216	363	26	40	7597
	2001	5127	500	109	269	29	24	6058
	2004	6111	546	121	336	30	27	7171
	2004/1997	1.02	0.94	0.65	1.00	1.20	0.51	1.00
10:00-12:00	1997	4879	547	200	331	7	15	5979
	1998	4497	568	212	340	22	43	5723
	2001	3871	503	92	294	7	2	4769
	2004	4494	522	116	348	12	16	5508
	2004/1997	0.92	0.95	0.58	1.05	1.71	1.07	0.92
16:00-18:00	1997	4819	434	108	337	16	42	5756
	1998	4986	429	93	355	15	52	5930
	2001	4495	400	46	300	15	20	5276
	2004	4706	416	52	310	21	36	5541
	2004/1997	0.98	0.96	0.48	0.92	1.31	0.86	0.96

Time Period	Year	Car Trips		Bus Trips		Rail Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	7613	100	4349	100	79	100	12041	100	63	37
	1998	8156	107	3816	88	101	128	12073	100	68	32
	2001	6556	86	3560	82	105	133	10221	85	64	36
	2004	8005	105	3386	78	79	100	11470	95	70	30
10:00-12:00	1997	7196	100	4387	100	33	100	11616	100	62	38
	1998	7770	108	3844	88	42	127	11656	100	67	33
	2001	5682	79	3778	86	49	148	9509	82	60	40
	2004	6606	92	3100	71	24	73	9730	84	68	32
16:00-18:00	1997	6898	100	2055	100	106	100	9059	100	76	24
	1998	7132	103	2128	104	138	130	9398	104	76	24
	2001	6400	93	1923	94	232	219	8555	94	75	25
	2004	6824	99	1965	96	58	55	8847	98	77	23

Rochdale Key Centre

2.9 Table 40 gives the total traffic crossing the Rochdale key centre cordon in 1997, 1999, 2002 and 2005 together with an index of change. Table 41 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	3671	307	137	251	12	30	4378
	1999	3673	326	83	261	14	32	4357
	2002	3813	361	78	263	27	21	4542
	2005	3757	335	88	198	10	24	4412
	2005/1997	1.02	1.09	0.64	0.79	0.83	0.80	1.01
10:00-12:00	1997	3433	332	125	208	10	17	4108
	1999	3754	376	75	231	20	11	4456
	2002	3785	372	91	253	22	12	4523
	2005	3470	315	79	187	24	15	4090
	2005/1997	1.01	0.95	0.63	0.90	2.40	0.88	1.00
16:00-18:00	1997	3188	282	46	240	20	26	3776
	1999	3101	230	30	255	14	28	3630
	2002	3506	260	19	262	13	19	4060
	2005	3140	252	15	203	13	13	3636
	2005/1997	0.98	0.89	0.33	0.85	0.65	0.50	0.96

Time Period	Year	Car Trips		Bus Trips		Rail Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	4993	100	1821	100	80	100	6894	100	72	28
	1999	4995	100	1655	91	100	125	6750	98	74	26
	2002	5186	104	1527	84	104	130	6817	99	76	24
	2005	5110	102	2034	112	134	168	7278	106	70	30
10:00-12:00	1997	4978	100	1875	100	115	100	6968	100	71	29
	1999	5443	109	1446	77	74	64	6963	100	78	22
	2002	5488	110	1509	80	70	61	7067	101	78	22
	2005	4962	100	1464	78	84	73	6510	93	76	24
16:00-18:00	1997	4846	100	1324	100	215	100	6385	100	76	24
	1999	4714	97	1213	92	335	156	6262	98	75	25
	2002	5329	110	1219	92	441	205	6989	109	76	24
	2005	4679	97	1027	78	379	176	6085	95	77	23

Eccles Key Centre

2.10 Table 42 gives the total traffic crossing the Eccles key centre cordon in 1997, 2001 and 2004 together with an index of change. Table 43 shows modal share of car and public transport trips crossing the cordon for the same years.

Table 42 Eccles Key Centre Inbound Cordon Counts 1997, 2001 and 2004								
		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	2536	331	133	177	32	74	3283
	2001	1829	253	85	170	15	30	2382
	2004	1315	156	32	126	11	23	1663
	2004/1997	0.52	0.47	0.24	0.71	0.34	0.31	0.51
10:00-12:00	1997	2167	225	192	161	16	24	2784
	2001	1609	280	84	214	15	20	2222
	2004	1600	162	34	139	8	19	1962
	2004/1997	0.74	0.72	0.18	0.86	0.50	0.79	0.70
16:00-18:00	1997	2410	255	94	187	30	88	3064
	2001	1730	195	49	234	62	39	2309
	2004	1634	158	11	123	19	18	1963
	2004/1997	0.68	0.62	0.12	0.66	0.63	0.20	0.64

Table 43 Car and Public Transport Trips into Eccles Key Centre													
Time period	Year	Car Trips		Bus Trips		Rail Trips		Metrolink Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	3452	100	918	100	39	100	-	-	4409	100	78	22
	2001	2490	72	518	56	23	59	54	100	3086	70	81	19
	2004	1687	49	660	72	46	118	88	163	2481	56	68	32
10:00-12:00	1997	3181	100	1080	100	11	100	-	-	4272	100	74	26
	2001	2362	74	699	65	8	73	73	100	3142	74	75	25
	2004	2367	74	325	30	12	109	85	116	2789	65	85	15
16:00-18:00	1997	3782	100	546	100	37	100	-	-	4365	100	87	13
	2001	2715	72	370	68	43	116	166	100	3294	75	82	18
	2004	2392	63	441	81	54	146	221	133	3109	71	77	23

Stockport Key Centre

2.11 Table 44 gives the total traffic crossing the Stockport key centre cordon in 1997, 2000, 2003, 2004 and 2005 together with an index of change. Table 45 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	14068	1342	717	399	95	181	16802
	2000	14681	1758	430	408	111	160	17548
	2003	14234	1612	447	399	100	136	16928
	2004	13802	1620	452	385	118	133	16510
	2005	12915	1540	409	381	131	175	15551
	2005/1997	0.92	1.15	0.57	0.95	1.38	0.97	0.93
10:00-12:00	1997	9091	1308	826	406	50	55	11736
	2000	9837	1717	607	408	43	44	12656
	2003	9187	1453	546	372	50	38	11646
	2004	9444	1609	656	351	47	41	12148
	2005	8996	1490	503	392	72	66	11519
	2005/1997	0.99	1.14	0.61	0.97	1.44	1.20	0.98
16:00-18:00	1997	11295	1237	467	407	104	141	13651
	2000	11717	1358	265	408	99	104	13951
	2003	11113	1167	217	381	88	105	13071
	2004	11744	1309	273	363	106	107	13902
	2005	10973	1158	193	366	136	135	12961
	2005/1997	0.97	0.94	0.41	0.90	1.31	0.96	0.95

Time Period	Year	Car Trips		Bus Trips		Rail Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	17163	100	5044	100	836	100	23043	100	74	26
	2000	17911	104	4942	98	955	114	23808	103	75	25
	2003	17365	101	4633	92	613	73	22611	98	77	23
	2004	17391	101	4610	91	747	89	22748	99	76	24
	2005	16273	95	5822	115	1030	123	23125	100	70	30
10:00-12:00	1997	12364	100	4610	100	535	100	17509	100	71	29
	2000	13378	108	4986	108	410	77	18774	107	71	29
	2003	12494	101	4485	97	357	67	17336	99	72	28
	2004	13033	105	3817	83	356	43	17206	98	76	24
	2005	12414	100	4078	88	535	100	17027	97	73	27
16:00-18:00	1997	15022	100	2834	100	1049	100	18905	100	79	21
	2000	15584	104	2702	95	1032	98	19318	102	81	19
	2003	14780	98	3431	121	691	66	18902	100	78	22
	2004	15150	101	2987	105	997	95	19134	101	79	21
	2005	14923	99	2687	95	1166	111	18776	99	79	21

Ashton-under-Lyne Key Centre

2.12 Table 46 gives the total traffic crossing the Ashton key centre cordon in 1997, 1998, 2001 and 2004 together with an index of change. Table 47 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	6152	662	278	323	31	50	7496
	1998	5658	677	277	337	15	50	7014
	2001	6093	691	129	268	53	46	7280
	2004	6579	699	135	258	31	39	7741
	2004/1997	1.07	1.06	0.49	0.80	1.00	0.78	1.03
10:00-12:00	1997	4514	615	237	339	22	30	5757
	1998	4497	527	294	340	22	43	5723
	2001	4437	589	149	285	46	29	5535
	2004	5121	670	161	272	33	27	6284
	2004/1997	1.13	1.09	0.68	0.80	1.50	0.90	1.09
16:00-18:00	1997	4590	492	128	310	35	62	5617
	1998	4802	521	131	352	28	64	5898
	2001	4604	534	75	291	50	85	5639
	2004	5507	576	56	257	37	55	6488
	2004/1997	1.20	1.17	0.44	0.83	1.06	0.89	1.16

Time Period	Year	Car Trips		Bus Trips		Rail Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	8121	100	2666	100	40	100	10827	100	75	25
	1998	7469	92	2900	109	57	143	10426	96	72	28
	2001	8047	99	2145	80	49	123	10241	95	79	21
	2004	8355	103	2506	94	61	153	10922	101	76	24
10:00-12:00	1997	6906	100	3123	100	48	100	10077	100	69	31
	1998	6880	100	3632	116	31	65	10543	105	65	35
	2001	6783	98	2895	93	35	73	9713	96	70	30
	2004	7272	105	3316	106	44	92	10632	106	68	32
16:00-18:00	1997	7160	100	1651	100	126	100	8937	100	80	20
	1998	7491	105	1836	111	137	109	9464	106	79	21
	2001	7186	100	1602	97	161	128	8949	100	80	20
	2004	7930	111	1726	105	237	188	9893	111	80	20

Altrincham Key Centre

2.13 Table 48 gives the total traffic crossing the Altrincham key centre cordon in 1997, 1999, 2002 and 2005 together with an index of change. Table 49 shows modal share of car and public transport trips crossing the cordon for the same years.

		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	3972	334	142	147	9	88	4692
	1999	4308	321	145	150	19	71	5014
	2002	4491	421	103	134	21	71	5241
	2005	3534	343	88	109	17	79	4170
	2005/1997	0.89	1.03	0.62	0.74	1.89	0.90	0.89
10:00-12:00	1997	3516	341	167	134	21	89	4268
	1999	3512	417	196	157	11	78	4371
	2002	3339	468	129	112	13	50	4111
	2005	3015	403	106	101	14	59	3698
	2005/1997	0.86	1.18	0.63	0.75	0.67	0.66	0.87
16:00-18:00	1997	3517	289	96	132	16	68	4118
	1999	3563	245	75	135	20	59	4097
	2002	3487	278	52	124	23	39	4003
	2005	3150	249	22	98	12	44	3575
	2005/1997	0.90	0.86	0.23	0.74	0.75	0.65	0.87

Time Period	Year	Car Trips		Bus Trips		Rail & Metrolink Trips		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	5040	100	1469	100	1217	100	7726	100	65	35
	1999	5466	108	1769	120	1440	118	8675	112	63	37
	2002	5698	113	1135	77	1204	99	8037	104	71	29
	2005	4184	83	745	51	1347	111	6276	81	67	33
10:00-12:00	1997	4515	100	953	100	661	100	6129	100	74	26
	1999	4510	100	1174	123	519	79	6203	101	73	27
	2002	4288	95	827	87	356	54	5471	89	78	22
	2005	3836	85	608	64	317	48	4761	78	81	19
16:00-18:00	1997	4718	100	482	100	890	100	6090	100	77	23
	1999	4779	101	567	118	-	-	-	-	-	-
	2002	4678	99	370	77	649	73	5697	94	82	18
	2005	4169	88	401	83	677	76	5247	86	79	21

Wigan Key Centre

2.14 Table 50 gives the total traffic crossing the Wigan key centre cordon in 1997, 2000, 2003 and 2006 together with an index of change. Table 51 gives the total traffic inbound into Robin Park in 1997, 2000, 2003 and 2006. Table 52 shows modal share of car and public transport trips crossing the cordon for the same years.

Table 50 Wigan Key Centre Inbound Vehicles 1997, 2000, 2003 and 2006								
		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	2844	286	124	231	19	42	3546
	2000	2575	252	56	265	15	34	3197
	2003	2877	314	74	244	15	28	3552
	2006	2448	320	80	184	11	25	3068
	2006/1997	0.86	1.12	0.65	0.80	0.58	0.60	0.87
10:00-12:00	1997	3111	284	116	300	30	27	3868
	2000	2568	284	63	321	17	19	3272
	2003	2767	308	49	256	19	19	3418
	2006	2467	316	79	216	14	13	3105
	2006/1997	0.79	1.11	0.68	0.72	0.47	0.48	0.80
16:00-18:00	1997	2141	224	67	256	28	48	2764
	2000	1850	192	20	283	19	52	2416
	2003	2189	232	20	267	21	29	2758
	2006	1835	224	19	217	13	33	2341
	2006/1997	0.86	1.00	0.28	0.85	0.46	0.69	0.85

Table 51 Robin Park Inbound Vehicles 1997, 2000, 2003 and 2006								
		Cars	LGV	OGV	Buses	M/C	P/C	All
07:30-09:30	1997	442	64	33	2	4	6	551
	2000	693	58	25	8	5	13	802
	2003	931	78	23	8	7	21	1068
	2006	1011	85	13	4	1	8	1122
	2006/1997	2.29	1.33	0.39	2.00	0.25	1.33	2.04
10:00-12:00	1997	1040	96	45	2	3	4	1190
	2000	1672	105	35	19	9	5	1845
	2003	1853	105	43	10	9	16	2036
	2006	2099	117	40	14	3	3	2276
	2006/1997	2.02	1.22	0.89	7.00	1.00	0.75	1.91
16:00-18:00	1997	1245	67	20	1	4	6	1343
	2000	1659	80	12	9	14	12	1786
	2003	2047	108	18	10	11	21	2215
	2006	2042	127	11	11	11	2	2204
	2006/1997	1.64	1.90	0.55	11.00	2.75	0.33	1.64

Table 52 Car and Public Transport Trips into Wigan Key Centre and Robin Park											
Time Period	Year	Car Trips		Bus Trips		Rail		Car + PT Trips		Modal Split	
		No	Index	No	Index	No	Index	No	Index	% Car	% PT
07:30-09:30	1997	4305	100	2614	100	696	100	7615	100	57	43
	2000	4281	99	2216	85	773	111	7270	95	59	41
	2003	4988	116	1751	67	619	89	7358	97	68	32
	2006	4946	115	2294	88	558	80	7798	102	63	37
10:00-12:00	1997	6559	100	2727	100	650	100	9936	100	66	34
	2000	6699	102	1824	67	661	102	9184	92	73	27
	2003	7300	111	1369	50	317	49	8985	90	81	19
	2006	6895	105	1908	70	402	62	9205	93	75	25
16:00-18:00	1997	5316	100	971	100	675	100	6962	100	76	24
	2000	5509	104	763	79	601	89	6873	99	80	20
	2003	6651	125	540	56	782	116	7973	115	83	17
	2006	5350	101	808	83	611	91	6759	97	79	21

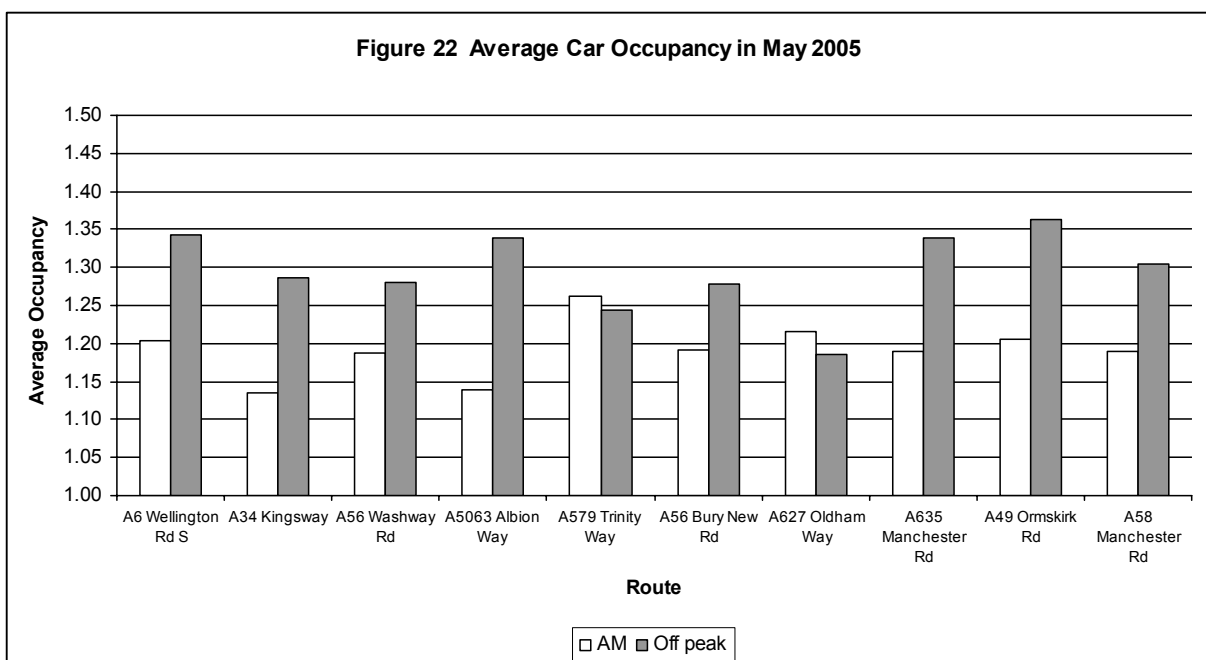
OTHER ROAD TRAFFIC STATISTICS

Car Occupancy

3.1 Car occupancy surveys were undertaken at ten monitoring sites throughout Greater Manchester in the years 1989 to 2000, and in 1984 and 2002 to 2005. Table 53 shows the results of these surveys for the AM peak hour (08:00-09:00) and the off-peak period (10:00-12:00) respectively. Figure 22 shows car occupancy at individual sites.

Table 53 Average Peak and Off-Peak Car Occupancy at 10 Sites in Greater Manchester				
Year	Average Occupancy		% Single Occupant	
	AM Peak (08:00-09:00)	Off-Peak (10:00-12:00)	AM Peak (08:00-09:00)	Off-Peak (10:00-12:00)
1984 (1)	1.31	-	76	-
1989 (2)	1.23	-	81	-
1990	1.24	-	81	-
1991	1.24	-	80	-
1992	1.24	-	80	-
1993	1.24	-	80	-
1994	1.23	1.40	81	69
1995	1.25	1.37	80	69
1996	1.23	1.30	81	74
1997	1.22	1.33	82	72
1998	1.22	1.32	83	73
1999	1.21	1.33	83	72
2000	1.22	1.36	83	71
2002	1.21	1.30	83	75
2004	1.18	1.27	85	76
2005	1.19	1.30	84	74

Notes: (1) based on 8 sites
 (2) Autumn surveys (all others in Spring)



Walking

- 3.2 Levels of walking are monitored in several ways for the Greater Manchester Local Transport Plan Walking Strategy.
- 3.3 Manual counts of pedestrian flows crossing a cordon of sites around each of the ten Key Centres began in 2001 to complement the surveys of travel by other modes of transport (see paragraph 2.1). The counts now form an integral part of the Key Centre Monitoring programme and are undertaken on the same three-year cycle. A summary of the pedestrian data collected in the morning and off-peak periods is shown in Tables 54 and 55.

Table 54 Key Centre Cordon Pedestrian Flows AM Peak Period (07:30-09:30)							
		2001	2002	2003	2004	2005	2006
Bolton	No	2220	-	-	2486	-	-
	Index	100	-	-	112	-	-
Bury	No	-	1796	-	-	1676	-
	Index	-	100	-	-	93	-
Manchester	No	-	5597	-	-	6023	7081
	Index	-	100	-	-	108	127
Oldham	No	1237	-	-	1359	-	-
	Index	100	-	-	110	-	-
Rochdale	No	-	1080	-	-	1256	-
	Index	-	100	-	-	116	-
Eccles	No	-	-	-	855	-	-
	Index	-	-	-	100	-	-
Stockport	No	-	-	1996	1771	2140	-
	Index	-	-	100	89	107	-
Ashton	No	2379	-	-	2550	-	-
	Index	100	-	-	107	-	-
Altrincham	No	-	1658	-	-	1855	-
	Index	-	100	-	-	112	-
Wigan	No	-	-	2194	-	-	2629
	Index	-	-	100	-	-	120

		2001	2002	2003	2004	2005	2006
Bolton	No	2191	-	-	2911	-	-
	Index	100	-	-	133	-	-
Bury	No	-	2558	-	-	2591	-
	Index	-	100	-	-	101	-
Manchester	No	-	3158	-	-	3852	3455
	Index	-	100	-	-	122	109
Oldham	No	2038	-	-	2463	-	-
	Index	100	-	-	121	-	-
Rochdale	No	-	1738	-	-	2151	-
	Index	-	100	-	-	124	-
Eccles	No	-	-	-	1826	-	-
	Index	-	-	-	100	-	-
Stockport	No	-	-	1507	1343	1782	-
	Index	-	-	100	89	118	-
Ashton	No	2735	-	-	2919	-	-
	Index	100	-	-	107	-	-
Altrincham	No	-	1985	-	-	1698	-
	Index	-	100	-	-	86	-
Wigan	No	-	-	3088	-	-	3690
	Index	-	-	100	-	-	119

3.4 Key Pedestrian Routes are routes where improvements for pedestrians are being focused and increases in walking levels are expected. Manual observations of pedestrian flows on a Key Pedestrian Route in each district are taken on one day every three years. Table 56 gives a summary of the data collected.

District	Route	Survey Month/Year	Pedestrian Flow*		
			07:30 - 09:30	12:00 - 14:00	15:00 - 18:00
Bolton	Moor Ln & Trinity St Total	Jul-02	531	895	1035
		Jul-05	469	891	973
Bury	Bolton St & Manchester Rd	Jul-05	540	1067	1047
Manchester	Medlock St	Jul-05	236	141	278
Oldham	King St & Union St Total	Jul-02	472	645	792
		Jul-05	396	885	1026
Rochdale	St Mary's Gate	Jul-05	203	395	423
Salford	Chapel St Bexley Sq & Sacred Trinity Total	Jul-02	670	510	972
		Jul-05	1026	738	1057
Stockport	Lancashire Hill two locations Total	Jul-03	523	961	937
Tameside	Penny Meadow & Mossley Rd Total	Jul-03	559	1040	1247
Trafford	Flixton Rd	Jul-05	292	823	676
Wigan	Wigan Ln & Standishgate Total	Jul-03	278	509	594

*More detailed results are available on request

- 3.5 Permanent automatic pedestrian counters (APC) have been installed in each District. The intention was to have one at a Key Pedestrian Route monitoring site and the other at a site on or within the Key Centre cordon but not all districts have identified suitable sites. These devices use a passive infra red (PIR) system to provide a count of pedestrians by time of day. They provide information on pedestrian movements by time of day and variations between weekdays, weekends and time of year together with long-term trends.
- 3.6 A summary of data collected in 2005 is shown in Table 57. Initial trend analysis based on one of the last three months in 2004 and 2005 (depending on data availability) is shown in Table 58.

Table 57 Key Pedestrian Route and Cordon Site Automatic Pedestrian Count (APC) Data 2005						
District	Location	Type	No of Days Data	24-Hour Average Flow (available data)		
				Weekday	Saturday	Sunday
Bolton	Trinity Street	R	259	1455	1036	581
Bury	Bolton Street	R	365	745	618	295
Bury	Market Street	C	359	2986	950	293
Manchester	Sackville Street	C	334	2106 [#]	616 [#]	522 [#]
Oldham	King St	R	365	1086	892	612
Oldham	Union St	C	365	685	512	295
Rochdale	St Mary's Gate	R	346	1642	1744	601
Rochdale	The Esplanade	C	271	1082	958	355
Salford	Chapel St	R	107	744	562	468
Salford	Church St, Eccles	C	107	652	555	301
Stockport	Lancashire Hill	R	365	270	249	164
Stockport	Daw Bank	C	347	1275	984	802
Tameside	Penny Meadow	C&R	365	2237	1402	1074
Trafford	Flixton Rd	R	107	2003	2835	552
Wigan	Wallgate	C	327	355	346	278
Wigan	Standishgate	R	244	436	461	215

Notes:

Data not available for 2005, 2004 data shown instead

C = Cordon site

R = Key Pedestrian Route

Table 58 Key Pedestrian Route and Cordon Site APC Data 2004 & 2005						
District	Route	Type	Month	24-Hour Average Daily Flow		
				2004	2005	2005/2004
Bolton	Trinity Street	R	Nov	1918	1477	0.77
Bury	Bolton Street	R	Dec	728	767	1.05
Bury	Market Street	C	Dec	2344	2051	0.88
Oldham	King St	R	Dec	933	905	0.97
Oldham	Union St	C	Dec	549	561	1.02
Rochdale	St Mary's Gate	R	Nov	1492	1603	1.07
Rochdale	The Esplanade	C	Nov	1148	1062	0.93
Stockport	Lancashire Hill	R	Dec	504	461	0.91
Stockport	Daw Bank	C	Nov	1025	1024	1.00
Tameside	Penny Meadow	C&R	Nov	2246	1890	0.84
Wigan	Wallgate	C	Nov	350	344	0.98
Wigan	Standishgate	R	Oct	331	336	1.02
Total				13568	12481	0.92

Notes:

C = Cordon site

R = Key Pedestrian Route

Cycle Flows on Major Roads

- 3.7 12-hour 2-way cycle flows on major road links in 2005 are presented in individual District reports.
- 3.8 By using the cycle flow on each link it has been possible to calculate an average cycle flow per link for each District. These averages, and the highest link flows in each District, are given in Table 59.

Table 59 Average and Highest Two-way Cycle Flows on A and B Roads in Each District, 2005				
District	Road Class	Average 12-hr Cycle Flow	Highest 12-hr Cycle Flow	Location of Highest Cycle Flow
Bolton	A	58	143	A6053 Bolton Rd Farnworth
	B	40	110	B6206 Higher Bridge St Bolton
Bury	A	72	256	A58 Bolton St Bury
	B	43	116	B6213 Crostons Rd Bury
Manchester	A	147	578	A34 Oxford Rd Manchester City Centre
	B	214	771	B5117 Oxford Rd Higher Education Precinct
Oldham	A	45	118	A62 Oldham Rd Failsworth
	B	35	93	B6393 Greengate Chadderton
Rochdale	A	54	120	A664 Rochdale Rd Middleton
	B	41	93	B6223 Drake St Rochdale
Salford	A	82	228	A6 Chapel St Salford
	B	90	279	B5211 Redclyffe Rd Trafford Park
Stockport	A	78	232	A560 Stockport Rd Cheadle
	B	87	187	B5169 Broadstone Rd Heaton Chapel
Tameside	A	61	173	A6017 Stockport Rd Guide Bridge
	B	44	117	B6390 Audenshaw Rd Audenshaw
Trafford	A	137	314	A56 Chester Rd Stretford
	B	130	498	B5218 Chorlton Rd Old Trafford
Wigan	A	60	209	A49 Wallgate Wigan
	B	49	130	B5207 Church Ln Lowton
Greater Manchester	A	84	578	A34 Oxford Rd Manchester City Centre
	B	86	771	B5117 Oxford Rd Higher Education Precinct

Automatic Cycle Counts

- 3.9 GMTU have operated Automatic Cycle Counters (ACC) at a variety of on-road and off-road locations throughout Greater Manchester since 2001. Data from these are used to monitor the LTP, local strategies and transport schemes. By 2005 there were 59 operational sites.
- 3.10 These sites have been divided into those with a higher weekday than weekend flow (commuting) and a higher weekend than weekday flow (leisure).
- 3.11 Average pedal cycle flows in 2005 for the 47 "commuting" sites and 12 "leisure" sites are shown in Table 60. Indices of changes in pedal cycle flows between 2002 and 2005 based on an equivalent set of sites in adjacent years are shown in Table 61. The two sets of sites have different hourly, daily and monthly profiles as can be seen in Tables 62 to 67.
- 3.12 Details of individual sites and cycle flows can be found in the respective Transport Statistics Reports for districts.

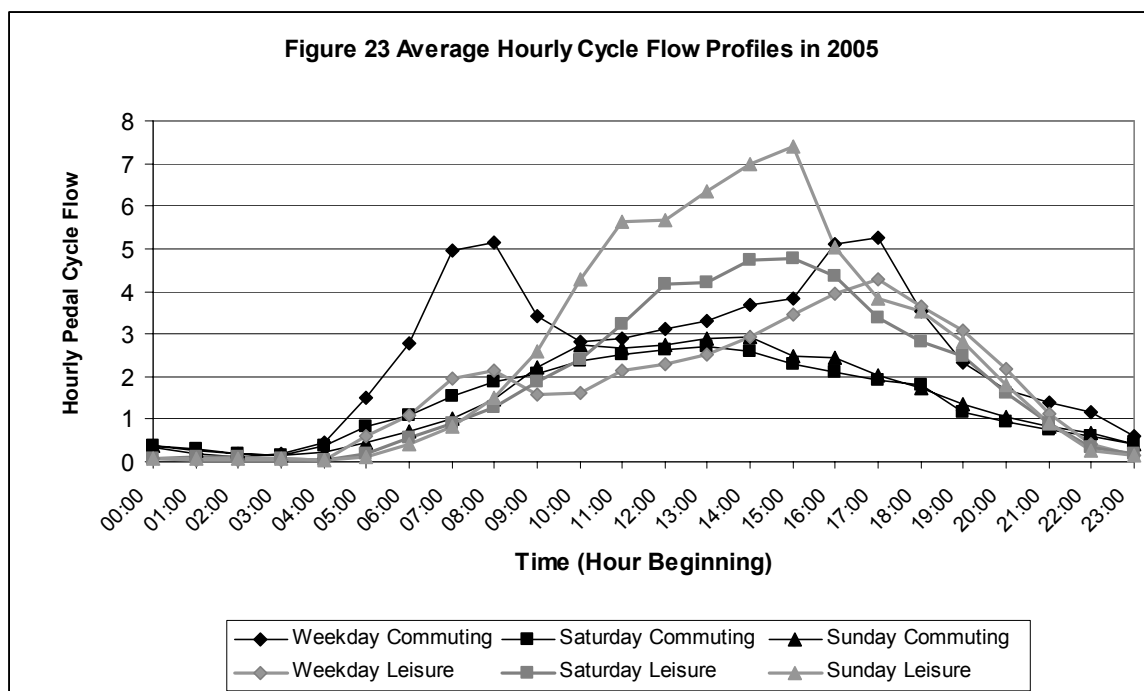
Table 60 Average Pedal Cycle Flows 2005				
	24-Hour Average Cycle Flows			
	Weekday	Saturday	Sunday	Daily
Commuting (47 sites)	60	34	34	52
Leisure (12 sites)	41	45	60	45
All (59 sites)	56	36	39	51

Table 61 Pedal Cycle Flow Changes 2002-2005				
All	24-Hour Cycle Flow Indices (2002 Index=100)			
	2002	2003	2004	2005
Average Weekday	100	97	95	98
Average Saturday	100	98	91	93
Average Sunday	100	103	100	99
Average Daily	100	98	95	97
<i>Number of Sites</i>		21	24	36
"Commuting"				
Average Weekday	100	97	95	98
Average Saturday	100	98	91	93
Average Sunday	100	103	100	100
Average Daily	100	98	95	98
<i>Number of Sites</i>		20	22	33
"Leisure"				
Average Weekday	100	95	87	84
Average Saturday	100	100	95	96
Average Sunday	100	109	105	98
Average Daily	100	98	91	88
<i>Number of Sites</i>		1	2	3

Note: Calculation for growth index = (Ave flow in given year/Ave flow in previous year (at the same sites))*Index for previous year

Table 62 Average Hourly Profile at ACC "Commuting" Sites in 2005			
Hour Beginning	% of 24-hr Flow Weekday	% of 24-hr Flow Saturday	% of 24-hr Flow Sunday
00:00	0.6	1.1	1.1
01:00	0.3	0.9	0.8
02:00	0.2	0.5	0.5
03:00	0.3	0.5	0.4
04:00	0.8	1.1	0.7
05:00	2.5	2.4	1.3
06:00	4.6	3.2	2.1
07:00	8.3	4.5	3.0
08:00	8.6	5.6	4.4
09:00	5.7	6.1	6.5
10:00	4.7	7.1	8.0
11:00	4.8	7.5	7.9
12:00	5.2	7.9	8.0
13:00	5.5	8.0	8.5
14:00	6.1	7.7	8.6
15:00	6.4	6.8	7.3
16:00	8.5	6.3	7.1
17:00	8.8	5.7	6.0
18:00	5.9	5.4	5.0
19:00	3.9	3.5	4.0
20:00	2.8	2.8	3.1
21:00	2.3	2.2	2.4
22:00	2.0	1.8	1.9
23:00	1.0	1.3	1.2

Note: based on 47 sites



Hour Beginning	% of 24-hr Flow Weekday	% 24-hr Flow Saturday	% 24-hr Flow Sunday
00:00	0.2	0.2	0.1
01:00	0.1	0.3	0.1
02:00	0.1	0.2	0.1
03:00	0.1	0.2	0.1
04:00	0.1	0.1	0.1
05:00	1.4	0.5	0.2
06:00	2.6	1.2	0.7
07:00	4.7	2.0	1.4
08:00	5.2	2.8	2.5
09:00	3.8	4.2	4.3
10:00	3.9	5.3	7.1
11:00	5.2	7.2	9.3
12:00	5.5	9.3	9.4
13:00	6.1	9.4	10.5
14:00	7.1	10.6	11.5
15:00	8.3	10.6	12.3
16:00	9.6	9.7	8.3
17:00	10.3	7.5	6.4
18:00	8.8	6.3	5.8
19:00	7.5	5.5	4.6
20:00	5.2	3.6	3.0
21:00	2.8	2.0	1.5
22:00	1.0	0.8	0.5
23:00	0.4	0.4	0.3

Note: based on 12 sites

Table 64 Daily Indices at ACC “Commuting” Sites in 2005		
Day of Week	24-hr Average Weekday Index=100	24-hr Average Day Index=100
Monday	99	112
Tuesday	106	120
Wednesday	103	117
Thursday	100	114
Friday	92	105
Saturday	57	65
Sunday	59	66

Note: based on 47 sites

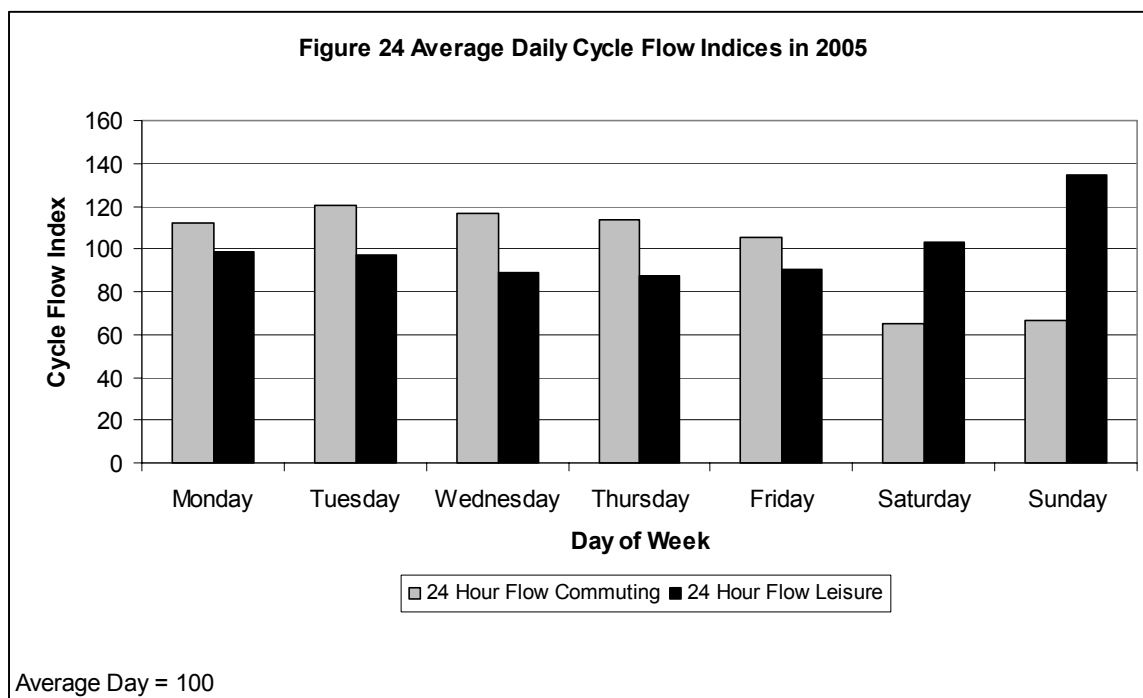


Table 65 Daily Indices at ACC “Leisure” Sites in 2005		
Day of Week	24-hr Average Weekday Index=100	24-hr Average Day Index=100
Monday	107	99
Tuesday	105	97
Wednesday	97	89
Thursday	94	87
Friday	98	90
Saturday	113	103
Sunday	148	134

Note: based on 12 sites

Table 66 Monthly Indices at ACC “Commuting” Sites in 2005		
Month	24-hr Ave Weekday Index=100	24-hr Ave Day Index=100
January	85	84
February	94	92
March	96	97
April	106	107
May	105	105
June	116	117
July	114	118
August	100	104
September	114	116
October	103	102
November	94	92
December	74	73

Note: based on 43 sites

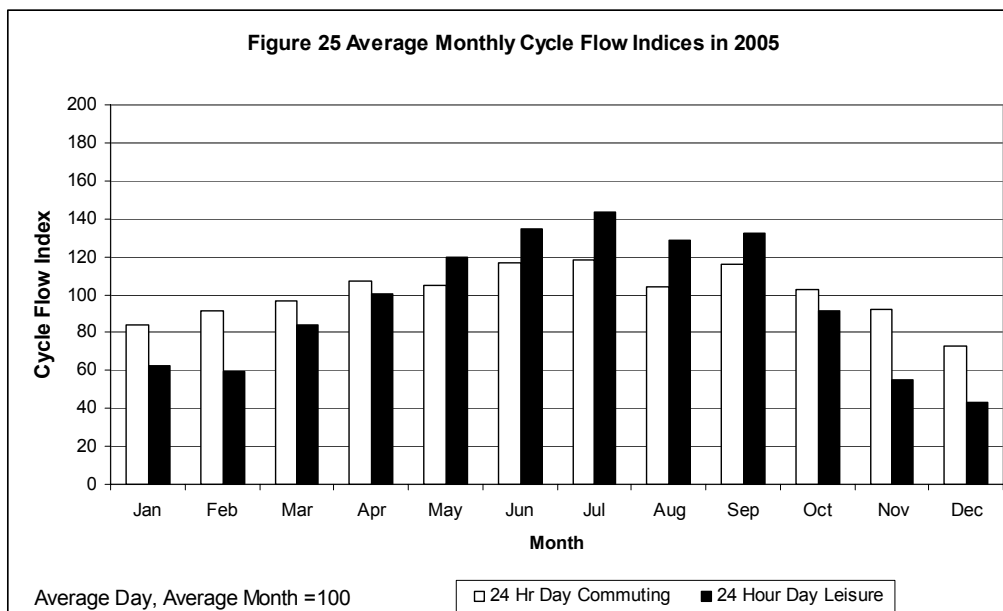


Table 67 Monthly Indices at ACC “Leisure” Sites in 2005		
Month	24-hr Ave Weekday Index=100	24-hr Ave Day Index=100
January	61	62
February	61	60
March	82	84
April	90	100
May	125	119
June	141	134
July	134	144
August	139	129
September	127	133
October	90	91
November	55	55
December	46	43

Note: based on 8 sites.

Carriage of Cycles on Trains

3.13 Table 68 compares the number of cycles carried on trains in 2003, 2004 and 2005. The numbers relate to cycles carried by passengers boarding and alighting trains on a single day in November between 07:30 and 13:30 at 42 of the busiest stations where GMTU surveys patronage every year.

Table 68 Cycles Carried on Trains (Single Day 07:30 to 13:30) 2003 - 2005							
Corridor	No of Stations	2003		2004		2005	
		B	A	B	A	B	A
Wigan & Bolton	8	23	14	30	26	28	27
Rochdale & Oldham	4	6	14	7	12	10	8
Ashton	4	12	2	6	5	3	3
Marple & Glossop	10	21	18	31	18	28	11
Stockport & Hazel Grove	8	31	26	23	21	32	21
Manchester Airport	5	5	2	5	5	5	3
Irlam	2	4	4	6	7	8	3
Eccles	1	1	0	1	1	0	1
Total	42	103	80	109	95	114	77

Notes: B = Boarders A = Alighters

Road Traffic Indicators for Greater Manchester

3.14 Tables 69 and 70 show road traffic indicators for the road traffic reduction element of the Local Transport Plan.

Table 69 Road Traffic Indicators for Greater Manchester and Regional Centre – Peak Hour and Daily											
		Base Year	1998	1999	2000	2001	2002	2003	2004	2005	2006
Greater Manchester ¹	Peak Hour	1997	-	100	100	97	96	96	94	94	-
Regional Centre ²		1997	-	101	-	-	83	-	-	89	81
Greater Manchester ¹	Daily ³	1997	-	100	101	100	101	102	102	101	-
Regional Centre ²		1997	-	100	-	-	92	-	-	86	89

Notes:

1. Traffic Flows on A and B roads.
2. Traffic entering cordon around centre.
3. Figures for Greater Manchester are 07:00-19:00 and for Regional Centre are 10:00-12:00.
4. Indicator for base year is 100.

Table 70 Road Traffic Indicators for Other Key Centres – Peak Hour and Daily									
Area		Base Year	1998/00	1999/01	2000/02	2001/03	2002/04	2003/05	2004/06
Other Key Centres ²	Peak Hour	1997	100	99	99	98	99	97	94
	Daily ¹	1997	101	97	97	96	99	98	95

Notes:

1. Daily figures are 10:00-12:00.
2. Each Key Centre is monitored every third year and three or four centres are surveyed each year. The indicators for the Other Key Centres are determined by averaging all Key Centres surveyed over each three year period to provide rolling indicators of change.
3. Indicator for base year is 100.

PUBLIC TRANSPORT

RAIL PATRONAGE

Rail Passenger Counts

- 4.1 GMTU undertook counts of boarding and alighting rail passengers both inbound towards and outbound from Manchester City Centre in Autumn 2005 at a sample of stations throughout the county.
- 4.2 A total of 63 railway stations were surveyed. The stations were generally selected to give the highest percentage of travellers on each corridor for the fewest stations counted. However, in order to update the factors used to estimate patronage for each corridor, surveys are undertaken at all stations on some lines each year. All stations on the Ashton, Marple/Glossop and Stockport corridors were surveyed in 2005.
- 4.3 A summary of the results of all rail passenger counts undertaken in 2005 is given in Table 71 and a diagram of the rail network in Greater Manchester is given in Figure 29. This diagram also shows the most recent count of peak period inbound boarders at each station.

Table 71 Boarders and Alighters at 63 Rail Stations Surveyed in 2005								
	AM Peak 07:30-09:30				Off-Peak 09:30-13:30			
	Inbound		Outbound		Inbound		Outbound	
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters
Altrincham BR	25	97	65	48	13	70	36	24
Ashburys	0	5	4	27	0	0	5	12
Ashton	257	27	11	48	185	25	26	77
Atherton	230	8	48	11	104	15	31	51
Bellevue	2	1	0	0	2	1	1	1
Bolton	1343	418	257	271	810	383	214	403
Bramhall	142	6	12	11	47	1	6	11
Bredbury	126	14	6	20	79	6	4	23
Brinnington	36	7	10	5	25	4	3	6
Broadbottom	132	2	12	4	55	5	6	12
Bromley Cross	242	10	13	125	95	3	9	27
Burnage	104	1	9	1	45	2	6	11
Cheadle Hulme	362	46	49	45	129	13	18	58
Daisy Hill	176	0	22	1	48	9	16	21
Davenport	147	30	2	7	35	8	2	11
Dinting	84	17	7	3	37	21	22	12
East Didsbury	119	33	33	25	36	9	17	24
Eccles	31	25	15	16	11	5	3	7
Fairfield	8	3	0	0	2	1	0	0
Flowery Field	91	28	8	24	59	3	13	15
Gatley	237	2	11	13	46	3	2	17
Glossop	415	119	0	0	215	121	39	45
Godley	52	8	2	2	20	7	2	7
Gorton	53	8	7	4	24	5	6	15
Greenfield	161	0	8	2	64	2	7	22
Guide Bridge	107	62	28	20	38	22	13	20
Hadfield	242	0	0	18	97	0	0	43
Hale	35	41	63	33	15	5	16	7
Hattersley	39	6	7	1	20	4	2	9
Hazel Grove	407	29	3	13	198	7	6	67
Heald Green	225	11	17	28	140	6	9	56
Heaton Chapel	486	41	64	10	100	3	15	20
Horwich Parkway	160	20	29	73	62	12	7	41
Hyde Central	34	3	0	5	9	0	2	4
Hyde North	31	3	1	0	2	0	1	0
Irlam	140	11	13	25	50	2	17	19

Station	AM Peak 07:30-09:30				Off-Peak 09:30-13:30			
	Inbound		Outbound		Inbound		Outbound	
	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters
Levenshulme	172	7	34	13	99	9	18	11
Littleborough	141	6	13	10	76	6	8	17
Lostock	222	0	16	1	57	2	6	12
Mcr Airport	0	381	298	0	0	799	810	0
Marple	411	0	7	28	172	2	11	38
Mauldeth Road	117	5	28	9	113	3	7	23
Middlewood	1	0	0	0	3	0	0	0
Mills Hill	153	7	17	5	64	2	2	32
Mossley	185	2	8	10	78	2	3	16
Navigation Road	23	5	53	7	3	7	4	8
Newton	119	33	6	13	50	20	27	16
Oldham Mumps	116	22	15	44	94	26	21	61
Reddish North	72	16	11	5	30	7	11	10
Rochdale	604	116	46	116	447	110	45	168
Romiley	213	5	11	12	93	5	9	33
Rose Hill	84	0	0	18	36	0	0	12
Ryder Brow	11	0	2	1	9	0	0	1
Salford Crescent	302	642	90	540	490	360	196	635
Shaw	161	2	5	20	122	5	3	42
Stalybridge	670	43	95	40	230	34	31	57
Stockport	621	669	558	266	417	563	553	253
Urmston	148	24	29	17	59	21	18	28
Walkden	143	24	17	41	65	22	16	16
Wigan North	0	218	489	0	0	509	499	0
Wigan Wallgate	355	97	29	133	410	108	103	262
Woodley	38	7	2	1	16	2	2	2
Woodsmoor	92	9	0	5	55	5	2	7

Notes:

1. Glossop outbound patronage refers to patronage to Hadfield
2. Manchester Airport patronage refers to patronage to and from Manchester Airport
3. Rochdale inbound patronage includes patronage via Oldham
4. Wigan North Western patronage refers to patronage to and from Wigan North Western. Only one AM peak train travels inbound to Manchester. This had 36 boarders and 20 alighters. There were no trains outbound from Manchester.

Rail Patronage by Corridor

4.4 Tables 72 and 73 show the inbound (towards Manchester City Centre) rail boarders on each corridor in the years 1991 and 1996 to 2005 for the peak and off-peak periods respectively. The information for 1996 to 2005 is also shown graphically in Figures 27 and 28.

4.5 Tables 74-79 show numbers of rail boarders travelling towards Manchester City Centre on the Ashton, Marple/Glossop and Stockport corridors, where all stations were counted in 2005.

Table 72 Inbound Boarders by Corridor 1991 and 1996-2005 (excluding the Eccles Corridor) Peak Period (07:30-09:30)											
Line/Corridor	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Wigan/Bolton	2541	2550	3169	2809	3306	3356	3624	2970	3338	3574	3898
Rochdale/Oldham	1200	1003	1195	1031	1268	1377	1383	1133	1322	1572	1619
Ashton	407	551	656	762	931	871	930	1046	1061	1230	1273
North Side Total	4148	4104	5020	4602	5505	5604	5937	5149	5721	6376	6790
Patronage Index	100	99	121	111	133	135	143	124	138	154	164
% Total Patronage	42	47	50	48	50	51	54	51	51	53	52
Marple/Glossop	2111	1687	2129	2033	2173	2280	2026	1793	2038	2270	2400
Stockport	2633	2213	2197	2242	2396	2175	2152	2218	2396	2220	2513
Styal Excl. Airport	505	437	500	499	523	568	550	460	616	709	802
Irlam	411	231	286	305	367	366	369	380	399	399	483
South Side Total	5660	4568	5112	5079	5459	5389	5097	4851	5449	5598	6198
Patronage Index	100	81	90	90	96	95	90	86	96	99	110
% Total Patronage	58	53	50	52	50	49	46	49	49	47	48
Grand Total	9808	8672	10132	9681	10964	10993	11034	10000	11170	11974	12988
Patronage Index	100	88	103	99	112	112	113	102	114	122	132

Notes:

Figures for 1991 are based on full counts at every station in each corridor.

1996 to 2005 figures are generally estimates based on all available station counts in each year. However, almost all stations in the GMPTE area have been counted in the last three years, the Wigan/Bolton line in 2003, the Rochdale/Oldham and Irlam lines in 2004 and the Marple/Glossop and Stockport lines in 2005. All stations on the Ashton line have been counted in 2003, 2004 and 2005.

Passenger counts at Manchester Airport rail station, which opened in 1993, have not been included in the totals for the Styal line. Numbers of peak boarders at Manchester Airport for the years 1996 to 2005 were 125, 193, 196, 213, 178, 256, 222, 282, 429 and 298 respectively.

Note on Industrial Action:

There was sustained industrial action in 2002 by employees of First North Western and Arriva. Whilst an attempt was made to avoid actual strike days the work to rule by First North Western staff in particular may have had an effect on passenger numbers.

Line/Corridor	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Wigan/Bolton	1215	1669	1916	1536	2148	1847	2159	1878	2522	2174	2436
Rochdale/Oldham	632	692	769	586	681	794	881	727	918	986	1023
Ashton	159	191	191	196	361	395	312	363	506	548	557
North Side Total	2006	2552	2876	2318	3190	3036	3352	2968	3946	3708	4015
Patronage Index	100	127	143	116	159	151	167	148	197	185	200
% Total Patronage	44	54	52	52	59	57	58	59	62	61	60
Marple/Glossop	817	753	1054	827	819	937	981	850	1009	994	1090
Stockport	1305	1093	1093	1033	999	996	1062	857	974	960	1114
Styal Excl. Airport	280	240	297	220	258	289	265	244	332	320	380
Irlam	128	124	186	90	115	101	134	145	155	109	149
South Side Total	2530	2210	2630	2170	2191	2323	2442	2096	2470	2383	2733
Patronage Index	100	87	104	86	87	92	97	82	98	94	108
% Total Patronage	56	46	48	48	41	43	42	41	38	39	40
Grand Total	4536	4762	5506	4488	5381	5359	5794	5064	6416	6091	6748
Patronage Index	100	105	121	99	119	118	128	112	141	134	149

Notes:

Figures for 1991 are based on full counts at every station in each corridor.

1996 to 2005 figures are generally estimates based on all available station counts in each year. However, almost all stations in the GMPTE area have been counted in the last three years, the Wigan/Bolton line in 2003, the Rochdale/Oldham and Irlam lines in 2004 and the Marple/Glossop and Stockport lines in 2005. All stations on the Ashton line have been counted in 2003, 2004 and 2005.

Passenger counts at Manchester Airport rail station, which opened in 1993, have not been included in the totals for the Styal line. Numbers of off-peak boarders at Manchester Airport for the years 1996 to 2005 were 344, 389, 423, 445, 453, 598, 535, 678, 860 and 810 respectively.

Note on Industrial Action:

There was sustained industrial action in 2002 by employees of First North Western and Arriva. Whilst an attempt was made to avoid actual strike days the work to rule by First North Western staff in particular may have had an effect on passenger numbers.

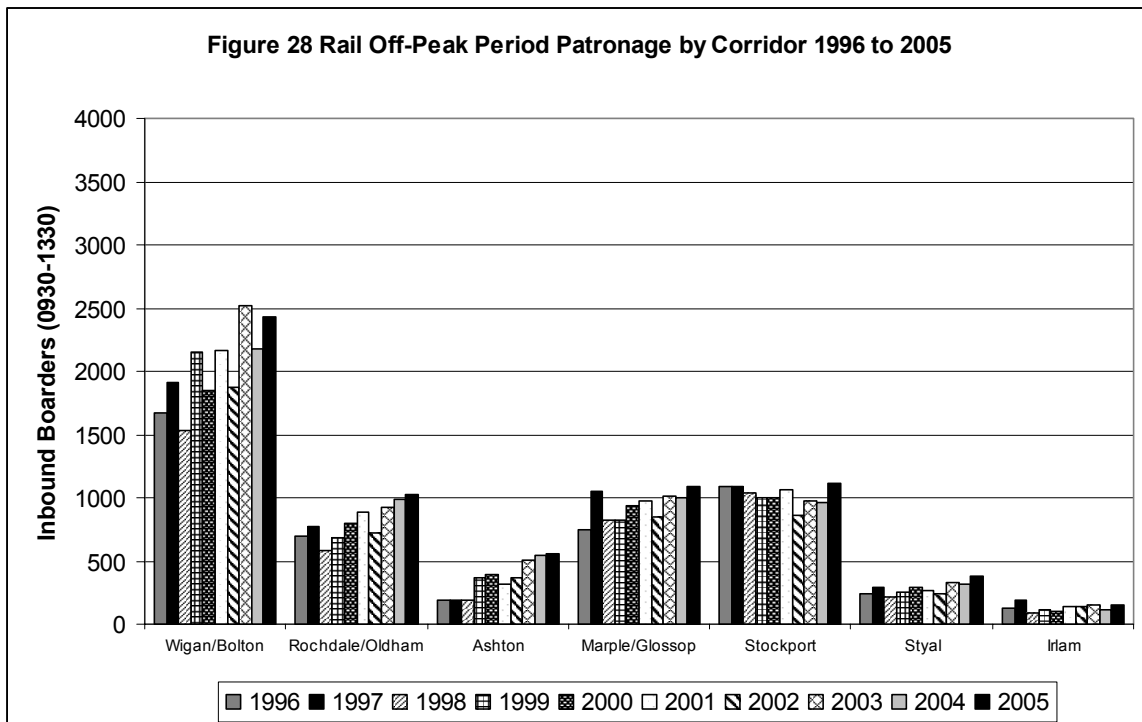
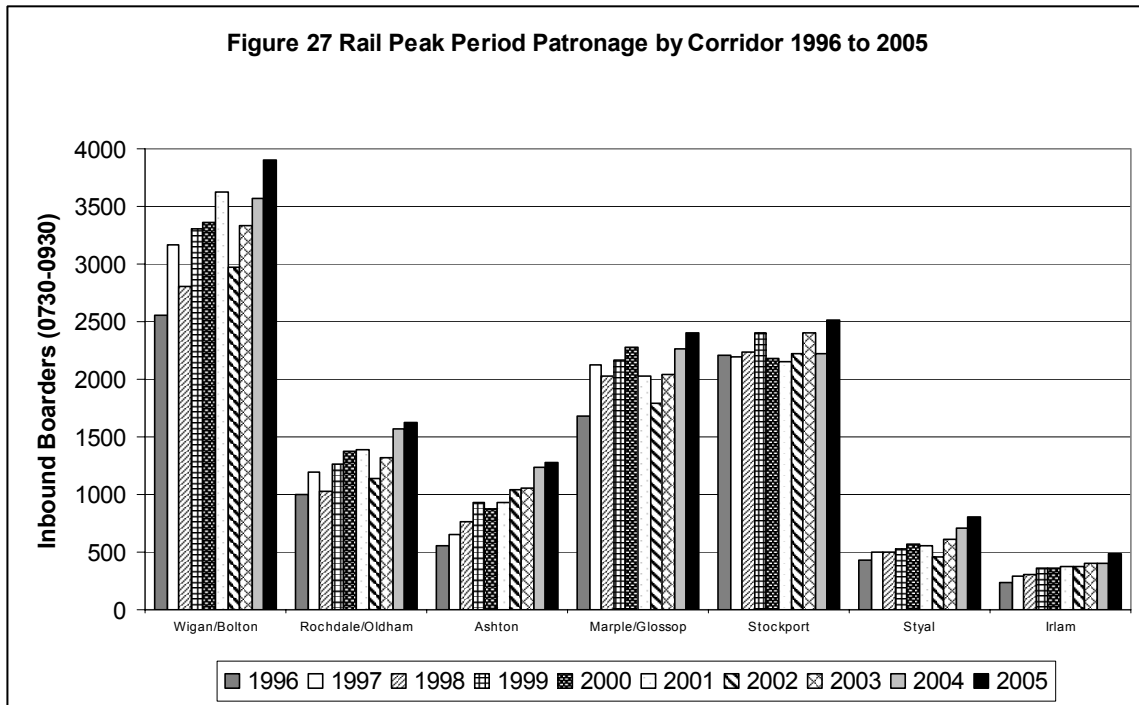


Table 74 Inbound Boarders at Ashton-under-Lyne Corridor Stations 1991 and 1996 to 2005 – Peak Period (07:30-09:30)											
Station	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Ashton	72			135*	132	178	223	181	210	239	257
Greenfield	32			90	154		131	160	167	175	161
Mossley	66			132	183	144	183	202	188	214	185
Stalybridge	237	321	382	405	462	405	393	503	496	602	670
Total	407			762	931		930	1046	1061	1230	1273
Index	100			187	229		229	257	261	302	313

* estimate

Table 75 Inbound Boarders at Ashton-under-Lyne Corridor Stations 1991 and 1996 to 2005 – Off-Peak Period (09:30-13:30)											
Station	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Ashton	48			59*	119	130	78	111	206	162	185
Greenfield	10			24	28		38	62	41	65	64
Mossley	16			48	81	51	59	57	79	67	78
Stalybridge	85	102	102	65	133	153	137	133	180	254	230
Total	159			196	361		312	363	506	548	557
Index	100			123	227		196	228	318	345	350

* estimate

Table 76 Inbound Boarders at Marple and Glossop Corridor Stations 1991 and 1996 to 2005 – Peak Period (07:30-09:30)											
Station	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Ardwick	1	0			0			0			
Ashburys	12	5			8			7			0
Belle Vue	7	3			2			4			2
Bredbury	115	89	114	103	106	124	96	99	96	106	126
Brinnington	47	20			32			27			36
Broadbottom	93	77			102			84			132
Dinting	101	99			115			101			84
Fairfield	13	2			5			1			8
Flowery Field	88	79			94		115	82	88	88	91
Glossop	318	275	441	406	452	407	402	275	384	387	415
Godley	27	36			54			41			52
Guide Bridge	69	25	40	33	49	58	29	30	61	75	107
Gorton	113	51	60	52	58	57	56	64	44	33	53
Hadfield	107	134	201	179	227	247	236	170	177	252	242
Hattersley	49	32	24	26	28	26		13			39
Hyde Central	41	23			32			18			34
Hyde North	15	20			21			15			31
Marple	321	289	309	348	310	386	278	319	353	407	411
Newton	79	55			83			89			119
Reddish North	76	40	40	39	56	44	55	45	62	65	72
Romiley	248	227	237	235	208	261	202	199	212	232	213
Rose Hill	77	60	76	51	80	38	60	71	62	69	84
Ryder Brow	35	8			12			10			11
Woodley	59	38			39			29			38
Total	2111	1687			2173			1793			2400
Index	100	80			103			85			114

Table 77 Inbound Boarders at Marple and Glossop Corridor Stations 1991 and 1996 to 2005 – Off-Peak Period (09:30-13:30)											
Station	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Ardwick	0	0			0						0
Ashburys	9	7			8			9			0
Belle Vue	9	3			5			2			2
Bredbury	35	43	23	37	32	80	41	42	54	52	79
Brinnington	44	13			20			25			25
Broadbottom	41	33			59			25			55
Dinting	32	15			18			29			37
Fairfield	1	5			0			0			2
Flowery Field	33	28			47		57	52	45	47	59
Glossop	146	124	298	156	171	140	148	165	175	205	215
Godley	6	12			10			14			20
Guide Bridge	55	41	39	27	35	44	32	22	48	37	38
Gorton	35	37	31	33	26	32	40	27	29	21	24
Hadfield	74	115	154	122	125	126	130	132	166	138	97
Hattersley	28	14	32	16	24	11		16			20
Hyde Central	11	14			12			12			9
Hyde North	0	2			2			3			2
Marple	53	76	91	112	78	117	113	100	149	143	172
Newton	28	39			34			24			50
Reddish North	39	27	21	18	20	17	24	23	24	21	30
Romiley	93	74	70	71	54	92	114	80	99	97	93
Rose Hill	22	18	26	33	28	22	39	36	17	33	36
Ryder Brow	11	4			8			9			9
Woodley	12	9			3			3			16
Total	817	753			819			850			1090
Index	100	92			100			104			133

Table 78 Inbound Boarders at Stockport Corridor Stations 1991 and 1996 to 2005 – Peak Period (07:30-09:30)											
Station	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Altrincham	210	55	25	32	20	17		29	27		25
Bramhall	207	164	148	170	173	130	153	135	96	139	142
Cheadle Hulme	431	402	406	422	499	371	332	364	357	376	362
Davenport	182	144	130	130	136	157	150	114	130	129	147
Hale	37	35			25			44			35
Hazel Grove	467	425	410	420	454	405	448	416	476	388	407
Heaton Chapel	302	192	237	254	265	302	271	296	316	339	486
Levenshulme	198	164	139	131	144	134	99	101	135	137	172
Middlewood	20	17*		11	8			5			1
Navigation Road	0	38	28	27	28			20	22		23
Stockport	481	490	504	524	557	502	533	603	642	533	621
Woodsmoor	98	87	118	85	87	102	93	91	138	81	92
Total	2633	2213			2396			2218			2513
Index	100	84			91			84			95

Table 79 Inbound Boarders at Stockport Corridor Stations 1991 and 1996 to 2005 – Off-Peak Period (09:30-13:30)											
Station	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Altrincham	112	58	35	31	13	19		17	14		13
Bramhall	54	60	73	70	69	71	69	19	52	79	47
Cheadle Hulme	157	155	224	153	162	119	140	139	150	125	129
Davenport	53	38	48	42	52	57	67	28	43	45	35
Hale	20	4			14			7			15
Hazel Grove	133	121	115	125	148	190	150	142	123	139	198
Heaton Chapel	139	90	75	85	87	96	107	92	106	103	100
Levenshulme	220	98	124	92	94	84	69	56	93	88	99
Middlewood	5	4		1	1			2			3
Navigation Road		11	10	5	5			6	9		3
Stockport	382	422	347	388	325	299	391	327	340	312	417
Woodsmoor	30	32	33	37	29	41	34	22	42	44	55
Total	1305	1093			999			857			1114
Index	100	84			77			66			85

METROLINK PATRONAGE

Metrolink Passenger Counts 2005

4.6 Counts of boarding and alighting passengers were undertaken at all Metrolink stations outside the Manchester City Centre 'Central Zone' in 2005. Passengers travelling both inbound towards and outbound away from Manchester were counted. Tables 80 to 82 give a summary of all Metrolink counts undertaken in Autumn 2005 on the Altrincham, Bury and Eccles lines respectively. Counts of inbound peak period boarders at each station are included in the diagram of the rail and Metrolink network (Figure 26).

Table 80 Boarders and Alighters on the Altrincham Line Surveyed in Autumn 2005							
AM Peak 07:30-09:30	Mcr Bound		Alt Bound		Both Directions		
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	All
Altrincham	893	0	0	1166	893	1166	2059
Navigation Road	262	7	47	137	309	144	453
Timperley	405	36	323	262	728	298	1026
Brooklands	746	54	289	96	1035	150	1185
Sale	453	96	427	194	880	290	1170
Dane Road	120	32	82	40	202	72	274
Stretford	383	155	272	127	655	282	937
Old Trafford	102	146	91	174	193	320	513
Trafford Bar	122	108	102	298	224	406	630
Cornbrook Alt	17	131	64	23	81	154	235
Total (Excl Cornbrook)	3486	634	1633	2494	5119	3128	8247
Off-peak 09:30-13:30	Mcr Bound		Alt Bound		Both Directions		
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	All
Altrincham	876	0	0	607	876	607	1483
Navigation Road	168	39	47	117	215	156	371
Timperley	312	64	154	200	466	264	730
Brooklands	323	41	72	120	395	161	556
Sale	543	173	171	238	714	411	1125
Dane Road	121	30	26	48	147	78	225
Stretford	395	123	136	248	531	371	902
Old Trafford	255	93	98	209	353	302	655
Trafford Bar	193	70	68	153	261	223	484
Cornbrook Alt	32	101	84	51	116	152	268
Total (Excl Cornbrook)	3186	633	772	1940	3958	2573	6531

Table 81 Boarders and Alighters on the Bury Line Surveyed in Autumn 2005							
AM Peak 07:30-09:30	Mcr Bound		Bury Bound		Both Directions		
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	All
Bury Interchange	671	0	0	978	671	978	1649
Radcliffe	572	34	155	95	727	129	856
Whitefield	405	28	150	36	555	64	619
Besses O'th'Barn	284	20	105	16	389	36	425
Prestwich	221	55	151	202	372	257	629
Heaton Park	173	157	80	33	253	190	443
Bowker Vale	265	16	223	15	488	31	519
Crumpsall	239	56	191	71	430	127	557
Woodlands Road	68	19	74	57	142	76	218
Total	2898	385	1129	1503	4027	1888	5915
Off-peak 09:30-13:30	Mcr Bound		Bury Bound		Both Directions		
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	All
Bury Interchange	1137	0	0	1774	1137	1774	2911
Radcliffe	326	92	192	132	518	224	742
Whitefield	300	93	210	104	510	197	707
Besses O'th'Barn	141	39	81	66	222	105	327
Prestwich	314	155	227	190	541	345	886
Heaton Park	114	95	156	55	270	150	420
Bowker Vale	178	75	111	44	289	119	408
Crumpsall	324	102	144	112	468	214	682
Woodlands Road	111	29	44	104	155	133	288
Total	2945	680	1165	2581	4110	3261	7371

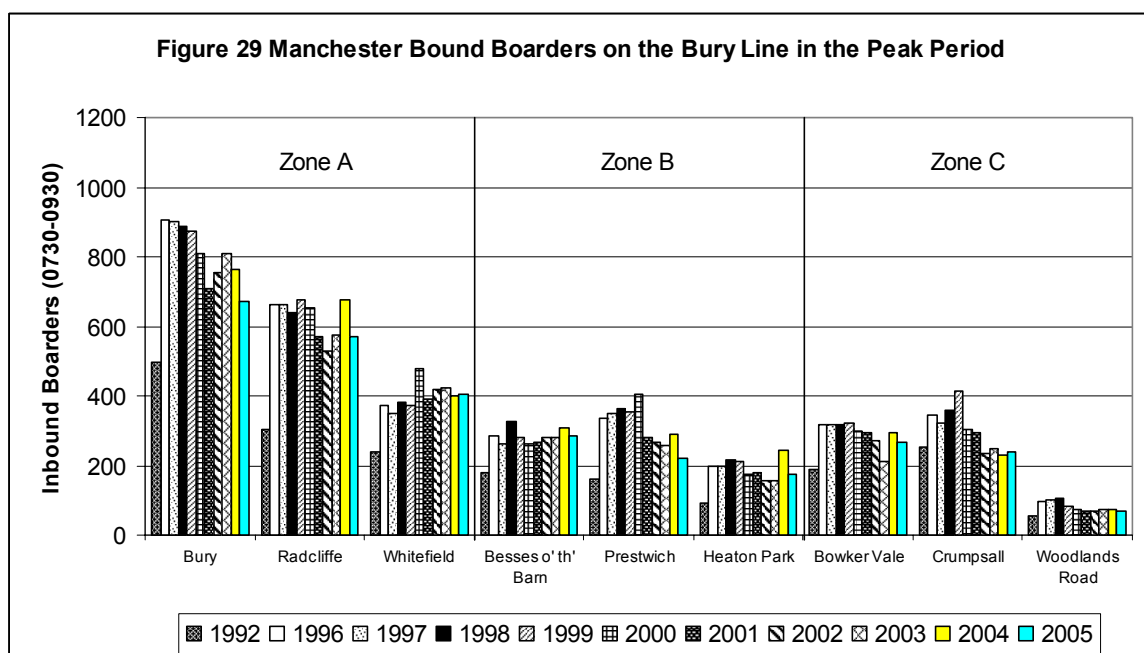
Table 82 Boarders and Alighters on the Eccles Line Surveyed in Autumn 2005							
AM Peak 07:30-09:30	Mcr Bound		Eccles Bound		Both Directions		
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	All
Eccles MI	284	0	0	94	284	94	378
Ladywell	105	1	20	39	125	40	165
Weaste	102	14	23	76	125	90	215
Langworthy	158	32	23	74	181	106	287
Broadway	14	20	2	59	16	79	95
Harbour City	29	12	1	164	30	176	206
Anchorage	38	37	14	158	52	195	247
Salford Quays	78	43	25	138	103	181	284
Exchange Quay	34	63	27	335	61	398	459
Pomona	4	5	1	3	5	8	13
Cornbrook Ecc	11	78	74	23	85	101	186
Total (Excl Cornbrook)	846	227	136	1140	982	1367	2349
Off-peak 09:30-13:30	Mcr Bound		Eccles Bound		Both Directions		
Station	Boarders	Alighters	Boarders	Alighters	Boarders	Alighters	All
Eccles MI	296	0	0	199	296	199	495
Ladywell	173	4	6	73	179	77	256
Weaste	94	38	60	28	154	66	220
Langworthy	124	39	32	82	156	121	277
Broadway	38	38	16	65	54	103	157
Harbour City	45	10	8	282	53	292	345
Anchorage	61	22	13	95	74	117	191
Salford Quays	75	28	18	129	93	157	250
Exchange Quay	93	50	21	111	114	161	275
Pomona	12	5	6	19	18	24	42
Cornbrook Ecc	9	71	93	33	102	104	206
Total (Excl Cornbrook)	1011	234	180	1083	1191	1317	2508

The Bury Line

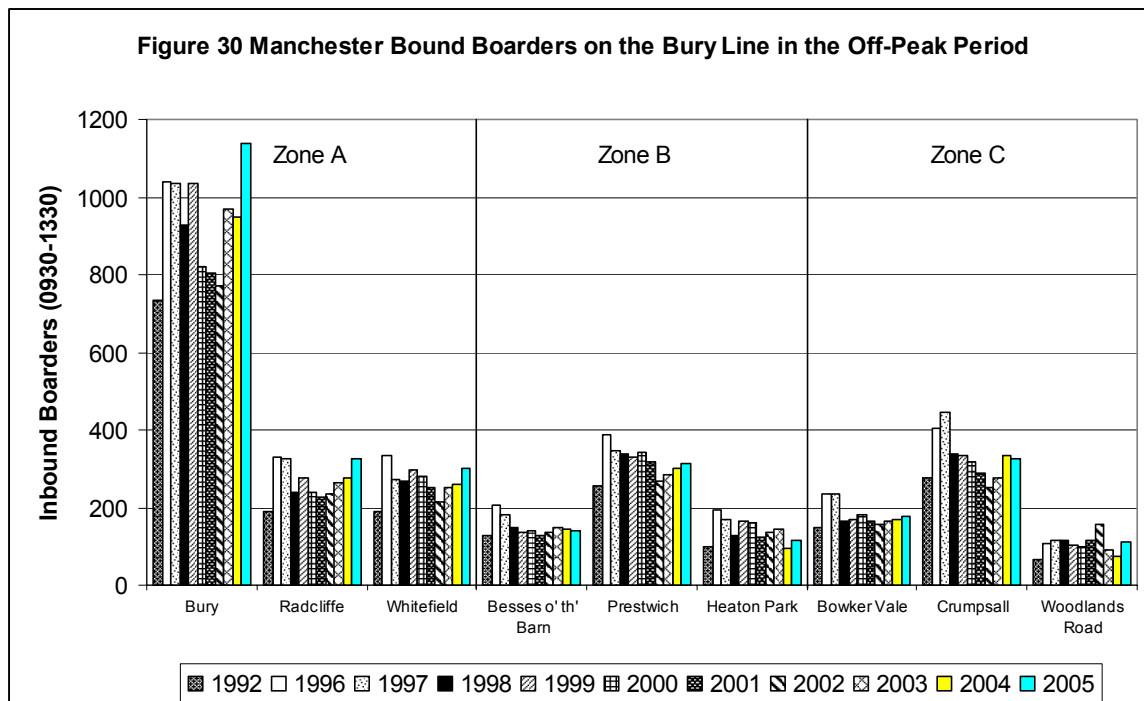
4.7 The former Bury to Manchester rail line closed in August 1991 and reopened on 6 April 1992 as Metrolink.

4.8 Counts of passengers boarding Manchester bound trains in 1992 and 1996 to 2005 are given in Tables 83 and 84. Figures 29 and 30 show trends in Manchester bound peak and off-peak patronage at each station. Patronage figures for the Bury rail line, before its conversion to Metrolink, can be found in GMTU Report 641 'Transport Statistics Greater Manchester 1999'.

Table 83 Weekday Peak Inbound Boarders on the Bury Metrolink Line (07:30-09:30)												
	Station	Metrolink										
		1992	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Outer Area (Zones A and B)	Bury	497	908	901	889	874	811	709	756	811	761	671
	Radcliffe	305	662	663	641	675	653	571	531	577	674	572
	Whitefield	237	372	349	383	374	478	390	418	421	402	405
	Besses o'th' Barn	178	284	260	327	282	263	266	282	281	307	284
	Prestwich	162	334	349	365	354	406	279	266	259	289	221
	Heaton Park	91	200	199	218	212	175	181	158	155	242	173
	Total	1470	2760	2721	2823	2771	2786	2396	2411	2504	2675	2326
Index	100	188	185	192	189	190	163	164	170	182	158	
Inner Area (Zone C)	Bowker Vale	190	316	318	318	320	300	292	272	212	293	265
	Crumpsall	251	344	324	359	413	305	292	234	249	228	239
	Woodlands Rd	55	97	101	107	84	75	68	68	73	74	68
	Total	496	757	743	784	817	680	652	574	534	595	572
	Index	100	153	150	158	165	137	131	116	108	120	115
All Stations	Total	1966	3517	3464	3607	3588	3466	3048	2985	3038	3270	2898
	Index	100	179	176	183	183	176	155	152	155	166	147



	Station	Metrolink										
		1992	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Outer Area (Zones A and B)	Bury	732	1038	1035	926	1035	821	806	770	970	947	1137
	Radcliffe	188	329	324	240	276	240	228	236	263	276	326
	Whitefield	189	336	272	266	297	281	250	214	252	258	300
	Besses o'th' Barn	126	207	183	147	137	141	128	136	148	143	141
	Prestwich	256	389	347	338	328	343	318	269	284	301	314
	Heaton Park	101	193	168	127	164	161	123	136	143	93	114
	Total	1592	2492	2329	2044	2237	1987	1853	1761	2060	2018	2332
Index	100	157	146	128	141	125	116	111	129	127	146	
Inner Area (Zone C)	Bowker Vale	147	237	236	167	168	181	165	155	165	170	178
	Crumpsall	278	404	445	339	336	317	290	253	277	335	324
	Woodlands Rd	64	108	117	117	104	100	114	157	90	76	111
	Total	489	749	798	623	608	598	569	565	532	581	613
	Index	100	153	163	127	124	122	116	116	109	119	125
All Stations	Total	2081	3241	3127	2667	2845	2585	2422	2326	2592	2599	2945
	Index	100	156	150	128	137	124	116	112	125	125	142



The Altrincham Line

4.9 The Altrincham rail line, operated by British Rail, closed in December 1991 and reopened on 15 June 1992 as Metrolink.

4.10 Counts of passengers boarding Manchester bound trains in 1992 and 1996 to 2005 are given in Tables 85 and 86. Patronage figures for the Altrincham rail line were last reported in GMTU Report 641 'Transport Statistics Greater Manchester 1999'.

4.11 Figures 31 and 32 show trends in peak and off-peak Manchester bound Metrolink patronage at each station.

Table 85 Weekday Peak Inbound Boarders on the Altrincham Metrolink Line (07:30-09:30)												
	Station	Metrolink										
		1992	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Outer Area (Zones F and G)	Altrincham	518	833	849	972	937	988	1000	762	776	831	893
	Navigation	172	324	371	426	435	426	378	376	422	416	262
	Timperley	257	409	366	366	412	401	419	386	422	380	405
	Brooklands	403	590	615	659	636	637	646	676	690	664	746
	Sale	331	493	583	567	545	558	582	579	566	722	453
	Dane Rd	98	146	170	147	163	156	138	176	191	149	120
	Total	1779	2795	2954	3137	3128	3166	3163	2955	3067	3162	2879
Index	100	157	166	176	176	178	178	166	172	178	162	
Inner Area (Zone E)	Stretford	141	405	475	476	404	536	411	393	410	333	383
	Old Trafford	88	160	132	159	128	157	145	122	126	113	102
	Trafford Bar	63	167	175	163	175	149	134	133	170	154	122
	Total	292	732	782	798	707	842	690	648	706	600	607
Index	100	251	268	273	242	288	236	222	242	205	208	
All Stations	Total	2071	3527	3736	3935	3835	4008	3853	3603	3773	3762	3486
	Index	100	170	180	190	185	194	186	174	182	182	168

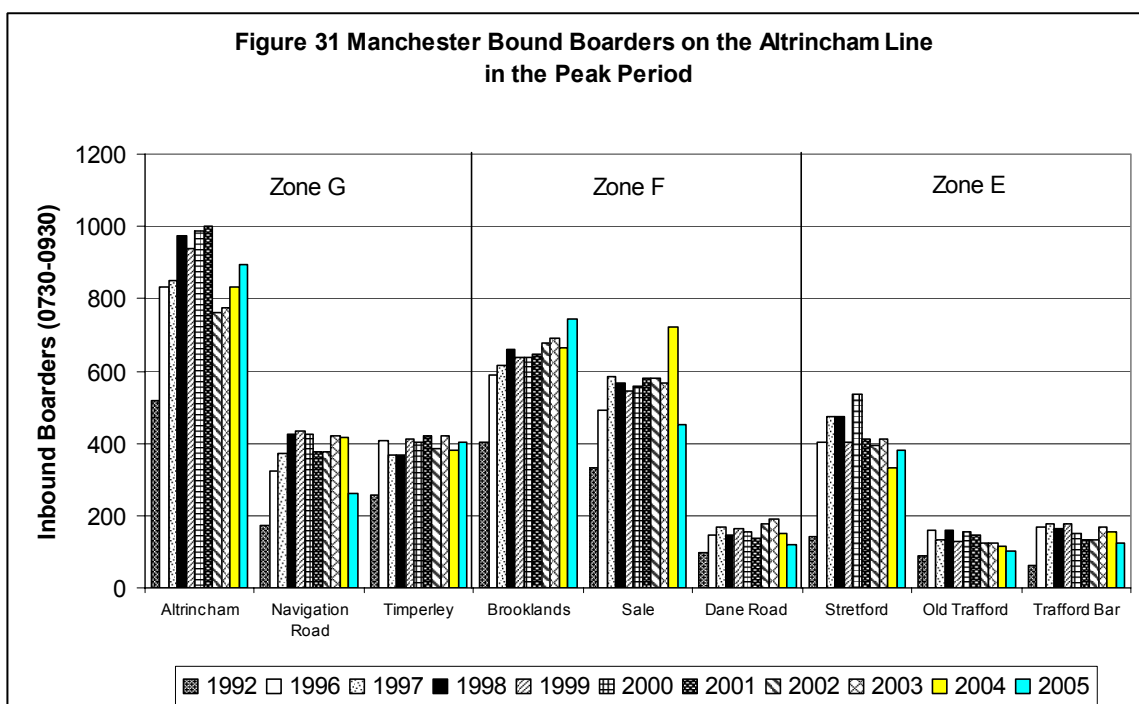
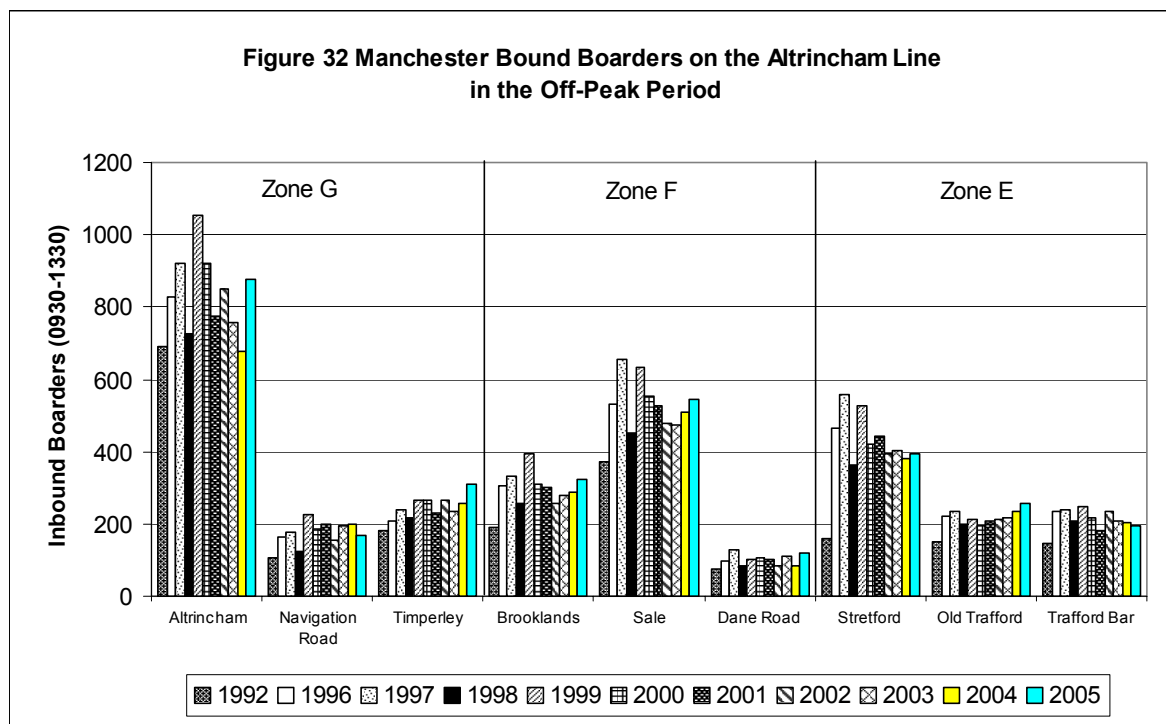


Table 86 Weekday Off-Peak Inbound Boarders on the Altrincham Metrolink Line (09:30-13:30)												
	Station	Metrolink										
		1992	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Outer Area (Zones F and G)	Altrincham	692	830	919	726	1053	919	776	848	757	679	876
	Navigation	108	165	176	126	227	184	201	156	194	201	168
	Timperley	181	210	240	215	265	267	229	267	236	259	312
	Brooklands	190	304	331	259	396	308	300	257	277	290	323
	Sale	371	531	656	450	634	555	527	478	476	508	543
	Dane Rd	75	99	129	85	104	108	103	86	110	85	121
	Total	1617	2139	2451	1861	2679	2341	2136	2092	2050	2022	2343
Index	100	132	152	115	166	145	132	129	127	125	145	
Inner Area (Zone E)	Stretford	159	467	559	362	528	419	443	394	401	382	395
	Old Trafford	150	221	236	200	214	196	206	213	215	233	255
	Trafford Bar	144	236	240	209	248	217	182	235	206	204	193
	Total	453	924	1035	771	990	832	831	842	822	819	843
Index	100	204	228	170	219	184	183	186	181	181	186	
All Stations	Total	2070	3063	3486	2632	3669	3173	2967	2934	2872	2841	3186
	Index	100	148	168	127	177	153	143	142	139	137	154



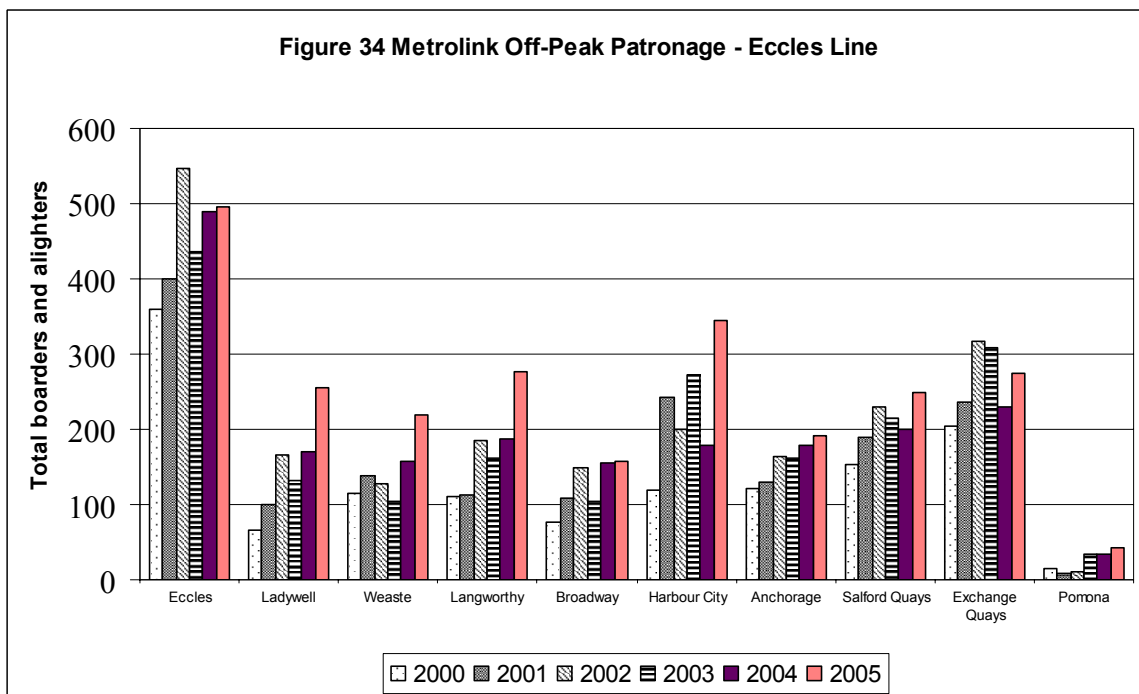
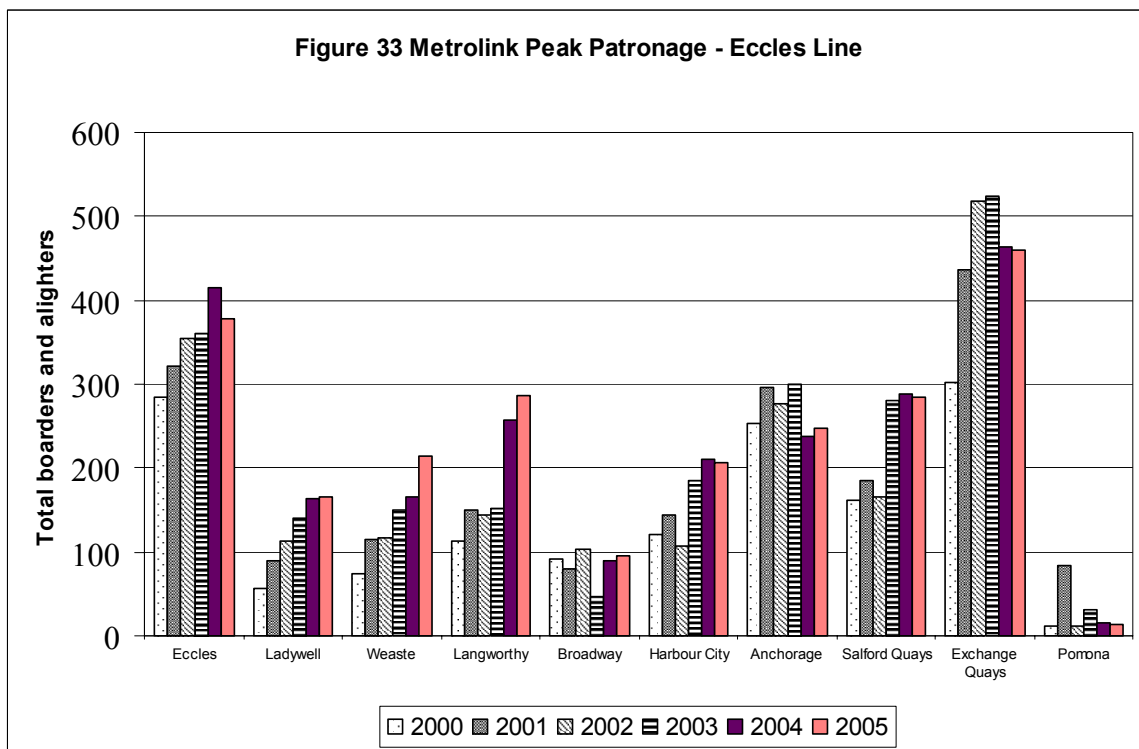
The Eccles Line

- 4.12 The Metrolink extension to Salford Quays and Eccles opened in two stages. The first section to Broadway opened on 6 December 1999. The second section from Broadway to Eccles opened on 21 July 2000.
- 4.13 The Eccles line joins the Altrincham line at Cornbrook which up until recently was an interchange station only for passengers transferring between the two lines and had no pedestrian access.
- 4.14 Table 87 summarises weekday peak period counts of passengers undertaken by GMTU from November 2000 to November 2005. Figure 33 shows trends in peak Metrolink patronage at each station.

		Inbound						Outbound					
		2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
Eccles	Boarders	204	245	245	272	318	284	n/a	n/a	n/a	n/a	n/a	n/a
	Alighters	n/a	n/a	n/a	n/a	n/a	n/a	81	77	110	88	97	94
Ladywell	Boarders	29	62	76	99	111	105	0	4	1	8	4	20
	Alighters	0	1	2	1	2	1	28	23	34	33	46	39
Weaste	Boarders	38	57	54	53	72	102	3	6	15	26	22	23
	Alighters	4	6	6	16	15	14	30	46	42	55	56	76
Langworthy	Boarders	79	100	89	86	127	158	9	18	13	17	16	23
	Alighters	2	14	13	23	32	32	23	18	29	26	82	74
Total Eccles-Langworthy	Boarders	350	464	464	510	628	649	12	28	29	51	42	66
	Alighters	6	21	21	40	49	47	162	164	215	202	281	283
Broadway	Boarders	8	4	5	3	3	14	0	2	5	2	1	2
	Alighters	11	15	16	27	18	20	73	58	62	31	67	59
Harbour City	Boarders	12	13	8	14	18	29	1	1	3	5	3	1
	Alighters	11	15	16	27	26	12	96	116	81	139	163	164
Anchorage	Boarders	42	39	41	45	43	38	9	21	15	11	8	14
	Alighters	25	37	34	29	28	37	178	200	187	215	159	158
Salford Quays	Boarders	51	62	49	85	66	78	8	6	7	20	19	25
	Alighters	8	19	22	36	32	43	95	99	87	140	172	138
Exchange Quays	Boarders	47	42	57	48	39	34	10	15	14	23	36	27
	Alighters	40	65	61	59	67	63	204	314	387	395	322	335
Pomona	Boarders	0	13	1	2	3	4	1	21	1	3	1	1
	Alighters	2	13	4	1	2	5	8	36	5	25	10	3
Total Broadway-Pomona	Boarders	160	173	161	197	172	197	29	66	45	64	68	70
	Alighters	97	165	168	162	173	180	654	823	809	945	893	857
All Stations	Boarders	510	637	625	707	800	846	41	94	74	115	110	136
	Index	100	125	123	139	157	166	100	229	180	280	268	331
	Alighters	103	186	189	202	222	227	816	987	1024	1147	1174	1140
	Index	100	181	183	196	216	220	100	121	125	141	144	140

4.15 Table 88 summarises weekday off-peak period counts of passengers undertaken by GMTU from November 2000 and November 2005. Figure 34 shows trends in off-peak patronage at each station.

Table 88 Eccles Line Off-Peak Period (09:30-13:30) Patronage - November 2000 - 2005													
		Inbound						Outbound					
		2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
Eccles	Boarders	221	242	323	262	265	296	n/a	n/a	n/a	n/a	0	0
	Alighters	n/a	n/a	n/a	n/a	n/a	0	139	157	223	174	224	199
Ladywell	Boarders	39	48	89	68	82	173	4	2	10	6	10	6
	Alighters	7	13	7	7	4	4	16	38	59	50	74	73
Weaste	Boarders	42	62	66	37	56	94	30	29	40	29	52	60
	Alighters	26	27	11	18	26	38	17	20	10	20	23	28
Langworthy	Boarders	55	58	69	68	73	124	12	20	42	39	31	32
	Alighters	17	17	38	23	35	39	27	18	36	32	49	82
Total Eccles-Langworthy	Boarders	357	410	547	435	476	687	46	51	92	74	93	98
	Alighters	50	57	56	48	65	81	199	233	328	276	370	382
Broadway	Boarders	14	26	31	35	48	38	9	9	12	15	13	16
	Alighters	11	22	39	5	24	38	42	51	68	49	71	65
Harbour City	Boarders	41	49	39	39	30	45	2	5	2	7	5	8
	Alighters	6	21	14	28	14	10	71	167	145	198	129	282
Anchorage	Boarders	58	44	49	52	58	61	6	11	17	15	19	13
	Alighters	10	12	19	13	14	22	48	63	79	82	87	95
Salford Quays	Boarders	61	63	76	66	56	75	6	18	10	34	27	18
	Alighters	27	28	41	24	33	28	59	80	103	90	83	129
Exchange Quays	Boarders	70	76	92	99	66	93	7	17	59	23	17	21
	Alighters	23	21	30	19	20	50	104	122	135	168	127	111
Pomona	Boarders	7	3	3	18	14	12	0	0	1	6	0	6
	Alighters	0	4	1	3	10	5	7	2	5	6	11	19
Total Broadway-Pomona	Boarders	251	261	290	309	272	324	30	60	101	100	81	82
	Alighters	77	108	144	92	115	153	331	485	535	593	508	701
All Stations	Boarders	608	671	837	744	748	1011	76	111	200	174	174	180
	Index	100	110	138	122	123	166	100	146	263	229	229	237
	Alighters	127	165	200	140	180	234	530	718	863	869	878	1083
	Index	100	130	157	110	142	184	100	133	163	164	166	204

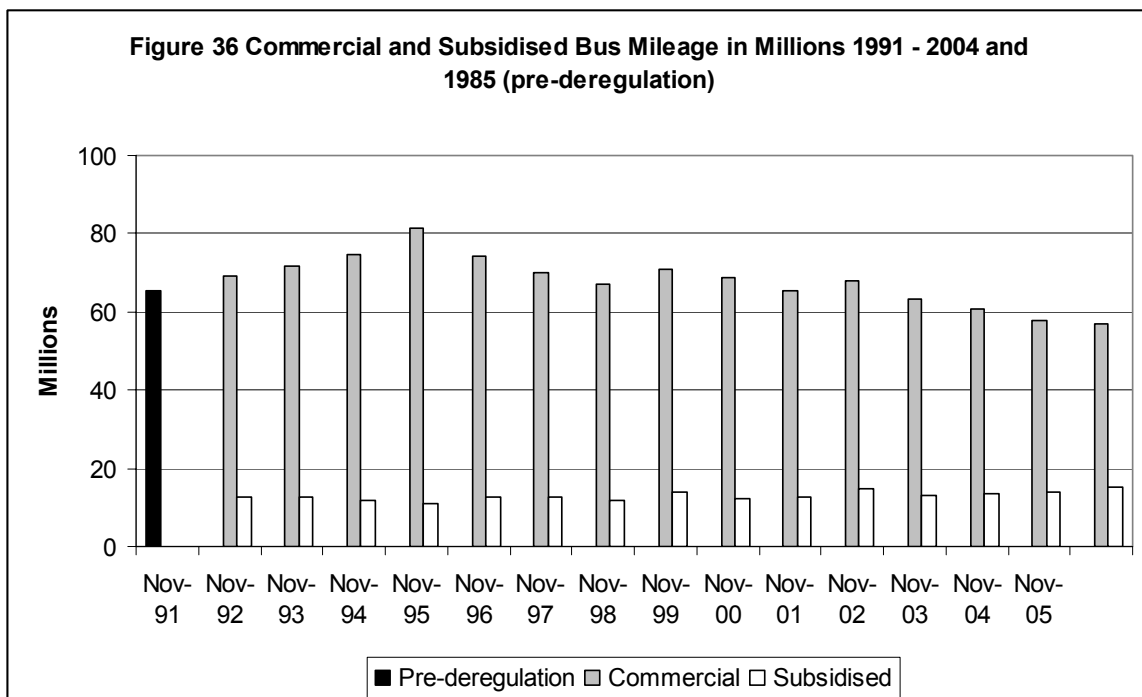
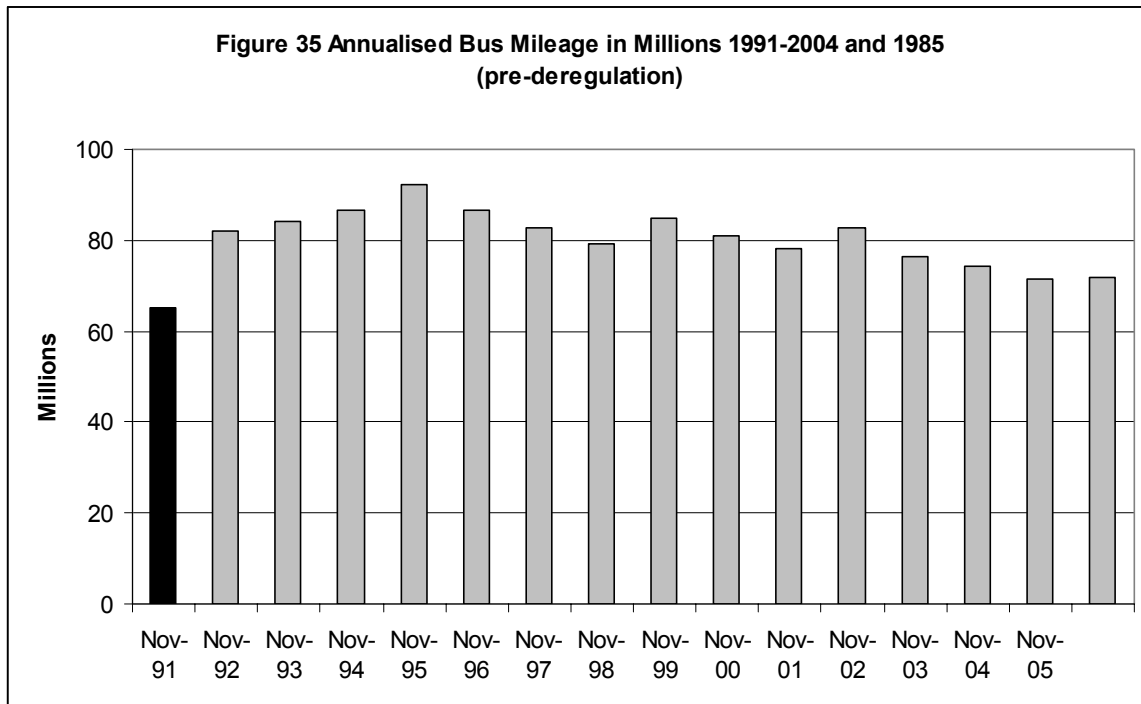


BUS SERVICE SUPPLY

Annualised Bus Mileage

- 4.16 GMTU maintained a database of bus service registrations until November 1997. Information in this section up to and including November 1997 has been produced from this database. Information after November 1997 has been supplied from a database maintained by Greater Manchester Passenger Transport Executive (GMPTE). GMTU and GMPTE have worked closely to ensure that information from the two databases is consistent. However, it is possible that the use of two different databases has introduced some inconsistencies in mileage between 1997 and subsequent years.
- 4.17 In the following tables, unless stated, bus mileage figures refer to annualised mileages as of the first of November each year. The annualised mileage is calculated from registrations current on that date, i.e. as if all the registrations on that date were to continue running for one year. This is not necessarily the same as the actual mileage run, since operators amend some of their services during the year.
- 4.18 Table 89 shows an overview of annualised bus mileage immediately prior to deregulation and thereafter. The percentage of total bus mileage that was subsidised (operated with financial support from Greater Manchester Passenger Transport Authority (GMPTA)) is shown in brackets for all years since deregulation. Figures 35 and 36 illustrate the trends.

Table 89 Total Greater Manchester Annualised Bus Mileage in Millions, 1985 to 2005			
Year	Commercial	Subsidised (%)	Total
1985	-	-	65.3
1986	49.1	4.7 (9)	53.8
1987	72.1	8.9 (11)	81.0
1988	72.0	9.5 (12)	81.6
1989	71.5	11.2 (14)	82.7
1990	70.4	12.7 (15)	83.1
1991	69.1	12.8 (16)	82.0
1992	71.6	12.5 (15)	84.1
1993	74.8	11.7 (14)	86.6
1994	81.3	11.0 (12)	92.3
1995	74.1	12.5 (14)	86.1
1996	70.0	12.7 (15)	82.8
1997	67.1	12.0 (15)	79.1
1998	70.8	13.9 (16)	84.7
1999	68.6	12.3 (15)	80.9
2000	65.5	12.7 (16)	78.2
2001	67.9	14.7 (18)	82.6
2002	63.3	13.0 (17)	76.3
2003	60.9	13.5 (18)	74.4
2004	57.8	13.8 (19)	71.6
2005	57.0	15.1 (21)	72.0



Annualised Bus Mileage by District

4.19 Table 90 shows the annualised bus mileage in each district for each November between 2000 and 2005, and for 1985.

Table 90 Annualised Bus Mileage in Millions, 1999 to 2005, and 1985 (pre-deregulation year)							
District	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05
Bolton	6.2	7.6	8.4	7.8	7.0	6.7	6.8
Bury	4.2	4.9	5.5	5.3	4.7	4.2	4.8
Manchester	18.5	20.0	21.5	20.4	19.8	19.5	19.9
Oldham	5.1	5.9	6.3	5.4	6.0	5.6	5.8
Rochdale	3.9	6.0	6.3	5.4	5.4	4.8	4.7
Salford	6.9	6.9	6.5	6.8	6.4	5.9	6.4
Stockport	5.1	6.9	7.0	6.5	6.5	6.5	6.2
Tameside	4.5	6.4	7.2	5.9	6.6	6.3	5.4
Trafford	4.5	5.4	5.5	5.1	4.7	4.7	4.7
Wigan	6.4	8.2	8.4	7.7	7.3	7.2	7.2
Total	65.3	78.2	82.6	76.3	74.4	71.6	72.0

Note: Sum of columns may not equal totals due to rounding.

Commercial and Subsidised Bus Mileage

4.20 Table 91 shows the commercial and subsidised mileage in each Greater Manchester district for the years 2000 to 2005 and the total mileage operated in 1985.

Table 91 Commercial and Subsidised Bus Mileage in Millions, 1999 to 2005, and 1985 (pre-deregulation year)													
District	Nov 85	Nov 00		Nov 01		Nov 02		Nov 03		Nov 04		Nov 05	
		Com	Sub	Com	Sub	Com	Sub	Com	Sub	Com	Sub	Com	Subs
Bolton	6.2	6.5	1.1	7.2	1.2	6.8	1.0	5.9	1.1	5.6	1.1	5.5	1.3
Bury	4.2	4.0	0.9	4.5	1.0	4.4	0.9	4.0	0.6	3.4	0.8	3.9	0.9
Manchester	18.5	16.9	3.1	18.0	3.6	17.1	3.3	16.3	3.5	16.2	3.3	16.4	3.5
Oldham	5.1	4.7	1.2	4.8	1.5	4.0	1.4	4.7	1.4	4.2	1.5	4.3	1.5
Rochdale	3.9	5.1	0.9	5.1	1.2	4.6	0.8	4.6	0.8	3.6	1.2	3.4	1.3
Salford	6.9	5.8	1.1	5.6	1.0	5.7	1.1	5.3	1.1	4.7	1.2	5.1	1.2
Stockport	5.1	6.0	0.9	6.0	1.0	5.7	0.8	5.5	1.0	5.4	1.1	4.8	1.4
Tameside	4.5	5.6	0.8	6.0	1.2	4.7	1.2	5.3	1.3	5.0	1.3	4.2	1.3
Trafford	4.5	4.2	1.2	4.0	1.5	3.8	1.3	3.5	1.2	3.7	1.1	3.5	1.2
Wigan	6.4	6.7	1.5	6.7	1.7	6.5	1.3	5.9	1.4	5.9	1.3	5.8	1.4
Total Com/Sub	65.3	65.5	12.7	67.9	14.7	63.3	13.0	60.9	13.5	57.8	13.8	57.0	15.1
Total Mileage	65.3	78.2		82.6		76.3		74.4		71.6		72.0	

Notes:

Com = Commercial Services run at the operators' risk.

Sub = Subsidised Services run with the aid of subsidy from the GMPTA after competitive tendering.

Sum of columns may not equal totals due to rounding.

Analysis by Time of Day and Day of Week

4.21 Tables 92 to 96 and Figure 40 show an analysis of bus mileage at different times of day and on different days of the week.

Table 92 Weekday Peak (07:00–09:00) Bus Mileage by District								
District	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05	Index 05
Bolton	2960	3470	3990	3690	3240	3090	3220 (87)	109
Bury	2060	2190	2550	2440	2140	1820	2190 (85)	106
Manchester	9850	8700	9400	8880	8580	8420	8730 (86)	89
Oldham	2570	2950	3120	2650	2930	2710	2770 (81)	108
Rochdale	1860	2770	3170	2650	2630	2270	2420 (75)	130
Salford	3230	2980	2860	3070	2790	2580	2780 (85)	86
Stockport	2630	3320	3450	3100	3040	2900	2990 (75)	114
Tameside	2290	3050	3460	2890	3130	2970	2660 (82)	116
Trafford	2350	2540	2760	2500	2170	2150	2240 (74)	95
Wigan	3000	3670	4010	3530	3250	3300	3490 (85)	116
Total	32800	35640	38780	35380	33890	32200	33480	-
Index	100	109	118	108	103	98	102	-
% Commercial Mileage	-	88	84	86	87	87	82	-

Notes:

Indices are based on Nov 85 = 100

Sum of columns may not equal totals due to rounding.

Figures in parentheses give the percentage of mileage operated commercially in 2005.

Table 93 Weekday Off-Peak (10:00–15:00) Bus Mileage by District								
District	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05	Index 05
Bolton	5440	9150	10070	9530	8400	8050	8090 (85)	149
Bury	3970	5680	6320	6190	5490	5100	5570 (83)	140
Manchester	14600	21790	22970	21780	21490	21270	21700 (87)	149
Oldham	4120	6990	7320	6270	6980	6540	6800 (76)	165
Rochdale	3360	7480	7900	6840	6660	5880	5650 (74)	168
Salford	5910	8070	7510	7880	7360	6800	7190 (82)	122
Stockport	4370	7910	7850	7250	7230	7170	6710 (79)	154
Tameside	3700	7550	8640	6780	7690	7420	6130 (82)	166
Trafford	3870	6100	5980	5610	5260	5320	5300 (85)	137
Wigan	5750	10270	10290	9480	9080	9010	8720 (88)	152
Total	55090	90990	94850	87590	85640	82560	81850	-
Index	100	165	172	159	155	150	149	-
% Commercial Mileage	-	88	87	87	86	84	83	-

Notes:

Indices are based on Nov 85 = 100

Sum of columns may not equal totals due to rounding.

Figures in parentheses give the percentage of mileage operated commercially in 2005.

Table 94 Weekday Evening (20:00–22:00) Bus Mileage by District								
District	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05	Index 05
Bolton	1250	850	920	850	760	740	780 (36)	62
Bury	740	600	630	580	510	470	540 (43)	73
Manchester	3860	3240	3520	3310	2940	2870	2970 (58)	77
Oldham	1120	680	750	640	740	730	720 (44)	64
Rochdale	730	620	600	530	570	510	540 (46)	74
Salford	1560	870	800	770	750	710	770 (47)	49
Stockport	1180	850	860	890	830	880	810 (59)	69
Tameside	930	740	810	810	830	790	730 (37)	78
Trafford	850	640	700	670	650	680	680 (32)	80
Wigan	1420	1010	100	920	780	790	820 (22)	58
Total	13640	10100	10600	9960	9360	9160	9360	-
Index	100	74	78	73	69	67	69	-
% Commercial Mileage	-	57	55	55	49	49	46	-

Notes:

Indices are based on Nov 85 = 100

Sum of columns may not equal totals due to rounding.

Figures in parentheses give the percentage of mileage operated commercially in 2005.

Table 95 Saturday Bus Mileage by District								
District	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05	Index 05
Bolton	17830	20680	23190	21750	19340	18540	18720 (81)	105
Bury	12010	13090	15150	14410	12420	11080	12690 (83)	106
Manchester	48770	53610	57050	54590	52930	51530	51730 (83)	106
Oldham	14500	15750	16990	14560	16110	15250	15750 (76)	109
Rochdale	10630	15570	16210	13790	14220	12420	12380 (74)	116
Salford	18380	19700	18260	19220	18060	16710	17750 (80)	97
Stockport	13740	18660	18710	17590	17660	17440	15850 (78)	115
Tameside	12480	17050	19500	15730	17700	17020	14460 (78)	116
Trafford	12130	14590	14340	13540	12890	12630	12510 (79)	103
Wigan	17660	22530	22950	21770	20490	20440	20390 (82)	115
Total	178130	211230	222440	206950	201830	193030	192220	-
Index	100	119	125	116	113	108	108	-
% Commercial Mileage	-	85	84	84	83	81	80	-

Notes:

Indices are based on Nov 85 = 100

Sum of columns may not equal totals due to rounding.

Figures in parentheses give the percentage of mileage operated commercially in 2005.

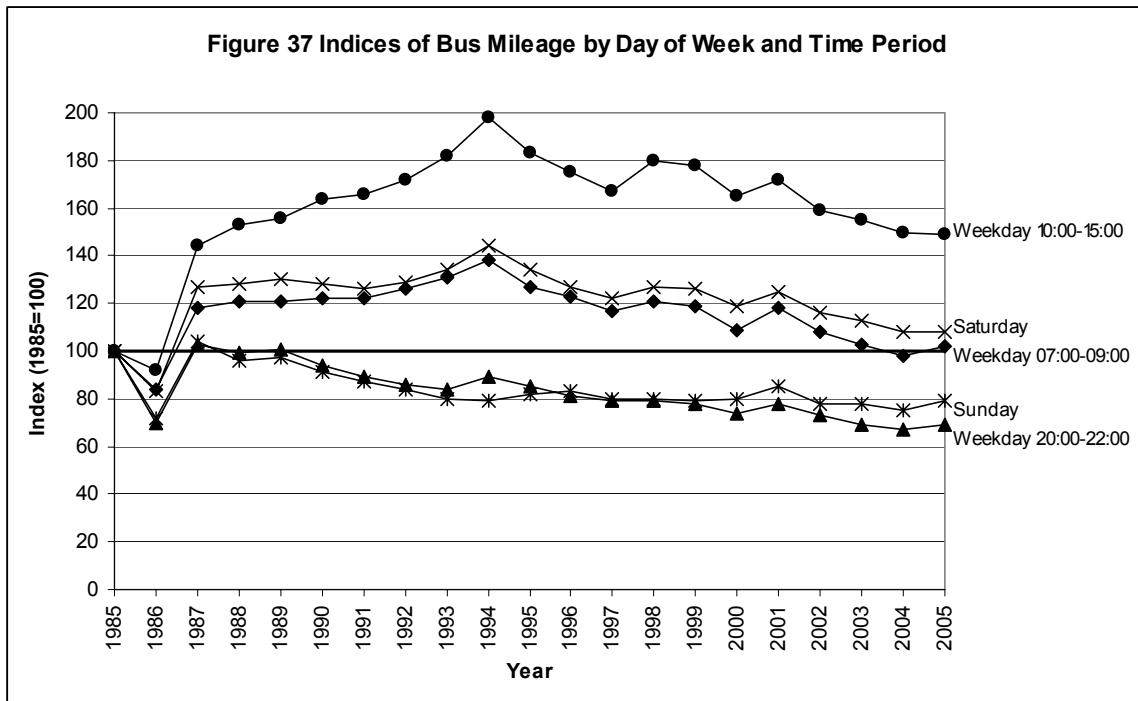
Table 96 Sunday Bus Mileage by District								
District	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05	Index 05
Bolton	8220	7090	7270	6720	6440	6400	6780 (65)	82
Bury	5360	4630	5620	5020	4800	4050	5120 (67)	96
Manchester	30530	24690	26270	24620	23750	23520	24720 (66)	81
Oldham	7890	5290	5910	5050	5700	5550	5880 (50)	75
Rochdale	5560	4760	4770	4370	4740	4340	4510 (59)	81
Salford	11750	7090	6970	6770	6630	6080	7240 (73)	62
Stockport	7500	7020	7370	6860	6960	7210	6860 (67)	91
Tameside	6970	5780	6300	5780	6700	6250	5880 (51)	84
Trafford	6410	6330	6820	5970	5590	5810	5570 (48)	87
Wigan	9460	6640	6970	6200	5930	5710	6290 (48)	66
Total	99650	79310	84260	77350	77250	74920	78840	-
Index	100	80	85	78	78	75	79	-
% Commercial Mileage	-	59	60	63	62	62	61	-

Notes:

Indices are based on Nov 85 = 100

Sum of columns may not equal totals due to rounding.

Figures in parentheses give the percentage of mileage operated commercially in 2005.



Bus Mileage by Operator

4.22 Table 97 shows the trends in the bus mileage of the 10 companies operating more than one million miles per annum in Greater Manchester in 2005 (previous mileage operated by GM Buses is shown as a guide). Some operating companies belong to larger operating groups whose market share is examined in Table 98.

Table 97 Bus Mileage of Operators 1999 to 2005, and 1985 (pre-deregulation year)							
Operator	Annualised mileage (million vehicle miles)						
	Nov 85	Nov 00	Nov 01	Nov 02	Nov 03	Nov 04	Nov 05
GM Buses	63.4	-	-	-	-	-	-
First Manchester	-	32.1	33.1	31.7	30.4	30.4	29.3
Stagecoach Manchester	-	20.5	22.0	19.9	19.7	19.6	19.5
Arriva Manchester	-	3.7	3.7	3.5	2.9	3.1	4.4
Arriva Liverpool	-	-	-	-	-	-	2.1
Rosendale Transport	-	2.0	2.1	1.8	1.7	1.6	1.8
Bluebird	-	1.4	1.3	1.3	1.4	1.4	1.4
South Lancs. Travel	-	-	-	-	-	1.1	1.4
Maynes	0.4	1.2	1.2	1.1	1.2	1.1	1.1
Finglands	-	1.3	1.5	1.5	1.5	1.3	1.0
JP Travel	-	0.9	1.1	1.1	1.0	1.1	1.0
Others	1.5	12.5	13.8	10.3	10.0	8.3	8.9
GM Total	65.3	78.2	82.6	76.3	74.4	71.6	72.0

Market Share of Operating Groups

4.23 Table 98 and Figure 38 show the change in market share of bus mileage between 2004 and 2005 for all groups with more than 2% of the market in either year. The three major bus groups operating within Greater Manchester are First, Stagecoach and Arriva. The constituent companies of each group operating within Greater Manchester in 2005 are:

First - First Manchester, First West Yorkshire and First Pioneer

Stagecoach - Stagecoach Manchester and Stagecoach In Lancashire

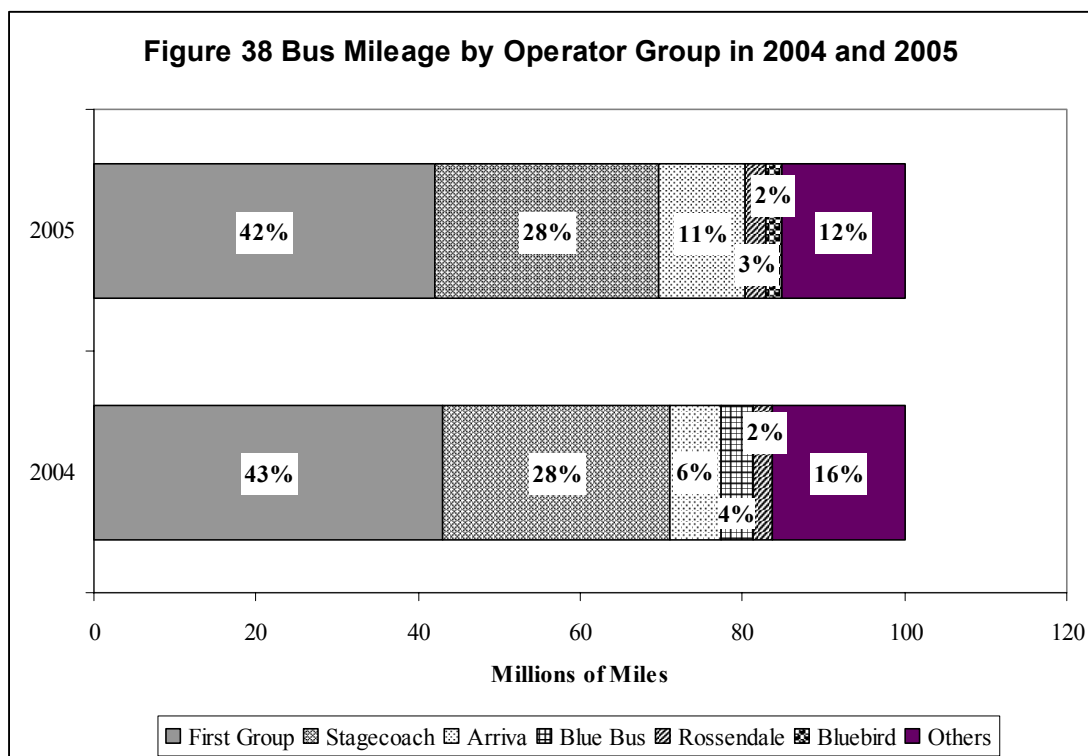
Arriva - Arriva Manchester, Arriva North West, Arriva Liverpool and Arriva Merseyside

Table 98 Market Share of Bus Mileage of Operating Groups with more than 2% of Market Share in either 2004 or 2005							
	Operating Group	Commercial		Subsidised		Total	
		Mileage	% Share	Mileage	% Share	Mileage	% Share
2005	First	26.4	46	4.1	27	30.3	42
	Stagecoach	17.5	31	2.4	16	20	28
	Arriva	5.2	9	2.5	17	7.7	11
	Rossendale	0.9	2	1.0	6	1.8	3
	Bluebird Bus &	0.6	1	0.8	6	1.4	2
	Others	6.5	11	4.2	28	10.9	15
2004	First	26.2	45	4.5	32	30.7	43
	Stagecoach	18.2	31	2.0	14	20.1	28
	Arriva	3.4	6	1.0	8	4.5	6
	Blue Bus	1.9	3	1.1	8	2.9	4
	Rossendale	0.8	1	0.8	6	1.6	2
	Others	7.3	13	4.4	32	11.7	16

Notes:

Sum of columns headed ‘% share’ may not equal 100% due to rounding.

Mileage: millions of miles



Bus Registration Changes 2000-2005

4.24 Table 99 shows the number of bus registration changes each year from November 2000 to October 2005.

Table 99 Bus Registration Changes November 2000 – October 2005					
	Nov 2000 to Oct 2001	Nov 2001 to Oct 2002	Nov 2002 to Oct 2003	Nov 2003 to Oct 2004	Nov 2004 to Oct 2005
November	209	108	43	79	67
December	74	50	49	26	77
January	193	146	166	95	180
February	235	165	208	87	97
March	94	111	61	91	27
April	190	110	80	65	77
May	158	73	88	17	24
June	107	141	96	352	72
July	70	117	49	105	116
August	98	90	140	117	127
September	408	547	316	388	258
October	141	128	47	86	148
Total	1977	1786	1343	1508	1270

Note:

Figures include cancellations and amendments as well as new registrations.

BACKGROUND INFORMATION

Retail Price Index

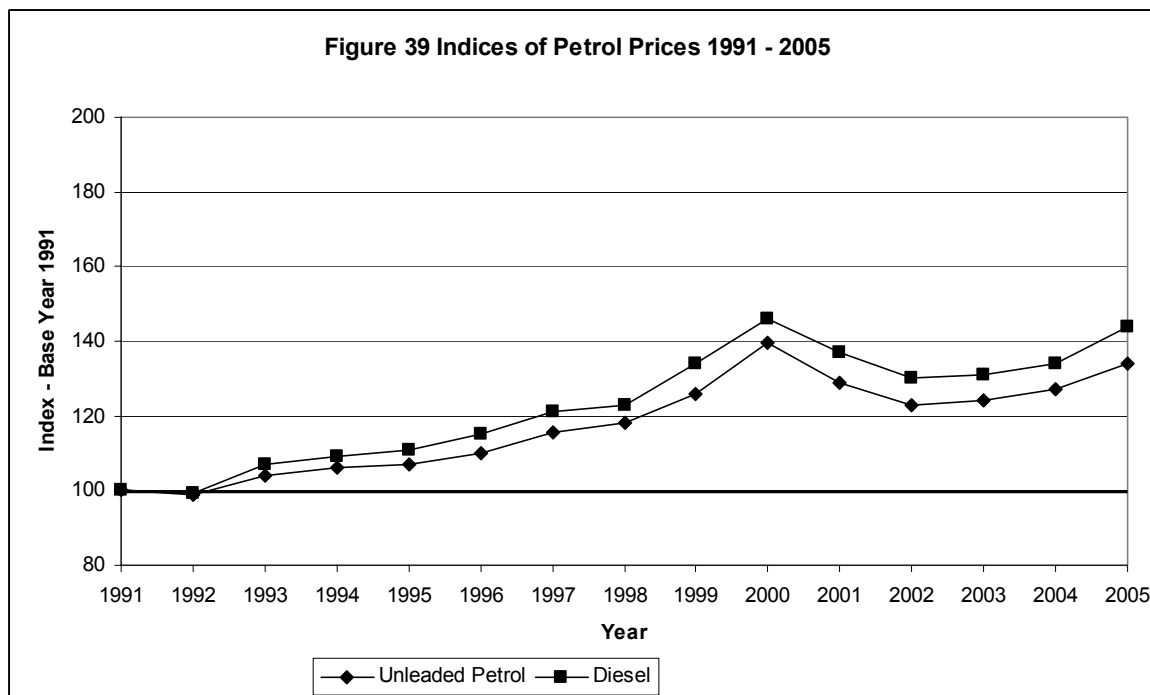
Table 100 Retail Price Index (All Items) 1987-2005 – Base Jan 1987 = 100			
Year and Quarter	Quarterly RPI	Year and Quarter	Quarterly RPI
1987 Q1	100.3	1997 Q1	154.9
Q2	101.9	Q2	156.9
Q3	102.1	Q3	158.4
Q4	103.2	Q4	159.7
1988 Q1	103.7	1998 Q1	160.2
Q2	106.2	Q2	163.2
Q3	107.4	Q3	163.7
Q4	109.9	Q4	164.4
1989 Q1	111.7	1999 Q1	163.7
Q2	114.9	Q2	165.5
Q3	115.7	Q3	165.6
Q4	118.3	Q4	166.8
1990 Q1	120.4	2000 Q1	167.5
Q2	126.0	Q2	170.6
Q3	128.1	Q3	170.9
Q4	130.1	Q4	172.0
1991 Q1	130.8	2001 Q1	171.8
Q2	133.6	Q2	173.9
Q3	134.2	Q3	174.0
Q4	135.5	Q4	173.8
1992 Q1	136.2	2002 Q1	173.9
Q2	139.1	Q2	176.0
Q3	139.0	Q3	176.6
Q4	139.6	Q4	178.2
1993 Q1	138.7	2003 Q1	179.2
Q2	140.9	Q2	181.3
Q3	141.3	Q3	181.8
Q4	141.8	Q4	182.9
1994 Q1	142.0	2004 Q1	183.8
Q2	144.5	Q2	186.3
Q3	144.6	Q3	187.4
Q4	145.5	Q4	189.2
1995 Q1	146.8	2005 Q1	189.7
Q2	149.5	Q2	191.9
Q3	149.9	Q3	192.6
Q4	150.7	Q4	193.7
1996 Q1	150.9		
Q2	152.8		
Q3	153.1		
Q4	154.0		

Fuel Prices

5.1 Table 101 and Figure 39 show indices of the cost of fuel per litre using 1991 as the base year.

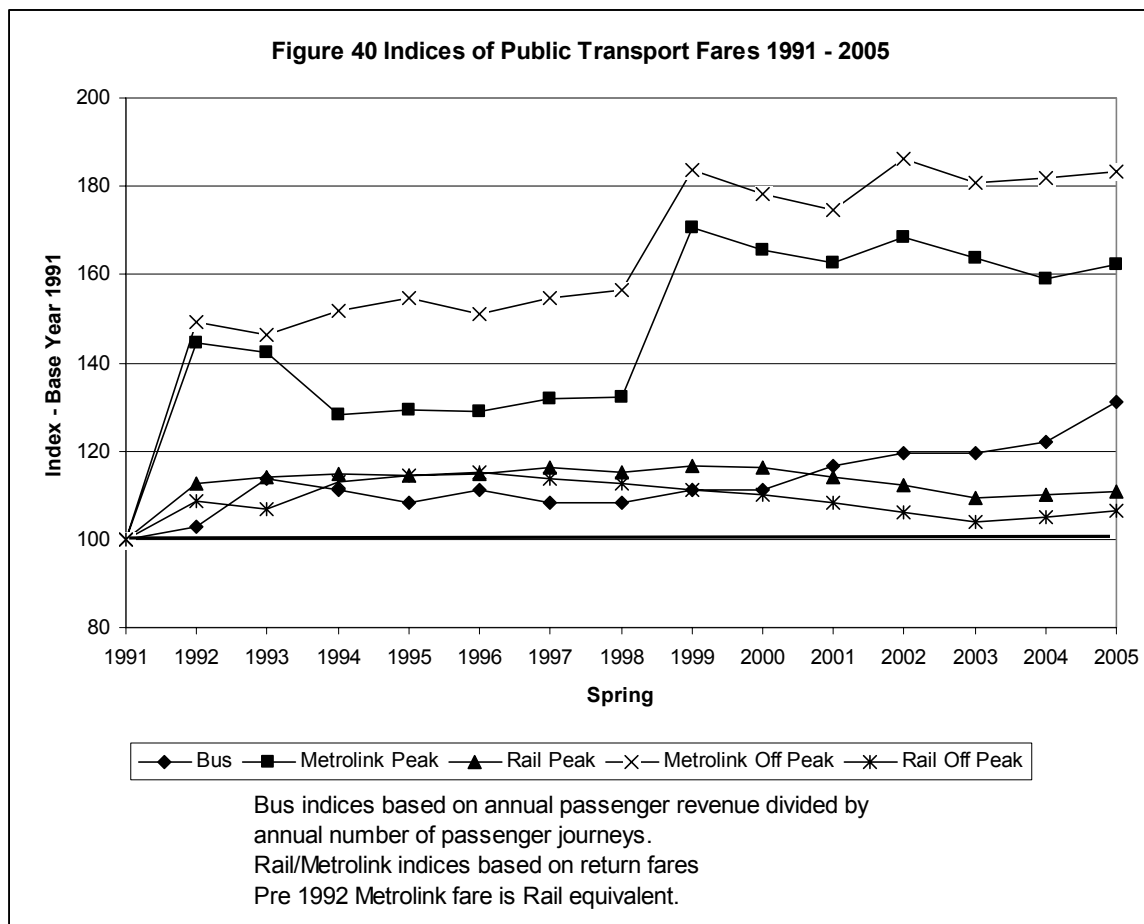
Table 101 The Cost of Fuel per Litre 1991-2005						
Year	Unleaded Petrol			Diesel		
	Cost (p)	Cost at 1991 Prices (p)	Index	Cost (p)	Cost at 1991 Prices (p)	Index
1991	45.07	45.07	100	43.82	43.82	100
1992	46.07	44.41	99	45.01	43.39	99
1993	49.44	46.91	104	49.20	46.68	107
1994	51.58	47.75	106	51.53	47.71	109
1995	53.77	48.11	107	54.24	48.53	111
1996	56.52	49.41	110	57.71	50.45	115
1997	61.82	52.40	116	62.47	52.95	121
1998	64.80	53.10	118	65.50	53.68	123
1999	70.16	56.63	126	72.49	58.51	134
2000	79.93	62.66	139	81.34	63.76	146
2001	75.72	58.30	129	77.84	59.93	137
2002	73.24	55.49	123	75.46	57.17	130
2003	76.04	55.99	124	77.92	57.38	131
2004	80.22	57.36	127	81.91	58.57	134
2005	86.75	60.32	134	90.86	63.18	144

Note: Fuel prices are from DTI Quarterly Energy Prices (DTI Website).



Public Transport Fares

- 5.2 Tables 102 and 103 and Figure 40 show indices of peak and off-peak public transport fares relative to 1991 for an average journey by bus, Metrolink and rail. All fares have been adjusted for inflation to 1991 prices. Average journey lengths and fares were provided by GMPTE. As Metrolink did not begin operation until 1992, the quoted 1991 fare is the equivalent rail fare.
- 5.3 The average bus fare has been calculated by dividing the annual bus passenger revenue by the annual number of bus passenger journeys.
- 5.4 As the average Metrolink journey is 4.5 miles, which covers 3 Metrolink zones, the fare from Heaton Park to Manchester City Centre has been used as the representative fare. For train, the fare from Marple to Manchester City Centre was taken as typical, as this journey has the average journey length of 9.5 miles.
- 5.5 Return fares have been used to calculate the price indices for rail and Metrolink because this is the type of ticket most commonly purchased. In contrast, the average bus fare is for a single journey and includes concessionary fares



Year	Bus (average revenue per person per journey)			Metrolink (3 zones, return)			Rail (9.5 miles, return)		
	Cost (£)	Cost at 1991 Prices (£)	Index	Cost (£)	Cost at 1991 Prices (£)	Index	Cost (£)	Cost at 1991 Prices (£)	Index
1991	0.36	0.36	100	1.80 (R)	1.80	100	2.70	2.70	100
1992	0.38	0.37	103	2.70 (M)	2.60	144	3.15	3.04	113
1993	0.43	0.41	114	2.70 (M)	2.56	142	3.25	3.08	114
1994	0.43	0.40	111	2.50 (M)	2.31	128	3.35	3.10	115
1995	0.44	0.39	108	2.60 (M)	2.33	129	3.45	3.09	114
1996	0.46	0.40	111	2.65 (M)	2.32	129	3.55	3.10	115
1997	0.46	0.39	108	2.80 (M)	2.37	132	3.70	3.14	116
1998	0.47	0.39	108	2.90 (M)	2.38	132	3.80	3.11	115
1999	0.49	0.40	111	3.80 (M)	3.07	171	3.90	3.15	117
2000	0.51	0.40	111	3.80 (M)	2.98	166	4.00	3.14	116
2001	0.54	0.42	117	3.80 (M)	2.93	163	4.00	3.08	114
2002	0.57	0.43	119	4.00 (M)	3.03	168	4.00	3.03	112
2003	0.58	0.43	119	4.00 (M)	2.95	164	4.00	2.95	109
2004	0.62	0.44	122	4.00 (M)	2.86	159	4.15	2.97	110
2005	0.68	0.47	131	4.20 (M)	2.92	162	4.30	2.99	111
2006				4.20 (M)			4.45		

Year	Bus (average revenue)			Metrolink (3 zones, return)			Rail (9.5 miles, return)		
	Cost (£)	Cost at 1991 Prices (£)	Index	Cost (£)	Cost at 1991 Prices (£)	Index	Cost (£)	Cost at 1991 Prices (£)	Index
1991	0.36	0.36	100	1.10 (R)	1.10	100	1.60	1.60	100
1992	0.38	0.37	103	1.70 (M)	1.64	149	1.80	1.74	109
1993	0.43	0.41	114	1.70 (M)	1.61	146	1.80	1.71	107
1994	0.43	0.40	111	1.80 (M)	1.67	152	1.95	1.81	113
1995	0.44	0.39	108	1.90 (M)	1.70	155	2.05	1.83	114
1996	0.46	0.40	111	1.90 (M)	1.66	151	2.10	1.84	115
1997	0.46	0.39	108	2.00 (M)	1.70	155	2.15	1.82	114
1998	0.47	0.39	108	2.10 (M)	1.72	156	2.20	1.80	113
1999	0.49	0.40	111	2.50 (M)	2.02	184	2.20	1.78	111
2000	0.51	0.40	111	2.50 (M)	1.96	178	2.25	1.76	110
2001	0.54	0.42	117	2.50 (M)	1.92	175	2.25	1.73	108
2002	0.57	0.43	119	2.70 (M)	2.05	186	2.25	1.70	106
2003	0.58	0.43	119	2.70 (M)	1.99	181	2.25	1.66	104
2004	0.62	0.44	122	2.80 (M)	2.00	182	2.35	1.68	105
2005	0.68	0.47	131	2.90 (M)	2.02	183	2.45	1.70	106
2006				3.00 (M)			2.55		

Notes:

Fares are at Spring of each year. The length of journey used is the average journey for the particular type of transport as provided in GMPTE literature. The bus fare is based on the annual average revenue per person for a single journey. In Metrolink fares, (R) indicates previous rail service (M) Metrolink service.

Population of Greater Manchester

5.6 The Registrar General's mid-year estimates of population for each district of Greater Manchester for the years 1971, 1981, 1991 and 1995-2004 are given in Table 104. The estimates for 1981 to 2003 have been recently revised by the Office of National Statistics and are available on their website along with the 2004 estimates. Table 105 shows the percentage changes in population over time. National Census Data analysis can be found in GMTU Report 945, National Census Data Travel to Work Analysis, Greater Manchester 1981-2001.

	1971	1981	1991	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bolton	260.9	262.1	261.6	260.9	260.1	259.7	260.9	260.4	260.2	261.3	262.3	263.8	264.8
Bury	175.7	177.1	178.3	179.9	179.7	179.7	180.6	181.0	180.9	180.7	181.3	181.9	182.1
Manchester	553.6	459.2	432.7	425.7	422.6	417.7	417.7	416.4	421.8	422.9	428.5	432.5	437.0
Oldham	224.9	221.4	218.5	219.0	219.2	218.9	218.7	218.4	218.1	218.5	218.2	218.1	218.3
Rochdale	204.3	208.2	203.9	205.2	204.7	204.0	204.5	204.9	206.1	206.4	206.3	206.6	206.5
Salford	281.5	249.2	230.8	227.2	225.6	223.9	221.6	220.0	218.7	217.0	216.3	216.5	216.4
Stockport	294.1	292.6	288.6	286.4	286.4	286.3	287.2	285.8	284.4	284.6	283.5	282.5	282.2
Tameside	222.0	218.6	218.0	217.4	216.0	216.1	214.9	213.6	212.9	213.1	213.2	213.4	213.7
Trafford	229.8	222.9	215.8	214.7	214.6	213.5	214.2	213.0	211.3	210.2	210.5	211.8	212.7
Wigan	303.3	307.0	305.6	303.7	302.6	302.1	301.7	302.0	302.0	301.5	302.2	303.8	305.4
Greater Manchester	2750.1	2618.2	2553.6	2540.2	2531.4	2521.9	2521.9	2515.5	2516.3	2516.1	2522.5	2531.0	2539.0

	1971	1981	1991	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bolton	100	100	100	100	100	100	100	100	100	100	101	101	101
Bury	100	101	101	102	102	102	103	103	103	103	103	104	104
Manchester	100	83	78	77	76	75	75	75	76	76	77	78	79
Oldham	100	98	97	97	97	97	97	97	97	97	97	97	97
Rochdale	100	102	100	100	100	100	100	100	101	101	101	101	101
Salford	100	89	82	81	80	80	79	78	78	77	77	77	77
Stockport	100	99	98	97	97	97	98	97	97	97	96	96	96
Tameside	100	98	98	98	97	97	97	96	96	96	96	96	96
Trafford	100	97	94	93	93	93	93	93	92	91	92	92	93
Wigan	100	101	101	100	100	100	99	100	100	99	100	100	101
Greater Manchester	100	95	93	92	92	92	92	91	91	91	92	92	92

Source: Population Estimates Unit, ONS: Crown Copyright.

Note: Figures may not sum due to rounding.

**Greater Manchester Local Highway
Authorities Transport Capital Allocation**

	Total Capital Provision to Individual Districts 1996/7 to 2006/7 £ million													
	1996/ 1997	1997/ ¹ 1998	1998/ 1999	1999/ 2000	2000/ 2001	2001/ 2002	2002/ ^{3&4} 2003	2003/ ⁵ 2004	2004/ ⁶ 2005	2005/ ⁷ 2006	2006/ ⁸ 2007			
Bolton	2.338	1.893	1.931	4.446	2.895	6.498	6.818	10.062	7.822	6.171	6.753			
Bury	1.673	1.857	1.061	1.683	1.834	2.956	3.613	4.964	3.931	3.177	3.191			
Manchester	7.615	12.461	10.110	9.761	5.143	16.037	17.472	21.269	20.109	15.653	10.374			
Oldham	4.608	3.961	5.715	4.022	2.420	3.476	8.969	8.893	8.771	8.056	6.876			
Rochdale	3.683	1.912	1.179	1.387	2.189	3.880	3.394	4.069	3.839	3.142	3.624			
Salford	7.581	6.923	2.514	1.537	5.409	13.660	16.791	14.856	20.318	7.589	3.979			
Stockport	2.898	3.283	1.716	2.041	1.914	3.211	4.897	7.595	11.013	11.180	6.204			
Tameside	1.789	1.807	1.587	1.519	1.811	3.467	3.309	5.828	10.325	4.486	4.486			
Trafford	13.226	12.374	3.537	4.725 ²	4.917 ²	8.074 ²	2.861	3.932	3.049	2.651	2.575			
Wigan	1.556	1.631	1.545	1.873	2.218	4.847	6.154	4.548	9.341	4.109	4.031			
Total	46.967	48.102	30.894	32.994	30.750	66.106	74.278	86.016	98.517	66.214	52.093			

Notes:

- 1 The column for 1997/98 has been amended from that in "Transport Statistics Greater Manchester 1996" (GMTU Report 456) for consistency of treatment. Capital Challenge has been excluded (£0.700 million to Wigan in 1997/98) and credit approvals for the rebuilding of Manchester City Centre have been included (£7.150 million in 1997/98 and £7.200 million in 1998/99).
- 2 The figures for Trafford include £2.938 million as lead authority for Quality Bus Corridors and Site Specific Bus Priority Schemes in 1999/2000, £3.355 million in 2000/2001 and £5.769 million in 2001/2.
- 3 The QBC allocation for 2002/03 onwards has been allocated individually to Districts on the basis of work programmes, rather than being held by Trafford MBC as lead authority.
- 4 This is the first year that Authorities have been allocated funds through the Single Capital Pot (SCP). The 2002/03 figures show the amounts included in the SCP specifically for transport by the DTLR.
- 5 Totals include funding (£13.49 million) that has been held back pending the submission of further information to the DfT.
- 6 Total includes funding (£8.225 million) that has been held back pending the submission of further information to the DfT.
- 7 Does not include £5.114 million for MSIRR allocated as TSG.
- 8 Major scheme allocation not yet decided.

Table 107 Greater Manchester LTP Settlement 2006/07 (£ million)						
Authority	Major Schemes	Integrated Transport			Maintenance	Total
		Other	SEMMMS	Total		
Bolton	0.000	1.548	0.000	1.548	5.205	6.753
Bury	0.000	1.177	0.000	1.177	2.014	3.191
Manchester	0.000	3.865	1.493	5.358	5.016	10.374
Oldham	0.000	1.852	0.000	1.852	5.024	6.876
Rochdale	0.000	1.332	0.000	1.332	2.292	3.624
Salford	0.000	2.260	0.000	2.260	1.719	3.979
Stockport	0.000	1.521	2.972	4.493	1.711	6.204
Tameside	0.000	1.422	1.122	2.544	1.942	4.486
Trafford	0.000	1.265	0.000	1.265	1.310	2.575
Wigan	0.000	1.558	0.000	1.558	2.473	4.031
GMPTA	7.358 ¹	19.208 ²	0.820	20.028	-	27.386
Total	7.358	37.009	6.407	43.416	28.706	79.479

Notes:

- 1 Northern Orbital (3.2) and SEMMMS QBC (5.0).
- 2 Includes TIF (3.5).

Other consists of Minor Works, Transport Infrastructure, and top-sliced money for Local Safety Schemes, Quality Bus Corridors, the Joint Transport Team (JTT) and GMTU's Service Level Agreement with JTT for LTP Monitoring.

Car Parking Provision and Charges in Greater Manchester

- 5.7 Table 108 details the provision of off-street car parking in the Greater Manchester key centres. Data has been collected by observation and therefore may vary from figures published in other sources. Figures shown for local authority car parks include partnerships with private operators, eg NCP Manchester.
- 5.8 Tables 109 and 110 and Figures 41 and 42 show the total number of spaces available and average price for three different time periods – 2 hours, 4 hours and 7 hours.

Key Centre	LA Car Parks		Private Car Parks		Total	
	No. Car Parks	No. Spaces	No. Car Parks	No. Spaces	No. Car Parks	No. Spaces
Bolton	15	1407	20	3634	35	5041
Bury	15	2137	1	542	16	2679
Manchester	31	11951	43	8219	74	20170
Oldham	10 ¹	1574	6	1910	16	3484
Rochdale	15	1412	3	1088	18	2500
Eccles	4	355	2	407	6	762
Stockport	14	3118	7	2107	21	5225
Ashton-under-Lyne	10	904	5	891	15	1795
Altrincham	2	651	4	1133	6	1784
Wigan	4	1563	6	525	10	2088
All 10 Key Centres	120	25072	97	20456	217	45528

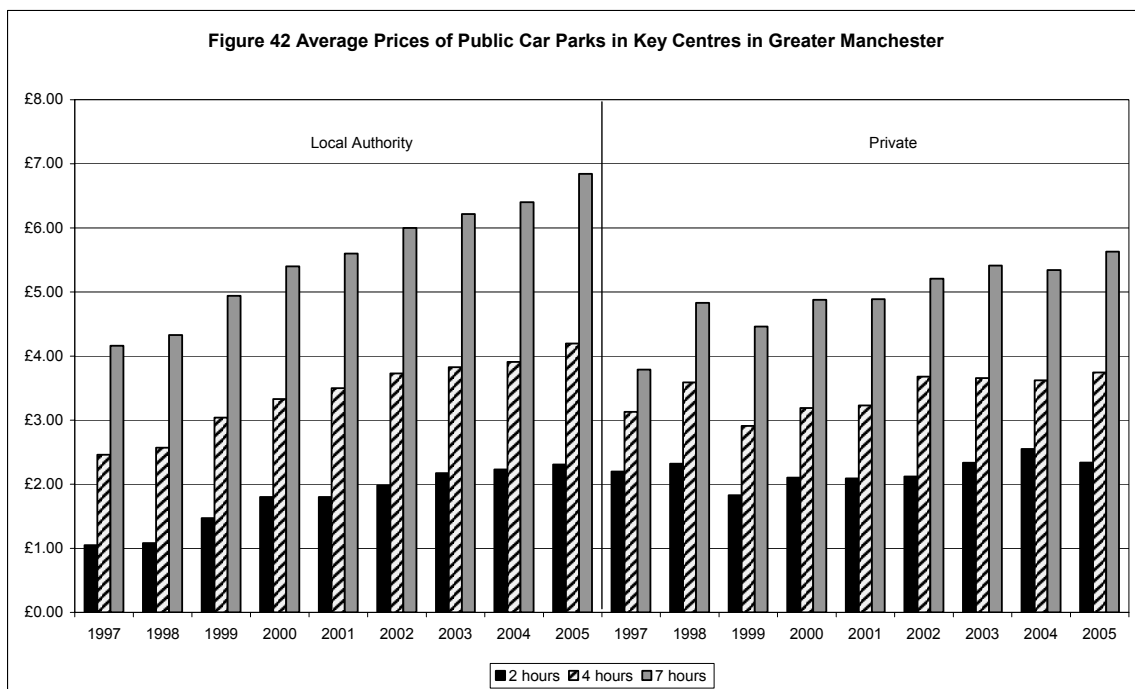
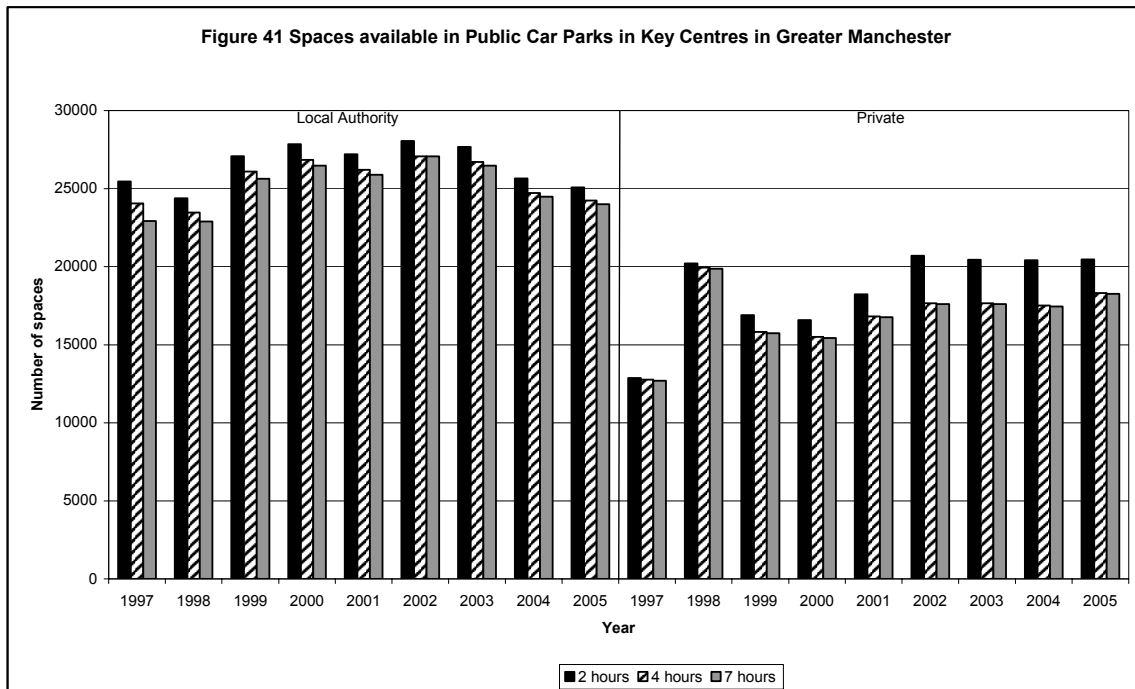
Notes:

1. Includes one car park (27 spaces) for disabled only.

Table 109 Number of Spaces Available in Public Car Parks by Key Centre 1999 to 2005																			
Key Centre	Length of Stay	2000			2001			2002			2003			2004			2005		
		Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private		
Bolton	2 hours	1621	3077	1696	3308	1576	3405	1535	3704	1446	3746	1407	3634						
	4 hours	1512	3077	1601	3202	1440	3301	1440	3600	1351	3642	1312	3634						
	7 hours	1148	2994	1277	3202	1128	3301	1205	3600	1116	3642	1077	3634						
Bury	2 hours	1799	450	2113	572	2116	572	2106	572	2153*	572	2137	542						
	4 hours	1799	450	2113	572	2116	572	2106	572	2153*	572	2137	542						
	7 hours	1799	450	2113	572	2116	572	2106	572	2153*	572	2137	542						
Manchester	2 hours	13156	8253	12814	8136	13072	7946	13003	7974	12073	7586	11951	8219						
	4 hours	13156	8253	12814	7886	13072	7778	13003	7926	12073	7486	11951	8219						
	7 hours	13156	8253	12814	7886	13072	7778	13003	7926	12073	7486	11951	8219						
Oldham	2 hours	1723	1470	1648	1505	1903	1530	1823	1530	1780	1937	1574	1910						
	4 hours	1687	1470	1613	1505	1843	1530	1763	1530	1641	1937	1435	1910						
	7 hours	1687	1470	1613	1470	1843	1495	1763	1495	1641	1902	1435	1875						
Rochdale	2 hours	1747	137	1428	1213	1476	1714	1445	1158	1429	1158	1412	1088						
	4 hours	1747	137	1428	1129	1476	1714	1445	1158	1429	1158	1429	1088						
	7 hours	1747	137	1428	1129	1476	1714	1445	1158	1429	1158	1429	1088						
Eccles	2 hours	382	30	357	30	355	379	355	416	355	398	355	407						
	4 hours	382	30	357	30	355	29	355	29	355	29	355	29						
	7 hours	382	30	357	30	355	29	355	29	355	29	355	29						
Stockport	2 hours	2728	1622	2992	1506	3197	2331	3061	2235	3100	2019	3118	2107						
	4 hours	2728	555	2992	525	3197	740	3061	814	3100	600	3118	545						
	7 hours	2728	555	2992	525	3197	740	3061	814	3100	600	3118	545						
Ashton-under-Lyne	2 hours	1166	759	1163	788	1056	1000	1056	1000	901	1000	904	891						
	4 hours	377	759	384	788	324	805	324	805	276	805	286	678						
	7 hours	377	759	384	768	324	773	324	773	276	773	286	678						
Altrincham	2 hours	1496	400	955	717	906	1347	906	1347	906	1498	651	1133						
	4 hours	1431	400	872	717	836	722	836	722	836	778	651	1133						
	7 hours	1431	400	872	717	836	722	836	722	836	778	651	1133						
Wigan	2 hours	2026	381	2037	466	2397	475	2377	509	1511	509	1563	525						
	4 hours	2026	381	2037	466	2397	475	2377	509	1511	509	1563	525						
	7 hours	2026	381	2037	466	2397	475	2377	509	1511	509	1563	525						
TOTAL GM	2 hours	27844	16579	27203	18241	28054	20699	27667	20445	25654	20423	25072	20456						
	4 hours	26845	15512	26211	16820	27056	17666	26710	17665	24725	17516	24237	18303						
	7 hours	26481	15429	25887	16765	26744	17599	26475	17598	24490	17449	24002	18268						

Notes: * revised figures

Table 110 Average Prices in Public Car Parks by Key Centre 1999 to 2005																			
Key Centre	Length of Stay	2000			2001			2002			2003			2004			2005		
		Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private		
Bolton	2 hours	£1.30	£1.69	£1.34	£1.71	£1.33	£1.71	£1.35	£1.90	£1.35	£1.90	£1.35	£2.26	£1.36	£2.33				
	4 hours	£3.01	£3.19	£2.44	£2.95	£2.34	£2.95	£2.30	£2.79	£2.32	£2.79	£2.32	£3.13	£2.30	£3.12				
	7 hours	£3.13	£5.20	£2.56	£3.85	£2.51	£3.85	£2.62	£3.92	£2.59	£4.42	£2.59	£4.42	£2.69	£4.42				
Bury	2 hours	£0.65	£1.00	£0.70	£1.00	£0.70	£1.00	£0.80	£1.30	£0.90	£1.00	£0.90	£1.00	£1.10	£1.50				
	4 hours	£2.45	£2.50	£2.28	£2.50	£2.56	£2.50	£2.77	£2.50	£2.87	£2.50	£2.87	£2.00	£3.31	£2.00				
	7 hours	£2.56	£10.00	£2.38	£10.00	£2.66	£10.00	£2.87	£10.00	£2.94	£10.00	£2.94	£10.00	£3.44	£10.00				
Manchester	2 hours	£2.79	£2.92	£2.69	£3.09	£3.09	£3.09	£3.44	£3.67	£3.54	£4.03	£3.54	£4.03	£3.59	£3.45				
	4 hours	£4.24	£3.44	£4.60	£3.57	£5.13	£3.57	£5.28	£4.33	£5.43	£4.62	£5.43	£4.62	£5.87	£4.53				
	7 hours	£6.65	£4.42	£6.99	£4.58	£7.96	£4.58	£8.10	£5.31	£8.51	£5.51	£8.51	£5.51	£9.01	£6.02				
Oldham	2 hours	£1.25	£1.25	£1.18	£1.29	£1.18	£1.29	£1.14	£1.30	£1.18	£1.15	£1.18	£1.15	£1.38	£1.28				
	4 hours	£2.10	£2.19	£2.10	£2.24	£2.05	£2.24	£2.09	£2.23	£2.09	£2.02	£2.09	£2.02	£2.39	£2.15				
	7 hours	£4.61	£5.83	£4.60	£5.86	£4.39	£5.86	£4.49	£5.80	£4.58	£5.02	£4.58	£5.02	£4.91	£5.04				
Rochdale	2 hours	£0.78	£0.40	£0.78	£0.50	£0.76	£0.50	£0.76	£1.00	£0.77	£1.00	£0.77	£1.00	£0.96	£1.00				
	4 hours	£2.10	£0.70	£2.54	£2.22	£2.40	£2.22	£2.32	£1.95	£2.34	£2.01	£2.34	£2.01	£1.72	£2.01				
	7 hours	£4.32	£5.00	£4.23	£5.00	£4.06	£5.00	£4.01	£6.75	£4.05	£6.81	£4.05	£6.81	£4.85	£7.12				
Eccles	2 hours	£0.50	£2.00	£0.50	£2.00	£0.50	£2.00	£0.70	£1.07	£0.70	£1.07	£0.70	£1.07	£0.70	£1.06				
	4 hours	£1.17	£2.00	£1.19	£2.00	£1.19	£2.00	£1.69	£2.00	£1.69	£1.79	£1.69	£1.79	£1.69	£1.79				
	7 hours	£3.79	£2.00	£3.69	£2.00	£3.68	£2.00	£3.87	£2.00	£3.87	£1.79	£3.87	£1.79	£3.87	£1.79				
Stockport	2 hours	£0.75	£0.48	£1.00	£0.54	£1.00	£0.54	£1.04	£0.80	£0.96	£0.78	£0.96	£0.78	£0.93	£0.70				
	4 hours	£2.79	£3.35	£2.60	£4.00	£2.53	£4.00	£2.56	£6.32	£2.54	£5.50	£2.54	£5.50	£2.89	£6.00				
	7 hours	£4.43	£3.45	£4.98	£4.00	£5.06	£4.00	£5.13	£6.32	£5.09	£5.50	£5.09	£5.50	£5.87	£6.00				
Ashton-under-Lyne	2 hours	£1.00	£1.03	£1.00	£1.02	£1.00	£1.02	£1.20	£1.33	£1.85	£1.35	£1.85	£1.35	£1.78	£1.72				
	4 hours	£1.50	£1.76	£1.50	£1.76	£1.50	£1.76	£2.00	£2.48	£2.50	£2.49	£2.50	£2.49	£1.98	£3.79				
	7 hours	£2.00	£2.88	£2.00	£2.86	£2.00	£2.86	£2.50	£2.92	£3.50	£2.94	£3.50	£2.94	£2.77	£7.04				
Altrincham	2 hours	£0.69	£1.30	£1.05	£1.26	£1.06	£1.26	£1.06	£1.65	£1.78	£2.62	£1.78	£2.62	£0.73	£1.13				
	4 hours	£2.99	£5.63	£3.05	£5.36	£3.07	£5.36	£2.77	£5.29	£2.48	£3.38	£2.48	£3.38	£2.31	£3.54				
	7 hours	£3.73	£10.00	£5.11	£10.00	£5.17	£10.00	£5.17	£10.00	£5.17	£6.22	£5.17	£6.22	£3.86	£3.85				
Wigan	2 hours	£1.00	£2.71	£1.20	£3.40	£1.15	£3.40	£1.20	£3.48	£1.20	£3.53	£1.20	£3.53	£1.20	£3.84				
	4 hours	£2.20	£3.45	£2.73	£4.21	£2.62	£4.21	£2.50	£4.20	£2.50	£4.23	£2.50	£4.23	£2.50	£4.86				
	7 hours	£6.00	£3.45	£6.00	£4.21	£6.00	£4.21	£6.00	£4.27	£6.00	£4.31	£6.00	£4.31	£6.00	£4.42				
TOTAL GM	2 hours	£1.80	£2.10	£1.80	£2.09	£1.98	£2.12	£2.17	£2.33	£2.23	£2.55	£2.23	£2.55	£2.31	£2.34				
	4 hours	£3.33	£3.19	£3.50	£3.23	£3.73	£3.68	£3.83	£3.66	£3.91	£3.62	£3.91	£3.62	£4.20	£3.74				
	7 hours	£5.40	£4.88	£5.60	£4.89	£6.00	£5.21	£6.22	£5.41	£6.40	£5.34	£6.40	£5.34	£6.84	£5.63				



Road Lengths in Greater Manchester 2005

Table 111 Road lengths in Greater Manchester 2005 (kilometres)													
	Trunk			Principal			B Roads		C Roads		U Roads		All Roads
	Motorways	Rural	Urban	Motorways	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
Bolton	18.3	0.0	0.0	0.0	27.2	74.2	13.3	35.3	26.7	20.2	64.5	731.1	1010.8
Bury	20.7	0.0	0.0	0.0	6.0	49.1	7.3	25.4	5.2	32.4	36.7	445.2	628.0
Manchester	17.4	0.0	2.2	3.2	2.0	108.6	0.7	37.4	0.0	83.9	15.0	1100.1	1370.5
Oldham	6.6	0.2	4.0	0.0	39.5	54.6	7.7	23.5	3.5	28.1	92.9	558.0	818.6
Rochdale	24.2	0.0	0.0	0.0	15.5	64.1	5.9	17.8	23.7	10.6	47.6	567.8	777.2
Salford	30.1	0.0	0.0	0.0	3.3	83.7	0.3	29.0	0.0	3.3	14.7	624.2	788.6
Stockport	12.4	0.0	0.0	0.0	10.1	74.0	3.9	33.6	15.7	27.7	53.0	753.2	983.6
Tameside	15.3	2.1	1.1	0.0	3.5	59.3	2.7	29.2	2.3	35.1	55.6	551.3	757.5
Trafford	9.5	0.0	0.0	2.0	4.9	51.5	7.8	45.5	10.8	37.7	33.1	597.4	800.2
Wigan	16.7	0.0	0.0	0.0	30.0	87.1	19.4	36.5	36.9	30.8	77.7	785.1	1120.2
Greater Manchester	171.2	2.3	7.3	5.2	142.0	706.2	69.0	313.2	124.8	309.8	490.8	5713.4	8055.2
			9.6		848.2		382.2		434.6		6204.2		

Notes:

Figures are based on road lengths published on their website by DfT in December 2005.

Urban roads are those within an urban area of 10,000 pop or more (1991 definition of urban settlement; 2001 National census estimate).

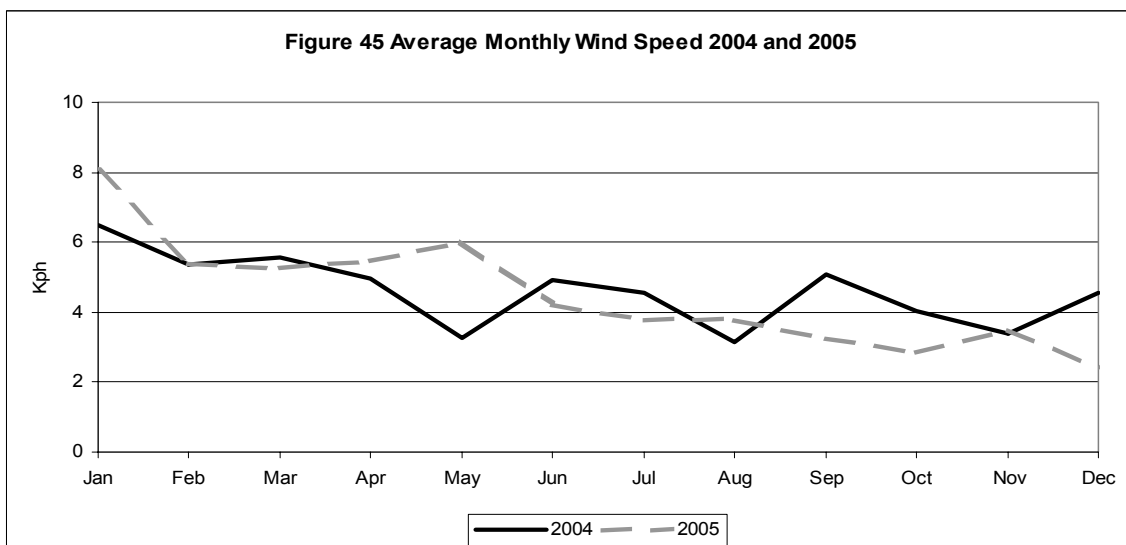
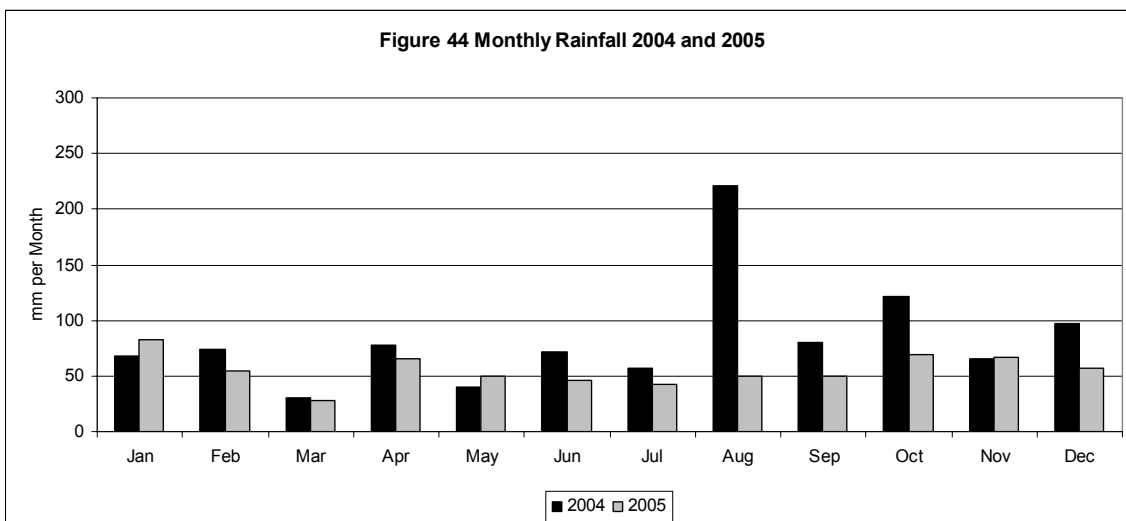
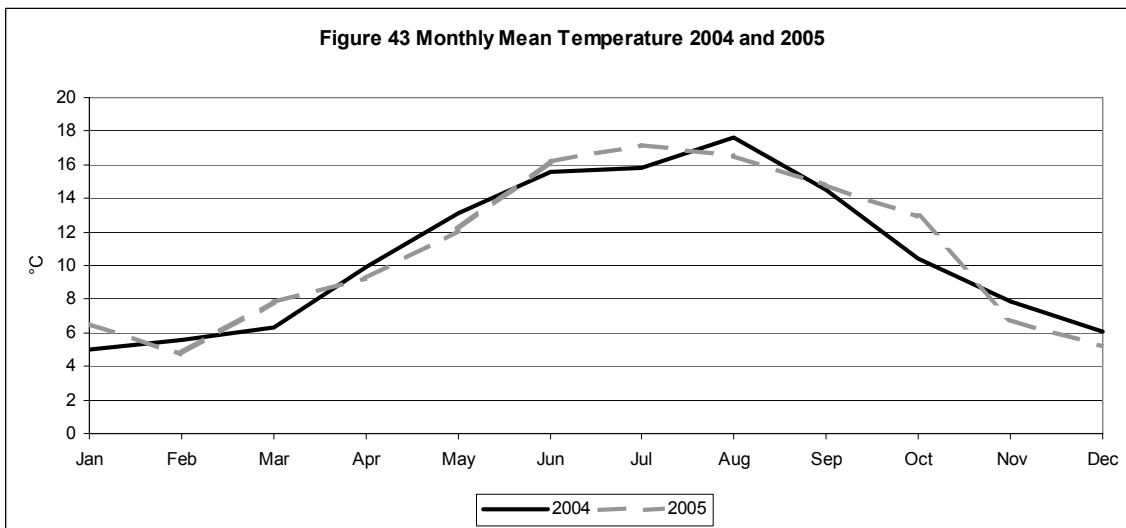
Rural roads are those outside an urban area.

Motorways include "spurs" but exclude slip roads.

Road lengths used in tables of vehicle kilometres differ slightly in this report as a simplified network is used.

Weather Data

5.9 Figures 43 to 45 present summaries of average temperature, rainfall and windspeed at two sites in Greater Manchester for 2004 and 2005.



Highway Schemes

Table 112 Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
Stockport	Southern Link Rd (B5465 St Marys Way) A new single carriageway link 0.8 km providing a link between Hall St (A626) and Wellington Rd South (A6).	1.2	06/86
Tameside	Hyde Town Centre Bypass (A627 Clark Way) A new route comprising 0.8 km new dual carriageway and 0.5 km single carriageway widening of existing roads providing a northern bypass between Manchester Rd and Market St.	1.9	07/86
Stockport	A626 Diversion Stockport (A626 St Marys Way) A new wide single carriageway link 0.9 km long between Hall St A626 and the M63 (now M60)/A626 roundabout.	3.4	12/86
Manchester/ Salford	A6042 Manchester and Salford Inner Relief Route Blackfriars Rd - Jubilee St New dual carriageway link 0.6 km long which includes a new bridge across the River Irwell between Manchester and Salford linking Blackfriars Rd (A6041) and Great Ducie St (A56).	4.6	03/87
Trafford	A6144(M) Carrington Spur A new single carriageway motorway link (A6144 (M)) linking the M63 Junction 6 (now M60 Jn 8) to Carrington Ln (A6144).	7.1	12/87
Manchester	A5103 Princess Rd Improvement, Moss Side Widening to dual carriageway standard of the final 1 km section of the A5103 between the M56 and Manchester City Centre, concluding with changes to Greenheys Ln junction.	2.9	03/88
Salford	A6042 Manchester and Salford Inner Relief Route Blackfriars Rd - Gore St A new dual carriageway link 0.5 km long between Chapel St (A6) and Blackfriars Rd (A6041).	5.1	08/88
Department of Transport	M62 Eastbound Climbing Lane (Junctions 21 to 22)	3.8	12/88

Table 112 (cont) Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
Salford	A57 Regent Rd Improvement M602 to Water St Widening of dual carriageway standard of 1.5 km of Regent Rd (A57) between the M602 and the Regional Centre.	6.6	07/89
Department of Transport	M63/M66 Portwood - Denton A new dual 3-lane carriageway route linking the M63 at Portwood at the southern end, to the M67 at Denton at the northern end. This is the last but one section of the Manchester Outer Ring Road (now M60 Jns 24-27).	50.1	04/89
Manchester	A6042 Manchester and Salford Inner Relief Route Cheetham Hill Rd - Jubilee St Widening of 0.3 km of New Bridge St to dual carriageway standard between Great Ducie St (A56) and Cheetham Hill Rd (A665).	1.1	06/89
Manchester/ Salford	Manchester and Salford Inner Relief Route A57 Regent Rd - A56 Chester Rd (Phase 1) Improvement at the junction of Regent Rd (A57) and Water St (A6143).	1.2	07/89
Wigan	Wigan Inner Relief Road A49 River Way/Central Park Way A new route comprising new dual carriageway, new single carriageway and improvements to existing roads to provide a bypass to the A49 around Wigan town centre between Wallgate to the south and Wigan Ln to the north.	14.8	10/89
Manchester	A665 Manchester and Salford Inner Relief Route Redhill St - Fairfield St Widening of dual carriageway standard of 0.5 km of the A665 Great Ancoats St and Pin Mill Brow including a new junction arrangement at the Pin Mill Brow (A665) and Ashton Old Rd (A635).	6.5	10/89
Bolton	A666 St. Peter's Way Extension/A673 Topp Way Dualling Dual carriageway extension (0.7 km long) to A666 St. Peter's Way and addition of second carriageway to 0.5 km long A673 Topp Way in the north of Bolton town centre.	5.2	11/89

Table 112 (cont) Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
Department of Transport	M63 Widening (Junctions 1 to 7) Widening of the M63 from dual 2-lane carriageway to dual 3-lane carriageway in four separate stages (now M60 Jns 7-12).	51.8	03/90
Salford	A5063 Trafford Rd Improvement, M602 - The Quays Widening of dual carriageway standard of 0.8 km of A5063 Trafford Road between the Salford Quays Development and the M602.	4.5	06/90
Wigan	A572 Bradshawgate Diversion, Leigh Spinning Jenny Way A 1.5 km long single carriageway bypass to the A572 Bradshawgate, Leigh, which is a major shopping street.	4.7	06/90
Bury	A665 Blackburn St Diversion, Radcliffe Pilkington Way Dual carriageway bypass of Radcliffe town centre between Blackburn St/Stand Ln junction and Blackburn St/Darbyshire St junction.	7.9	06/91
Bolton	A58 Cricketers Way Single carriageway bypass of Westhoughton town centre.	4.0	09/91
Tameside	A635 Manchester Rd - A6017 Stockport Rd - William St Gyratory Signalised gyratory system using modified existing road network.	2.9	10/91
Manchester	Manchester Intermediate Ring Road - A6010 Stage 1, Phases 1&2, Kirkmanshulme Ln to Pottery Ln (Alan Turing Way) Phase 1 Dual carriageway section of the Intermediate Ring Road between Kirkmanshulme Ln and the A57 Hyde Rd. Phase 2 Dual carriageway section between A57 Hyde Rd and Pottery Ln.	6.8	03/92

Table 112 (cont) Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
Salford	A57 Cadishead Way Stage 1 Boysnope Wharf to Brinell Drive (North). A single 2 lane carriageway bypassing Irlam.	13.2	03/92
Stockport	Brinksway Bridge – 40 metre span, weathering steel structure	1.9	04/92
Stockport	Brinksway Phase I and Phase II A new dual carriageway bridge over the River Mersey and improvements to access to the Travis Brow Interchange and Kings Valley Development north of the river.	4.5	07/92
Manchester	A6/A57(M) Mancunian Way A major junction improvement involving the conversion of the former A6/A57(M) roundabout to a grade separated signalised junction with A57(M) dual carriageway flyover.	16.3	08/92
Wigan	A579 Lowton St Mary's Bypass A new 1.2 km long wide single carriageway link between the A572 and A580(T) forming a southern extension to Atherleigh Way, Leigh.	4.8	12/92
Manchester	Manchester Airport Access Roads - Stage 1 and Stage 2 Widening of existing Outwood Ln roundabout to improve capacity and a grade separated access to new Terminal 2 from M56 Spur.	5.5	04/93
Oldham	Broadgate Spine Road New road between A663 Broadway and Foxdenton Ln.	2.5	09/93
Oldham	A62 Manchester St/Manchester Rd Improvement Scheme Upgrading the existing single carriageway road to a 1.5 mile dual carriageway from South St to Oldham Way to cater for growth in traffic when the Manchester Outer Ring Road is completed.	17.7	12/93

Table 112 (cont) Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
Department of Transport	M62 Junctions 14 to 17 Widening of the carriageway to dual four lanes (now M60 Jns 14-17).	14.5	08/94
Salford/ Trafford/ TPDC	A576 Centenary Way including Centenary Bridge A5081 Park Way/M602 Link Rd - Eccles Relief Rd New dual carriageway road connecting Trafford Park with M602 at Eccles including new bridge across the Manchester Ship Canal. Scheme includes the dualling of Tenax Rd and part of Guinness Rd.	36.0	12/94
Department of Transport	M56 Junctions 4 to 6 Widening of the carriageway to dual four lanes.	11.8	12/94
Stockport	A626 Tiviot Way Bridge Replacement bridge – 30 metre span	1.9	12/94
Stockport/ Cheshire	A34 Handforth/Wilmslow Bypass Stage 1 A dual carriageway bypass road for Handforth and Wilmslow also providing access to the new retail centre at Handforth Dean.	90.2	10.95
Stockport/ Cheshire	A555 Manchester Airport Eastern Link Rd (Central Section) A dual carriageway 3.9 km long between B5358 Wilmslow Road and A5102 Woodford Road	11.8	10/95
Salford	A57 Cadishead Way Stage 2 Phase 1 Extending Stage 1 of the scheme southwards to Brinell Drive (south) through Northbank Industrial Estate.	2.5	10/95
Manchester	Manchester Hulme Strategic Roads Greenheys Ln West, Chichester Rd, Old Birley St	2.3	09/96
Manchester	A6010 Intermediate Ring Rd Stage 2A and 2B Alan Turing Way Completion of dual carriageway	43.0	08/96
Stockport/ Cheshire	A34 Handforth Wilmslow Bypass Stage 2 A dual carriageway bypass road for Wilmslow.	28.0	12/96

Table 112 (cont) Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
Manchester	Stretford Road, Hulme Reopening of Stretford Rd through Hulme	2.6	08/97
Trafford Park UDC	A5081 Wharfside Way Eastern Spinal Route Improvements M60 – White City Interchange.	18.0	02/98
Trafford	A56 Bridgewater Way/White City Interchange New 2.0 km dual carriageway road connecting White City Interchange to A56 at Cornbrook.	35.2	02/98
Salford/ Trafford	A5063 Trafford Rd Improvements The Quays – White City	24.0	05/98
Salford/ Manchester	Manchester and Salford Inner Relief Route, A57 Regent Rd to A56 Chester Rd, Phase 2 Stages 1&2 Improvements to the A57/A56 junction, incorporating an underpass for the A57, traffic signals in the redesigned roundabout with pedestrian and cycle facilities, the removal of the A56 flyover, and widening to dual carriageway between A56 and A57 Regent Rd/A6042 Water St junction.	14.1	06/99
Oldham	A62 Oldham Way/A62 Manchester Rd Improvements to pedestrian and cycle crossings together with highway improvements.	7.3	12/99
Wigan	A49 Saddle Junction, Robin Park Signalised gyratory	1.8	09/00
Salford	Eccles Bypass 1 km single carriageway bypassing town centre	2.2	11/00
DETR	M60 J25-1 'MORRIS' Widening	5.8	10/00
DETR	M60 J18 'MORRIS' Roundabout improvement and provision of free flow lane.	9.0	10/00

Table 112 (cont) Highway Schemes over £1 Million completed 1986-2005			
Authority	Name/Description	Cost £M	Opening Date
DETR	M60 Denton-Middleton Contract 1, 7 km motorway Denton-River Medlock Contract 3, 10 km River Medlock – Jn 19	100.0 50.0	10/00 10/00
Salford/ Manchester	Manchester and Salford Inner Relief Route, Regent Road to Gore Street, (stage 1) Dual carriageway, 0.8 km long	21.0	07/02
Trafford	Altrincham Eastern Improvement Route (AEIR) Improvements to highway network east of Altrincham town centre including new bridge over railway	5.5	10/02
Tameside	Lord Sheldon Way (Ashton Northern Bypass) 2.2km dual carriageway	n/a	12/03
Salford/ Manchester	Manchester and Salford Inner Relief Route, Regent Road to Gore Street (Stage 2) Modification to railway bridge over Irwell Street	4.8	11/04
Salford/ Manchester	Manchester and Salford Inner Relief Route, Regent Road to Gore Street (Stage 3) Roadworks dualling Irwell Street beneath modified bridge	1.8	11/04
Manchester	Temple Sq (Manchester Fort Retail Park) Road improvement/widening	1.0	09/05
Salford	A57 Cadishead Way Stage 2 Single carriageway link 2.4 km bypassing Cadishead	11.3	09/05
Manchester	Central Park scheme (North Manchester Business Park) Widening of A62 Oldham Road and new road into site	26.0	11/05

Major Public Transport Schemes

Table 113 Major Public Transport Schemes over £5 million Completed 1993-2005			
Authority	Name/Description	Cost £M	Opening Date
GMPTA	Airport Rail Link Northern Chord & additional rolling stock	15.0	03/93
GMPTA/British Rail/Airport/Cheshire/ERDF	Airport Rail Link Southern Chord	6.0	01/96
GMPTA/Private/ERDF/Salford/DETR	Metrolink Phase 2 Manchester to Salford Quays and Eccles	148.0	07/00

APPENDIX 1
TRAFFIC COUNT FACTORS

Introduction

The GMTU Traffic Counts System (COUNTS) incorporates factors which are applied to single day counts to produce estimates of annual average flows. Three types of factor are involved. These are:

- (i) Split shift to 12-hour factors which are used to estimate single day 12-hour vehicle-specific flows from shorter period counts. These factors are calculated from all available 12-hour continuous counts held on the COUNTS system;
- (ii) Factors to estimate average 12, 16, 18 and 24-hour flows from 12-hour counts. These are based on all available data from continuous Automatic Traffic Counting (ATC) sites throughout the county;
- (iii) Year to year factors.

A new year to year factor is added each year and factors (i) and (ii) have been updated periodically as new data has become available. This appendix presents factors that have been produced from 2004 (split shift) and 2005 (12-hour to longer period) data and applied to counts in 2005 and 2006.

Factors currently applied to earlier counts are available on request.

Traffic Count Factors For Counts Undertaken in 2005 and 2006

A. Split Shift to 12-Hour

The factors and their associated standard deviations were derived from 12 hour manual classified counts undertaken at 37 motorway, 210 A road and 258 B, C or U road sites throughout the county during 2004. All sites were 2-way.

$$\begin{aligned}
 \text{12-Hour Flow Estimate} &= \text{AM Peak 2-Hour Count} \times A1 \\
 &+ \text{Off-Peak 2-Hour Count} \times A2 \text{ or } A3 \\
 &+ \text{PM Peak 2-Hour Count} \times A4
 \end{aligned}$$

Factors to estimate 12-hour motor vehicle counts to average 12, 16, 18 and 24-hour motor vehicle flows and the standard deviations of the estimates were derived from 2005 Automatic Traffic Count (ATC) data at 34 two-way motorway and 66-two way non-motorway sites throughout the county.

B. 12-Hour to 12-Hour Annual Average Weekday (AAWT)

$$\begin{aligned}
 \text{12-Hour Annual Average Weekday Estimate} &= \frac{\text{12-Hour Flow weekday (W)}}{\text{month (M)}} \times B \text{ (W,M)}
 \end{aligned}$$

C. 12-Hour to 16-Hour Annual Average Weekday (AAWT)

$$\begin{aligned}
 \text{16-Hour Annual Average Weekday Estimate} &= \frac{\text{12-Hour Flow weekday (W)}}{\text{month (M)}} \times C \text{ (W,M)}
 \end{aligned}$$

D. 12-Hour to 18-Hour Annual Average Weekday (AAWT)

$$\begin{aligned}
 \text{18-Hour Annual Average Weekday Estimate} &= \frac{\text{12-Hour Flow weekday (W)}}{\text{month (M)}} \times D \text{ (W,M)}
 \end{aligned}$$

E. 12-Hour to 24-Hour Annual Average Weekday Traffic (AAWT)

$$\begin{aligned}
 \text{24-Hour Annual Average Weekday Estimate} &= \frac{\text{12-Hour Flow weekday (W)}}{\text{month (M)}} \times E \text{ (W,M)}
 \end{aligned}$$

F. 12-Hour to 24-Hour Annual Average Daily Traffic (AADT)

$$\begin{aligned}
 \text{24-Hour Annual Average Day Estimate} &= \frac{\text{12-Hour Flow weekday (W)}}{\text{month (M)}} \times F \text{ (W,M)}
 \end{aligned}$$

G. Year to Year Factors

Indices of motor vehicle traffic growth since 1979 are provided to allow counts to be factored to a common base.

A Split Shift to 12-Hour Factors

1. Factors

Road Class		Time Period	Car	LGV	OGV	Buses	Motor Cycle	Pedal Cycle	All Motor Vehicles
Motorways	A1	07:30-09:30	1.402	1.522	1.563	1.598	1.386		1.432
	A2	10:00-12:00	3.389	3.132	2.928	3.185	3.938		3.267
	A3	12:00-14:00	3.037	3.152	3.002	4.149	3.351		3.049
	A4	16:00-18:00	1.447	1.254	1.316	1.483	1.458		1.416
A Roads	A1	07:30-09:30	1.365	1.460	1.524	1.445	1.450	1.491	1.382
	A2	10:00-12:00	3.452	2.938	2.777	3.407	5.009	4.352	3.308
	A3	12:00-14:00	2.953	3.154	3.189	3.722	3.476	3.597	2.993
	A4	16:00-18:00	1.445	1.281	1.221	1.412	1.420	1.446	1.421
B C U Roads	A1	07:30-09:30	1.313	1.426	1.470	1.330	1.388	1.449	1.327
	A2	10:00-12:00	3.572	3.073	2.844	3.130	4.042	3.732	3.450
	A3	12:00-14:00	3.050	3.277	3.315	3.324	2.736	3.302	3.064
	A4	16:00-18:00	1.432	1.301	1.172	1.259	1.385	1.482	1.414

2. Standard Deviations Associated with Factors

Road Class		Time Period	Car	LGV	OGV	Buses	Motor Cycle	Pedal Cycle	All Motor Vehicles
Motorways	A1	07:30-09:30	0.059	0.079	0.094	0.255	0.284		0.060
	A2	10:00-12:00	0.344	0.232	0.194	1.140	1.795		0.242
	A3	12:00-14:00	0.174	0.157	0.131	1.798	1.014		0.142
	A4	16:00-18:00	0.074	0.051	0.074	0.374	0.354		0.065
A Roads	A1	07:30-09:30	0.071	0.110	0.195	0.215	0.490	0.472	0.069
	A2	10:00-12:00	0.395	0.295	0.443	1.264	3.363	2.580	0.302
	A3	12:00-14:00	0.167	0.278	0.521	1.421	1.812	2.345	0.147
	A4	16:00-18:00	0.080	0.079	0.139	0.236	0.333	0.604	0.072
B C U Roads	A1	07:30-09:30	0.106	0.235	0.442	0.323	0.510	0.896	0.099
	A2	10:00-12:00	0.496	0.678	1.456	1.533	3.243	2.624	0.453
	A3	12:00-14:00	0.339	1.116	1.527	1.929	1.880	2.254	0.271
	A4	16:00-18:00	0.117	0.212	0.272	0.248	0.462	0.649	0.112

B. 12-Hour Weekday to 12-Hour Annual Average Weekday Factors**MOTORWAY****1. Factors**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.054	1.056	1.052	1.029	1.010	1.555	1.726	1.040
February	1.044	1.025	1.010	1.010	0.985	1.484	1.666	1.014
March	1.034	1.017	1.007	0.989	0.979	1.451	1.538	1.004
April	1.015	0.994	0.988	0.979	0.962	1.448	1.610	0.987
May	1.025	0.998	0.988	0.981	0.957	1.480	1.621	0.989
June	1.018	0.997	0.994	0.983	0.957	1.438	1.560	0.989
July	1.012	1.002	0.991	0.988	0.961	1.436	1.557	0.990
August	1.039	1.012	1.014	1.006	0.991	1.443	1.650	1.010
September	1.017	1.009	1.008	0.994	0.961	1.381	1.528	0.997
October	1.012	1.006	1.003	0.981	0.953	1.380	1.505	0.990
November	1.037	1.019	1.009	0.997	0.977	1.461	1.583	1.007
December	1.018	1.007	0.998	1.000	0.988	1.462	1.610	1.002
Average Factor	1.024	1.010	1.005	0.993	0.971	1.440	1.582	1.000

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.039	0.041	0.041	0.037	0.037	0.200	0.193
February	0.022	0.030	0.026	0.025	0.022	0.140	0.193
March	0.040	0.021	0.021	0.017	0.035	0.141	0.195
April	0.018	0.020	0.019	0.018	0.027	0.123	0.186
May	0.060	0.016	0.017	0.016	0.029	0.145	0.192
June	0.028	0.029	0.022	0.024	0.036	0.150	0.225
July	0.035	0.023	0.018	0.024	0.038	0.157	0.234
August	0.043	0.036	0.026	0.027	0.044	0.150	0.228
September	0.033	0.031	0.030	0.023	0.035	0.138	0.197
October	0.017	0.019	0.020	0.024	0.034	0.131	0.184
November	0.030	0.027	0.034	0.021	0.024	0.123	0.166
December	0.036	0.033	0.037	0.029	0.033	0.126	0.162

B 12-Hour Weekday to 12-Hour Annual Average Weekday Factors

NON-MOTORWAY

1. Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.029	1.028	1.032	1.025	1.008	1.271	1.652	1.024
February	1.032	1.022	1.015	1.029	0.993	1.270	1.592	1.019
March	1.024	1.006	1.001	0.995	0.984	1.263	1.533	1.000
April	1.005	0.988	0.985	0.984	0.972	1.284	1.501	0.986
May	1.008	0.994	0.988	0.989	0.975	1.333	1.582	0.990
June	1.025	1.008	1.004	1.000	0.990	1.338	1.637	1.004
July	1.023	1.009	1.004	1.007	0.996	1.348	1.614	1.007
August	1.072	1.055	1.046	1.044	1.046	1.388	1.738	1.050
September	1.029	1.018	1.014	1.009	0.994	1.282	1.558	1.012
October	1.010	1.004	0.999	0.993	0.980	1.278	1.529	0.996
November	1.015	0.997	0.989	0.989	0.981	1.269	1.543	0.994
December	0.986	0.975	0.975	0.978	0.966	1.280	1.520	0.976
Average Factor	1.018	1.005	1.002	0.997	0.980	1.300	1.583	1.000

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.027	0.033	0.032	0.030	0.052	0.142	0.347
February	0.048	0.037	0.036	0.052	0.052	0.193	0.309
March	0.034	0.043	0.040	0.039	0.052	0.197	0.340
April	0.035	0.036	0.035	0.036	0.062	0.220	0.261
May	0.037	0.037	0.036	0.040	0.053	0.271	0.355
June	0.036	0.042	0.038	0.038	0.054	0.255	0.441
July	0.037	0.037	0.040	0.038	0.062	0.248	0.373
August	0.058	0.083	0.050	0.051	0.073	0.225	0.407
September	0.024	0.023	0.021	0.022	0.049	0.198	0.295
October	0.035	0.036	0.035	0.040	0.048	0.195	0.334
November	0.041	0.040	0.043	0.043	0.060	0.191	0.287
December	0.048	0.046	0.048	0.046	0.061	0.195	0.281

C. 12-Hour Weekday to 16-Hour Annual Average Weekday Factors**MOTORWAY****1. Factors**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.236	1.238	1.234	1.207	1.185	1.823	2.022	1.220
February	1.225	1.203	1.185	1.185	1.156	1.739	1.952	1.190
March	1.213	1.193	1.182	1.160	1.148	1.701	1.801	1.178
April	1.189	1.164	1.156	1.146	1.126	1.694	1.884	1.155
May	1.200	1.168	1.157	1.148	1.121	1.730	1.896	1.158
June	1.194	1.170	1.167	1.153	1.123	1.686	1.828	1.160
July	1.187	1.176	1.163	1.159	1.127	1.683	1.824	1.162
August	1.219	1.188	1.189	1.179	1.161	1.689	1.931	1.185
September	1.192	1.182	1.181	1.164	1.126	1.616	1.788	1.168
October	1.187	1.181	1.177	1.152	1.119	1.618	1.763	1.162
November	1.216	1.195	1.185	1.170	1.146	1.713	1.855	1.182
December	1.195	1.181	1.172	1.174	1.160	1.713	1.886	1.176
Average Factor	1.201	1.185	1.179	1.166	1.139	1.688	1.854	1.173

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.054	0.056	0.056	0.049	0.049	0.223	0.203
February	0.036	0.042	0.039	0.034	0.031	0.150	0.204
March	0.047	0.031	0.034	0.024	0.045	0.149	0.210
April	0.022	0.027	0.025	0.022	0.033	0.130	0.202
May	0.068	0.021	0.023	0.023	0.036	0.155	0.209
June	0.029	0.033	0.024	0.025	0.038	0.158	0.247
July	0.037	0.024	0.021	0.026	0.042	0.168	0.257
August	0.044	0.041	0.033	0.032	0.050	0.163	0.254
September	0.045	0.041	0.041	0.031	0.044	0.150	0.218
October	0.029	0.034	0.035	0.036	0.043	0.140	0.199
November	0.044	0.044	0.051	0.036	0.039	0.132	0.173
December	0.054	0.049	0.054	0.043	0.048	0.138	0.170

C. 12-Hour Weekday to 16-Hour Annual Average Weekday Factors

NON-MOTORWAY

1. Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.206	1.204	1.210	1.201	1.181	1.488	1.925	1.200
February	1.208	1.199	1.190	1.203	1.163	1.494	1.906	1.192
March	1.200	1.176	1.171	1.165	1.152	1.510	1.840	1.170
April	1.177	1.157	1.153	1.151	1.138	1.533	1.769	1.155
May	1.182	1.165	1.158	1.159	1.143	1.598	1.887	1.161
June	1.200	1.181	1.175	1.172	1.159	1.601	1.967	1.177
July	1.197	1.181	1.173	1.178	1.166	1.615	1.940	1.179
August	1.294	1.235	1.226	1.223	1.226	1.648	2.074	1.224
September	1.208	1.195	1.190	1.184	1.167	1.537	1.870	1.188
October	1.182	1.175	1.169	1.161	1.149	1.508	1.806	1.166
November	1.188	1.166	1.157	1.157	1.147	1.516	1.844	1.163
December	1.154	1.142	1.141	1.143	1.130	1.517	1.819	1.140
Average Factor	1.194	1.178	1.174	1.169	1.150	1.551	1.892	1.173

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.041	0.046	0.045	0.043	0.065	0.166	0.382
February	0.070	0.054	0.052	0.075	0.072	0.217	0.458
March	0.051	0.069	0.064	0.061	0.071	0.309	0.515
April	0.058	0.060	0.058	0.059	0.079	0.303	0.294
May	0.060	0.063	0.062	0.068	0.074	0.376	0.453
June	0.057	0.068	0.061	0.061	0.073	0.358	0.603
July	0.055	0.059	0.059	0.059	0.080	0.363	0.548
August	0.320	0.105	0.063	0.063	0.086	0.302	0.569
September	0.037	0.039	0.039	0.039	0.060	0.319	0.461
October	0.059	0.062	0.060	0.064	0.070	0.255	0.439
November	0.067	0.070	0.072	0.069	0.082	0.287	0.432
December	0.073	0.074	0.078	0.075	0.086	0.280	0.451

D. 12-Hour Weekday to 18-Hour Annual Average Weekday Factors**MOTORWAY****1. Factors**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.277	1.279	1.274	1.247	1.224	1.882	2.088	1.260
February	1.265	1.242	1.224	1.224	1.194	1.797	2.016	1.229
March	1.252	1.232	1.221	1.198	1.185	1.757	1.860	1.217
April	1.227	1.201	1.193	1.182	1.163	1.749	1.944	1.193
May	1.239	1.206	1.195	1.185	1.157	1.786	1.957	1.195
June	1.233	1.209	1.205	1.191	1.160	1.741	1.888	1.199
July	1.227	1.215	1.201	1.197	1.164	1.738	1.884	1.200
August	1.259	1.227	1.228	1.218	1.199	1.744	1.994	1.225
September	1.231	1.221	1.220	1.202	1.163	1.669	1.846	1.206
October	1.226	1.220	1.216	1.190	1.156	1.671	1.821	1.201
November	1.257	1.235	1.224	1.209	1.184	1.770	1.916	1.221
December	1.234	1.220	1.211	1.213	1.199	1.770	1.948	1.216
Average Factor	1.241	1.224	1.218	1.204	1.177	1.743	1.915	1.212

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.059	0.061	0.061	0.053	0.054	0.230	0.207
February	0.041	0.047	0.044	0.037	0.035	0.155	0.208
March	0.051	0.035	0.039	0.028	0.048	0.153	0.215
April	0.023	0.028	0.027	0.023	0.036	0.134	0.208
May	0.070	0.025	0.025	0.026	0.039	0.161	0.215
June	0.030	0.035	0.027	0.027	0.041	0.161	0.254
July	0.040	0.027	0.025	0.030	0.045	0.173	0.265
August	0.045	0.045	0.038	0.037	0.054	0.168	0.262
September	0.047	0.044	0.045	0.036	0.047	0.156	0.225
October	0.035	0.040	0.042	0.042	0.047	0.143	0.203
November	0.050	0.050	0.058	0.042	0.045	0.137	0.176
December	0.060	0.056	0.061	0.050	0.054	0.145	0.173

D. 12-Hour Weekday to 18-Hour Annual Average Weekday Factors**NON-MOTORWAY****1. Factors**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.250	1.248	1.255	1.245	1.225	1.543	1.995	1.245
February	1.254	1.246	1.235	1.249	1.208	1.551	1.977	1.237
March	1.245	1.221	1.216	1.209	1.196	1.567	1.907	1.215
April	1.221	1.200	1.196	1.195	1.181	1.590	1.836	1.198
May	1.228	1.210	1.203	1.204	1.187	1.657	1.957	1.206
June	1.246	1.227	1.221	1.218	1.203	1.661	2.039	1.222
July	1.244	1.226	1.219	1.223	1.211	1.676	2.012	1.224
August	1.343	1.283	1.273	1.269	1.272	1.709	2.150	1.272
September	1.254	1.241	1.236	1.229	1.212	1.595	1.940	1.234
October	1.227	1.220	1.214	1.206	1.193	1.565	1.874	1.211
November	1.234	1.211	1.201	1.201	1.191	1.572	1.912	1.207
December	1.199	1.187	1.186	1.187	1.173	1.575	1.887	1.184
Average Factor	1.239	1.223	1.219	1.213	1.193	1.609	1.962	1.217

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.049	0.052	0.052	0.050	0.070	0.178	0.390
February	0.078	0.066	0.064	0.084	0.080	0.227	0.461
March	0.064	0.080	0.074	0.071	0.080	0.315	0.521
April	0.067	0.070	0.068	0.069	0.086	0.308	0.303
May	0.070	0.073	0.072	0.079	0.084	0.382	0.458
June	0.066	0.078	0.071	0.070	0.081	0.363	0.611
July	0.063	0.067	0.067	0.068	0.087	0.368	0.554
August	0.330	0.112	0.069	0.068	0.090	0.306	0.576
September	0.051	0.052	0.053	0.054	0.070	0.324	0.466
October	0.069	0.072	0.071	0.073	0.079	0.259	0.444
November	0.077	0.081	0.082	0.079	0.091	0.291	0.435
December	0.084	0.086	0.091	0.087	0.096	0.286	0.454

E. 12-Hour Weekday to 24-Hour Annual Average Weekday Factors

MOTORWAY

1. Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.334	1.337	1.332	1.303	1.279	1.967	2.179	1.316
February	1.322	1.298	1.279	1.279	1.247	1.876	2.104	1.284
March	1.307	1.286	1.274	1.251	1.237	1.833	1.939	1.270
April	1.278	1.252	1.243	1.232	1.211	1.821	2.024	1.243
May	1.290	1.256	1.245	1.235	1.205	1.860	2.038	1.245
June	1.288	1.262	1.259	1.244	1.211	1.817	1.969	1.252
July	1.281	1.269	1.255	1.251	1.215	1.814	1.965	1.253
August	1.315	1.281	1.279	1.269	1.250	1.817	2.076	1.279
September	1.283	1.272	1.271	1.253	1.212	1.739	1.923	1.257
October	1.281	1.274	1.270	1.243	1.207	1.745	1.900	1.254
November	1.313	1.290	1.279	1.263	1.237	1.849	2.000	1.276
December	1.290	1.275	1.266	1.267	1.253	1.849	2.033	1.270
Average Factor	1.296	1.279	1.272	1.258	1.229	1.820	1.998	1.266

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.078	0.081	0.081	0.071	0.072	0.247	0.207
February	0.060	0.064	0.063	0.053	0.049	0.166	0.204
March	0.064	0.052	0.057	0.041	0.058	0.158	0.213
April	0.030	0.037	0.036	0.030	0.038	0.138	0.209
May	0.074	0.030	0.033	0.032	0.039	0.163	0.215
June	0.028	0.039	0.031	0.028	0.038	0.157	0.248
July	0.038	0.033	0.032	0.030	0.044	0.169	0.261
August	0.041	0.045	0.041	0.036	0.052	0.166	0.259
September	0.050	0.048	0.049	0.039	0.048	0.157	0.224
October	0.049	0.056	0.058	0.054	0.054	0.148	0.199
November	0.067	0.067	0.078	0.057	0.061	0.153	0.172
December	0.081	0.076	0.080	0.066	0.071	0.161	0.172

E 12-Hour Weekday to 24-Hour Annual Average Weekday Factors

NON-MOTORWAY

1. Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.286	1.283	1.290	1.280	1.259	1.586	2.051	1.279
February	1.291	1.282	1.272	1.287	1.243	1.598	2.035	1.274
March	1.282	1.257	1.253	1.245	1.231	1.614	1.964	1.251
April	1.257	1.236	1.231	1.230	1.216	1.637	1.891	1.234
May	1.265	1.246	1.239	1.240	1.223	1.708	2.015	1.242
June	1.284	1.264	1.258	1.254	1.239	1.711	2.101	1.259
July	1.281	1.264	1.256	1.261	1.248	1.727	2.072	1.261
August	1.382	1.321	1.311	1.307	1.310	1.760	2.213	1.309
September	1.291	1.278	1.272	1.265	1.247	1.642	1.996	1.270
October	1.264	1.257	1.250	1.242	1.229	1.612	1.929	1.247
November	1.270	1.247	1.237	1.236	1.226	1.618	1.968	1.243
December	1.235	1.222	1.221	1.222	1.208	1.621	1.942	1.219
Average Factor	1.276	1.259	1.254	1.249	1.229	1.657	2.019	1.253

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.055	0.058	0.059	0.056	0.075	0.193	0.407
February	0.089	0.080	0.080	0.095	0.092	0.243	0.477
March	0.076	0.092	0.086	0.083	0.090	0.328	0.539
April	0.081	0.083	0.080	0.082	0.097	0.321	0.316
May	0.082	0.086	0.086	0.091	0.096	0.397	0.474
June	0.078	0.090	0.082	0.082	0.093	0.377	0.632
July	0.076	0.080	0.080	0.080	0.097	0.382	0.571
August	0.335	0.119	0.079	0.078	0.097	0.317	0.593
September	0.067	0.068	0.069	0.070	0.082	0.335	0.480
October	0.082	0.085	0.084	0.086	0.092	0.272	0.459
November	0.089	0.093	0.095	0.091	0.102	0.304	0.449
December	0.097	0.100	0.106	0.100	0.107	0.300	0.469

F. 12-Hour Weekday to 24-Hour Annual Average Day Factors**MOTORWAY****1. Factors**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.218	1.220	1.216	1.190	1.168	1.793	1.985	1.202
February	1.207	1.185	1.168	1.168	1.139	1.711	1.917	1.173
March	1.193	1.174	1.164	1.142	1.129	1.671	1.766	1.160
April	1.164	1.140	1.132	1.122	1.103	1.656	1.840	1.131
May	1.174	1.144	1.133	1.124	1.097	1.691	1.851	1.133
June	1.176	1.153	1.149	1.136	1.105	1.656	1.793	1.143
July	1.169	1.158	1.146	1.142	1.110	1.653	1.789	1.144
August	1.200	1.170	1.166	1.156	1.138	1.653	1.887	1.167
September	1.169	1.160	1.159	1.142	1.104	1.582	1.749	1.146
October	1.170	1.164	1.160	1.135	1.102	1.591	1.731	1.145
November	1.200	1.179	1.169	1.154	1.130	1.688	1.823	1.166
December	1.176	1.163	1.156	1.158	1.143	1.686	1.853	1.160
Average Factor	1.184	1.168	1.162	1.148	1.122	1.660	1.820	1.156

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.092	0.093	0.093	0.083	0.084	0.224	0.161
February	0.075	0.077	0.076	0.066	0.062	0.141	0.154
March	0.070	0.067	0.071	0.056	0.067	0.128	0.165
April	0.044	0.050	0.049	0.043	0.045	0.108	0.163
May	0.068	0.043	0.047	0.045	0.045	0.128	0.167
June	0.042	0.052	0.047	0.043	0.043	0.117	0.196
July	0.045	0.046	0.047	0.045	0.048	0.130	0.209
August	0.041	0.052	0.047	0.042	0.051	0.131	0.211
September	0.055	0.055	0.059	0.049	0.049	0.122	0.180
October	0.062	0.070	0.070	0.065	0.060	0.118	0.153
November	0.079	0.082	0.090	0.071	0.073	0.135	0.127
December	0.093	0.088	0.092	0.079	0.081	0.144	0.132

F. 12-Hour Weekday to 24-Hour Annual Average Day Factors**NON-MOTORWAY****1. Factors**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday Factor
January	1.191	1.190	1.196	1.187	1.167	1.480	1.892	1.186
February	1.198	1.192	1.182	1.194	1.154	1.486	1.874	1.183
March	1.187	1.164	1.161	1.155	1.142	1.489	1.804	1.160
April	1.166	1.146	1.143	1.141	1.128	1.509	1.759	1.144
May	1.173	1.156	1.149	1.150	1.134	1.572	1.853	1.151
June	1.189	1.171	1.165	1.161	1.147	1.573	1.926	1.166
July	1.187	1.171	1.164	1.168	1.157	1.589	1.903	1.169
August	1.284	1.225	1.215	1.212	1.215	1.624	2.037	1.217
September	1.198	1.186	1.181	1.174	1.158	1.516	1.841	1.179
October	1.172	1.166	1.160	1.153	1.141	1.487	1.777	1.157
November	1.178	1.157	1.148	1.147	1.138	1.493	1.812	1.154
December	1.145	1.133	1.133	1.134	1.120	1.497	1.786	1.131
Average Factor	1.182	1.166	1.162	1.157	1.138	1.527	1.859	1.161

2. Standard Deviations Associated with Factors

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	0.075	0.076	0.075	0.072	0.086	0.165	0.313
February	0.110	0.105	0.103	0.114	0.108	0.202	0.355
March	0.103	0.110	0.105	0.103	0.106	0.254	0.407
April	0.099	0.100	0.099	0.100	0.109	0.239	0.259
May	0.102	0.105	0.104	0.111	0.111	0.301	0.357
June	0.097	0.107	0.099	0.101	0.106	0.282	0.485
July	0.095	0.099	0.096	0.099	0.108	0.287	0.436
August	0.338	0.127	0.093	0.094	0.105	0.237	0.452
September	0.092	0.093	0.095	0.097	0.101	0.249	0.362
October	0.102	0.103	0.102	0.105	0.108	0.204	0.346
November	0.110	0.114	0.115	0.113	0.119	0.226	0.332
December	0.114	0.117	0.123	0.120	0.124	0.229	0.350

G Year to Year Factors**Indices of Traffic Flows by Vehicle Type Since 1979****Motorways**

Year	Cars	LGV	OGV	Buses & Coaches	Motor Cycles	All Motors
1979	1.00	1.00	1.00	1.00	1.00	1.00
1980	1.06	1.01	1.01	1.05	1.19	1.03
1981	1.10	1.03	1.03	1.08	1.32	1.02
1982	1.15	1.05	1.05	1.13	1.38	1.09
1983	1.20	1.09	1.09	1.21	1.29	1.13
1984	1.26	1.16	1.14	1.35	1.21	1.17
1985	1.30	1.26	1.17	1.47	1.18	1.22
1986	1.36	1.40	1.19	1.62	1.14	1.28
1987	1.46	1.57	1.24	1.98	1.17	1.37
1988	1.57	1.75	1.31	2.31	1.15	1.48
1989	1.67	1.92	1.37	2.63	1.19	1.57
1990	1.75	2.00	1.40	2.77	1.22	1.63
1991	1.78	1.98	1.45	2.84	1.18	1.65
1992	1.87	2.13	1.41	2.98	1.19	1.73
1993	1.89	2.10	1.38	2.97	1.15	1.73
1994	1.87	2.12	1.52	3.21	1.04	1.73
1995	1.94	2.23	1.52	2.86	1.06	1.80
1996	2.04	2.38	1.50	3.15	1.15	1.88
1997	2.14	2.46	1.51	3.29	1.09	1.96
1998	2.16	2.51	1.50	3.32	1.23	1.98
1999	2.25	2.56	1.52	4.32	1.45	2.04
2000	2.25	2.64	1.50	3.93	1.51	2.04
2001	2.34	2.67	1.49	4.01	1.59	2.10
2002	2.43	2.80	1.50	3.73	1.65	2.18
2003	2.50	2.83	1.49	3.88	1.70	2.22
2004	2.60	3.02	1.56	4.35	1.56	2.31
2005	2.63	2.93	1.45	3.70	1.73	2.29

Other Roads

Year	Cars	LGV	OGV	Buses & Coaches	Motor Cycles	All Motors	Pedal Cycles
1979	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1980	1.02	0.99	0.99	0.97	1.02	1.03	1.09
1981	1.03	0.98	0.98	0.94	1.00	1.02	1.17
1983	1.05	0.98	0.98	0.91	0.98	1.04	1.24
1983	1.08	0.99	0.99	0.89	0.92	1.06	1.26
1984	1.12	1.02	1.01	0.89	0.90	1.09	1.24
1985	1.16	1.06	1.02	0.93	0.81	1.12	1.16
1986	1.21	1.16	1.06	1.03	0.76	1.18	1.16
1987	1.26	1.23	1.08	1.19	0.70	1.22	1.10
1988	1.30	1.30	1.10	1.35	0.66	1.26	1.07
1989	1.34	1.33	1.10	1.46	0.63	1.29	1.08
1990	1.37	1.39	1.09	1.54	0.58	1.31	1.05
1991	1.41	1.37	1.05	1.55	0.53	1.34	1.10
1992	1.39	1.37	0.95	1.60	0.47	1.32	1.12
1993	1.40	1.34	0.99	1.66	0.43	1.32	1.14
1994	1.42	1.38	1.01	1.78	0.40	1.34	1.08
1995	1.43	1.37	0.97	1.62	0.40	1.34	1.10
1996	1.44	1.36	0.95	1.58	0.38	1.35	1.17
1997	1.45	1.37	0.96	1.50	0.35	1.36	1.03
1998	1.45	1.37	0.93	1.50	0.35	1.36	0.94
1999	1.46	1.37	0.85	1.53	0.39	1.37	0.98
2000	1.45	1.40	0.85	1.50	0.42	1.36	0.92
2001	1.45	1.34	0.80	1.52	0.44	1.35	0.88
2002	1.45	1.34	0.74	1.50	0.45	1.35	0.81
2003	1.46	1.35	0.73	1.44	0.44	1.36	0.78
2004	1.46	1.39	0.76	1.43	0.42	1.36	0.75
2005	1.45	1.39	0.70	1.44	0.41	1.35	0.81

APPENDIX 2
SOME RECENT GMTU PUBLICATIONS

REPORTS

No.	Title	Author	Date
456	Transport Statistics Greater Manchester 1996	E Ellis A Hopwood A Castle P Bearon	Apr 97
457	Road Accident Statistics Greater Manchester 1996	D Chiu P Bearon	Apr 97
463	M60 Traffic Signs Inventory	D Nixon I Hull	Apr 97
466	Transport Statistics Bolton 1996	P Bearon A Castle A Hopwood E Ellis	Apr 97
467	Transport Statistics Bury 1996	"	Apr 97
468	Transport Statistics Manchester 1996	"	Apr 97
469	Transport Statistics Oldham 1996	"	Apr 97
470	Transport Statistics Rochdale 1996	"	Apr 97
471	Transport Statistics Salford 1996	"	Apr 97
472	Transport Statistics Stockport 1996	"	Apr 97
473	Transport Statistics Tameside 1996	"	Apr 97
474	Transport Statistics Trafford 1996	"	Apr 97
475	Transport Statistics Wigan 1996	"	Apr 97
476	Pedestrian Flow Surveys In Bolton Town Centre - March 1997	P Jackson	Apr 97
492	Greater Manchester Package Global Monitoring	E Ellis	Dec 97
508	Transport Statistics Greater Manchester 1997	E Ellis A Castle P Bearon	Apr 98
509	Road Accident Statistics Greater Manchester 1997	D Chiu P Bearon	Apr 98
522	Transport Statistics Bolton 1997	A Castle E Ellis P Gent	May 98

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No.	Title	Author	Date
523	Transport Statistics Bury 1997	A Castle E Ellis P Gent	May 98
524	Transport Statistics Manchester 1997	"	May 98
525	Transport Statistics Oldham 1997	"	May 98
526	Transport Statistics Rochdale 1997	"	May 98
527	Transport Statistics Salford 1997	"	May 98
528	Transport Statistics Stockport 1997	"	May 98
529	Transport Statistics Tameside 1997	"	May 98
530	Transport Statistics Trafford 1997	"	May 98
531	Transport Statistics Wigan 1997	"	May 98
533	GMTU Business Plan 1998/99	J Randle	Apr 98
538	24 Hour AAWT In Greater Manchester 1997 And ATC Count Data on Manchester	E Ellis	Jul 98
546	Monitoring The Impact Of the Trafford Centre – Position Statement And Proposals For Future Monitoring	P Jackson	Jul 98
550	Transport Statistics In Greater Manchester In Spring 1998	E Ellis A Hopwood	Oct 98
551	Metrolink Journey Times In Manchester In Manchester City Centre – July 1998	P Jackson	Oct 98
563	EMIGMA Enhancements And the 1997 Update	A Morris J Wharf	Nov 98
578	Transport Statistics Greater Manchester 1998	E Ellis A Castle	May 99
579	Road Accident Statistics Greater Manchester 1998	D Chiu A Castle	May 99
580	GMTU Business Plan 1999/2000	J Randle	Apr 99
592	The Primary Route Network In Greater Manchester - A Direction Signing Strategy	D Nixon	Mar 99

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No.	Title	Author	Date
593	The Traffic Impact Of The Trafford Centre - Some Initial Findings	P Gent P Jackson	Mar 99
597	Transport Statistics Bolton 1998	E Ellis A Castle	May 99
598	Transport Statistics Bury 1998	"	May 99
599	Transport Statistics Manchester 1998	"	May 99
600	Transport Statistics Oldham 1998	"	May 99
601	Transport Statistics Rochdale 1998	"	May 99
602	Transport Statistics Salford 1998	"	May 99
603	Transport Statistics Stockport 1998	"	May 99
604	Transport Statistics Tameside 1998	"	May 99
605	Transport Statistics Trafford 1998	"	May 99
606	Transport Statistics Wigan 1998	"	May 99
610	Eccles Town Centre Relief Road – Estimation Of Future 12 Hour Traffic Volumes For Noise Calculation Purposes	M Killian K Rogers	Jul 99
613	24 Hour Annual Average Weekday Traffic Flows In Greater Manchester 1998	E Ellis A Castle	May 99
617	Warbrick House, Sale – Report On Layout Options For Washway Road/Sibson Road Junction	D Nixon	Aug 99
620	Leigh-Bolton Quality Bus Corridor 'Before' Data A6-College Way	P Jackson	Sep 99
639	Ashley Road/Marlborough Road/Stamford Road/ Langham Road - Report Of Study	K Rogers	Mar 00
641	Transport Statistics Greater Manchester 1999	A Castle E Ellis	May 00
642	Road Accident Statistics Greater Manchester 1999	A Castle D Chiu	May 00
644	Transport Statistics Bolton 1999	A Castle E Ellis	May 00

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No.	Title	Author	Date
645	Transport Statistics Bury 1999	A Castle E Ellis	May 00
646	Transport Statistics Manchester 1999	"	May 00
647	Transport Statistics Oldham 1999	"	May 00
648	Transport Statistics Rochdale 1999	"	May 00
649	Transport Statistics Salford 1999	"	May 00
650	Transport Statistics Stockport 1999	"	May 00
651	Transport Statistics Tameside 1999	"	May 00
652	Transport Statistics Trafford 1999	"	May 00
653	Transport Statistics Wigan 1999	"	May 00
667	DETR – New Approach Appraisal (2000)	T Mellor	Jun 00
671	Results Of the Transport Matters Public Consultation Exercise	A Castle	
686	Some Effects Of The September 2000 Fuel Shortage On Traffic And Travel In Greater Manchester	P Jackson/ J Randle	Oct 00
690	The 1999 Update of EMIGMA	J Wharf/ A Morris	Nov 00
693	An Assessment Of the Initial Impact Of The Completion Of The M60 Manchester Outer Ring Road	P Jackson	Nov 00
697	An Assessment of the Initial Impact Of The Completion Of The M60 – One Month After	P Jackson/ P Young	Jan 01
703	Air Quality Management Areas, Consultation Questionnaire Survey – Analysis Of Results	E Ellis/ A Castle	Mar 01
708	Road Accident Statistics Greater Manchester 2000	D Chiu	Jun 01
713	Transport Statistics Bolton 2000)	Jun 01
714	Transport Statistics Bury 2000)	
715	Transport Statistics Manchester 2000)E Ellis	
716	Transport Statistics Oldham 2000)A Castle	
717	Transport Statistics Rochdale 2000)J Morewood	
718	Transport Statistics Salford 2000)P Gent	

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No.	Title	Author	Date
719	Transport Statistics Stockport)S Staniforth	
720	Transport Statistics Tameside 2000)D Chiu	
721	Transport Statistics Trafford 2000)	
722	Transport Statistics Wigan 2000)	
723	24 Hour Annual Average Weekday Traffic Flows in Greater Manchester 2000))	
740	Traffic Flow Effects of Completion of the M60	E Ellis	Oct 01
745	Accident Statistics for Causation Factors	D Chiu	
746	A Comparison Of Traffic Flows During School Terms And School Holidays At Automatic Traffic Counter Sites In Stockport	P Young/ A Castle	
749	Traffic Effects On Tameside Of Completion Of M60	E Ellis	
754	Greater Manchester Local Transport Plan Automatic Cycle Counting Programme – Calibration Report And Sample Data	P Gent/ P Jackson	
757	Bus Lane Usage And Daily Traffic Profiles	J C Mayoh	Jun 02
758	Transport Statistics Greater Manchester 2001	E Ellis	Jun 02
759	Accident Statistics Greater Manchester 2001	D Chiu	Jun 02
760	Transport Statistics Bolton 2001	E Ellis	Jun 02
761	Transport Statistics Bury 2001	E Ellis	Jun 02
762	Transport Statistics Manchester 2001	E Ellis	Jun 02
763	Transport Statistics Oldham 2001	E Ellis	Jun 02
764	Transport Statistics Rochdale 2001	E Ellis	Jun 02
765	Transport Statistics Salford 2001	E Ellis	Jun 02
766	Transport Statistics Stockport 2001	E Ellis	Jun 02
767	Transport Statistics Tameside 2001	E Ellis	Jun 02
768	Transport Statistics Trafford 2001	E Ellis	Jun 02

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No.	Title	Author	Date
769	Transport Statistics Wigan 2001	E Ellis	Jun 02
778	Results Of The Transport Matters Greater Manchester Questionnaire Survey	A Castle	Aug 02
829	Key Walking Routes	B. Kaur P Jackson	Mar 2003
842	Road Accident Statistics Greater Manchester 2002	D Chiu	May 2003
848	Transport Statistics Bolton 2002	E Ellis et al	Jul 2003
849	Transport Statistics Bury 2002	E Ellis et al	Jul 2003
850	Transport Statistics Manchester 2002	E Ellis et al	Jul 2003
851	Transport Statistics Oldham 2002	E Ellis et al	Jul 2003
852	Transport Statistics Rochdale 2002	E Ellis et al	Jul 2003
853	Transport Statistics Salford 2002	E Ellis et al	Jul 2003
854	Transport Statistics Stockport 2002	E Ellis et al	Jul 2003
855	Transport Statistics Tameside 2002	E Ellis et al	Jul 2003
856	Transport Statistics Trafford 2002	E Ellis et al	Jul 2003
857	Transport Statistics Wigan 2002	E Ellis et al	Jul 2003
885	Christmas Park and Ride	E McDonald	Jan 2004
890	Ashton/Oldham Segment	P Bearon	Feb 2004
894	Key Pedestrian Route Monitoring	B Kaur	Feb 2004
904	Results Of Citizen Panel Surveys 2002	A Castle E Ellis	Mar 2004
905	GMLTP Consultation – A Summary of Findings to February 2004	A Castle E Ellis	Mar 2004
906	Road Accident Statistics Greater Manchester 2003	D Chiu	July 2004

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No.	Title	Author	Date
907	Transport Statistics Greater Manchester 2003	E Ellis	July 2004
908	Transport Statistics Bolton 2003	E Ellis	Aug 2004
909	Transport Statistic Bury 2003	E Ellis	Aug 2004
910	Transport Statistics Manchester 2003	E Ellis	Aug 2004
911	Transport Statistics Oldham 2003	E Ellis	Aug 2004
912	Transport Statistics Rochdale 2003	E Ellis	Aug 2004
913	Transport Statistics Salford 2003	E Ellis	Aug 2004
914	Transport Statistics Stockport 2003	E Ellis	Aug 2004
915	Transport Statistics Tameside 2003	E Ellis	Aug 2004
916	Transport Statistics Trafford 2003	E Ellis	Aug 2004
917	Transport Statistics Wigan 2003	E Ellis	Aug 2004
919	A57 Hyde Road Pottery Lane-Apollo Roundabout Integrated Transport Corridor Scheme Before/After Surveys	P R Jackson	Mar 2004
920	GMLTP Consultation – Summary of Findings	A Castle E Ellis	
933	Results of Transport Matters 2003 Consultation	A Castle	May 2004
945	National Travel to Work Census Analysis 1981-2001	A Castle E Ellis	Sep 04
947	GMATS Analysis – Stockport Key Centre Report	M White P Bearon T Morris	Jul 04
953	The 2003 Update Of EMIGMA	A Morris	Aug 04
963	Self-contained Areas In Greater Manchester 2001	J Wharf	Sep 04
964	Commuting To Key Centres	J Wharf	Sep 04
965	Travel To Work And School In Greater Manchester	J Wharf	Sep 04

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No.	Title	Author	Date
974	GMATS Analysis – Bolton Key Centre Report	P Bearon	Dec 04
982	Trends in Population and Transport in the North East Segment of Greater Manchester	J Wharf A Castle T Morris E Ellis	Oct 04
984	Trends in Population and Transport in the North West Segment of Greater Manchester	J Wharf A Castle T Morris E Ellis	Nov 04
987	Trends in Population and Transport in the South West Segment of Greater Manchester	J Wharf A Castle T Morris E Ellis	Nov 04
988	Trends in Population and Transport in the South East Segment of Greater Manchester	J Wharf A Castle T Morris E Ellis	Nov 04
989	Trends in Population and Transport in the Regional Centre Segment of Greater Manchester	J Wharf A Castle T Morris E Ellis	Nov 04
993	Results of the 'On Yer Bike' Opinion Survey 2004	A Castle	Nov 04
994	GMATS Analysis – Bury Key Centre Report	P Bearon T Morris	Dec 04
996	GMATS Analysis – Manchester Regional Key Centre Report	P Bearon T Morris	Dec 04
997	GMATS Analysis - Oldham Key Centre Report	P Bearon T Morris	Dec 04
998	GMATS Analysis – Rochdale Key Centre Report	P Bearon T Morris	Dec 04
999	GMATS Analysis - Tameside Key Centre Report	P Bearon T Morris	Dec 04
1000	GMATS Analysis - Trafford Key Centre Report	P Bearon T Morris	Dec 04

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No.	Title	Author	Date
1001	GMATS Analysis - Wigan Key Centre Report	P Bearon T Morris	Dec 04
1004	School Travel Survey – Report of Survey Autumn 2004	A Rahim	Dec 04
1015	Road Accident Statistics Greater Manchester 2004	D Chiu	Jun 05
1016	Transport Statistics Greater Manchester 2004	E Ellis et al	Jun 05
1020	Transport Statistics Bolton 2004	E Ellis et al	Jul 2005
1021	Transport Statistic Bury 2004	E Ellis et al	Jul 2005
1022	Transport Statistics Manchester 2004	E Ellis et al	Jul 2005
1023	Transport Statistics Oldham 2004	E Ellis et al	Jul 2005
1024	Transport Statistics Rochdale 2004	E Ellis et al	Jul 2005
1025	Transport Statistics Salford 2004	E Ellis et al	Jul 2005
1026	Transport Statistics Stockport 2004	E Ellis et al	Jul 2005
1027	Transport Statistics Tameside 2004	E Ellis et al	Jul 2005
1028	Transport Statistics Trafford 2004	E Ellis et al	Jul 2005
1029	Transport Statistics Wigan 2004	E Ellis et al	Jul 2005
1035	Casualties in NRSI Areas of Greater Manchester	A Castle D Chiu A Rahim	Apr 05
1053	An Initial Appraisal of Changes in Traffic Flows and Car Journey Times Before and After Completion of the M60.	P Bearon	Jun 2005
1055	GMATS Analysis – Higher Education Precinct	M White	Jul 2005
1063	Analysis of the Results of the Autumn 2004 Roadside Tests of Vehicle Emissions in Greater Manchester	J Wharf	Jul 2005
1074	Additional Analysis into Changes in Car Journey Times Before and After Completion Of the M60	P Bearon	Oct 2005

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No.	Title	Author	Date
1079	Results of "On Yer Bike" Survey October 2005	E Ellis	Oct 2005
1102	Comparison Report of the 2004 & 2005 "Hands Up" School Travel Survey	M White	Jan 2006
1122	GMATS Analysis – Area Analysis Report	M White P Bearon	Mar 2006
1132	North West Road Traffic Collision Casualty Trends 1994 to 2004–Casualty Research Project–Phase 1	D Chiu	Apr 2006
1137	Road Casualty Statistics Greater Manchester 2005	D Chiu	Jul 2006