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1 Key findings

Analysis of several data sources across the 12 Cycling City and Towns indicates a growth in cycle trips across all towns. The magnitude of this positive change over time, evidenced by several indicators, is highly variable across the 12 locations.

The overall picture presented by the count data is:

An average growth in cycle trips¹ of +24% across all towns in 2011² relative to a 2007 baseline. At the individual town level, growth ranged from +6% to +62%

an increase in counts of cyclists over time for 13 of 20 partial cordons and screenlines, and a decrease for seven of these groups of counts when comparing pooled manual count data collected in the early and later stages³ of the programme

with the exception of Blackpool and Bristol, towns with lower baseline cycle trips have seen a greater percentage change over time than those towns beginning the programme with a generally higher level of cycling. Towns with higher baseline counts of cycle trips did, however, achieve greater absolute increases in counts per counter per year.

Amongst school children:

The proportion of children reporting that they usually cycle to school increased in all towns between 2007 and 2011. Although year-to-year change is variable between the towns, overall the proportion usually cycling to school increased from 3.1% to 5.0% between 2007 and 2011 in schools engaged in Bike It, the proportion of pupils cycling to school everyday increased from 4.7% to 10.2%, whilst the proportion never cycling to school decreased from 65.9% to 47.1%.

Amongst adults:

Active People Survey data suggest an overall decline between 2007/08 and 2010/11 in the proportion of adults cycling for at least 30 minutes either once or more a month, or 12 times or more a month, with the exception of Greater Bristol where the data suggest an increase in both measures over the same period of time.

a lesser decline in the proportion of adults cycling for 30 minutes or more once a month in matched areas than in local authorities with Cycling City and Towns interventions

a similar decline in the proportion of adults cycling for 30 minutes or more 12 times a month or more in matched areas as in local authorities with Cycling City and Towns interventions

a greater growth in the proportion of pupils reporting that they cycle to school in Cycling City and Towns than in matched towns without Cycling City and Towns interventions.

2 Expenditure in the Cycling City and Towns

Whilst this report is primarily concerned with the monitoring evidence around outcomes of the Cycling City and Towns programme, it is useful to place these in context through summarising the programme inputs in terms of capital and revenue expenditure. Investment from Cycling England and the Department for Transport⁴ totalled £8 per capita per annum. This investment was matched by the local authorities. Investment in each town is summarised in Table 2-1.

Capital spend was in the region of two to four times revenue spend in the majority of the towns. The ratio was lower in Greater Bristol, with 43% of the overall expenditure being on revenue. In Cambridge investment in capital was higher, with seven times more spent on capital than on revenue.

⁴ The programme was also supported by funding from the Department of Health, which was routed via the Department for Transport

Table 2-1 Capital and revenue investment made in the Cycling City and Towns

	Population	Funding claimed from Cycling England/ Department for Transport ^a		Total investment ^b		Annual expenditure per head ^c
		Capital	Revenue	Capital	Revenue	
Blackpool	142,000	£2,095,000	£1,240,000	£6,890,000	£1,330,000	£19
Cambridge	180,000	£2,708,272	£1,131,728	£7,819,272	£1,134,728	£17
Chester	120,000	£881,022	£1,174,612	£2,672,022	£1,280,612	£11
Colchester	104,000	£1,213,539	£1,126,459	£3,619,015	£1,252,786	£16
Greater Bristol	570,000	£7,641,625	£3,996,743	£11,269,363	£8,444,559	£12
Leighton	38,000	£881,203	£787,887	£1,878,141	£787,887	£23
Shrewsbury	75,000	£1,517,697	£578,303	£2,837,449	£805,669	£16
Southend	160,000	£1,888,034	£1,621,726	£4,979,034	£1,720,526	£14
Southport	90,000	£1,607,712	£551,847	£2,490,391	£1,179,520	£14
Stoke-on-Trent	240,000	£3,675,878	£1,325,514	£6,032,327	£2,499,366	£12
Woking	91,000	£1,472,105	£698,963	£3,475,935	£865,657	£16
York	184,000	£2,444,080	£1,380,949	£6,172,080	£1,380,949	£12
Total	1,994,000	£28,026,167	£15,614,731	£60,135,029	£22,682,259	£14

^a Funding claimed from Department for Transport/Cycling England (as reported in End of Programme Reports for the individual towns (<https://www.gov.uk/government/publications/cycling-england-cycling-city-and-towns-end-of-programme-reports>)).

^b Calculated based on the funding claimed from Department for Transport/Cycling England plus matched expenditure for cycling-specific schemes

^c Calculated as the sum of expenditure divided by the population divided by three

3 Sources of data and information generated

A suite of monitoring tools was employed across the 12 Cycling City and Towns, tailored to reflect the emphasis of the programme delivered in each location. Common indicators of change in cycling across the 12 towns are summarised in Table 3-1.

Table 3-1 Common indicators of change in cycling across the Cycling City and Towns

Change	Population	Indicator
Overall cycle trips	Adults and children	Continuous count data from automatic cycle counters located on both traffic-free and trafficked routes, but predominantly on traffic-free routes Manual counts of cyclists performed on both traffic-free and trafficked routes, but predominantly on trafficked routes
Behaviour change	Adults	Active People Survey
	Children	Pupil Level Annual School Census Bike It monitoring data

4 Automatic cycle count data

4.1 Programme-wide changes in automatic cycle counts

All 12 towns saw an increase in cycle trips over time as measured by automatic cycle counters, presented in Table 4-1 and Chart 4-1.

Four of the 12 towns saw a decline in counts recorded in 2010 relative to 2009, whilst others saw a substantial uplift in counts recorded in 2011 compared to 2010. This may be attributable in part to the poor weather conditions experienced nationwide in the early and late parts of 2010. The change in cycle counts over time compared to the baseline year was recalculated including a factor to represent the impact of adverse weather conditions. This adjustment moderates the drop in counts in 2010 relative to previous years (Chart 4-2).

Chart 4-1 Change in counts recorded by automatic cycle counters in each year of the programme against BT6907

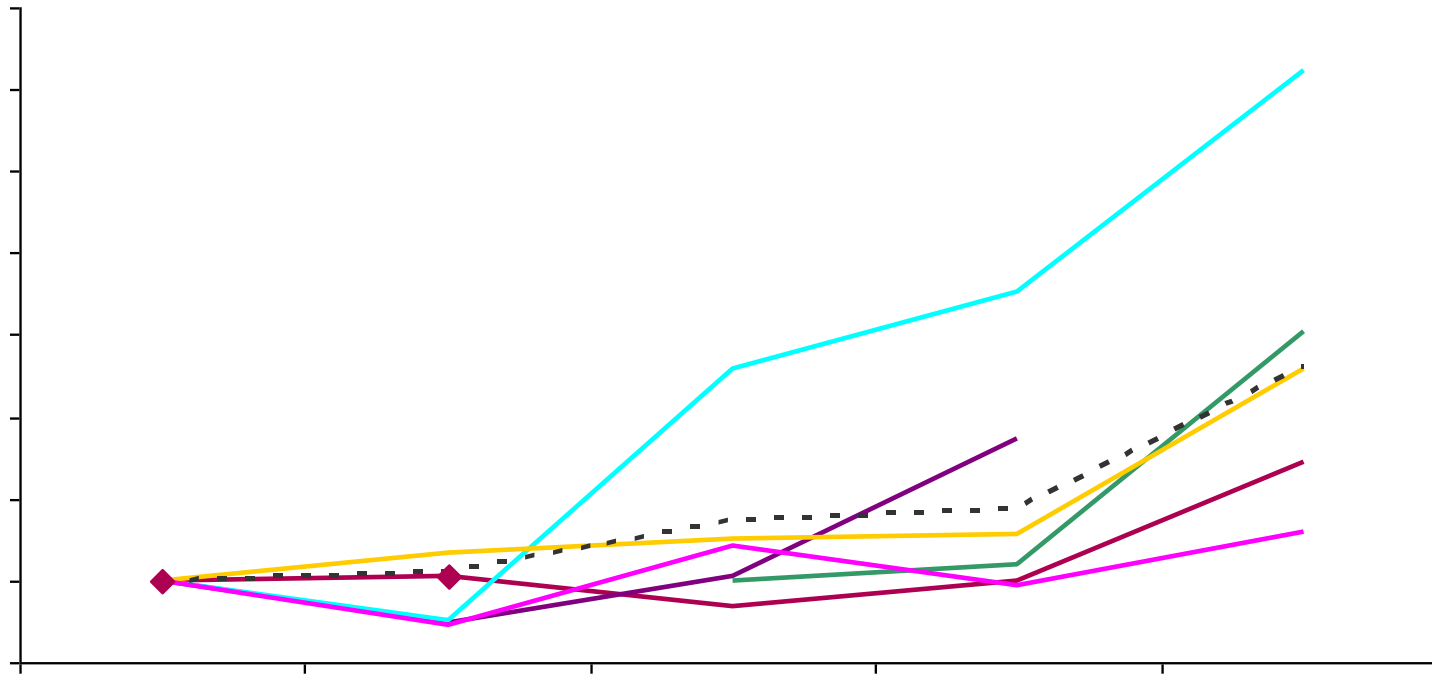


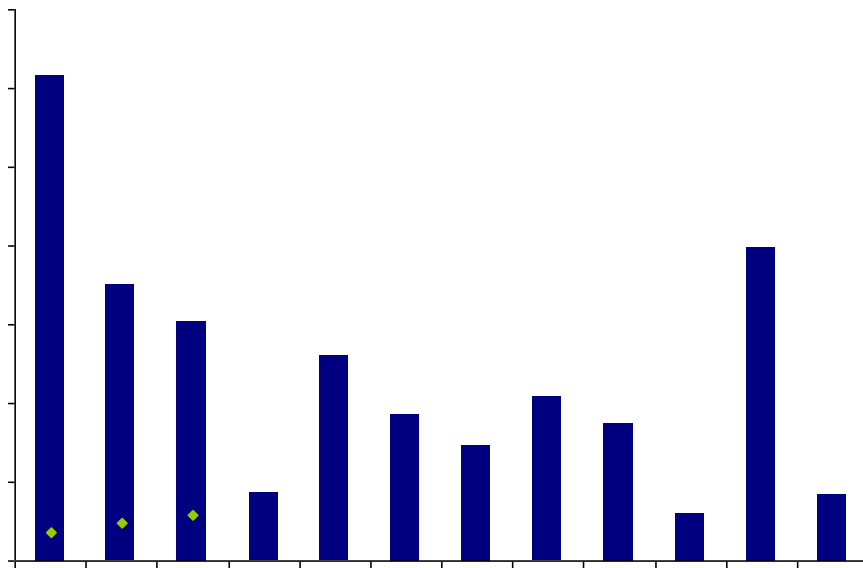
Chart 4-2 Percentage change in counts recorded by automatic cycle counters in each year of the programme against a 2007 baseline (2009 for Cambridge and Southport) including a factor for poor weather conditions – the line labelled 'All' represents data across all 12 towns





The percentage change in counts at the end of the programme is presented in Chart 4-3 (in order of increasing count per day per counter in the baseline year) for each town, together with the average daily count of cyclists per counter in the baseline year and in 2011.⁵ These plots broadly suggest that, with the exception of Blackpool and Bristol, towns with lower baseline numbers of cycle trips have seen a greater percentage change over time than those towns beginning the programme with generally higher levels of cycle trips. In towns starting from a lower baseline count, change over time expressed as a proportion appears greater than towns starting from a higher base level of cycling when the absolute change in counts is similar. For example, the absolute change in counts for Stoke-on-Trent and Shrewsbury is similar, at 19 and 17 additional counts per counter per day in 2011 compared to the baseline year (Table 4-1). Due to Shrewsbury starting from a higher baseline (118 counts per counter per day in the baseline year) than Stoke-on-Trent (31 counts per counter per day in the baseline year), change over time expressed as a percentage appears greater for Stoke-on-Trent than for Shrewsbury (+62% and +15%, respectively).

Chart 4-3 Change in counts recorded by automatic cycle counters in 2011 (2010 for Blackpool and Southend) against a 2007 baseline (2009 for Cambridge and Southport), and counts per day recorded across all counters in the baseline year and 2011 – plotted in order of increasing average daily count per counter in the baseline year



The absolute increase in counts (per counter per year) is presented in Chart 4-4 together with the average daily count per counter in the baseline year. When absolute rather than percentage increases are considered, a more consistent

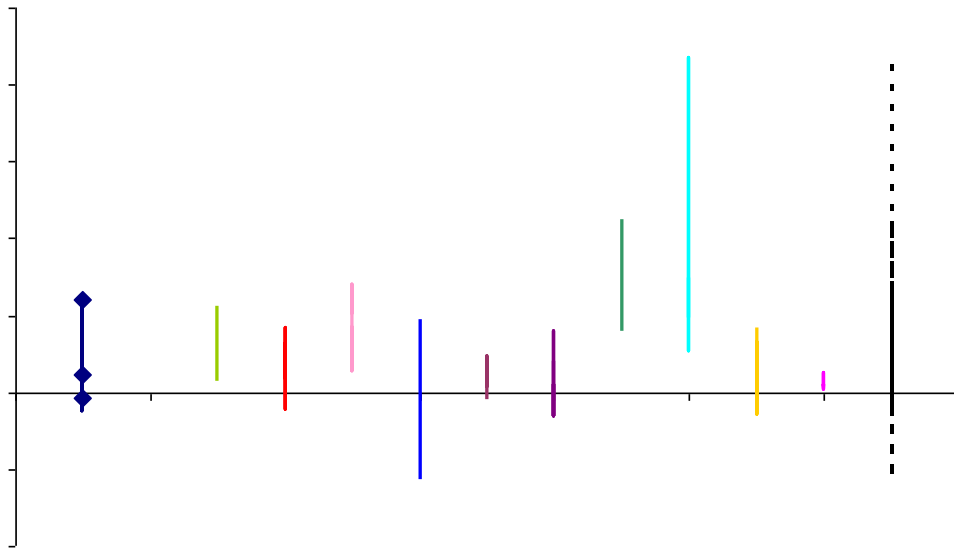
⁵ Calculated as the total count of cyclists

pattern emerges

Table 4-2 Number of automatic cycle counters in each town and number of counters with positive, negative and no change over time

Town	Number of counters ⁷			
	Total	with positive annual change	with no change over time	with negative annual change
Blackpool	9	4	0	5
Cambridge ^a	17	9	2	4
Chester	10	6	1	3
Colchester	14	9	1	4
Greater Bristol	31	29	0	2
Leighton	13	5	2	6
Shrewsbury ^a	21	16	1	3
Southend ^b	7	4	0	3
Southport	10	10	0	0
Stoke-on-Trent ^a	17	13	0	3

Chart 4-5 Range of median annual percentage change recorded across counters in each town



Of the count sites analysed, the average annual change in the median daily count of cyclists was positive for 72% and negative for 23%. For the remaining 5%,

which data are available within the matched areas. Whilst the distribution of counters in the cycling towns was, on the whole, designed to provide a well rounded coverage of cycling across the whole town area, the monitoring team had no input into the location of counters in matched areas. These counters may have been sited in response to locally delivered initiatives or to monitor routes of local interest, and possibly therefore sites of the most intensive usage. As such they may not necessarily give a complete picture of town-wide trends in cycling in these areas over time.

The percentage change in cycling in 2011 compared to a 2007 baseline is presented in Table 4-3, and year-to-year change in counts of cyclists in Table 4-4 and Chart 4-6 for Shrewsbury, Stoke-on-Trent and York and their respective matched areas

Table 4-3 Details of cycling in matched and intervention areas derived from the 2001 Census and automatic cycle counter data, and change in cycle trips in 2011 against a 2007 baseline in the intervention and matched areas

^a Calculated as the percentage of those travelling to work (excluding those working from home) travelling by bicycle (http://data.gov.uk/dataset/method_of_travel_to_work_-_daytime_population_2001_census)

^b Baseline = 100%

^c A significant increase in counts was observed at each of the intervention and matched towns when comparing 2011 against the baseline year ($p < 0.05$)

Table 4-4 Change in count against a 2007 baseline for Shrewsbury, York and Stoke-on-Trent compared to matched local authority areas



Table 4-5 Average percentage change in count

Town	Time periods compared ^a	% change	Total included in comparison	with significant increase ^c	with significant decrease ^c
Southend (western screenline)	2010-2011	36%	6	4	0
Southend (eastern screenline)	2010-2011	-8%	2	0	0
Southport	2010-2011	29%	8	4	0
Stoke-on-Trent (city centre cordon)	2008-2011	42%	28	9	1
Stoke-on-Trent (A500 screenline)	2009-2010	11%	17	7	1
Woking	2009 - 2011	-4%	16	2	3
York (inner cordon)	2009/10-2010/11	2%	8	4	2
York (bridges)	2006/07-2010/11	3%	5	2	2

^a Compariari

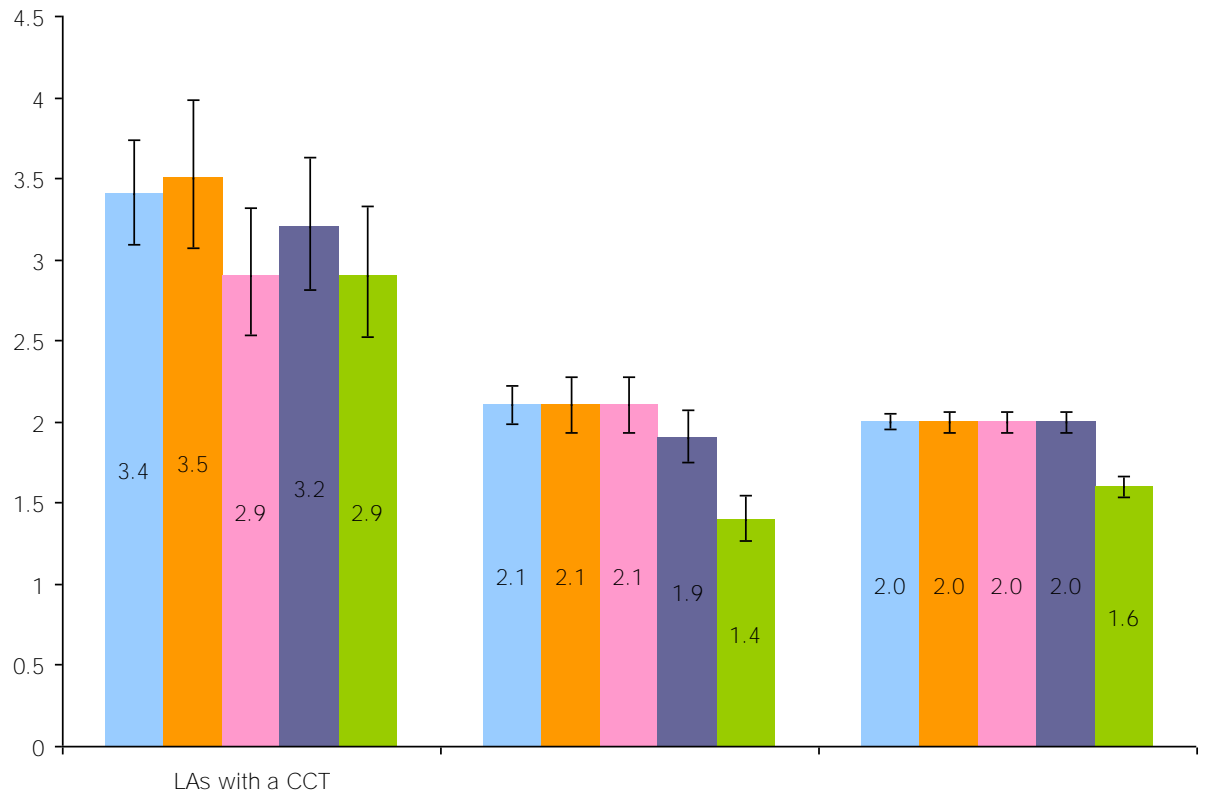
authorities, and a sample of non-Cycling City and Towns authorities matched by demographics. However, it should be noted that data from the APS survey refer only to cycling in bouts of 30 minutes or more. This measure may therefore under represent overall cycling in the towns as shorter journeys are not included.

Funding for the Cycling City and Towns programme began in November 2008¹³; Active People Survey data are therefore available for two years prior to the programme and all three years of the project (Chart 7-1).

Comparing 2007/8 with 2010/11 there was a decline of 2.2%-points in cycling for at least 30 minutes once or more per month in the Cycling City and Towns authorities

points, from 2.1% to 1.4%¹⁸) and in the general sample of non-Cycling City and Towns authorities (0.4%-points, from 2.0% to 1.6%¹⁹).

Chart 7-2 Proportion of APS respondents cycling for at least 30 minutes 12 times or more a month



In Greater Bristol there was a significant increase in both measures between 2007/8 and 2010/11 ($p < 0.05$). The proportion cycling once or more per month rose by 6.7%-points (from 12.7% to 19.5%). The proportion cycling 12 or more times per month rose by 3.4%-points (from 3.1% to 6.5%), although with an apparent decline in 2009/10. In all other towns there were either no significant changes or significant decreases in cycling.

8 Travel to school data

8.1

towns, overall the proportion increased from 3.1% in 2007 to 5.0% in 2011. Cycling to both primary and secondary schools increased over the course of the programme. The relative change was greater in secondary schools than in primary schools. The proportion cycling to secondary schools increased from 4.2% to 7.8% between 2007 and 2011, compared to an increase from 2.3% to 2.9% in primary schools.

Table 8-1 Percentage of pupils cycling to school in the Cycling City and Towns – PLASC data

	2007	2008	2009	2010	2011
Blackpool	1.2%	1.5%	1.5%	1.5%	1.7%*
Cambridge	10.5%	16.1%	19.6%	20.0%	20.5%*
Chester	2.5%	3.0%	3.5%	3.1%	3.2%*
Colchester	3.5%	4.1%	4.4%	5.1%	4.1%*
Greater Bristol	1.5%	2.8%	2.9%	3.0%	3.0%*
Leighton	0.9%	1.1%	1.4%	1.5%	1.8%*
Shrewsbury	7.4%	7.0%	7.8%	7.4%	8.7%*
Southend	2.2%	2.7%	3.0%	3.5%	3.5%*
Southport	6.0%	5.9%	6.5%	6.1%	6.4%
Stoke-on-Trent	0.4%	0.4%	0.3%	0.7%	1.5%*
Woking	0.8%	2.4%	3.3%	3.3%	3.1%*
York	7.8%	6.8%	7.2%	6.5%	6.1%*
All towns – all schools	3.1%	4.2%	4.8%	4.9%	5.0%*
All towns – primary schools	2.3%	2.5%	2.8%	2.8%	2.9%*
All towns – secondary schools	4.2%	6.1%	7.3%	7.6%	7.8%*

* significant change between 2007 and 2011 ($p < 0.05$)

Chart 8-1

8.2 Bike It data

Pre and post survey data²⁰ are available for a total of 148 schools across the 10 towns where Bike It was delivered. The proportion of children cycling to school everyday calculated from pooled pre survey data was 4.7%, compared to 10.2% in the post survey. The proportion of children reporting that they 'never' cycle to school decreased from 65.9%, based on pooled pre survey data to 47.1%, based on pooled post survey data. The proportions of Bike It survey respondents cycling to school everyday and never cycling to school are presented for each town in Table 8-2.

Table 8-2 Proportion of pupils surveyed in schools engaged with Bike It cycling to school 'everyday' and 'never' in pre and post surveys

	% cycling to school everyday	% never cycling to school
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Table 8-3 Proportion of pupils surveyed in schools engaged with Bike It reporting that they cycle to school on the day of the survey in pre and post surveys

	% cycling to school on the day of the survey	
	Pre	Post
Blackpool	2.6%	7.2%*
Cambridge	14.6%	25.2%*
Chester	4.8%	11.2%*
Colchester	6.5%	11.6%*
Greater Bristol	3.2%	9.1%*
Shrewsbury	5.8%	15.5%*
Southend	5.3%	19.0%*
Southport	7.0%	13.2%*
Stoke-on-Trent	3.1%	9.5%*
York	13.7%	19.2%*
All towns	5.4%	12.2%*

* post survey results are significantly different to the pre-intervention survey results ($p < 0.05$)

For a subset of 62 schools²¹, data are available for additional post intervention surveys performed at the end of the second academic year following initial engagement with Bike It. The proportion of children surveyed cycling to school everyday and the proportion 'never' cycling are presented in Table 8-4.

²¹ No data were available from surveys performed at the end of the second academic year following initial engagement for schools in Cambridge or Shrewsbury

Table 8-4 Proportion of pupils surveyed in schools engaged with Bike It cycling to school 'everyday' and 'never' in pre and two post surveys

	% cycling to school everyday			% never cycling to school		
	Pre	Post 1	Post 2	Pre	Post 1	Post 2
Blackpool	2.4%	8.8%*	6.5%*	77.8%	55.6%*	55.9%*
Chester	3.5%	6.5%	4.4%	56.5%	38.4%*	39.1%*
Colchester	8.1%					

Table 8-5 Percentage of pupils cycling to primary, secondary and all schools in the Cycling City and Towns and matched towns – PLASC data

	2007	2008	2009	2010	2011
Cycling City and Towns – primary					

9 Cycling casualty data

10 Summary

Data source	Data in
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