

---

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

---

**BACKGROUND INFORMATION SECTION  
OF TRANSPORT STATISTICS  
GREATER MANCHESTER 2008**

**SUMMARY**

The 2008 Transport Statistics Greater Manchester Report (GMTU Report 1476) is scheduled for publication during summer 2009. Individual draft sections of the report are being published on the GMTU Website ([www.gmtu.gov.uk](http://www.gmtu.gov.uk)) upon completion. This background information section contains statistics on fuel prices, fares, population trends, car park spaces and prices, road lengths and transport schemes. Lists of GMTU traffic count factors and some recent GMTU publications are also given. The paragraph numbering reflects that of the full report.

<b>Version No.</b>	<b>Purpose/ Changes</b>	<b>Author</b>	<b>Date Changed</b>	<b>Date Issued</b>	<b>To Whom</b>
1	First Release	A Castle et al	27/08/2009	27/08/2009	Website

All enquiries to:  
Greater Manchester Transportation Unit  
1<sup>st</sup> Floor  
Salisbury House  
Granby Row  
Manchester  
M1 7AH  
Telephone: 0161 455 2062  
  
Fax: 0161 455 2071  
  
e-mail: [a.castle@manchester.gov.uk](mailto:a.castle@manchester.gov.uk)  
  
website: <http://www.gmtu.gov.uk>

---

<b>CONTENTS</b>		<b>Page</b>
<b>6</b>	<b>BACKGROUND INFORMATION .....</b>	<b>5</b>
	Retail Price Index .....	7
	Fuel Prices.....	8
	Public Transport Fares .....	9
	Car Parking Provision and Charges in Greater Manchester .....	11
	Personal Travel –Metropolitan Area Statistics 2008 .....	15
	Road Vehicles .....	18
	Weekly Earnings.....	18
	Air Transport.....	19
	Road Lengths in Greater Manchester 2008.....	21
	Population of Greater Manchester.....	22
	Greater Manchester Local Highway Authorities Transport Capital Allocation.....	24
	Highway Schemes .....	26
	Major Public Transport Schemes.....	33
	Weather Data .....	34
 <b>APPENDIX 1 TRAFFIC COUNT FACTORS</b>		
<b>APPENDIX 2 SOME RECENT GMTU PUBLICATIONS</b>		

## LIST OF TABLES

		<b>Page</b>
Table 6.1	Retail Price Index (All Items) 1987-2008 – Base Jan 1987 = 100 ...	7
Table 6.2	The Cost of Fuel per Litre 1991-2008.....	8
Table 6.3	Public Transport Peak Fares for Average Journeys 1991 to 2008	10
Table 6.4	Public Transport Off-Peak Fares for Average Journeys 1991 to 2008 .....	10
Table 6.5	Public Car Parks in Key Centres 2008 (excluding contract only car parks) .....	11
Table 6.6	Number of Spaces Available in Public Car Parks by Key Centre 2003 to 2008 .....	12
Table 6.7	Average Prices in Public Car Parks by Key Centre 2003 to 2008 .	13
Table 6.8	Usual Method of Travel to Work by Region of Workplace – Metropolitan Areas: Autumn 2007 (%) .....	15
Table 6.9	Time Taken to Travel to Work by Region of Workplace – Metropolitan Areas: Autumn 2007 .....	15
Table 6.10	Average time taken to travel to work (minutes) by mode– Metropolitan Areas: Autumn 2007 .....	16
Table 6.11	Trips per person per year by main mode of travel – Metropolitan Areas: 2003-2005.....	16
Table 6.12	Average distance travelled by main mode of travel – Metropolitan Areas: 2003-2005.....	16
Table 6.13	Average number of trips per person per year by purpose – Metropolitan Areas: 2003-2005 .....	17
Table 6.14	Trips to and from school by main mode and region of residence – Metropolitan Areas: 2003-2005 .....	17
Table 6.15	Motor vehicles (thousands) licensed by taxation class – Metropolitan Areas: 2007 .....	18
Table 6.16	Mean gross weekly earnings – Metropolitan Area: 1999-2008.....	18
Table 6.17	Air Transport Statistics – Comparisons of Manchester and UK Trends .....	20
Table 6.18	Road Lengths in Greater Manchester 2008 (kilometres) .....	21
Table 6.19	The Registrar General’s Mid-Year Estimates of Population (Thousands) .....	22
Table 6.20	Indices of Population Change (1971-2007) .....	22
Table 6.21	Household Estimates and Projections by District, Greater Manchester 1981- 2031 (Thousands) .....	23
Table 6.22	Total Capital Provision to Individual Districts 2000/1 to 2009/10 £ million .....	24
Table 6.23	Greater Manchester LTP Settlement 2009/10 (£ million).....	25
Table 6.24	Highway Schemes over £1 Million completed 1986- Spring 2009 ...	26
Table 6.25	Major Public Transport Schemes over £1 Million completed 1986- Spring 2009.....	33

---

**LIST OF FIGURES**

<b>Figure</b>		<b>Page</b>
<b>6</b>	<b>BACKGROUND INFORMATION</b>	
6.1	Indices of Fuel Prices 1991-2008	8
6.2	Indices of Public Transport Fares 1991-2008	9
6.3	Spaces Available in Public Car Parks in Key Centres in Greater Manchester	14
6.4	Average Prices of Public Car Parks in Key Centres in Greater Manchester	15
6.5	Air Transport Indicators for Manchester and UK Airports	19
6.6	Monthly Mean Temperature 2005 to 2008	34
6.7	Monthly Rainfall 2005 to 2008	34
6.8	Average Monthly Hours of Sunshine 2005 to 2008	35



## **6 BACKGROUND INFORMATION**





## Retail Price Index

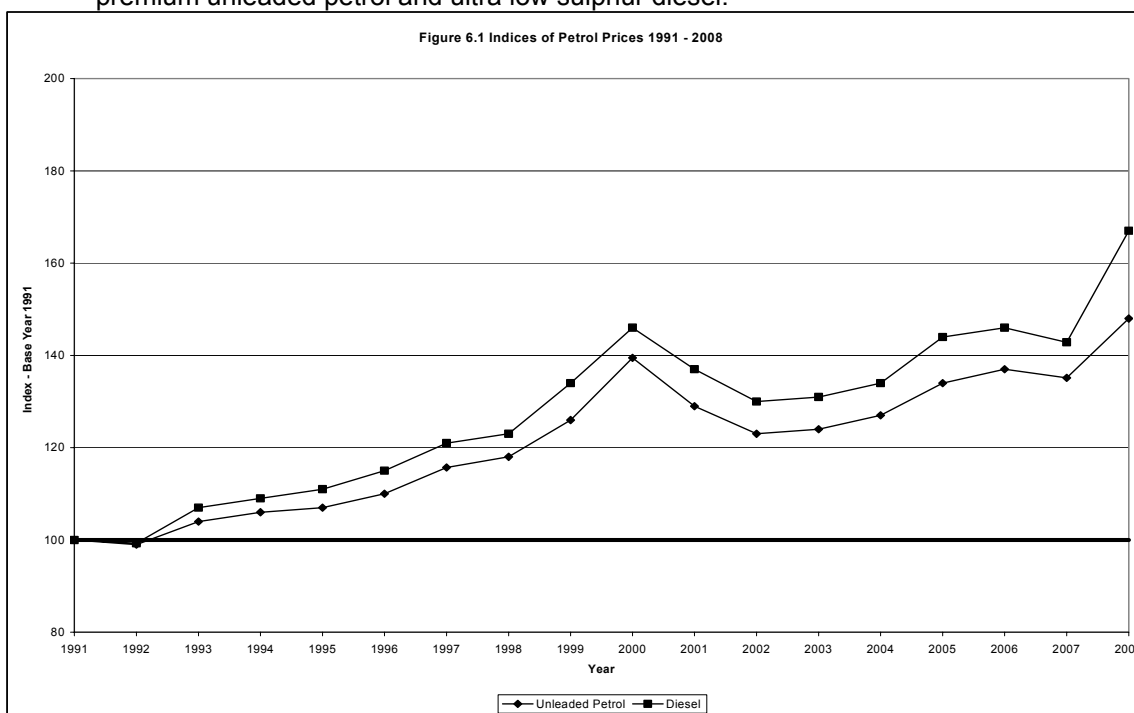
<b>Table 6.1 Retail Price Index (All Items) 1987-2008 – Base Jan 1987 = 100</b>			
<b>Year and Index</b>	<b>Quarterly RPI</b>	<b>Year and Index</b>	<b>Quarterly RPI</b>
1987 101.9	100.3 101.9 102.1 103.2	1998 162.9	160.2 163.2 163.7 164.4
1988 106.8	103.7 106.2 107.4 109.9	1999 165.4	163.7 165.5 165.6 166.8
1989 115.2	111.7 114.9 115.7 118.3	2000 170.3	167.5 170.6 170.9 172.0
1990 126.2	120.4 126.0 128.1 130.1	2001 173.4	171.8 173.9 174.0 173.8
1991 133.5	130.8 133.6 134.2 135.5	2002 176.2	173.9 176.0 176.6 178.2
1992 138.5	136.2 139.1 139.0 139.6	2003 181.3	179.2 181.3 181.8 182.9
1993 140.7	138.7 140.9 141.3 141.8	2004 186.7	183.8 186.3 187.4 189.2
1994 144.2	142.0 144.5 144.6 145.5	2005 192.0	189.7 191.9 192.6 193.7
1995 149.2	146.8 149.5 149.9 150.7	2006 198.1	194.2 197.6 199.3 201.4
1996 152.7	150.9 152.8 153.1 154.0	2007 206.6	203.0 206.3 207.1 209.8
1997 157.5	154.9 156.9 158.4 159.7	2008 214.8	211.1 215.3 217.4 215.5

**Fuel Prices**

6.1 Table 6.2 and Figure 6.1 show indices of the cost of fuel per litre using 1991 as the base year.

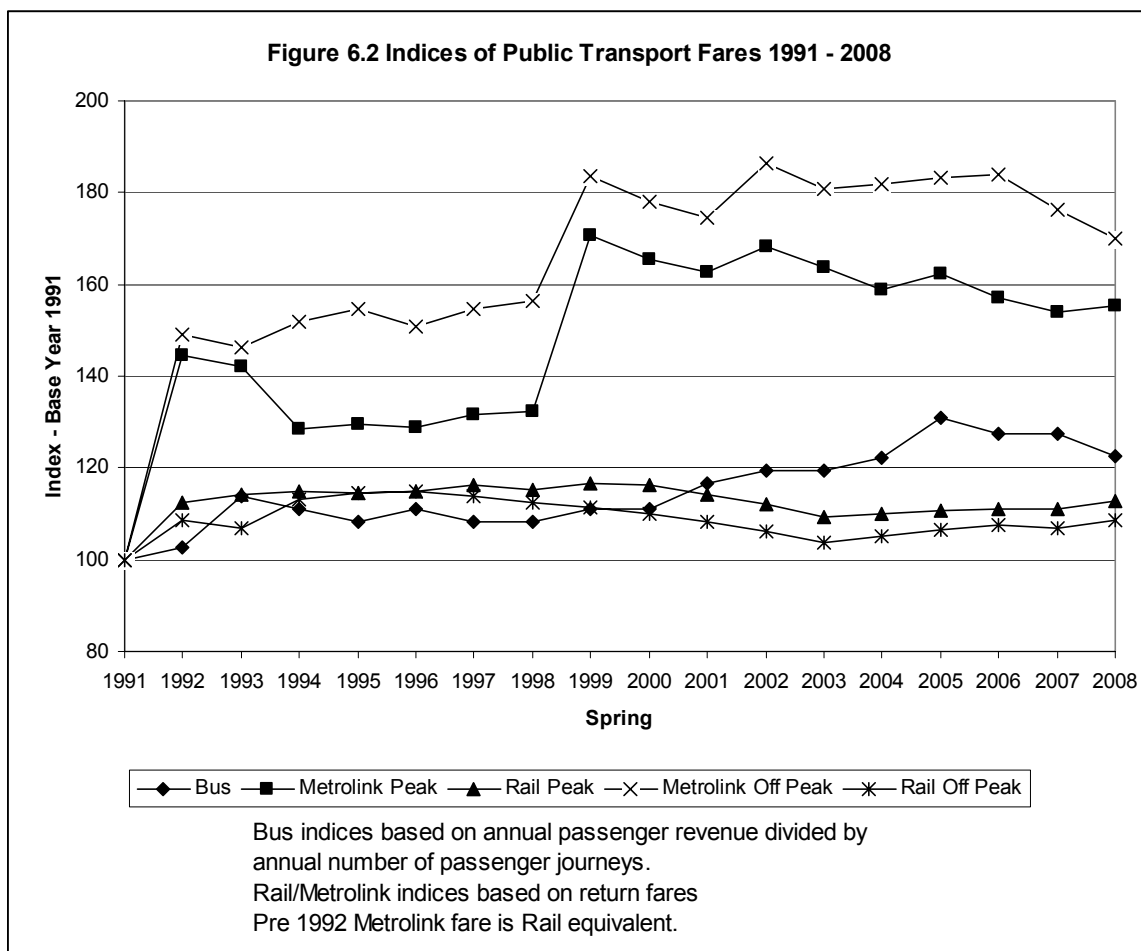
<b>Table 6.2 The Cost of Fuel per Litre 1991-2008</b>						
<b>Year</b>	<b>Unleaded Petrol</b>			<b>Diesel</b>		
	<b>Cost (p)</b>	<b>Cost at 1991 Prices (p)</b>	<b>Index</b>	<b>Cost (p)</b>	<b>Cost at 1991 Prices (p)</b>	<b>Index</b>
1991	45.07	45.07	100	43.82	43.82	100
1992	46.07	44.41	99	45.01	43.39	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
2006	91.32	61.54	137	95.21	64.16	146
2007	94.24	60.91	135	96.85	62.60	143
2008	107.08	66.55	148	117.51	73.03	167

**Note:** Fuel prices are from DBERR Energy Prices (DBERR Website Table 4.1.2) and are for premium unleaded petrol and ultra low sulphur diesel.



**Public Transport Fares**

- 6.2 Tables 6.3 and 6.4 and Figure 6.2 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 GMPT. As Metrolink did not begin operation until 1992, the quoted 1991 fare is the equivalent rail fare.
- 6.3 The average bus fare has been calculated by dividing the annual bus passenger revenue by the annual number of bus passenger journeys.
- 6.4 As the average Metrolink journey is 4.5 miles 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.
- 6.5 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 (4.5 miles, return)			Rail (9.5 miles, return)		
	Cost (£)	Cost at 1991 (£)	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	0.68	0.46	127	4.20 (M)	2.83	157	4.45	3.00	111
2007	0.71	0.46	127	4.30 (M)	2.78	154	4.65	3.00	111
2008	0.71	0.44	123	4.50 (M)	2.80	155	4.90	3.05	113

Year	Bus (average revenue)			Metrolink (4.5 miles, 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	0.68	0.46	127	3.00 (M)	2.02	184	2.55	1.72	107
2007	0.71	0.46	127	3.00 (M)	1.94	176	2.65	1.71	107
2008	0.71	0.44	123	3.00 (M)	1.86	170	2.80	1.74	109

**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.

## Car Parking Provision and Charges in Greater Manchester

6.6 Table 6.5 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 from other sources. Figures shown for local authority car parks include partnerships with private operators, e.g. NCP Manchester. Figures include free off-street parking for disabled badge holders, but do not include car parks with less than 10 spaces, other free parking facilities, customer only parking or fly parking.

6.7 Tables 6.6 and 6.7 and Figures 6.3 and 6.4 show the total number of spaces available and average price for three different time periods – 2 hours, 4 hours and 7 hours. Prices are actual prices in survey year – they have not been adjusted for inflation.

<b>Table 6.5 Public Car Parks in Key Centres 2008 (excluding contract only car parks)</b>						
<b>Key Centre</b>	<b>LA Car Parks</b>		<b>Private Car Parks</b>		<b>Total</b>	
	<b>No. Car Parks</b>	<b>No. Spaces</b>	<b>No. Car Parks</b>	<b>No. Spaces</b>	<b>No. Car Parks</b>	<b>No. Spaces</b>
Bolton	18 <sup>1</sup>	1671	20	4003	38	5674
Bury	12	1592	5	1284	17	2876
Manchester	37	12343	47	8213	84	20556
Oldham	12 <sup>2</sup>	1805	6	2023	18	3828
Rochdale	14 <sup>3</sup>	1254	3	1155	17	2409
Eccles	4	355	1	380	5	735
Stockport	12	2667	10	2693	22	5360
Ashton-under-Lyne	10	880	6	911	16	1791
Altrincham	2	410	3	763	5	1173
Wigan	4	1551	9	1248	13	2799
All 10 Key Centres	125	24528	110	22673	235	47201

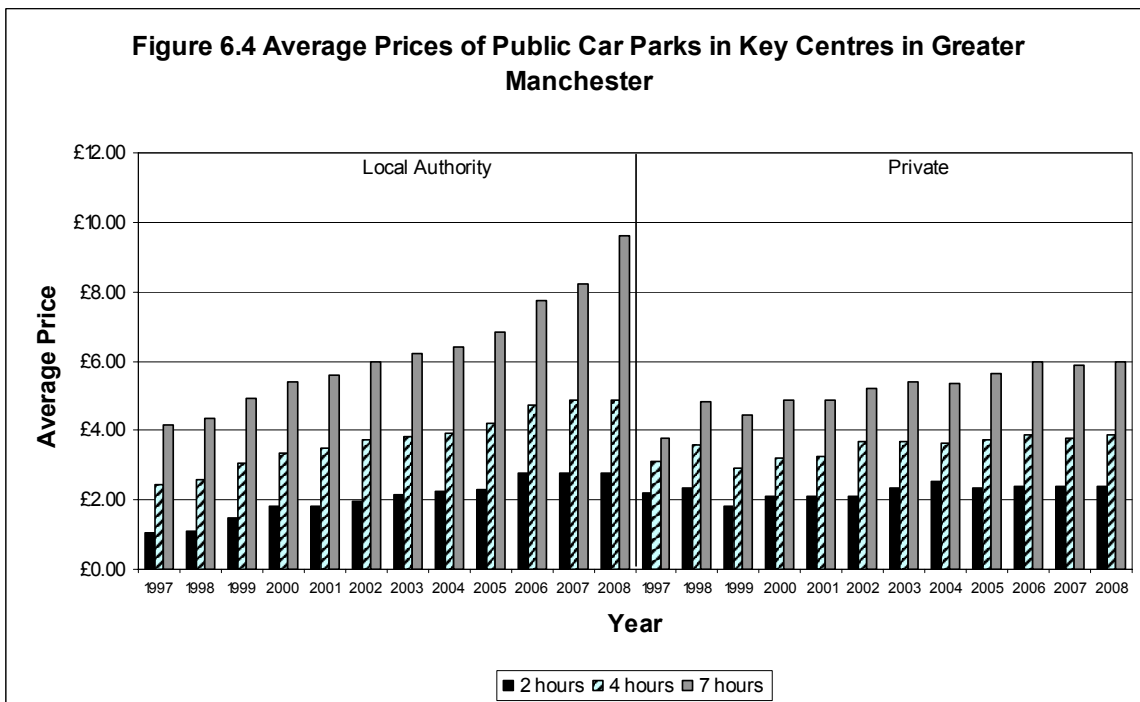
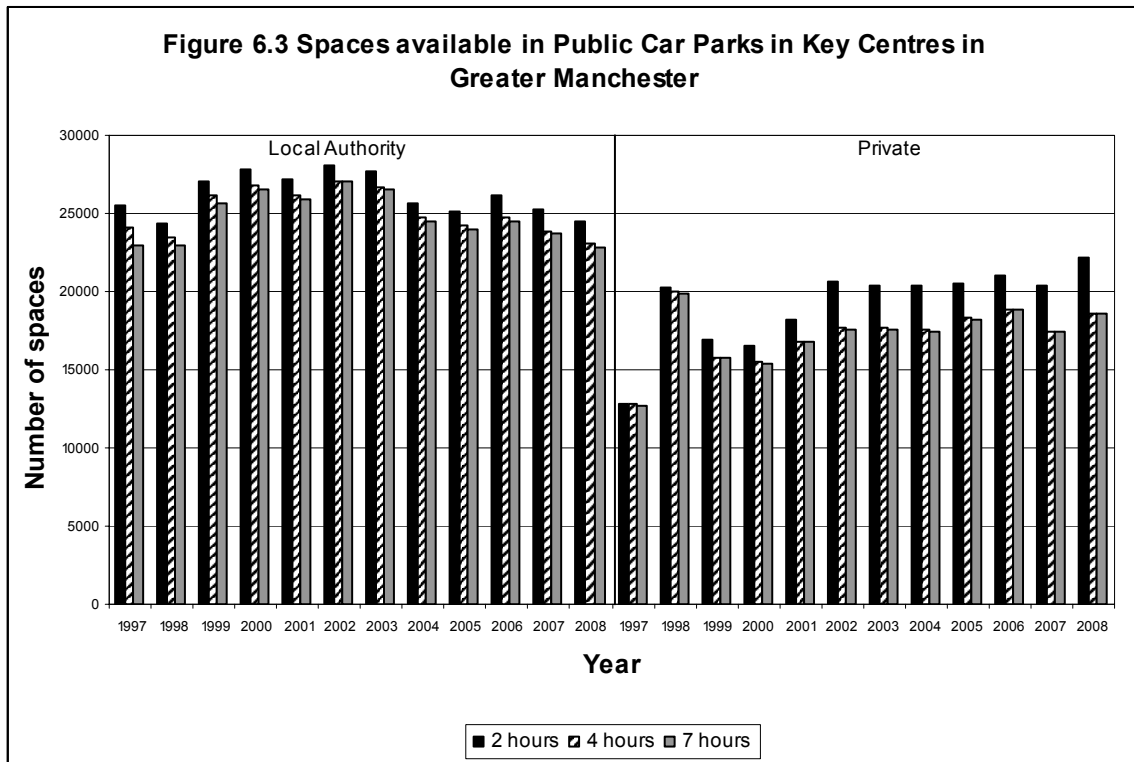
### Notes:

1. Includes one car park (12 spaces) for disabled only.
2. Includes one car park (28 spaces) for disabled only.
3. Includes one car park (12 spaces) for disabled only.

<b>Table 6.6 Number of Spaces Available in Public Car Parks by Key Centre 2003 to 2008</b>													
Key Centre	Length of Stay	2003		2004		2005		2006		2007		2008	
		Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private	Local Authority	Private
Bolton	2 hours	1535	3704	1446	3746	1407	3634	1400	4081	1391	3939	1659	4003
	4 hours	1440	3600	1351	3642	1312	3634	1323	4081	1291	3359	1559	3423
	7 hours	1205	3600	1116	3642	1077	3634	1100	4081	1068	3359	1336	3423
Bury	2 hours	2106	572	2153	572	2137	542	2005	542	1853	562	1592	964
	4 hours	2106	572	2153	572	2137	542	2005	542	1853	562	1592	562
	7 hours	2106	572	2153	572	2137	542	2005	542	1853	562	1592	562
Manchester	2 hours	13003	7974	12073	7586	11951	8219	14121	8077	13124	7170	12329	8213
	4 hours	13003	7926	12073	7486	11951	8219	14121	8077	13124	7122	12329	8107
	7 hours	13003	7926	12073	7486	11951	8219	14121	8077	13124	7122	12329	8107
Oldham	2 hours	1823	1530	1780	1937	1574	1910	1358	2075	1673	2033	1777	2023
	4 hours	1763	1530	1641	1937	1435	1910	1219	2075	1556	2033	1660	2023
	7 hours	1763	1495	1641	1902	1435	1875	1219	2040	1556	1998	1660	1988
Rochdale	2 hours	1445	1158	1429	1158	1412	1088	1295	1156	1272	1155	1242	1155
	4 hours	1445	1158	1429	1158	1429	1088	826	1156	829	1155	801	1155
	7 hours	1445	1158	1429	1158	1429	1088	826	1156	829	1155	801	1155
Eccles	2 hours	355	416	355	398	355	407	355	418	355	409	355	380
	4 hours	355	29	355	29	355	29	355	29	355	29	355	0
	7 hours	355	29	355	29	355	29	355	29	355	29	355	0
Stockport	2 hours	3061	2235	3100	2019	3118	2107	2724	2107	2667	2598	2667	2693
	4 hours	3061	814	3100	600	3118	545	2724	545	2646	655	2646	750
	7 hours	3061	814	3100	600	3118	545	2724	545	2646	655	2646	750
Ashton-under-Lyne	2 hours	1056	1000	901	1000	904	891	901	911	879	911	880	911
	4 hours	324	805	276	805	286	678	223	678	223	698	223	698
	7 hours	324	773	276	773	286	678	223	678	223	698	223	698
Altrincham	2 hours	906	1347	906	1498	651	1133	415	1173	410	763	410	763
	4 hours	836	722	836	778	651	1133	415	1173	410	763	410	763
	7 hours	836	722	836	778	651	1133	415	1173	410	763	410	763
Wigan	2 hours	2377	509	1511	509	1563	525	1563	515	1563	1188	1551	1248
	4 hours	2377	509	1511	509	1563	525	1563	515	1563	1188	1551	1248
	7 hours	2377	509	1511	509	1563	525	1563	515	1563	1188	1551	1248
<b>TOTAL GM</b>	2 hours	27667	20445	25654	20423	25072	20456	26137	21055	25187	20728	24462	22353
	4 hours	26710	17665	24725	17516	24237	18303	24774	18871	23850	17564	23126	18729
	7 hours	26475	17598	24490	17449	24002	18268	24551	18836	23627	17529	22903	18694

Note: Totals may include some contract only spaces where car parks offer both contract and non-contract parking.

Table 6.7 Average Prices in Public Car Parks by Key Centre 2003 to 2008													
Key Centre	Length of Stay	2003		2004		2005		2006		2007		2008	
		Local Authority	Private	Local Authority	Private	Local Authority	Local Authority	Private	Local Authority	Private	Local Authority	Local Authority	Private
Bolton	2 hours	£1.35	£1.90	£1.35	£2.26	£1.36	£2.33	£1.46	£1.91	£1.52	£1.92	£1.49	£1.83
	4 hours	£2.30	£2.79	£2.32	£3.13	£2.30	£3.12	£2.37	£2.76	£2.44	£2.94	£2.39	£2.81
	7 hours	£2.62	£3.92	£2.59	£4.42	£2.69	£4.42	£2.77	£3.91	£2.81	£4.33	£2.79	£4.21
Bury	2 hours	£0.80	£1.30	£0.90	£1.00	£1.10	£1.50	£1.29	£1.70	£1.35	£1.80	£1.44	£1.67
	4 hours	£2.77	£2.50	£2.87	£2.00	£3.31	£2.00	£3.73	£2.20	£4.80	£2.30	£4.56	£2.30
	7 hours	£2.87	£10.00	£2.94	£10.00	£3.44	£10.00	£3.82	£10.00	£4.80	£10.00	£4.85	£10.00
Manchester	2 hours	£3.44	£3.67	£3.54	£4.03	£3.59	£3.45	£3.97	£3.83	£3.99	£3.90	£4.13	£3.77
	4 hours	£5.28	£4.33	£5.43	£4.62	£5.87	£4.53	£6.19	£4.97	£6.33	£4.70	£6.54	£4.70
	7 hours	£8.10	£5.31	£8.51	£5.51	£9.01	£6.02	£9.68	£6.92	£10.43	£6.47	£13.22	£6.16
Oldham	2 hours	£1.14	£1.30	£1.18	£1.15	£1.38	£1.28	£1.57	£1.15	£1.70	£1.27	£1.68	£1.51
	4 hours	£2.09	£2.23	£2.09	£2.02	£2.39	£2.15	£2.77	£1.94	£2.86	£2.16	£2.81	£2.16
	7 hours	£4.49	£5.80	£4.58	£5.02	£4.91	£5.04	£5.04	£4.62	£5.31	£4.83	£5.15	£4.84
Rochdale	2 hours	£0.76	£1.00	£0.77	£1.00	£0.96	£1.00	£0.95	£1.06	£0.98	£1.06	£0.98	£1.00
	4 hours	£2.32	£1.95	£2.34	£2.01	£1.72	£2.01	£1.73	£2.01	£1.74	£2.01	£1.74	£2.21
	7 hours	£4.01	£6.75	£4.05	£6.81	£4.85	£7.12	£5.23	£6.83	£5.23	£6.83	£5.33	£7.19
Eccles	2 hours	£0.70	£1.07	£0.70	£1.07	£0.70	£1.06	£0.70	£1.09	£1.00	£1.07	£1.00	£1.00
	4 hours	£1.69	£2.00	£1.69	£1.79	£1.69	£1.79	£1.69	£2.55	£2.19	£2.00	£2.19	n.a
	7 hours	£3.87	£2.00	£3.87	£1.79	£3.87	£1.79	£3.87	£2.55	£4.06	£2.00	£4.06	n.a.
Stockport	2 hours	£1.04	£0.80	£0.96	£0.78	£0.93	£0.70	£1.37	£0.70	£1.47	£0.88	£1.47	£1.03
	4 hours	£2.56	£6.32	£2.54	£5.50	£2.89	£6.00	£3.02	£7.00	£3.25	£6.91	£3.25	£7.47
	7 hours	£5.13	£6.32	£5.09	£5.50	£5.87	£6.00	£6.57	£7.00	£7.11	£6.91	£7.11	£7.47
Ashton-under-Lyne	2 hours	£1.20	£1.33	£1.85	£1.35	£1.78	£1.72	£1.88	£1.78	£1.87	£1.78	£1.87	£1.79
	4 hours	£2.00	£2.48	£2.50	£2.49	£1.98	£3.79	£2.50	£3.91	£2.50	£3.80	£2.50	£3.81
	7 hours	£2.50	£2.92	£3.50	£2.94	£2.77	£7.04	£3.50	£7.27	£3.50	£7.07	£3.50	£7.07
Altrincham	2 hours	£1.06	£1.65	£0.78	£2.62	£0.73	£1.13	£0.86	£1.38	£1.05	£1.89	£1.37	£1.89
	4 hours	£2.77	£5.29	£2.48	£3.38	£2.31	£3.54	£2.76	£4.14	£2.78	£4.85	£3.10	£4.54
	7 hours	£5.17	£10.00	£5.17	£6.22	£3.86	£3.85	£4.89	£5.83	£4.93	£5.90	£5.24	£5.90
Wigan	2 hours	£1.20	£3.48	£1.20	£3.53	£1.20	£3.84	£1.28	£3.97	£1.30	£3.15	£1.30	£2.81
	4 hours	£2.50	£4.20	£2.50	£4.23	£2.50	£4.86	£2.66	£4.99	£2.70	£3.60	£2.70	£4.14
	7 hours	£6.00	£4.27	£6.00	£4.31	£6.00	£4.42	£6.40	£4.54	£6.50	£4.53	£6.50	£6.98
<b>TOTAL GM</b>	2 hours	£2.17	£2.33	£2.23	£2.55	£2.31	£2.34	£2.76	£2.40	£2.76	£2.41	£2.80	£2.41
	4 hours	£3.83	£3.66	£3.91	£3.62	£4.20	£3.74	£4.75	£3.86	£4.88	£3.79	£4.89	£3.89
	7 hours	£6.22	£5.41	£6.40	£5.34	£6.84	£5.63	£7.74	£5.97	£8.24	£5.89	£9.63	£5.97





## Personal Travel –Metropolitan Area Statistics 2008

6.8 The following tables are taken from the DfT publications Regional Transport Statistics: 2007 and 2008 Editions and provide a comparison of personal travel statistics for metropolitan areas. In addition to tables reproduced here, the reports also provides regional statistics on public transport passenger numbers, freight transport and petrol & diesel consumption. The reports can be accessed via the Policy, Guidance and Research page of the DfT website (<http://www.dft.gov.uk>).

6.9 Table 6.8 shows the usual method of travel to work by region of workplace.

<b>Table 6.8 Usual Method of Travel to Work by Region of Workplace – Metropolitan Areas: Autumn 2007 (%)</b>								
<b>Met Area</b>	<b>Car</b>	<b>(% as Driver)</b>	<b>P/C</b>	<b>Bus</b>	<b>Rail<sup>1</sup></b>	<b>Walk</b>	<b>M/C</b>	<b>No. employed ('000s)</b>
<b>GM</b>	72	(87)	2	10	4	10	*	1,050
<b>M</b>	70	(82)	*	11	6	10	*	459
<b>SY</b>	73	(84)	*	9	4	12	*	499
<b>TW</b>	70	(85)	*	13	4	11	*	471
<b>WM</b>	72	(87)	2	12	4	8	1	1,065
<b>WY</b>	73	(83)	1	10	4	10	*	908

Source DfT Regional Transport Statistics 2008, Table 1.8b.& 1.11 (Labour Force Survey).

GM=Greater Manchester, M=Merseyside, SY=South Yorkshire, TW=Tyne & Wear, WM= West Midlands, WY = West Yorkshire

Notes: <sup>1</sup> including Light Rail

6.10 Table 6.9 shows the time taken to travel to work by metropolitan area.

<b>Table 6.9 Time Taken to Travel to Work by Region of Workplace – Metropolitan Areas: Autumn 2007</b>							
<b>Met Area</b>	<b>Cumulative Percentage</b>				<b>Mean Time (mins)</b>		
	<b>&lt;20 min</b>	<b>&lt;40 min</b>	<b>&lt;60 min</b>	<b>&lt;90 min</b>	<b>Men</b>	<b>Women</b>	<b>All</b>
<b>GM</b>	39	76	87	97	27	24	28
<b>M</b>	40	79	92	98	23	21	25
<b>SY</b>	39	79	91	98	24	22	25
<b>TW</b>	44	82	92	98	23	22	24
<b>WM</b>	37	75	90	97	27	23	27
<b>WY</b>	41	77	90	97	26	22	27

Source DfT Regional Transport Statistics 2008, Table 1.9. (Labour Force Survey).

GM=Greater Manchester, M=Merseyside, SY=South Yorkshire, TW=Tyne & Wear, WM= West Midlands, WY = West Yorkshire

- 6.11 Table 6.10 shows the average time taken to travel to work by mode and metropolitan area of workplace.

<b>Table 6.10 Average time taken to travel to work (minutes) by mode—Metropolitan Areas: Autumn 2007</b>							
<b>Met Area</b>	<b>Car</b>	<b>P/C</b>	<b>Bus</b>	<b>Rail<sup>1</sup></b>	<b>Walk</b>	<b>M/C</b>	<b>All Modes</b>
GM	27	21	41	56	15	*	28
M	24	*	32	40	12	*	25
SY	24	*	37	51	14	*	25
TW	23	*	34	47	13	*	24
WM	27	*	36	50	14	19	27
WY	26	21	35	48	15	*	27

Source DfT Regional Transport Statistics 2008, Table 1.10. (Labour Force Survey).  
 GM=Greater Manchester, M=Merseyside, SY=South Yorkshire, TW=Tyne & Wear, WM=West Midlands, WY = West Yorkshire  
 Notes: <sup>1</sup> including Light Rail

- 6.12 Table 6.11 shows the average number of trips per person per year by main mode of travel by metropolitan area for 2003-05.

<b>Table 6.11 Trips per person per year by main mode of travel – Metropolitan Areas: 2003-2005</b>						
<b>Met Area</b>	<b>Walk</b>	<b>Car dr</b>	<b>Car pass</b>	<b>Bus</b>	<b>Other PT</b>	<b>All Modes</b>
<b>GM</b>	264	427	252	87	33	1,086
<b>M</b>	252	412	212	98	39	1,034
<b>SY</b>	228	439	234	78	33	1,034
<b>TW</b>	281	363	220	116	50	1,048
<b>WM</b>	224	395	233	103	29	996
<b>WY</b>	230	392	225	77	31	970

Source DfT Regional Transport Statistics 2006, Table A3. (National Travel Survey).

- 6.13 Table 6.12 shows average number of miles travelled per year by mode and metropolitan area for 2003-05.

<b>Table 6.12 Average distance travelled by main mode of travel – Metropolitan Areas: 2003-2005</b>						
<b>Met Area</b>	<b>Walk</b>	<b>Car dr</b>	<b>Car pass</b>	<b>Bus</b>	<b>Other PT</b>	<b>All Modes</b>
<b>GM</b>	211	3,057	1,888	339	570	6,278
<b>M</b>	210	3,200	1,642	336	616	6,156
<b>SY</b>	180	3,846	2,177	318	604	7,363
<b>TW</b>	214	2,525	1,370	447	577	5,273
<b>WM</b>	177	2,784	1,749	417	571	5,838
<b>WY</b>	185	3,270	1,893	330	528	6,423

Source DfT Regional Transport Statistics 2006, Table A4. (National Travel Survey).

6.14 Table 6.13 details trips by purpose by metropolitan area for 2003/05.

<b>Table 6.13 Average number of trips per person per year by purpose – Metropolitan Areas: 2003-2005</b>						
<b>Purpose</b>	<b>GM</b>	<b>M</b>	<b>SY</b>	<b>TW</b>	<b>WM</b>	<b>WY</b>
<b>Commuting</b>	153	160	158	160	160	160
<b>Business</b>	37	33	38	29	35	28
<b>Education</b>	80	64	61	64	82	59
<b>Shopping</b>	220	220	218	235	195	199
<b>Personal business</b>	110	111	103	104	103	101
<b>Escort</b>	159	136	135	150	143	130
<b>Visiting friends</b>	181	183	181	193	163	165
<b>Sport &amp; entertainment</b>	75	59	68	53	56	63
<b>Holidays &amp; day trips</b>	34	30	35	27	30	30
<b>Other including just walk</b>	37	39	39	32	30	35
<b>All purposes</b>	1086	1034	1034	1048	996	970

Source DfT Regional Transport Statistics 2006, Table A5. (National Travel Survey).  
GM=Greater Manchester, M=Merseyside, SY=South Yorkshire, TW=Tyne & Wear, WM=West Midlands, WY = West Yorkshire

6.15 Table 6.14 shows trips to and from school by main mode and region of residence for 2003-05.

<b>Table 6.14 Trips to and from school by main mode and region of residence – Metropolitan Areas: 2003-2005</b>							
<b>Met Area</b>	<b>Age 5-16 (modal split %)</b>					<b>Avg. length (miles)</b>	
	<b>Walk</b>	<b>Car</b>	<b>Bus</b>	<b>Other</b>	<b>All modes</b>	<b>Age 5-10</b>	<b>Age 11-16</b>
<b>GM</b>	48	31	19	2	100	1.2	2.2
<b>M</b>	44	33	20	4	100	1.3	3.0
<b>SY</b>	39	35	26	-	100	1.2	2.4
<b>TW</b>	63	26	10	1	100	1.1	1.6
<b>WM</b>	48	35	16	1	100	1.2	2.5
<b>WY</b>	58	24	17	2	100	1.2	2.0

Source DfT Regional Transport Statistics 2006, Table A6. (National Travel Survey).

## Road Vehicles

6.16 Table 6.15 shows motor vehicles licensed by taxation class in 2007.

<b>Table 6.15 Motor vehicles (thousands) licensed by taxation class – Metropolitan Areas: 2007</b>							
<b>Met Area</b>	<b>Cars</b>	<b>Vans</b>	<b>M/C<sup>1</sup></b>	<b>Goods</b>	<b>Other<sup>2</sup></b>	<b>All</b>	<b>(Body Type Car)</b>
<b>GM</b>	1,076.4	123.0	32.3	26.8	82.8	1,341.3	(1,140.3)
<b>M</b>	471.8	50.7	16.7	5.2	60.7	605.2	(522.9)
<b>SY</b>	496.1	55.4	21.8	10.5	52.6	636.3	(535.4)
<b>TW</b>	362.6	39.4	13.2	5.0	37.4	457.6	(391.3)
<b>WM</b>	1,205.3	202.8	33.2	25.0	81.1	1,547.5	(1,263.9)
<b>WY</b>	864.8	103.2	32.3	21.0	67.3	1,088.6	(912.2)

Source DfT Regional Transport Statistics 2008, Table 3.1. (Department for Transport).  
GM=Greater Manchester, M=Merseyside, SY=South Yorkshire, TW=Tyne & Wear, WM= West Midlands, WY = West Yorkshire

**Notes:** <sup>1</sup> includes scooters & mopeds

<sup>2</sup> includes crown & exempt vehicles

## Weekly Earnings

6.17 Table 6.16 shows mean gross weekly earnings by Metropolitan area: 1999-2008.

<b>Table 6.16 Mean gross weekly earnings – Metropolitan Area: 1999-2008</b>												
<b>Met Area</b>	<b>Pounds</b>											
	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004<sup>1</sup></b>	<b>2004<sup>1</sup></b>	<b>2005</b>	<b>2006<sup>2</sup></b>	<b>2006<sup>2</sup></b>	<b>2007</b>	<b>2008</b>
<b>GM</b>	384.7	397.9	418.4	434.4	450.1	473.8	465.2	482.7	510.1	507.0	526.5	528.8
<b>M</b>	378.3	393.9	419.2	433.8	427.0	448.9	448.6	475.6	486.8	482.8	501.8	523.9
<b>SY</b>	353.9	367.9	383.6	402.0	421.1	445.6	439.8	449.7	471.7	468.7	481.9	499.5
<b>TW</b>	359.5	379.5	391.7	404.7	413.7	442.8	440.9	466.6	479.3	476.9	474.5	507.4
<b>WM</b>	395.2	403.7	436.5	450.8	456.7	475.1	466.3	489.6	505.4	502.7	516.8	536.3
<b>WY</b>	375.1	389.6	409.1	426.1	449.8	467.4	458.4	485.2	491.3	488.5	500.0	518.7

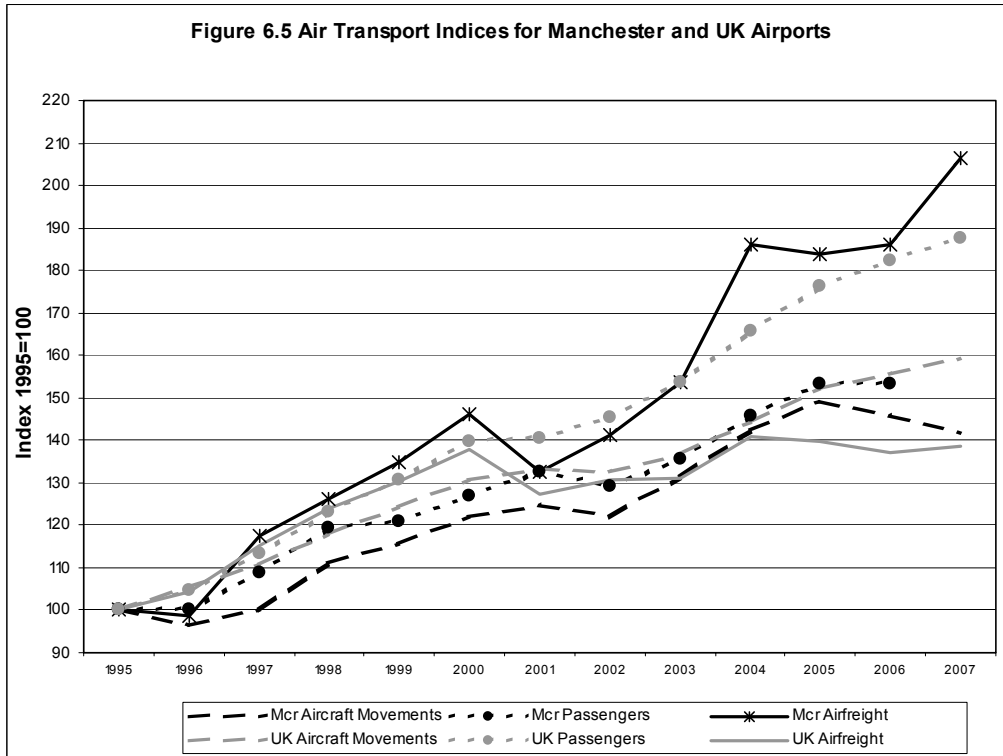
Source DfT Regional Transport Statistics 2008, Table 9.4. (Annual Survey of Hours and Earnings – Office for National Statistics).

1. In 2004 additional supplementary surveys were introduced to improve the coverage of the Annual Survey of Hours and Earnings. Figures are presented both excluding and including the additional surveys for comparison purposes. Further information is available at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13101>
2. In 2006 a small number of methodological changes were introduced to improve the quality of the survey. These include changes to the sample design itself, as well as the introduction of an automatic occupation coding tool. Figures are presented both excluding and including these changes for comparison purposes.

**Note:** Earnings based on full time employees on adult rates whose pay for the survey pay period was unaffected by absence.

**Air Transport**

6.18 Table 6.17 shows landing and take-offs, passenger arrivals and departures and cargo handled for Manchester Airport and all UK airports between 1995 and 2007. Figure 6.5 illustrates these as indices.



<b>Table 6.17 Air Transport Statistics – Comparisons of Manchester and UK Trends</b>														
		<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Landings and take-offs (Thousands)</b>	<b>Manchester Total</b>	146	141	146	162	169	178	182	178	192	208	218	213	207
	<b>Manchester Index</b>	<b>100</b>	<b>97</b>	<b>100</b>	<b>111</b>	<b>116</b>	<b>122</b>	<b>125</b>	<b>122</b>	<b>132</b>	<b>142</b>	<b>149</b>	<b>146</b>	<b>142</b>
	<b>UK Total</b>	1251	1317	1385	1477	1556	1636	1666	1660	1712	1804	1905	1949	1992
	<b>UK Index</b>	<b>100</b>	<b>105</b>	<b>111</b>	<b>118</b>	<b>124</b>	<b>131</b>	<b>133</b>	<b>133</b>	<b>137</b>	<b>144</b>	<b>152</b>	<b>156</b>	<b>159</b>
<b>Passenger arrivals and departures (Millions)</b>	<b>Manchester Total</b>	14.4	14.4	15.7	17.2	17.4	18.3	19.1	18.6	19.5	21.0	22.1	22.1	21.9
	<b>Manchester Index</b>	<b>100</b>	<b>100</b>	<b>109</b>	<b>119</b>	<b>121</b>	<b>127</b>	<b>133</b>	<b>129</b>	<b>135</b>	<b>146</b>	<b>153</b>	<b>153</b>	<b>152</b>
	<b>UK Total</b>	115.3	120.6	130.7	142.0	150.9	161.3	162.0	167.7	177.1	191.4	203.1	210.3	216.4
	<b>UK Index</b>	<b>100</b>	<b>105</b>	<b>113</b>	<b>123</b>	<b>131</b>	<b>140</b>	<b>141</b>	<b>145</b>	<b>154</b>	<b>166</b>	<b>176</b>	<b>182</b>	<b>188</b>
<b>Cargo handled (Thousand tonnes)</b>	<b>Manchester Total</b>	80	79	94	101	108	117	106	113	123	149	147	149	165
	<b>Manchester Index</b>	<b>100</b>	<b>99</b>	<b>118</b>	<b>126</b>	<b>135</b>	<b>146</b>	<b>133</b>	<b>141</b>	<b>154</b>	<b>186</b>	<b>184</b>	<b>186</b>	<b>206</b>
	<b>UK Total</b>	1640	1711	1892	2032	2139	2259	2090	2141	2149	2309	2295	2247	2273
	<b>UK Index</b>	<b>100</b>	<b>104</b>	<b>115</b>	<b>124</b>	<b>130</b>	<b>138</b>	<b>127</b>	<b>131</b>	<b>131</b>	<b>141</b>	<b>140</b>	<b>137</b>	<b>139</b>

Source is CAA via Transport Statistics GB 2008 Table 2.2 a-c

## Road Lengths in Greater Manchester 2008

Table 6.18 Road Lengths in Greater Manchester 2008 (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	14.1	34.4	27.6	19.3	63.2	698.7	977.0
Bury	20.7	0.0	0.0	0.0	6.0	49.1	8.1	25.2	2.3	35.3	54.5	486.2	687.4
Manchester	17.4	0.0	2.2	3.2	2.0	110.2	1.2	36.2	0.1	83.8	12.3	1099.2	1367.8
Oldham	6.6	0.2	4.0	0.0	39.5	54.6	7.9	23.1	3.4	28.2	99.9	561.1	828.5
Rochdale	24.2	0.0	0.0	0.0	15.5	64.1	6.1	17.6	23.7	10.6	54.4	568.6	784.8
Salford	30.1	0.0	0.0	0.0	3.3	84.2	0.7	29.5	25.3	3.3	1.0	618.4	795.8
Stockport	12.4	0.0	0.0	0.0	10.1	74.0	5.0	33.3	15.7	27.7	59.6	752.4	990.2
Tameside	15.3	2.1	1.1	0.0	3.5	59.6	3.0	28.8	2.1	35.3	60.3	555.6	766.7
Trafford	9.5	0.0	0.0	0.0	6.9	51.5	9.4	43.6	10.9	37.6	42.2	594.4	806.0
Wigan	16.7	0.0	0.0	0.0	30.0	86.6	19.8	36.4	36.3	31.4	95.5	800.3	1153.0
<b>Greater Manchester</b>	<b>171.2</b>	2.3	7.3	<b>3.2</b>	144.0	708.1	75.3	308.1	147.4	312.5	542.9	6734.9	<b>9157.2</b>
		<b>9.6</b>			<b>852.1</b>		<b>383.4</b>		<b>147.4</b>		<b>7277.8</b>		

**Notes:**

The Trunk Motorway figures shown above are based on measurement of the GIS based Oscar network. They include "spurs" but exclude slip roads. All other figures are as at April 2008 and were published on the DfT's website in June 2009

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.

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

## Population of Greater Manchester

6.19 The Registrar General's mid-year estimates of population for each district of Greater Manchester for the years 1971, 1981, 1991 and 1998-2007 are given in Table 6.19. The Office for National Statistics has recently revised the population estimates for 2002 to 2005. Table 6.20 shows indices of population over time. Table 6.21 shows household estimates for 1981, 1991 and 1998 – 2006 and projections for 2011-2031 by district.

	1971	1981	1991	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Bolton	260.9	262.1	261.6	260.9	260.4	260.2	261.3	261.8	262.6	262.8	262.6	262.4	262.3
Bury	175.7	177.1	178.3	180.6	181.0	180.9	180.7	181.2	181.9	181.7	182.4	182.9	183.3
Manchester	553.6	459.2	432.7	417.7	416.4	421.8	422.9	425.7	430.7	436.0	444.6	452.0	458.1
Oldham	224.9	221.4	218.5	218.7	218.4	218.1	218.5	218.4	218.6	219.0	219.5	219.6	219.5
Rochdale	204.3	208.2	203.9	204.5	204.9	206.1	206.4	206.4	207.1	206.7	206.6	206.5	206.1
Salford	281.5	249.2	230.8	221.6	220.0	218.7	217.0	216.1	216.5	216.1	216.7	218.0	219.2
Stockport	294.1	292.6	288.6	287.2	285.8	284.4	284.6	283.5	283.1	282.5	281.4	280.6	280.9
Tameside	222.0	218.6	218.0	214.9	213.6	212.9	213.1	213.4	213.7	213.9	213.8	214.4	214.4
Trafford	229.8	222.9	215.8	214.2	213.0	211.3	210.2	209.6	210.6	210.7	210.9	211.8	212.8
Wigan	303.3	307.0	305.6	301.7	302.0	302.0	301.5	301.9	303.1	303.9	304.8	305.5	305.6
Greater Manchester	2750.1	2618.2	2553.6	2521.9	2515.5	2516.3	2516.1	2518.1	2527.8	2533.5	2543.3	2553.8	2562.2

**Source:** Population Estimates Unit, ONS: Crown Copyright.

**Note:** Figures may not sum due to rounding

	1971	1981	1991	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Bolton	100	100	100	100	100	100	100	100	101	101	101	101	101
Bury	100	101	101	103	103	103	103	103	104	103	104	104	104
Manchester	100	83	78	75	75	76	76	77	78	79	80	82	83
Oldham	100	98	97	97	97	97	97	97	97	97	98	98	98
Rochdale	100	102	100	100	100	101	101	101	101	101	101	101	101
Salford	100	89	82	79	78	78	77	77	77	77	77	77	78
Stockport	100	99	98	98	97	97	97	96	96	96	96	95	96
Tameside	100	98	98	97	96	96	96	96	96	96	96	97	97
Trafford	100	97	94	93	93	92	91	91	92	92	92	92	93
Wigan	100	101	101	99	100	100	99	100	100	100	100	101	101
Greater Manchester	100	95	93	92	91	91	91	92	92	92	92	93	93



	1981	1991	1998	1999	2000	2001	2002	2003	2004	2005	2006		2011	2016	2021	2026	2031
Bolton	98	104	107	107	107	108	109	110	110	111	111		114	118	122	125	129
Bury	65	71	74	74	74	74	75	76	76	76	77		81	85	89	93	96
Manchester	174	176	162	162	165	179	182	185	188	192	197		219	241	260	276	291
Oldham	82	86	87	87	87	88	88	89	89	89	90		92	96	100	103	106
Rochdale	76	79	81	82	83	84	84	85	85	85	85		88	92	96	99	102
Salford	93	95	94	93	93	94	94	95	95	96	97		101	107	111	116	121
Stockport	109	117	120	120	120	121	121	121	121	121	122		125	130	135	140	145
Tameside	82	88	89	89	89	90	91	91	92	92	93		97	103	108	112	117
Trafford	82	87	89	89	89	89	90	90	91	91	92		96	102	108	114	120
Wigan	113	120	124	124	125	125	126	127	128	129	130		136	142	148	153	157
Greater Manchester	975	1022	1029	1028	1033	1052	1059	1069	1075	1084	1093		1151	1215	1277	1332	1384

**Source:** Table 406: Household estimates and projections by district, England, 1981-2031.xls at [www.communities.gov.uk/housing/housingresearch/housingstatistics/housingstatisticsby/household estimates/livetables-households/](http://www.communities.gov.uk/housing/housingresearch/housingstatistics/housingstatisticsby/household estimates/livetables-households/)

**Notes:**

1. Estimates to 2006 are based on ONS mid-year population estimates and projected rates of household formation from trends in Census and Labour Force Survey data. Other data sources, such as the Labour Force Survey, provide direct sample survey estimates of the number of households in each year and therefore may differ from the estimates shown here. Estimates for 2001 to 2004 are subject to small changes from the 2004-based estimates due to changes in the household estimates and projections model which now undertakes calculations on unrounded figures.
2. All projections are 2006-based. The 2006-based household projections are linked to the Office for National Statistics 2006-based Population Projections, and are not an assessment of housing need or do not take account of future policies. They are an indication of the likely increase in households given the continuation of recent demographic trends
3. Sub regional household projections are less robust than those at the regional level, particularly for those areas with relatively small numbers of households. This should be taken into account in using the figures. Due to rounding, districts may not sum to regional totals.
4. The sub regional household projections are not 'National Statistics'.

### Greater Manchester Local Highway Authorities Transport Capital Allocation

<b>Table 6.22 Total Capital Provision to Individual Districts 2000/1 to 2009/10 £ million</b>										
	<b>2000/ 2001</b>	<b>2001/ 2002</b>	<b>2002/<sup>2&amp;3</sup> 2003</b>	<b>2003/<sup>4</sup> 2004</b>	<b>2004/<sup>5</sup> 2005</b>	<b>2005/<sup>6</sup> 2006</b>	<b>2006/<sup>7</sup> 2007</b>	<b>2007/<sup>7</sup> 2008</b>	<b>2008/<sup>7</sup> 2009</b>	<b>2009/<sup>8</sup> 2010</b>
Bolton	2.895	6.498	6.818	10.062	7.822	6.171	6.753	6.247	8.013	6.605
Bury	1.834	2.956	3.613	4.964	3.931	3.177	3.191	2.748	3.677	3.203
Manchester	5.143	16.037	17.472	21.269	20.109	15.653	10.374	8.960	10.267	10.551
Oldham	2.420	3.476	8.969	8.893	8.771	8.056	6.876	4.597	4.851	3.720
Rochdale	2.189	3.880	3.394	4.069	3.839	3.142	3.624	4.276	3.934	4.548
Salford	5.409	13.660	16.791	14.856	20.318	7.589	3.979	4.410	4.545	4.386
Stockport	1.914	3.211	4.897	7.595	11.013	11.180	6.204	10.928	7.642	7.623
Tameside	1.811	3.467	3.309	5.828	10.325	4.486	4.486	4.688	4.964	5.198
Trafford	4.917 <sup>1</sup>	8.074 <sup>1</sup>	2.861	3.932	3.049	2.651	2.575	2.811	3.107	2.762
Wigan	2.218	4.847	6.154	4.548	9.341	4.109	4.031	3.853	4.850	5.662
<b>Total</b>	<b>30.750</b>	<b>66.106</b>	<b>74.278</b>	<b>86.016</b>	<b>98.517</b>	<b>66.214</b>	<b>52.093</b>	<b>53.518</b>	<b>55.850</b>	<b>54.258</b>

**Notes:**

- <sup>1</sup> The figures for Trafford include £3.355 million in 2000/01 and £5.769 million in 2001/02 as lead authority for Quality Bus Corridors and Site Specific Bus Priority Schemes.
- <sup>2</sup> 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.
- <sup>3</sup> This is the first year that Authorities were 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.
- <sup>4</sup> Totals include funding (£13.49 million) that was held back pending the submission of further information to the DfT.
- <sup>5</sup> Total includes funding (£8.225 million) that was held back pending the submission of further information to the DfT.
- <sup>6</sup> Does not include £5.114 million for MSIRR allocated as TSG.
- <sup>7</sup> Major scheme allocation no longer part of LTP process and not included from 2006/07.
- <sup>8</sup> Differs from figures published last year due to changes to the top slice for Metrolink 3a, inclusion of some top slice elements in GMPTA and Manchester's total as Lead Authority and capital maintenance payment for detrunked roads in Salford and Wigan announced February 2009.
- <sup>9</sup> Data for 2010/11 has been excluded this year due to the creation of Greater Manchester Integrated Transport Authority. The allocation of funds between this new body and AGMA has yet to be decided

<b>Table 6.23 Greater Manchester LTP Settlement 2009/10 (£ million)</b>							
<b>Local Authority</b>	<b>Integrated Transport Block</b>			<b>Maintenance</b>			<b>Total</b>
	<b>Other*</b>	<b>SEMMMS</b>	<b>All Integrated*</b>	<b>Formula</b>	<b>PRN/ Exceptional /Detrunk</b>	<b>All Maintenance</b>	
Bolton	1.577	0.000	1.577	4.028	1.000	5.028	6.605
Bury	1.004	0.000	1.004	1.699	0.500	2.199	3.203
Manchester	3.700	1.503	5.203	4.256	1.092	5.348	10.551
Oldham	1.321	0.000	1.321	2.399	0.000	2.399	3.720
Rochdale	1.197	0.000	1.197	2.351	1.000	3.351	4.548
Salford	1.457	0.000	1.457	2.340	0.589	2.929	4.386
Stockport	1.505	3.006	4.511	2.261	0.851	3.112	7.623
Tameside	1.169	1.176	2.345	2.303	0.550	2.853	5.198
Trafford	1.148	0.000	1.148	1.614	0.000	1.614	2.762
Wigan	1.741	0.000	1.741	2.641	1.280	3.921	5.662
GMPTA	25.679	0.850	26.529	0.000	0.000	0.000	26.529
<b>Total</b>	<b>41.498</b>	<b>6.535</b>	<b>48.033</b>	<b>25.892</b>	<b>6.862</b>	<b>32.754</b>	<b>80.787</b>

**Notes:** 'Other' consists of minor works (£37.998 million) and GM Transport Infrastructure Fund (£3.5 million).

\* Distribution of 'All Integrated' and 'Other' totals does not match previously published versions due to changes to the top slice arrangements. GMPTA now includes £10.864m top slice for Metrolink Phase 3a. and £1.156m as Lead Authority for Joint Transport Team, LTP Monitoring, Transport Planning Support and Studies and Research. Manchester includes £0.504m as Lead Authority for UTC, Smarter Choices, Cycle Marketing Plan, Walking Marketing Plan, ATC Renewal and Air Quality. Individual district totals are consequently lower.

'PRN' refers to structural maintenance on the Primary Route Network.  
Exceptional refers the Exceptional Maintenance Scheme for Dan Bank Slope in Stockport (£850,783). Detrunk includes an extra £1.469 million capital maintenance payment for detrunked roads in Salford (£589,000) and Wigan (£880,000) announced in February 2009.

Extra funds not included above are:-

1. Specific Road Safety Grant capital (£754,000) to fund safety camera operation, the road safety central team, publicity campaigns & resource development.
2. Transport Resource Grant consisting of Specific Road Safety Grant revenue £3.387 million and Detrunked Roads Maintenance revenue; Stockport (£319,000) and Tameside (£53,000).

## Highway Schemes

<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
Stockport	<b>Southern Link Rd (B5465 St Marys Way)</b>	A new single carriageway link 0.8 km providing a link between Hall St (A626) and Wellington Rd South (A6).	1.2	Jun-86
Tameside	<b>Hyde Town Centre Bypass (A627 Clark Way)</b>	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	Jul-86
Stockport	<b>A626 Diversion Stockport (A626 St Marys Way)</b>	A new wide single carriageway link 0.9 km long between Hall St A626 and the M63 (now M60)/A626 roundabout.	3.4	Dec-86
Manchester/ Salford	<b>A6042 Manchester and Salford Inner Relief Route Blackfriars Rd - Jubilee St</b>	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	Mar-87
Trafford	<b>A6144(M) Carrington Spur</b>	A new single carriageway motorway link (A6144 (M)) linking the M63 Junction 6 (now M60 Jn 8) to Carrington Ln (A6144).	7.1	Dec-87
Manchester	<b>A5103 Princess Rd Improvement, Moss Side</b>	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	Mar-88
Salford	<b>A6042 Manchester and Salford Inner Relief Route Blackfriars Rd - Gore St</b>	A new dual carriageway link 0.5 km long between Chapel St (A6) and Blackfriars Rd (A6041).	5.1	Aug-88
Department of Transport	<b>M62 Eastbound Climbing Lane (Junctions 21 to 22)</b>	Climbing Lane	3.8	Dec-88
Salford	<b>A57 Regent Rd Improvement M602 to Water St</b>	Widening of dual carriageway standard of 1.5 km of Regent Rd (A57) between the M602 and the Regional Centre.	6.6	Jul-89

<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
<b>Department of Transport</b>	<b>M63/M66 Portwood - Denton</b>	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	Apr-89
<b>Manchester</b>	<b>A6042 Manchester and Salford Inner Relief Route Cheetham Hill Rd - Jubilee St</b>	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	Jun-89
<b>Manchester/Salford</b>	<b>Manchester and Salford Inner Relief Route A57 Regent Rd - A56 Chester Rd (Phase 1)</b>	Improvement at the junction of Regent Rd (A57) and Water St (A6143).	1.2	Jul-89
<b>Wigan</b>	<b>Wigan Inner Relief Road A49 River Way/Central Park Way</b>	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	Oct-89
<b>Manchester</b>	<b>A665 Manchester and Salford Inner Relief Route Redhill St - Fairfield St</b>	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	Oct-89
<b>Bolton</b>	<b>A666 St. Peter's Way Extension/A673 Topp Way Dualling</b>	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	Nov-89
<b>Department of Transport</b>	<b>M63 Widening (Junctions 1 to 7)</b>	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	Mar-90
<b>Salford</b>	<b>A5063 Trafford Rd Improvement, M602 - The Quays</b>	Widening of dual carriageway standard of 0.8 km of A5063 Trafford Road between the Salford Quays Development and the M602.	4.5	Jun-90

<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
<b>Wigan</b>	<b>A572 Bradshawgate Diversion, Leigh Spinning Jenny Way</b>	A 1.5 km long single carriageway bypass to the A572 Bradshawgate, Leigh, which is a major shopping street.	4.7	Jun-90
<b>Bury</b>	<b>A665 Blackburn St Diversion, Radcliffe Pilkington Way</b>	Dual carriageway bypass of Radcliffe town centre between Blackburn St/Stand Ln junction and Blackburn St/Darbyshire St junction.	7.9	Jun-91
<b>Bolton</b>	<b>A58 Cricketers Way</b>	Single carriageway bypass of Westhoughton town centre.	4.0	Sep-91
<b>Tameside</b>	<b>A635 Manchester Rd - A6017 Stockport Rd - William St Gyratory</b>	Signalised gyratory system using modified existing road network.	2.9	Oct-91
<b>Manchester</b>	<b>Manchester Intermediate Ring Road - A6010 Stage 1, Phases 1&amp;2, Kirkmanshulme Ln to Pottery Ln (Alan Turing Way)</b>	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	Mar-92
<b>Salford</b>	<b>A57 Cadishead Way Stage 1</b>	Boysnope Wharf to Brinell Drive (North). A single 2 lane carriageway bypassing Irlam.	13.2	Mar-92
<b>Stockport</b>	<b>Brinksway Bridge</b>	40 metre span, weathering steel structure	1.9	Apr-92
<b>Stockport</b>	<b>Brinksway Phase I and Phase II</b>	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	Jul-92
<b>Manchester</b>	<b>A6/A57(M) Mancunian Way</b>	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	Aug-92
<b>Wigan</b>	<b>A579 Lowton St Mary's Bypass</b>	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	Dec-92
<b>Manchester</b>	<b>Manchester Airport Access Roads - Stage 1 and Stage 2</b>	Widening of existing Outwood Ln roundabout to improve capacity and a grade separated access to new Terminal 2 from M56 Spur.	5.5	Apr-93

<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
Oldham	<b>Broadgate Spine Road</b>	New road between A663 Broadway and Foxdenton Ln.	2.5	Sep-93
Oldham	<b>A62 Manchester St/Manchester Rd Improvement Scheme</b>	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	Dec-93
Department of Transport	<b>M62 Junctions 14 to 17</b>	Widening of the carriageway to dual four lanes (now M60 Jns 14-17).	14.5	Aug-94
Salford/ Trafford/ TPDC	<b>A576 Centenary Way including Centenary Bridge A5081 Park Way/M602 Link Rd - Eccles Relief Rd</b>	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	Dec-94
Department of Transport	<b>M56 Junctions 4 to 6</b>	Widening of the carriageway to dual four lanes.	11.8	Dec-94
Stockport	<b>A626 Tiviot Way Bridge</b>	Replacement bridge – 30 metre span	1.9	Dec-94
Stockport/ Cheshire	<b>A34 Handforth/Wilmslow Bypass Stage 1</b>	A dual carriageway bypass road for Handforth and Wilmslow also providing access to the new retail centre at Handforth Dean.	90.2	Oct-95
Stockport/ Cheshire	<b>A555 Manchester Airport Eastern Link Rd (Central Section)</b>	A dual carriageway 3.9 km long between B5358 Wilmslow Road and A5102 Woodford Road	11.8	Oct-95
Salford	<b>A57 Cadishead Way Stage 2 Phase 1</b>	Extending Stage 1 of the scheme southwards to Brinell Drive (south) through Northbank Industrial Estate.	2.5	Oct-95
Manchester	<b>Manchester Hulme Strategic Roads Greenheys Ln West, Chichester Rd, Old Birley St</b>		2.3	Sep-96
Manchester	<b>A6010 Intermediate Ring Rd Stage 2A and 2B Alan Turing Way</b>	Completion of dual carriageway	43.0	Aug-96
Stockport/ Cheshire	<b>A34 Handforth Wilmslow Bypass Stage 2</b>	A dual carriageway bypass road for Wilmslow.	28.0	Dec-96
Manchester	<b>Stretford Road, Hulme</b>	Reopening of Stretford Rd through Hulme	2.6	Aug-97
Trafford Park UDC	<b>A5081 Wharfside Way Eastern Spinal Route</b>	Improvements M60 – White City Interchange.	18.0	Feb-98

<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
Trafford	<b>A56 Bridgewater Way/White City Interchange</b>	New 2.0 km dual carriageway road connecting White City Interchange to A56 at Cornbrook.	35.2	Feb-98
Salford/ Trafford	<b>A5063 Trafford Rd Improvements</b>	The Quays – White City	24.0	May-98
Salford Manchester	<b>Manchester and Salford Inner Relief Route, A57 Regent Rd to A56 Chester Rd, Phase 2 Stages 1&amp;2</b>	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	Jun-99
Oldham	<b>A62 Oldham Way/A62 Manchester Rd</b>	Improvements to pedestrian and cycle crossings together with highway improvements.	7.3	Dec-99
Wigan	<b>A49 Saddle Junction, Robin Park</b>	Signalised gyratory	1.8	Sep-00
DETR	<b>M60 J25-1 'MORRIS'</b>	Widening	5.8	Oct-00
DETR	<b>M60 J18 'MORRIS'</b>	Roundabout improvement and provision of free flow lane.	9.0	Oct-00
DETR	<b>M60 Denton-Middleton</b>	Contract 1, 7 km motorway Denton-River Medlock	100.0	Oct-00
DETR	<b>M60 Denton-Middleton</b>	Contract 3, 10 km River Medlock – Jn 19	50.0	Oct-00
Salford	<b>Eccles Bypass</b>	1 km single carriageway bypassing town centre	2.2	Nov-00
Salford/ Manchester	<b>Manchester and Salford Inner Relief Route, Regent Road to Gore Street, (stage 1)</b>	Dual carriageway, 0.8 km long	21.0	Jul-02
Trafford	<b>Altrincham Eastern Improvement Route (AEIR)</b>	Improvements to highway network east of Altrincham town centre including new bridge over railway	5.5	Oct-02
Tameside	<b>Lord Sheldon Way (Ashton Northern Bypass)</b>	2.2km dual carriageway	n/a	Dec-03
Salford/ Manchester	<b>Manchester and Salford Inner Relief Route, Regent Road to Gore Street (Stage 2)</b>	Modification to railway bridge over Irwell Street	4.8	Nov-04



<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
<b>Salford/ Manchester</b>	<b>Manchester and Salford Inner Relief Route, Regent Road to Gore Street (Stage 3)</b>	Roadworks dualling Irwell Street beneath modified bridge.	1.8	Nov-04
<b>Manchester</b>	<b>Temple Sq (Manchester Fort Retail Park)</b>	Road improvement/widening.	1.0	Sep-05
<b>Salford</b>	<b>A57 Cadishead Way Stage 2</b>	Single carriageway link 2.4 km bypassing Cadishead.	11.3	Sep-05
<b>Manchester/ QBC</b>	<b>A34 Kingsway and Parris Wood</b>	Construction of new bus terminus, installation of two sets of traffic signals with pedestrian facilities.	1.5	Sep-05
<b>Manchester</b>	<b>Central Park Gateway Scheme (North Manchester Business Park)</b>	Widening of A62 Oldham Road and new road into site.	26.0	Nov-05
<b>Manchester/ QBC</b>	<b>Chorlton District Centre and Bus Lanes</b>	Junction improvement scheme and installation of bus lanes.	1.5	Nov-05
<b>*Rochdale/ QBC</b>	<b>Oldham Rd/Kingsway junction Improvements</b>	Junction improvement scheme.	2.3	2005/06
<b>DfT/ Highways Agency</b>	<b>M60 Jns. 5-8 Widening</b>	Road improvement/widening/bridge building and replacement.	139.5	Jun-06
<b>Manchester/ QBC</b>	<b>Didsbury Village Centre and Bus Lanes</b>	Installation of bus lanes.	1.2	Oct 06
<b>Tameside/ QBC</b>	<b>A627 Oldham Road QBC (Ashton Town Centre to Oldham Boundary)</b>	Provision of bus lanes, residents parking bays, upgraded pedestrian crossings and major highway refurbishment.	2.0	Dec-06
<b>*Bury/QBC</b>	<b>Bolton Rd/Ainsworth Rd</b>	Bus lane & junction Improvement scheme	1.6	2006/07
<b>Oldham/ QBC</b>	<b>Huddersfield Road QBC</b>	Junction improvement scheme and installation of bus lanes.	3.1	Aug-07
<b>Bolton/QBC</b>	<b>Lower Bridgeman St/Manchester Rd</b>	Road widening, provision of bus and cycle lanes, junction signal improvements and installation of pedestrian crossing facilities.	3.0	Dec-07
<b>Rochdale/ NWDA/ RDA/ Wilson Bowden</b>	<b>A6193 Sir Isaac Newton Way Phase 1</b>	Spine road linking Junction 21 of the M62 to A664 Kingsway via Kingsway Park Development.	30.8	Dec-07
<b>*Bury/QBC</b>	<b>Bury New Rd, Whitefield</b>	Junction Improvement scheme	1.3	2007/08

<b>Table 6.24 Highway Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
<b>Bury</b>	<b>Derby Way Link Road</b>	Single carriageway link 300m between Rochdale Road and Moorgate.	10.0	Feb-08
<b>Stockport/ QBC</b>	<b>M60/Travis Brow Bus Only Link</b>	Installation of bus lanes, landscaping and remedial works.	1.6	Jun-08
<b>Salford/ QBC</b>	<b>Eccles Old Road/Hope Hospital</b>	Junction improvement scheme and installation of bus lane.	1.5	Feb-09

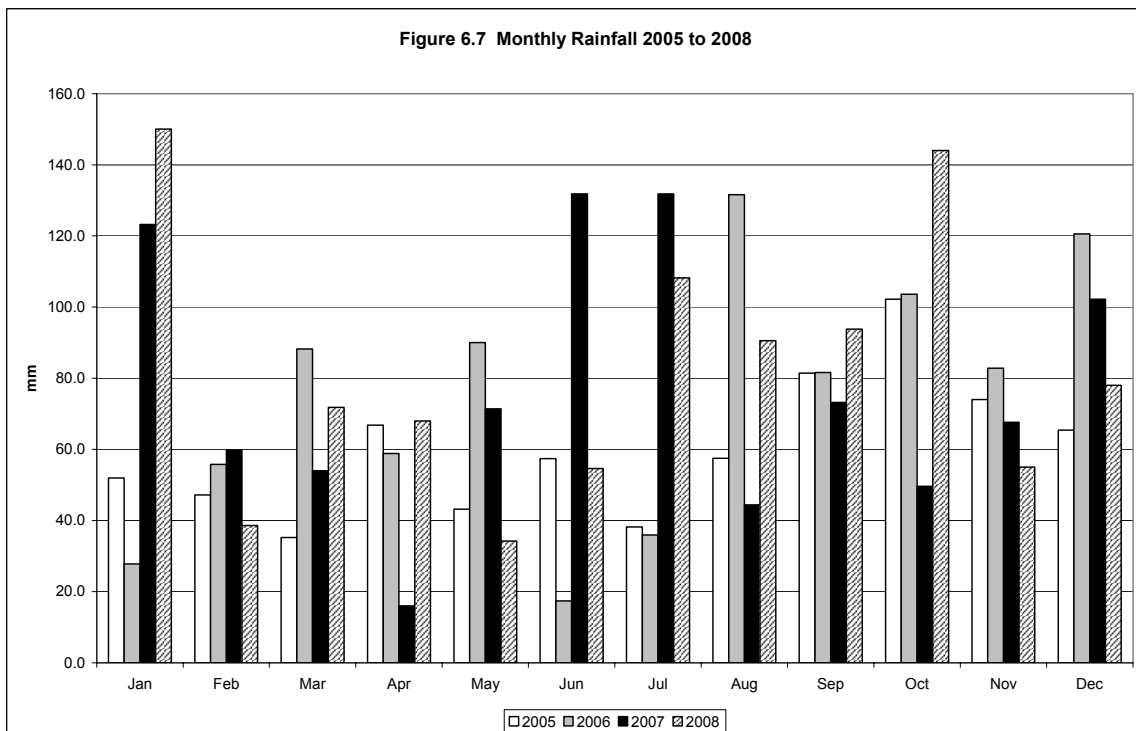
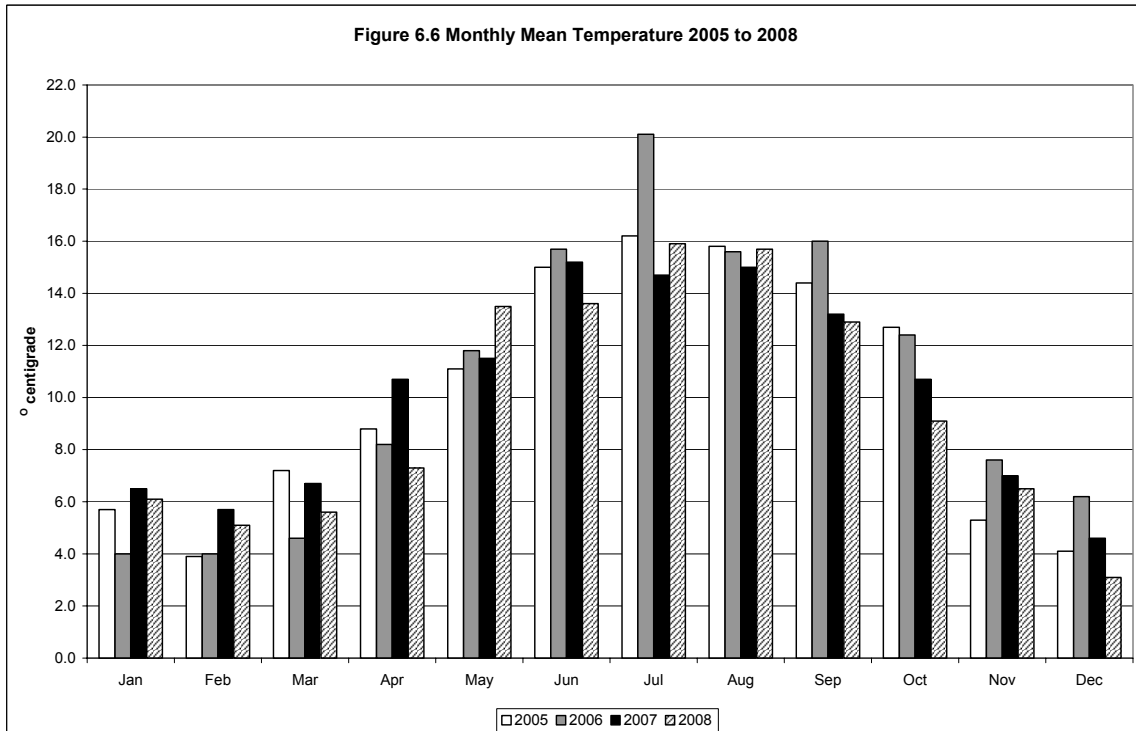
**Note:** \* Cost of QBC contribution only. Local Authority costs and opening date not supplied by District

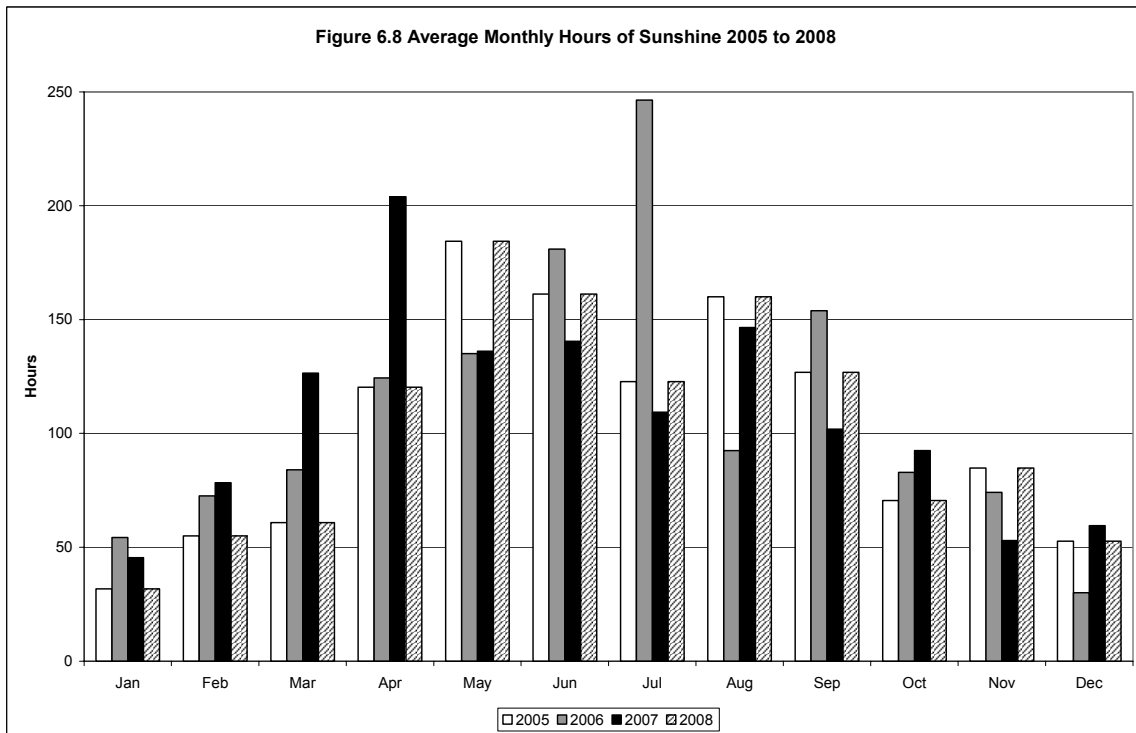
## Major Public Transport Schemes

<b>Table 6.25 Major Public Transport Schemes over £1 Million completed 1986- Spring 2009</b>				
<b>Authority</b>	<b>Name</b>	<b>Description</b>	<b>Cost £M</b>	<b>Opening Date</b>
GMPTA	<b>Airport Rail Link</b>	Northern Chord & additional rolling stock	15.0	Mar-93
GMPTA/ British Rail/ Airport/ Cheshire/ ERDF	<b>Airport Rail Link</b>	Southern Chord	6.0	Jan-96
GMPTA/ Private/ ERDF/ Salford/ DETR	<b>Metrolink Phase 2</b>	Manchester to Salford Quays and Eccles	148.0	Jul-00
GMPTA	<b>Middleton Bus Station</b>		5.3	Aug-05
GMPTA/ Manchester/ ERDF	<b>Central Park Gateway Scheme (North Manchester Business Park)</b>	Metrolink Station and Bridges	10.8	Nov-05
GMPTA	<b>Shudehill Interchange</b>	Bus Station/ Metrolink Interchange (opened March 2004) and multi-storey car park (opened December 2005)	28.0	Jun-06
GMPTA	<b>Salford Central Station</b>	Phase 1 Redevelopment	5.0	Dec-07
Network Rail/ GMPTA/ Manchester Airport/ the Northern Way	<b>Manchester Airport Rail Station</b>	Third platform	15.0	Dec-08

**Weather Data**

6.20 Figures 6.6 to 6.8 present summaries of average temperature, rainfall and hours of sunshine at the Meteorological Office weather station in Woodford, Greater Manchester for 2005 to 2008.







**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 2007 (split shift) and 2008 (12-hour to longer period) data. These are applied to counts in 2009.

Factors currently applied to earlier counts are available on request.

## Traffic Count Factors

### A. Split Shift to 12-Hour

The factors and their associated standard deviations were derived from 12 hour manual classified counts undertaken at 32 motorway, 125 A road and 181 B, C or U road sites throughout the county during 2007. All sites were 2-way.

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

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 2008 Automatic Traffic Count (ATC) data at 27 two-way motorway and 55-two way non-motorway sites throughout the county.

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

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

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

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

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

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

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

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

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

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

### 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	1.467	1.527	1.529	1.591	1.449		1.482
	A2	10:00-12:00	3.336	3.242	2.894	3.273	4.224		3.242
	A3	12:00-14:00	3.093	3.167	2.987	4.009	3.338		3.087
	A4	16:00-18:00	1.439	1.264	1.314	1.563	1.405		1.410
A Roads	A1	07:30-09:30	1.370	1.471	1.506	1.495	1.541	1.518	1.388
	A2	10:00-12:00	3.454	3.028	2.751	3.479	5.005	4.777	3.334
	A3	12:00-14:00	2.963	3.138	3.199	3.641	3.224	3.487	2.992
	A4	16:00-18:00	1.436	1.280	1.202	1.447	1.396	1.449	1.414
B C U Roads	A1	07:30-09:30	1.321	1.447	1.538	1.380	1.523	1.452	1.337
	A2	10:00-12:00	3.592	3.155	2.708	3.332	4.371	4.296	3.467
	A3	12:00-14:00	3.055	3.197	3.360	3.292	3.070	3.389	3.061
	A4	16:00-18:00	1.450	1.302	1.188	1.324	1.410	1.441	1.432

### 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	0.043	0.056	0.038	0.201	0.151		0.039
	A2	10:00-12:00	0.345	0.342	0.226	0.910	2.804		0.252
	A3	12:00-14:00	0.149	0.278	0.181	1.644	1.181		0.144
	A4	16:00-18:00	0.073	0.065	0.075	0.425	0.412		0.062
A Roads	A1	07:30-09:30	0.069	0.105	0.185	0.443	0.500	0.561	0.066
	A2	10:00-12:00	0.332	0.329	0.460	1.522	3.312	3.379	0.268
	A3	12:00-14:00	0.150	0.282	0.704	1.918	1.467	2.043	0.135
	A4	16:00-18:00	0.074	0.083	0.156	0.511	0.301	0.577	0.067
B C U Roads	A1	07:30-09:30	0.093	0.249	0.525	0.256	0.611	0.541	0.091
	A2	10:00-12:00	0.505	0.786	0.951	1.066	2.629	3.203	0.414
	A3	12:00-14:00	0.300	0.763	1.638	1.021	1.931	2.240	0.270
	A4	16:00-18:00	0.141	0.171	0.335	0.229	0.453	0.618	0.155

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.062	1.031	1.022	1.051	1.033	1.519	1.720	1.039
February	1.024	1.006	0.994	0.985	0.979	1.442	1.607	0.997
March	1.021	1.002	0.997	0.990	0.969	1.368	1.514	0.996
April	1.006	0.995	0.982	0.977	0.956	1.421	1.572	0.983
May	1.005	1.001	0.986	0.971	0.951	1.412	1.612	0.983
June	1.023	1.008	0.998	0.996	0.961	1.431	1.579	0.996
July	1.025	1.009	0.998	0.995	0.973	1.451	1.602	0.999
August	1.064	1.039	1.007	1.005	0.986	1.427	1.621	1.019
September	1.024	1.017	0.999	0.991	0.968	1.363	1.538	0.999
October	1.019	1.017	1.001	0.994	0.959	1.384	1.506	0.998
November	1.036	1.016	1.011	1.002	0.974	1.417	1.598	1.007
December	1.032	1.037	1.017	1.026	1.002	1.430	1.604	1.024
Average Factor	1.025	1.011	0.998	0.996	0.972	1.419	1.588	1.000

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.022	0.023	0.024	0.026	0.026	0.121	0.146
February	0.018	0.019	0.017	0.015	0.015	0.123	0.163
March	0.014	0.016	0.020	0.018	0.021	0.118	0.163
April	0.019	0.015	0.018	0.014	0.018	0.110	0.161
May	0.018	0.017	0.016	0.018	0.028	0.120	0.179
June	0.017	0.017	0.017	0.018	0.024	0.125	0.182
July	0.019	0.016	0.013	0.017	0.028	0.126	0.201
August	0.035	0.020	0.023	0.027	0.041	0.136	0.191
September	0.017	0.018	0.016	0.015	0.026	0.126	0.188
October	0.016	0.021	0.019	0.013	0.023	0.118	0.164
November	0.026	0.024	0.028	0.024	0.024	0.107	0.145
December	0.028	0.037	0.032	0.038	0.020	0.109	0.132

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.032	1.013	1.008	1.006	0.990	1.373	1.727	1.008
February	1.016	0.998	0.987	0.990	0.982	1.367	1.677	0.993
March	1.012	0.990	0.989	0.980	0.974	1.313	1.600	0.989
April	1.008	0.992	0.983	0.980	0.975	1.344	1.660	0.987
May	1.011	0.991	0.986	0.983	0.972	1.358	1.701	0.989
June	1.037	1.017	1.008	1.005	0.995	1.388	1.695	1.011
July	1.045	1.022	1.018	1.014	1.008	1.392	1.732	1.022
August	1.104	1.070	1.060	1.056	1.056	1.463	1.784	1.071
September	1.040	1.021	1.015	1.008	1.002	1.381	1.657	1.017
October	1.020	1.006	0.996	0.995	0.983	1.349	1.618	0.999
November	1.016	1.002	0.995	0.989	0.972	1.345	1.643	0.995
December	1.004	0.988	0.978	0.976	0.972	1.350	1.643	0.984
Average Factor	1.023	1.005	0.997	0.995	0.981	1.350	1.670	1.000

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.027	0.031	0.027	0.029	0.034	0.326	0.489
February	0.024	0.023	0.026	0.025	0.046	0.327	0.503
March	0.028	0.031	0.035	0.036	0.045	0.293	0.496
April	0.024	0.029	0.025	0.021	0.045	0.311	0.436
May	0.025	0.022	0.034	0.021	0.043	0.350	0.512
June	0.025	0.026	0.029	0.023	0.046	0.338	0.522
July	0.027	0.023	0.026	0.023	0.046	0.320	0.556
August	0.096	0.078	0.077	0.067	0.062	0.294	0.393
September	0.033	0.027	0.030	0.031	0.044	0.364	0.436
October	0.031	0.029	0.031	0.028	0.043	0.300	0.423
November	0.032	0.035	0.032	0.032	0.042	0.312	0.396
December	0.034	0.035	0.037	0.036	0.046	0.311	0.475

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.254	1.216	1.206	1.239	1.218	1.791	2.028	1.225
February	1.211	1.189	1.174	1.164	1.157	1.702	1.896	1.179
March	1.206	1.184	1.177	1.169	1.144	1.615	1.787	1.176
April	1.187	1.175	1.160	1.154	1.129	1.677	1.855	1.160
May	1.186	1.182	1.164	1.147	1.123	1.666	1.901	1.160
June	1.207	1.190	1.178	1.176	1.134	1.688	1.862	1.176
July	1.210	1.191	1.178	1.174	1.148	1.712	1.889	1.180
August	1.255	1.227	1.188	1.186	1.164	1.683	1.912	1.203
September	1.209	1.201	1.179	1.169	1.143	1.608	1.814	1.180
October	1.203	1.201	1.182	1.174	1.132	1.633	1.776	1.178
November	1.224	1.200	1.193	1.184	1.150	1.672	1.885	1.190
December	1.220	1.226	1.201	1.212	1.184	1.688	1.893	1.210
Average Factor	1.211	1.194	1.178	1.175	1.147	1.675	1.873	1.181

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.033	0.034	0.035	0.033	0.032	0.133	0.157
February	0.025	0.028	0.025	0.022	0.021	0.132	0.175
March	0.023	0.023	0.031	0.026	0.030	0.128	0.178
April	0.028	0.022	0.028	0.023	0.026	0.118	0.175
May	0.026	0.026	0.026	0.024	0.036	0.129	0.197
June	0.024	0.023	0.026	0.025	0.030	0.134	0.201
July	0.020	0.018	0.016	0.018	0.033	0.137	0.224
August	0.039	0.029	0.025	0.031	0.047	0.148	0.211
September	0.023	0.027	0.024	0.021	0.032	0.137	0.209
October	0.023	0.030	0.030	0.021	0.030	0.129	0.179
November	0.039	0.038	0.042	0.037	0.036	0.115	0.154
December	0.041	0.050	0.046	0.049	0.029	0.118	0.139

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.209	1.188	1.181	1.180	1.161	1.604	2.016	1.182
February	1.191	1.170	1.158	1.161	1.153	1.598	1.958	1.165
March	1.186	1.161	1.159	1.150	1.142	1.535	1.868	1.160
April	1.182	1.163	1.153	1.148	1.143	1.571	1.940	1.158
May	1.186	1.163	1.156	1.153	1.141	1.588	1.987	1.160
June	1.216	1.193	1.183	1.179	1.168	1.623	1.980	1.186
July	1.225	1.200	1.195	1.190	1.183	1.628	2.022	1.199
August	1.295	1.257	1.244	1.239	1.240	1.712	2.086	1.257
September	1.220	1.199	1.191	1.183	1.177	1.615	1.937	1.193
October	1.196	1.179	1.168	1.167	1.153	1.577	1.889	1.171
November	1.192	1.175	1.168	1.161	1.140	1.573	1.920	1.168
December	1.179	1.160	1.149	1.145	1.140	1.580	1.920	1.154
Average Factor	1.200	1.179	1.170	1.167	1.150	1.579	1.951	1.173

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.044	0.049	0.043	0.047	0.048	0.344	0.517
February	0.041	0.039	0.044	0.043	0.061	0.346	0.536
March	0.042	0.047	0.051	0.055	0.060	0.308	0.529
April	0.038	0.045	0.041	0.037	0.059	0.328	0.463
May	0.039	0.036	0.046	0.035	0.055	0.370	0.544
June	0.033	0.035	0.040	0.033	0.055	0.358	0.559
July	0.032	0.032	0.035	0.032	0.055	0.338	0.594
August	0.118	0.098	0.098	0.083	0.075	0.313	0.416
September	0.050	0.043	0.044	0.046	0.055	0.388	0.463
October	0.049	0.049	0.050	0.046	0.058	0.316	0.449
November	0.050	0.054	0.052	0.052	0.057	0.328	0.417
December	0.051	0.053	0.055	0.053	0.059	0.327	0.503

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

**MOTORWAY**

**1. Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.294	1.255	1.245	1.279	1.257	1.848	2.092	1.264
February	1.250	1.228	1.213	1.202	1.195	1.757	1.958	1.217
March	1.245	1.222	1.216	1.207	1.182	1.667	1.845	1.214
April	1.226	1.214	1.198	1.192	1.165	1.732	1.915	1.198
May	1.225	1.221	1.202	1.184	1.160	1.721	1.963	1.198
June	1.247	1.229	1.216	1.215	1.171	1.743	1.923	1.215
July	1.250	1.229	1.217	1.212	1.186	1.768	1.950	1.218
August	1.296	1.267	1.226	1.225	1.202	1.738	1.974	1.242
September	1.248	1.240	1.218	1.207	1.180	1.660	1.873	1.218
October	1.243	1.240	1.221	1.212	1.169	1.686	1.834	1.217
November	1.264	1.239	1.232	1.222	1.188	1.727	1.946	1.228
December	1.261	1.266	1.240	1.251	1.223	1.743	1.954	1.250
Average Factor	1.250	1.233	1.216	1.214	1.185	1.729	1.934	1.219

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.035	0.035	0.037	0.035	0.034	0.141	0.163
February	0.028	0.030	0.029	0.026	0.026	0.137	0.180
March	0.028	0.029	0.036	0.031	0.036	0.133	0.184
April	0.031	0.026	0.032	0.029	0.030	0.122	0.180
May	0.029	0.031	0.032	0.028	0.041	0.134	0.203
June	0.027	0.027	0.030	0.030	0.035	0.140	0.209
July	0.025	0.023	0.021	0.024	0.038	0.142	0.232
August	0.041	0.035	0.031	0.037	0.051	0.154	0.219
September	0.028	0.031	0.029	0.026	0.037	0.141	0.216
October	0.028	0.036	0.035	0.028	0.035	0.135	0.185
November	0.044	0.043	0.047	0.043	0.041	0.119	0.159
December	0.047	0.058	0.052	0.055	0.035	0.125	0.144



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

**NON-MOTORWAY**

**1. Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.251	1.230	1.223	1.222	1.202	1.660	2.085	1.224
February	1.233	1.212	1.199	1.202	1.194	1.653	2.025	1.207
March	1.228	1.202	1.200	1.191	1.183	1.588	1.932	1.202
April	1.224	1.204	1.194	1.188	1.183	1.626	2.007	1.199
May	1.228	1.204	1.197	1.194	1.181	1.642	2.054	1.201
June	1.259	1.236	1.225	1.221	1.209	1.680	2.049	1.229
July	1.269	1.242	1.237	1.232	1.224	1.685	2.092	1.242
August	1.341	1.301	1.289	1.283	1.284	1.773	2.160	1.302
September	1.264	1.241	1.234	1.225	1.219	1.671	2.005	1.236
October	1.238	1.220	1.208	1.207	1.193	1.631	1.953	1.212
November	1.234	1.216	1.209	1.202	1.181	1.628	1.987	1.209
December	1.222	1.201	1.190	1.186	1.181	1.635	1.987	1.196
Average Factor	1.243	1.221	1.212	1.209	1.192	1.635	2.019	1.215

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.052	0.056	0.050	0.054	0.054	0.347	0.522
February	0.049	0.047	0.051	0.050	0.066	0.349	0.542
March	0.048	0.053	0.057	0.061	0.066	0.312	0.535
April	0.045	0.050	0.047	0.044	0.065	0.332	0.467
May	0.045	0.042	0.051	0.041	0.060	0.374	0.550
June	0.040	0.042	0.046	0.041	0.059	0.363	0.566
July	0.039	0.040	0.043	0.039	0.060	0.343	0.601
August	0.124	0.104	0.106	0.089	0.081	0.320	0.422
September	0.058	0.050	0.052	0.053	0.060	0.394	0.471
October	0.056	0.056	0.057	0.054	0.064	0.320	0.453
November	0.056	0.061	0.058	0.058	0.063	0.332	0.420
December	0.057	0.060	0.062	0.059	0.064	0.330	0.507

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

**MOTORWAY**

**1. Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.350	1.308	1.298	1.333	1.310	1.926	2.180	1.317
February	1.304	1.280	1.264	1.253	1.246	1.832	2.040	1.269
March	1.297	1.274	1.267	1.258	1.231	1.737	1.921	1.265
April	1.278	1.265	1.248	1.242	1.214	1.805	1.995	1.248
May	1.276	1.272	1.252	1.234	1.208	1.792	2.044	1.248
June	1.299	1.280	1.267	1.265	1.220	1.816	2.002	1.266
July	1.302	1.281	1.268	1.263	1.235	1.841	2.031	1.269
August	1.350	1.320	1.277	1.276	1.252	1.810	2.056	1.294
September	1.300	1.292	1.269	1.258	1.229	1.729	1.951	1.269
October	1.295	1.292	1.272	1.263	1.218	1.757	1.909	1.268
November	1.317	1.291	1.284	1.274	1.238	1.799	2.027	1.280
December	1.314	1.319	1.293	1.304	1.275	1.817	2.036	1.303
Average Factor	1.302	1.285	1.267	1.264	1.234	1.801	2.014	1.270

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.043	0.044	0.047	0.040	0.040	0.150	0.162
February	0.035	0.036	0.035	0.032	0.030	0.143	0.181
March	0.034	0.033	0.042	0.036	0.039	0.140	0.185
April	0.037	0.032	0.038	0.034	0.034	0.128	0.180
May	0.034	0.035	0.037	0.031	0.043	0.135	0.202
June	0.032	0.032	0.035	0.033	0.035	0.142	0.208
July	0.026	0.025	0.025	0.025	0.037	0.144	0.232
August	0.043	0.038	0.031	0.035	0.050	0.156	0.217
September	0.031	0.035	0.032	0.028	0.037	0.144	0.216
October	0.032	0.041	0.039	0.033	0.037	0.142	0.184
November	0.052	0.050	0.055	0.048	0.047	0.127	0.158
December	0.055	0.064	0.061	0.064	0.043	0.133	0.144

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.283	1.261	1.254	1.253	1.232	1.702	2.138	1.256
February	1.266	1.243	1.230	1.233	1.226	1.697	2.079	1.239
March	1.260	1.233	1.231	1.223	1.214	1.630	1.983	1.233
April	1.256	1.235	1.225	1.219	1.213	1.669	2.060	1.230
May	1.260	1.235	1.228	1.224	1.212	1.685	2.108	1.232
June	1.293	1.268	1.257	1.253	1.241	1.725	2.104	1.261
July	1.301	1.275	1.270	1.263	1.256	1.730	2.147	1.274
August	1.376	1.336	1.322	1.317	1.317	1.820	2.217	1.336
September	1.297	1.274	1.266	1.257	1.251	1.716	2.058	1.269
October	1.269	1.251	1.239	1.238	1.223	1.672	2.002	1.243
November	1.265	1.247	1.241	1.234	1.212	1.671	2.039	1.241
December	1.254	1.233	1.222	1.217	1.213	1.680	2.041	1.228
Average Factor	1.276	1.254	1.244	1.241	1.223	1.679	2.073	1.247

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.054	0.058	0.053	0.055	0.058	0.359	0.539
February	0.052	0.050	0.054	0.053	0.071	0.362	0.560
March	0.050	0.055	0.060	0.065	0.071	0.323	0.552
April	0.048	0.053	0.050	0.047	0.070	0.344	0.484
May	0.048	0.046	0.054	0.045	0.066	0.387	0.567
June	0.044	0.045	0.049	0.044	0.066	0.376	0.585
July	0.043	0.046	0.049	0.044	0.066	0.356	0.621
August	0.126	0.107	0.109	0.091	0.085	0.330	0.435
September	0.061	0.054	0.056	0.056	0.067	0.409	0.487
October	0.059	0.059	0.060	0.057	0.070	0.331	0.469
November	0.060	0.064	0.064	0.062	0.069	0.344	0.435
December	0.063	0.065	0.067	0.063	0.070	0.342	0.523

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.230	1.190	1.183	1.213	1.192	1.752	1.982	1.198
February	1.190	1.168	1.154	1.143	1.137	1.667	1.856	1.158
March	1.182	1.161	1.155	1.147	1.122	1.582	1.749	1.154
April	1.165	1.153	1.138	1.133	1.107	1.643	1.816	1.138
May	1.163	1.159	1.142	1.124	1.101	1.631	1.860	1.137
June	1.184	1.167	1.155	1.153	1.112	1.653	1.822	1.153
July	1.187	1.167	1.155	1.151	1.126	1.676	1.847	1.157
August	1.231	1.203	1.164	1.163	1.141	1.648	1.870	1.179
September	1.185	1.178	1.157	1.146	1.120	1.574	1.774	1.157
October	1.180	1.177	1.159	1.151	1.110	1.599	1.737	1.155
November	1.200	1.177	1.170	1.161	1.128	1.638	1.844	1.167
December	1.200	1.205	1.180	1.191	1.163	1.657	1.856	1.188
Average Factor	1.187	1.171	1.155	1.152	1.125	1.640	1.832	1.158

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.053	0.054	0.055	0.048	0.045	0.124	0.122
February	0.048	0.048	0.047	0.044	0.042	0.112	0.137
March	0.046	0.045	0.053	0.048	0.049	0.111	0.144
April	0.049	0.045	0.050	0.046	0.043	0.101	0.137
May	0.047	0.046	0.048	0.042	0.050	0.102	0.157
June	0.043	0.044	0.047	0.044	0.042	0.109	0.164
July	0.035	0.038	0.036	0.036	0.043	0.111	0.186
August	0.047	0.047	0.038	0.040	0.048	0.121	0.172
September	0.043	0.048	0.045	0.041	0.043	0.111	0.172
October	0.044	0.051	0.051	0.045	0.045	0.114	0.142
November	0.064	0.063	0.067	0.061	0.059	0.102	0.117
December	0.064	0.072	0.070	0.069	0.053	0.110	0.106

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>	<b>Average Weekday Factor</b>
January	1.182	1.162	1.155	1.154	1.135	1.557	1.953	1.157
February	1.166	1.145	1.134	1.136	1.129	1.552	1.898	1.142
March	1.160	1.136	1.134	1.125	1.117	1.491	1.809	1.135
April	1.156	1.136	1.128	1.121	1.116	1.526	1.882	1.132
May	1.159	1.137	1.130	1.127	1.115	1.540	1.924	1.134
June	1.189	1.167	1.157	1.153	1.142	1.577	1.921	1.161
July	1.198	1.174	1.169	1.163	1.156	1.583	1.959	1.173
August	1.267	1.230	1.218	1.213	1.214	1.667	2.029	1.231
September	1.195	1.174	1.167	1.158	1.153	1.570	1.882	1.169
October	1.169	1.152	1.140	1.139	1.126	1.528	1.828	1.144
November	1.167	1.148	1.143	1.137	1.116	1.528	1.864	1.143
December	1.158	1.136	1.126	1.120	1.116	1.537	1.864	1.131
Average Factor	1.175	1.155	1.146	1.143	1.125	1.536	1.895	1.149

**2. Standard Deviations Associated with Factors**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
January	0.078	0.080	0.074	0.078	0.076	0.260	0.395
February	0.074	0.073	0.077	0.076	0.084	0.263	0.417
March	0.073	0.076	0.081	0.085	0.085	0.234	0.414
April	0.070	0.071	0.070	0.069	0.081	0.250	0.357
May	0.069	0.067	0.072	0.066	0.077	0.283	0.424
June	0.064	0.064	0.067	0.063	0.073	0.277	0.442
July	0.063	0.067	0.069	0.065	0.077	0.261	0.467
August	0.132	0.115	0.118	0.099	0.091	0.248	0.324
September	0.078	0.073	0.073	0.073	0.076	0.306	0.367
October	0.078	0.082	0.081	0.078	0.083	0.241	0.345
November	0.075	0.082	0.083	0.082	0.081	0.250	0.315
December	0.080	0.083	0.086	0.082	0.081	0.246	0.385

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

<b>Year</b>	<b>Cars</b>	<b>LGV</b>	<b>OGV</b>	<b>Buses &amp; Coaches</b>	<b>Motor Cycles</b>	<b>All Motors</b>
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
2006	2.60	3.11	1.42	3.48	1.78	2.29
2007	2.63	3.20	1.41	2.51	1.57	2.31
2008	2.60	3.23	1.42	2.54	1.88	2.29

**Other Roads**

<b>Year</b>	<b>Cars</b>	<b>LGV</b>	<b>OGV</b>	<b>Buses &amp; Coaches</b>	<b>Motor Cycles</b>	<b>All Motors</b>	<b>Pedal Cycles</b>
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
1982	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
2006	1.45	1.42	0.67	1.44	0.39	1.35	0.82
2007	1.45	1.45	0.63	1.32	0.39	1.35	0.88
2008	1.44	1.42	0.62	1.29	0.40	1.32	0.94





**APPENDIX 2**  
**SOME RECENT GMTU PUBLICATIONS**



**REPORTS**

<b>No</b>	<b>Title</b>	<b>Author(s)</b>	<b>Date</b>
1125	Analysis of GMATS Data to Assess the Potential for P&R from South Manchester	P Bearon	Apr 2006
1134	Analysis of GMATS Data to Assess the Potential for P&R from East Manchester	P Bearon	Apr 2006
1136	Analysis of GMATS Data to Assess the Potential for P&R in the Oldham/Rochdale Corridor	P Bearon	May 2006
1137	Road Casualty Statistics Greater Manchester 2005	D Chiu	Jun 2006
1138	Transport Statistics Greater Manchester 2005	E Ellis et al	Jun 2006
1139	Transport Statistics Bolton 2005	E Ellis et al	Jul 2006
1140	Transport Statistics Bury 2005	E Ellis et al	Jul 2006
1141	Transport Statistics Manchester 2005	E Ellis et al	Jul 2006
1142	Transport Statistics Oldham 2005	E Ellis et al	Jul 2006
1143	Transport Statistics Rochdale 2005	E Ellis et al	Jul 2006
1144	Transport Statistics Salford 2005	E Ellis et al	Jul 2006
1145	Transport Statistics Stockport 2005	E Ellis et al	Jul 2006
1146	Transport Statistics Tameside 2005	E Ellis et al	Jul 2006
1147	Transport Statistics Trafford 2005	E Ellis et al	Jul 2006
1148	Transport Statistics Wigan 2005	E Ellis et al	Jul 2006
1153	Analysis of GMATS Data to Assess the Potential for P&R in the Leigh/Wigan Corridor	P Bearon	Jul 2006
1158	Chorlton QBC After Monitoring – Report of Surveys	P Howarth	Aug 2006
1183	Bus Lane Enforcement Monitoring – Report of Before Study	J C Mayoh	Aug 2006
1192	Wigan Congestion Study	P Bearon R Boncinelli	Sep 2006
1205	Bolton Casualty Research Project – Road Accident Casualty Trends Since 1994	D Chiu	Oct 2006
1214	Analysis of Travel Survey Data to Assess the Potential for Park and Ride along the Bolton Corridor	P Bearon	Mar 2007
1236	A62 Huddersfield Road QBC Scheme “Comparison of Before and After Data”	R Boncinelli	Dec 2006
1238	School Travel Survey – Report of Survey Autumn 2006 (Hands Up Survey)	M White	Jan 2007
1255	Results of Consultation on the Greater Manchester Cycling Strategy	A Castle	Jan 2007
1257	A Before and After Analysis of Accidents at Puffin Crossings and at Signalised Junctions with Nearside Indicators	D Chiu	Jan 2007
1258	Analysis of Travel Survey Data to Assess the Potential for Park and Ride along the Altrincham Corridor	P Bearon	Mar 2007
1288	Road Casualty Statistics Greater Manchester 2006	D Chiu	Jul 2007
1289	Transport Statistics Greater Manchester 2006	E Ellis et al	Jul 2007
1290	Transport Statistics Bolton 2006	E Ellis et al	Aug 2007

<b>No</b>	<b>Title</b>	<b>Author(s)</b>	<b>Date</b>
1291	Transport Statistics Bury 2006	E Ellis et al	Aug 2007
1292	Transport Statistics Manchester 2006	E Ellis et al	Aug 2007
1293	Transport Statistics Oldham 2006	E Ellis et al	Aug 2007
1294	Transport Statistics Rochdale 2006	E Ellis et al	Aug 2007
1295	Transport Statistics Salford 2006	E Ellis et al	Aug 2007
1296	Transport Statistics Stockport 2006	E Ellis et al	Aug 2007
1297	Transport Statistics Tameside 2006	E Ellis et al	Aug 2007
1298	Transport Statistics Trafford 2006	E Ellis et al	Aug 2007
1299	Transport Statistics Wigan 2006	E Ellis et al	Aug 2007
1304	Person Delay Surveys – Technical Review Document	D Holt	Apr 2007
1310	Manchester Bus Lane Enforcement Monitoring After Study	P Howarth	May 2007
1331	The Greater Manchester Emissions Inventory 2005 Update	I Hull T Morris K Fraser	Jul 2007
1333	Greater Manchester TIF Bid - SATURN Model Forecasting Report	John Wharf	Mar 2008
1337	The Greater Manchester Emissions Inventory 2004 Update	I Hull	Sep 2007
1342	Cycle Monitoring Greater Manchester Jan-July 2007	D Weston	Oct 2007
1365	SEMMMS QBC Corridor H M60 Junction 1 Before/After Report	P.Howarth	Dec 2007
1366	Greater Manchester Cycling Progress Report	E Ellis	Dec 2007
1368	The Greater Manchester Emissions Inventory 2010 Forecast	I Hull	Dec 2007
1387	Transport Statistics Greater Manchester 2007	E Ellis et al	Aug 2008
1388	Transport Statistics Bolton 2007	E Ellis et al	Aug 2008
1389	Transport Statistics Bury 2007	E Ellis et al	Aug 2008
1390	Transport Statistics Manchester 2007	E Ellis et al	Aug 2008
1391	Transport Statistics Oldham 2007	E Ellis et al	Aug 2008
1392	Transport Statistics Rochdale 2007	E Ellis et al	Aug 2008
1393	Transport Statistics Salford 2007	E Ellis et al	Aug 2008
1394	Transport Statistics Stockport 2007	E Ellis et al	Aug 2008
1395	Transport Statistics Tameside 2007	E Ellis et al	Aug 2008
1396	Transport Statistics Trafford 2007	E Ellis et al	Aug 2008
1397	Transport Statistics Wigan 2007	E Ellis et al	Aug 2008
1408	Casualty Statistics Greater Manchester 2007 (Main Report)	D Chiu et al	Jul 2008
1409	Casualty Statistics Greater Manchester 2007 – Countywide Tabulations	D Chiu	Jul 2008
1410	Casualty Statistics Greater Manchester 2007-	D.Chiu	Aug 2008

<b>No</b>	<b>Title</b>	<b>Author(s)</b>	<b>Date</b>
	District Tabulations and Comparisons		
1411	Additional analysis on freight and car movements across the Trafford Park key centre cordon	P Bearon D Nixon	Mar 2008
1412	Monthly Cycle Monitoring Greater Manchester 2007	D Weston	Mar 2008
1414	SEMMMS Local Centre Activity Surveys Comparison of 2005/06 and 2008-2009 Results	R Boncinelli	Mar 2008
1416	Trends in Car Journey Times on the 15 Target Congestion Routes 2003 to 2007	A Castle E Ellis	May 2008
1418	Summary of Congestion Monitoring Findings	P Howarth J Wharf	Apr 2008
1468	Local Signing for Freight in Manchester	R Boncinelli / R Davies / L Vicary/D Nixon	Jan 2009
1476	Transport Statistics Greater Manchester 2008	E Ellis et al	Sep 2009
1477	Transport Statistics Bolton 2008	E Ellis et al	Sep 2009
1478	Transport Statistics Bury 2008	E Ellis et al	Sep 2009
1479	Transport Statistics Manchester 2008	E Ellis et al	Sep 2009
1480	Transport Statistics Oldham 2008	E Ellis et al	Sep 2009
1481	Transport Statistics Rochdale 2008	E Ellis et al	Sep 2009
1482	Transport Statistics Salford 2008	E Ellis et al	Sep 2009
1483	Transport Statistics Stockport 2008	E Ellis et al	Sep 2009
1484	Transport Statistics Tameside 2008	E Ellis et al	Sep 2009
1485	Transport Statistics Trafford 2008	E Ellis et al	Sep 2009
1486	Transport Statistics Wigan 2008	E Ellis et al	Sep 2009
1501	Further analysis of the school census data and its implications for the LTP4 school indicator	D. Atkin	Feb2009
1517	Casualty Statistics Greater Manchester 2008 (Main Report)	D Chiu et al	Aug 2009
1518	Casualty Statistics Greater Manchester 2008 – Countywide Tabulations	D Chiu	Jul 2009
1519	Casualty Statistics Greater Manchester 2008- District Tabulations and Comparisons	D.Chiu	Jun 2009
1520	Congestion Route Report	D Atkin	May 2009