BEDFORD
BOROUGH COUNCIL

Bedford Borough Council Traffic Data Report
2012

Introduction

This report has been prepared to provide information about traffic flows in Bedford. It covers roads within the Bedford Borough Council boundary. Most of the data used to prepare this report relates to motorised traffic, as that is the most commonly and easily collected source of information. In addition, we have made use of information about pedestrians and cyclists where we have it.

Most roads in the Borough are owned and maintained by the Borough Council. Trunk roads and motorways are owned and maintained by the Highways Agency, which in Bedford means the A421 and the A1. Where information about these roads is available it has been included, but the Borough Council has no control over how and when the Highways Agency collects traffic data.

What we collect

Bedford Borough Council collects data based on cordons, or rings around the town, on two days in the year. One of these cordons is known as the Outer Cordon, where we record traffic volumes in and out of Bedford. The other is known as the Inner Cordon, where we record vehicle flows by type, pedestrian and cycle flows entering the town centre.

The Council has a number of permanent automatic traffic count (ATC) sites across the Borough, including on the river bridges and other key locations. These are constantly collecting data on traffic flow. Some sites can distinguish between cars and heavy goods vehicles, and some can detect the speed of the vehicle although they can never detect the identity of that vehicle.

In addition to these regular counts, we carry out surveys for specific projects when required. These may be used to help us redesign or improve specific junctions, or they can be part of a wider project to understand how traffic moves around the town. There are also some counts which are carried out in relation to proposed developments. These are necessary so that the Council and the developer can assess whether the development will have an impact on the road network, and whether any improvements are needed as a result. These counts are paid for by the developer.

The Borough Council does not regularly collect information about queue lengths or levels of congestion. This is because these are very expensive and difficult to obtain on a regular enough basis to be useful to us.

Data is collected in one of two ways:

- Automatically, through an inductive loop or pressure-sensitive tube placed on the road

- Manually, either by people standing next to the road and counting, or watching a video recording of the road
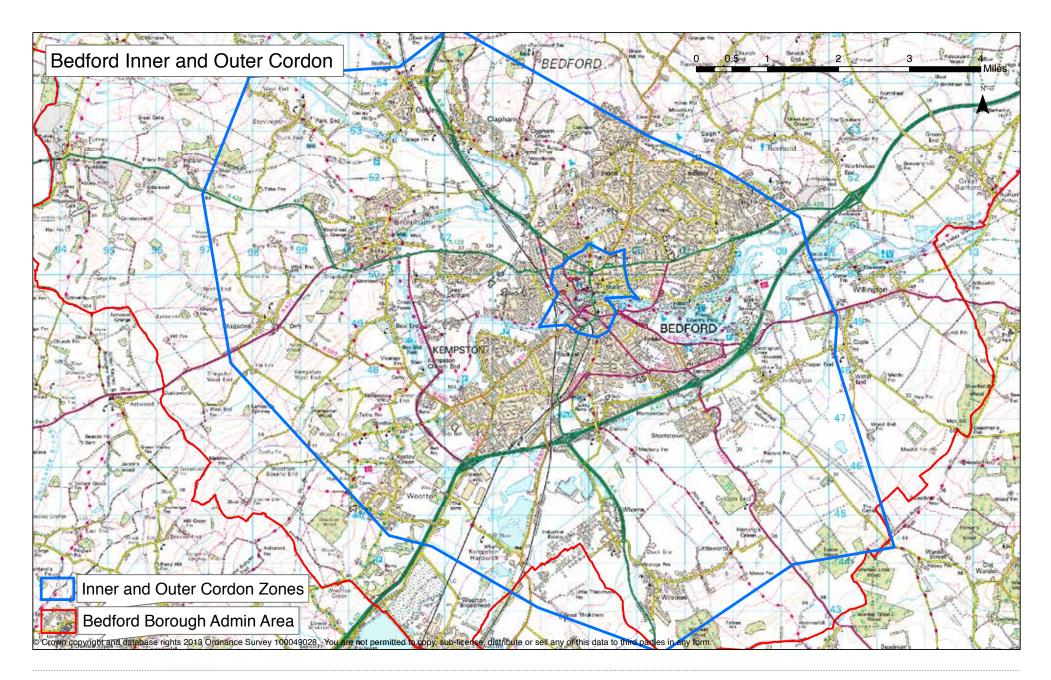
Key Facts

Traffic levels in Bedford:

The table below shows traffic level at several key points around Bedford:

- **"Outer Cordon" –** a ring around the urban area of Bedford

- **"Inner Cordon" –** a ring around the town centre

- **River bridges –** the level of traffic crossing the river within Bedford
  (Prebend Street, High Street and Longholme Way)

- **Southern Bypass –** between the A6 and the A600 junctions

- **Western Bypass –** north of Marsh Leys/A421 junction

Location	Date	Time period	Traffic flow
Outer Cordon	28th June 2011	7am – 7pm	160,000 vehicles
Inner Cordon	4th October 2012	7am – 12noon (inbound only)	50,000 people
			35,000 vehicles
River Bridges	2012	Average day	28,000 vehicles
Southern Bypass	28th June 2011	7am-7pm	26,000 vehicles
Western Bypass	2012	Average day	12,000 vehicles

Bedford Inner and Outer Cordon

Inner and Outer Cordon Zones

Bedford Borough Admin Area

Outer Cordon

At the outer cordon, the most recent data was collected on 28th June 2011. We did not collect any data in 2012. The chart below shows the total recorded flow across the cordon. This shows that there is an increase in flow in 2011. This is as a result of the improvement to the A421 road between the M1 and Bedford, which has seen a significant increase in through traffic using the road. Although this traffic is not entering Bedford, it does cross the cordon point and therefore needs to be included in the totals.

Comparing the old A421 flows prior to 2011 and the combined flows on the new and old A421 in 2011 shows that flows have increased from around 21,000 vehicles per day to around 26,000 vehicles per day, an increase of 5,000 vehicles. The All Day totals for the entire cordon reveals that there is a smaller increase in 2011 compared to 2010, from around 160,000 vehicles to around 163,000 vehicles, an increase of 3,000 vehicles.

To the west of Bedford, the routes through Wootton and along the A422 show a decrease in traffic. To the south of Bedford, both the A6 and the B530 show a decrease in flow in 2011 compared to 2010.
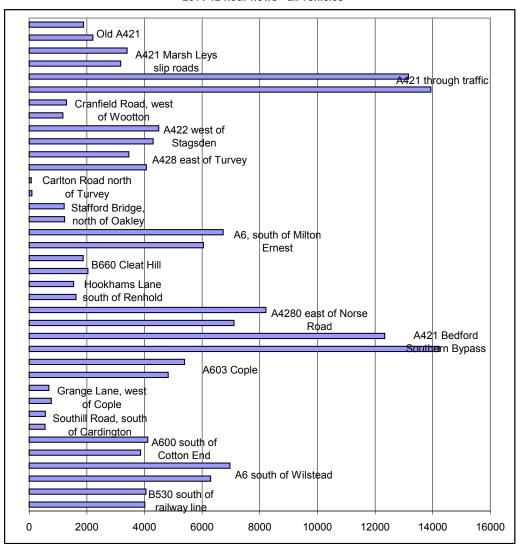
Therefore, although the completion of the new A421 dual carriageway has resulted in an increase in the volume of traffic using the route, only about half of that increase is new traffic, with the rest coming from vehicles which previously used other routes in to Bedford. The count site on the southern bypass, between the A603 and the A428 junctions, shows an increase in traffic from 23,000 to 26,500 vehicles between 2010 and 2011, an increase of 3,500 vehicles.

Total flow across the cordon is shown in the chart below, for the AM peak hour, PM peak hour and total 12-hour flows. This shows a slight decrease from 2008 to 2009, presumably associated with roadworks related to the new A421, followed by a large increase in 2011 once the new road opened.
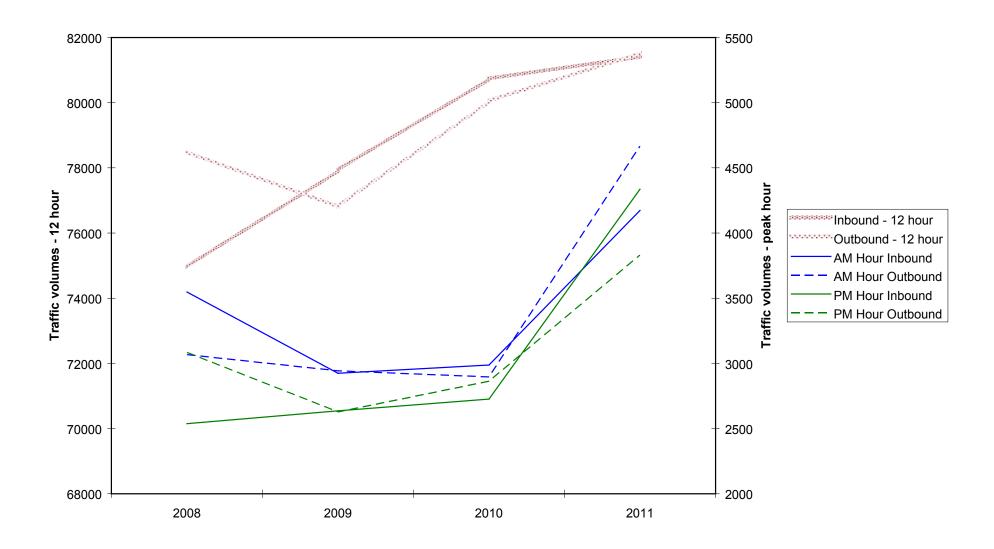
7am - 7pm 12 hour flows - all vehicles

Site	Direction	2008	2009	2010	2011
1 : Old A421	Inbound	9960	11455	9812	1887
	Outbound	10545	10255	10222	2208
2 : A421 Marsh Leys slip roads	Inbound				3396
	Outbound				3176
3 : A421 through traffic	Inbound				13157
	Outbound				13939
4 : Cranfield Road, west of Wootton	Inbound	3048	2534	2574	1293
	Outbound	3436	2746	2105	1170
5 : A422 west of Stagsden	Inbound	4293	5404	5537	4492
	Outbound	4111	5417	6010	4301
6 : A428 east of Turvey	Inbound	2727	3483	3668	3459
	Outbound	2977	3432	3754	4066
7 : Carlton Road north of Turvey	Inbound	357	365	394	70
	Outbound	418	376	346	93
8 : Stafford Bridge, north of Oakley	Inbound	1298	1178	1301	1212
	Outbound	1303	1092	1434	1228
9 : A6, south of Milton Ernest	Inbound	6572	6673	6811	6731
	Outbound	5869	6578	6792	6043
10 : B660 Cleat Hill	Inbound	1966	2549	2640	1873
	Outbound	2922	2107	2362	2037
11 : Hookhams Lane south of Renhold	Inbound	2884	1713	1997	1539
	Outbound	2315	1887	1928	1625
12 : A4280 east of Norse Road	Inbound	9815	8523	9080	8213
	Outbound	9638	7995	8599	7104
13 : A421 Bedford Southern Bypass	Inbound	10883	10144	11673	12335
	Outbound	11293	10438	11588	14226
14 : A603 Cople	Inbound	5449	6740	6695	5390
	Outbound	5196	5962	6221	4822
15 : Grange Lane, west of Cople	Inbound	415	663	820	683
	Outbound	615	806	835	766
16 : Southill Road, south of Cardington	Inbound	624	447	576	559
	Outbound	575	420	504	551
17 : A600 south of Cotton End	Inbound	3854	4098	3772	4113
	Outbound	4525	3855	3846	3864
18 : A6 south of Wilstead	Inbound	5954	7030	8075	6963
	Outbound	6951	7802	8568	6294
19 : B530 south of railway line	Inbound	4852	4921	5316	4050
	Outbound	5806	5633	4938	4009
All day	Inbound	74951	77920	80741	81415
	Outbound	78495	76801	80052	81522

2011 12 hour flows - all vehicles

Bedford Outer Cordon

Inner Cordon

This cordon records traffic heading in to Bedford town centre during the morning only. On the survey date of 4th October 2012, nearly 35,000 vehicles entered Bedford town between 7am and 12am. Nearly 85% of these were cars and the majority (62%) were single occupancy cars. Commercial vehicles (vans and lorries) made up 11% of vehicles. Buses (1.5%), pedal cycles (3%) and motor cycles (<1%) together made up just 5% of vehicles.
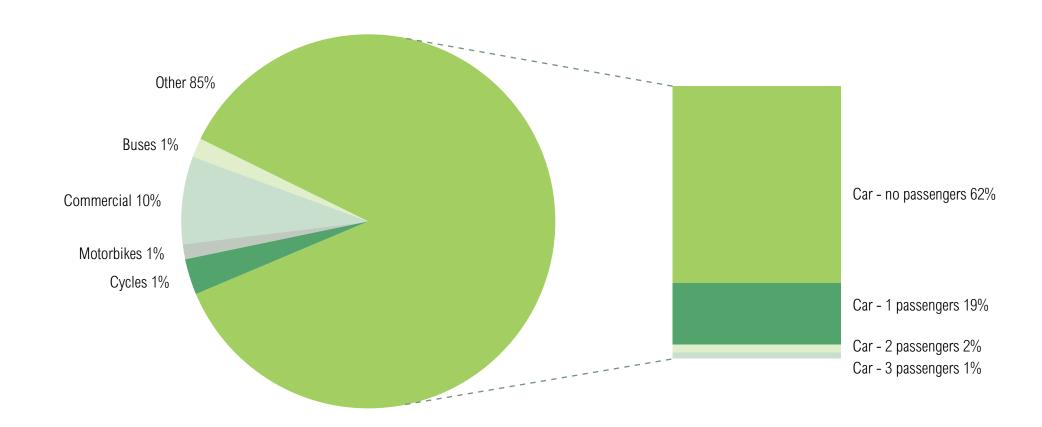
Just under 50,000 people entered Bedford town between 7am and 12am (not counting people in commercial vehicles). Around 80% of people arrived by car and 20% of people arrived by non-car means, principally on foot (11%) and bus (6% estimate) with 3% arriving by cycle and under 1% by motorcycle.

Single cars are the least efficient in terms of valuable road space for moving people. Single person cars carry 45% of people but represent 62% of all vehicles, whereas cars with 2 or more occupants carry 35% of people but represent only 22% of vehicles. Bus use is also efficient (6% of people compared to 1.5% of vehicles), whilst pedestrians and cycles also take up very little space.
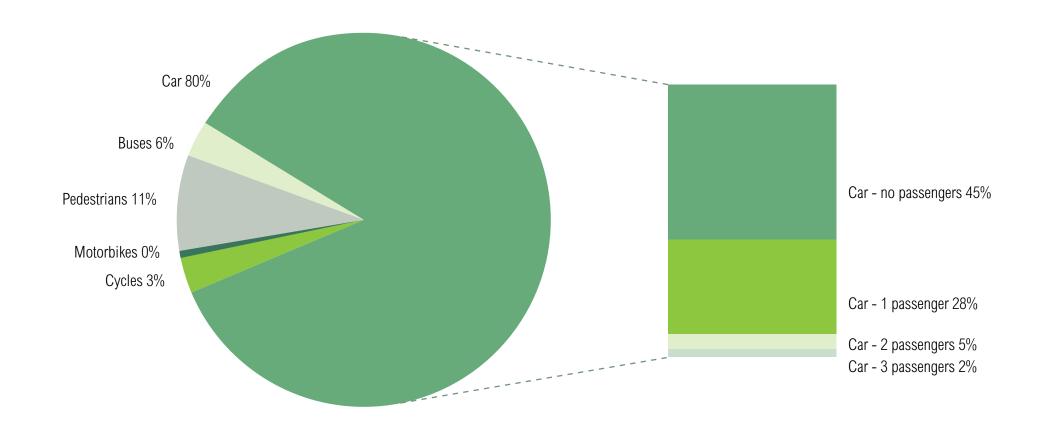
Between 1997 and 2009 the total number of vehicles entering edford did not change much, with the numbers varying from around 38,000 to 40,000 vehicles. However, for the last 3 years the figures have dropped to just under 35,000 vehicles and 2012 represents the lowest number of vehicles entering the town in recent years. It is not possible to say whether this represents a longer term trend or an effect of the economic downturn. This reduction in numbers has mostly been the result of a decline in the number of single occupancy cars along with a decline in commercial vehicles.

At Bedford station, a comprehensive series of counts was undertaken this year. These reveal that almost half of people arriving at the station do so on foot, with only a quarter of people using the car park. 15% of passengers are dropped off within the station site. It is not known how many of those who walk are dropped off away from the station, walk from the bus station, or walk from home.
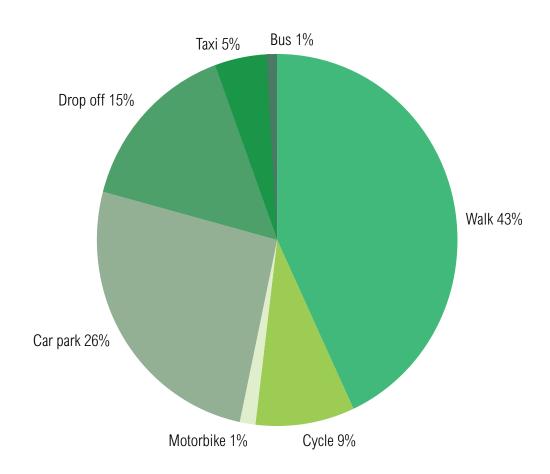
Bedford Inner Cordon 2012: Mode Split - vehicles

Other 85%

Buses 1%

Commercial 10%

Motorbikes 1%

Cycles 1%

Car - no passengers 62%

Car - 1 passengers 19%

Car - 2 passengers 2%

Car - 3 passengers 1%

Bedford Inner Cordon 2012: Mode Split - people

Car 80%

Buses 6%

Pedestrians 11%

Motorbikes 0%

Cycles 3%

Car - no passengers 45%

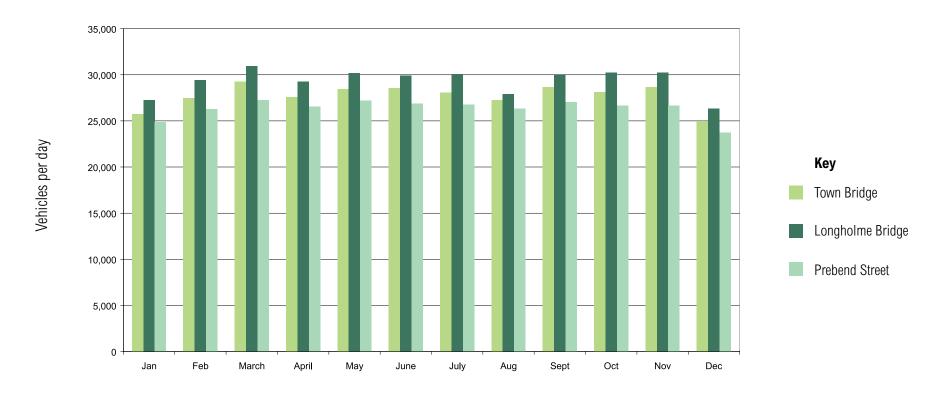Car - 1 passenger 28%

Car - 2 passengers 5%

Car - 3 passengers 2%

Mode of arrival at the railway station, 2012

River bridges

Bedford is a medieval market town which grew up around a river crossing. Today, the river presents a substantial barrier to moving around Bedford, and the bridges carry a substantial amount of traffic. The graph below shows how traffic flow over each bridge varies throughout the year. This is shown for 2010, the last year for which we currently hold a complete year's worth of data unaffected by roadworks.

Average daily traffic flow across river bridges, 2010

Key
- Town Bridge
- Longholme Bridge
- Prebend Street

Finding out more

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ਜਾਣਕਾਰੀ ਲਈ   معلومات کے لئی   برای اطلاع   তথ্যের জন্য   للمعلومات

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