

# The Research Group

# **Cambridge City**

# Annual demographic and socio-economic report



**April 2011** 

# **Executive Summary**

This report presents the latest available information on the demographic and socio-economic make-up of Cambridge City. It investigates Cambridge's population structure and composition; presents information on housing and the economic background; and discusses crime, health, education, and environmental information pertaining to the area. Links to other relevant reports and data sources are provided.

Data used in this report has been collected from local and national level sources, and is presented at ward, district or county level for comparative purposes where relevant. Main highlights of the report are:

- The Cambridgeshire County Council Research Group (CCCRG) mid-2009 population estimate for Cambridge City is 119,100. The population has increased by 8% since 2001 and is forecast to increase by a further 28% by 2031.
- Cambridge has the highest proportion of its population aged 16-24 and 25-39 of all the districts. That is due to the large student population at Anglia Ruskin University and the University of Cambridge, which has a significant 'distorting' effect on the district's overall age structure.
- CCCRG estimates the number of households in 2009 as 46,000. This represents 8% growth since 2001 and is forecast to increase by a further 33% by 2031.
- In Jun-Nov 2010 the average house price in Cambridge was around 30% more expensive than the county average. Between Jun-Nov 2002 and Jun-Nov 2010 house prices increased by 65%.
- 75% of Cambridge's population aged 16-64 is economically active. In December 2010 the Jobseeker's Allowance claimant count unemployment rate was almost 2% compared to a national level of 3.5%.
- Life expectancy at birth is higher in Cambridge than in England but the difference is statistically significant only for females. Females are expected to live 5 years longer than men.
- Cambridge City has higher levels of overall mortality compared to Cambridgeshire. The most common causes of premature deaths are circulatory diseases and cancer.
- The Cambridge Crime & Disorder Reduction Partnership (CDRP) recorded a 7% reduction in total crime between 2009 and 2010.
- The percentage of pupils gaining 5 or more A\*-C grades in Cambridge City has steadily increased, from 49% in 2000 to 70% in 2010.
- In 2008 Cambridge City had the lowest total and per capita CO<sub>2</sub> emissions in Cambridgeshire.
- In 2010 CCCRG group launched an interactive atlas that contains a range of socio-economic and demographic data for each ward in the county. The atlas can be accessed through the CCCRG website: <a href="http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html">http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html</a>

# Structure of the report

The report is structured as follows: First, an introduction to Cambridge City's historical and geographical background is provided. Section 1 evaluates population data. Second 2 explores household growth and housing trends. Section 3 examines the economic state, presenting employment rates, earnings, and industry expansion data. Section 4 reports on health, and Section 5 provides information on the incidence of crime. Section 6 gives an overview of educational attainment and Section 7 discusses human-caused pollution. The final section reviews Cambridgeshire County Council Research Group's (CCCRG) customer insight tools. Finally a number of appendices present additional data for reference use.

The information contained in the report can be reproduced by other parties but must be appropriately referenced, and data should be referenced as indicated in the tables.

This report has been designed primarily to be viewed on-screen, with active links to related documents and website. Some of the charts displayed are best viewed in colour. If you have any problem viewing data please contact CCCRG.

The maps in this report are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of her Majesty's Stationery Office.

<sup>©</sup> Crown copyright. Unauthorized reproduction infringes copyright and may lead to prosecution. 100023205 2010.

# **Table of contents**

INTRO	DUCTION	1
1. P	OPULATION	2
1.1.	Population size and growth	2
1.2.	Age structure	2
1.3.	Where people live	3
1.4.	Changing population	8
1.4.	1 Migration	9
1.4.2	2 National (internal)	9
1.4.3	3 International	9
1.4.4	4 Ethnicity	9
1.4.5	5 Travellers	10
2. H	OUSEHOLDS AND HOUSING	11
2.1.	Households	11
2.2.	Housing	11
2.2.	1 Housing trends in Cambridge City	11
2.2.2	2 House building	12
3. E	CONOMY	14
3.1.	The labour market in Cambridge City	14
3.2.	Businesses in Cambridge City	16
3.3.	Local economic assessment	17
3.4.	Mapping poverty in Cambridge City 2009	17
3.5.	Economic well-being and deprivation	18
4. H	EALTH	20
4.1.	General health information	20
4.1.	1 Joint Strategic Needs Assessment	20
4.2.	Health status of the Cambridge population	20
4.3.	Life expectancy (LE) at birth	21
4.4.	Main causes of death	22
4.5.	Healthy lifestyles	23
4.6.	Child obesity	23
4.7.	Teenage conceptions	23
5. C	OMMUNITY SAFETY	25
5.1.	Overview	25
6. E	DUCATION	28
6.1.	School pupils	28
6.1.	1 Early years foundation stage profile	28
6.1.2	2 Key stage 2 results	28
6.1.3	3 GCSE performance	30
6.2.	School leavers	31

7.	ENVIRONMENT	34
7.1.	CO <sub>2</sub> emissions	34
7.2.	Air quality	34
7	7.2.1 Nitrogen dioxide	34
7	7.2.2 Fine particles	35
7	7.2.3 Air quality management areas (AQMAs)	35
7.3.	Waste and recycling	36
7.4.	Land use	37
8.	COMMUNITY INSIGHT	38
8.1.	Introduction	38
8.2.	Output area classification (OAC)	38
8.3.	Cambridge City OAC profile	40
8.4.	Consultation database	41
8.5.	Cambridge ward profiles	42
APF	PENDICES	43
	Appendix 1: Cambridge City by district boundaries, roads, settlements and river	43
	Appendix 2: Cambridge City ward boundaries	44
	Appendix 3: Map of Cambridge City's Area Committees	45
	Appendix 4: Demographic methodology and notes for users	46
	Appendix 5: 2009-based population forecasts by age groups in Cambridge City, 2001-203	3153
	Appendix 6: 2009-based ward level population forecasts for Cambridge City, 2001-2031	53
	Appendix 7: 2009-based ward dwelling forecasts, 2001-2031	54
	CONTACTS	55

# List of tables

Table 1: Table 2:		
Table 2.	Population in Cambridge, Cambridgeshire, the East of England and England, 2001-2031	2
i abie Z.	Household growth in Cambridgeshire and districts, 2001-2031	11
Table 3:	Dwellings forecast for Cambridgeshire and districts, 2009-2031	12
Table 4:	Mid-2009 dwellings forecast by Area Committee, 2001-2031	13
Table 5:	Claimant count unemployment rates, December 2010	
Table 6:	Median full-time gross weekly earnings, April 2010	
Table 7:	Number of Local Units in Cambridge City by Size and Sector in 2010	
	All causes of death in people of all ages, Local Authorities, 2007-2009	
	Child obesity for local authorities, GOR, and country, 2010	
Table 3.	Teenage conceptions for local authorities, GOR, and country, 2006-2008	24
Table 10	Total police recorded crime by CDRP area, 2009-2010	25
Table 11		26
Table 12		
Table 14		
Table 15		
Table 16		
Table 17		
Table 18		
Table 19	OAC group profile	40
Table 20	Summary of house building 2001-2031	50
Figure 1:	Cambridge City age structure, 2001-2031	3
Figure 1:	Cambridge City age structure, 2001-2031	
Figure 2:	Map of Cambridge City's population by ward, mid-2009	4
Figure 2: Figure 3:	Map of Cambridge City's population by ward, mid-2009	4 5
Figure 2: Figure 3: Figure 4:	Map of Cambridge City's population by ward, mid-2009	4 5 6
Figure 2: Figure 3: Figure 4: Figure 5:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009	4 5 6
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031	4 6 7
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010	4 6 7 8
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 8:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010	
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007	4 5 7 11 15
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9: Figure 10	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009	4 6 8 11 15 19
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9: Figure 10	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009	4 5 6 11 15 19 21
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 8: Figure 10 Figure 11 Figure 12	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009	4 5 8 11 15 19 21
Figure 2: Figure 3: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9: Figure 10 Figure 11 Figure 12 Figure 13	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010	4 5 11 15 19 21 21
Figure 2: Figure 3: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9: Figure 11 Figure 12 Figure 13 Figure 14	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge	4 5 15 15 19 21 21 22 22
Figure 2: Figure 3: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9: Figure 10 Figure 11 Figure 12 Figure 14 Figure 15	Map of Cambridge City's population by Ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by Ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by Ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010	4 5 6 11 15 19 21 21 22 25 27
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 9: Figure 10 Figure 11 Figure 12 Figure 14 Figure 15 Figure 15 Figure 16 Figure 16 Figure 16	Map of Cambridge City's population by Ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by Ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by Ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010	4 
Figure 2: Figure 3: Figure 5: Figure 6: Figure 7: Figure 8: Figure 9: Figure 10 Figure 11 Figure 12 Figure 15 Figure 15 Figure 16 Figure 17 Figure 17 Figure 17 Figure 17 Figure 17	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010  Pupils Gaining Level 4 or above in Key Stage 2 Maths, 2006-2010  Pupils Gaining 5 or more A*-C grades in mainstream secondary schools, 2006-2010	4 
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 9: Figure 10: Figure 12: Figure 12: Figure 15: Figure 15: Figure 16: Figure 17: Figure 17: Figure 18:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010  Pupils Gaining 5 or more A*-C grades in mainstream secondary schools, 2006-2010  Occupations of male school leavers	4 
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 9: Figure 10: Figure 11: Figure 12: Figure 15: Figure 16: Figure 17: Figure 18:	Map of Cambridge City's population by ward, mid-2009	4 
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 9: Figure 10: Figure 11: Figure 12: Figure 15: Figure 16: Figure 17: Figure 18: Figure 20:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010  Pupils Gaining Level 4 or above in Key Stage 2 Maths, 2006-2010  Pupils Gaining 5 or more A*-C grades in mainstream secondary schools, 2006-2010  Occupations of male school leavers  Occupations of female school leavers  Household waste (tonnes) in Cambridge City by type, 2003/04-2009/10	4 
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 9: Figure 10 Figure 11 Figure 12 Figure 15 Figure 15 Figure 16 Figure 17 Figure 18 Figure 18 Figure 20 Figure 20 Figure 21	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010  Pupils Gaining Level 4 or above in Key Stage 2 Maths, 2006-2010  Pupils Gaining 5 or more A*-C grades in mainstream secondary schools, 2006-2010  Occupations of male school leavers  Occupations of female school leavers  Household waste (tonnes) in Cambridge City by type, 2003/04-2009/10  Household waste (tonnes) by district, 2003/04-2009/10	4 
Figure 2: Figure 3: Figure 4: Figure 5: Figure 6: Figure 7: Figure 9: Figure 10: Figure 11: Figure 12: Figure 15: Figure 16: Figure 17: Figure 18: Figure 20:	Map of Cambridge City's population by ward, mid-2009  Map of Cambridge City's population by Area Committee, mid-2009  Map of Cambridge City's population density by ward, mid-2009  Map of Cambridge City's population density by Area Committee, mid-2009  Cambridge City's population growth by ward, 2009-2031  Average house price and number of sales in Cambridge City, 2002-2010  Claimant Count Unemployment Rates, December 2007 to December 2010  Cambridge City indices of multiple deprivation, 2007  Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009  Life expectancy at birth in Cambridge and England, 1991-1993 to 2007-2009  Proportion of deaths for selected causes of mortality in Cambridge, 2009  Monthly Crime Count for Cambridge City, 2007-2010  Selected crime types by year, Cambridge  Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010  Pupils Gaining Level 4 or above in Key Stage 2 Maths, 2006-2010  Pupils Gaining 5 or more A*-C grades in mainstream secondary schools, 2006-2010  Occupations of male school leavers  Occupations of female school leavers  Household waste (tonnes) in Cambridge City by type, 2003/04-2009/10  Household waste (tonnes) by district, 2003/04-2009/10  Cambridge OAC ward 'dna' chart	4 

# Introduction

Cambridge City is an urban district that covers approximately 4,100 hectares. It is situated in the south of Cambridgeshire County, approximately 50 miles (80 kilometres) northeast of London. Its major geological feature is the River Cam, which runs through eastern and northern sections of the city. Cambridge is one of Cambridgeshire County's five districts and is its administrative centre. It is completely enclosed by South Cambridgeshire District.

Cambridge has a long and rich history. In 2008, archaeologists uncovered remains of a 3,500 year-old farmstead at Fitzwilliam College near Castle Hill, an area of elevated ground that overlooks the river. Successive waves of occupants used the hill's strategic advantages: Romans built the town of Duroliponte near the site in the 1st Century AD, and later, Normans built the castle for which the hill is now known, which guarded a small trading settlement known as Grentabridge or Cantebridge – later Cambridge. All that remains of the castle is the distinctive motte (artificial mound) on which it once stood. The Cambridgeshire County Council is currently located next to the castle mound on Castle Hill.

Historically a market and university town, Cambridge received its city charter in 1951. In recent decades it has become a global centre of excellence for high technology industries that by 2006 had generated nearly 47,000 jobs.<sup>1</sup> A number of scientific parks are based in and around the city, where businesses that specialise in aerospace technology, biotechnology, information technology and nanotechnology operate.<sup>2</sup> Addenbrooke's Hospital, which is also based in Cambridge, is a regional and national centre for clinical excellence and biomedical research, and Cambridge hosts Cambridge University Press, the oldest printer and publisher in the world and one of the largest academic publishers globally.

Cambridge City is a non-metropolitan district served by a city council. It consists of 14 urban wards none of which are rural. The largest ward by area is Trumpington (733 ha), and the smallest is Petersfield (106 ha). Petersfield is also the most densely populated.

Cambridge has many environmental assets. The City Council manages eight Local Nature Reserves that help to protect wildlife habitats and geographical features across the city.<sup>3</sup> The Cambridge University Botanic Garden, situated less than a mile from the city centre, occupies 16 hectares and houses over 10,000 labelled plant species.<sup>4</sup> One of the most picturesque parts of the city can be found along a stretch of the river known as 'the Backs', where several of the colleges back on to the river. It is the primary area for punting in Cambridge.

Cambridge is well connected via main roads to other parts of the country, although the city itself faces significant congestion problems. The city is well-known for the large number of cyclists on its roads; in fact it has the highest level of cycle use in England. Cambridge is well served by railway and the London airport at Stansted is within 30 miles (50 km).

<sup>&</sup>lt;sup>1</sup> See CCCRG Hi-tech employment reports.

<sup>&</sup>lt;sup>2</sup> See CCCRG Business Directory <u>2010-2011</u>.

<sup>&</sup>lt;sup>3</sup> See Cambridge City Council <u>local nature reserves</u> web page.

<sup>&</sup>lt;sup>4</sup> See Cambridge City Council green spaces web page.

# 1. Population

# 1.1. Population size and growth

In 2009 an estimated 119,100 people lived in Cambridge City. That accounted for 20% of Cambridgeshire's total population and 15% of the combined populations of Cambridgeshire and Peterborough.

Table 1 shows population growth in Cambridge City compared to district, county, regional, and national figures. It suggests that Cambridge City's population has increased by an average of approximately 1,150 per year since 2001. Total growth over the period 2001-2009 was 9,200 (8%). These are the second lowest growth figures in Cambridgeshire, both in total and percentage terms. However, Cambridge's percentage growth was higher than that experienced in the East of England region and England as a whole.

Table 1: Population in Cambridge, Cambridgeshire, the East of England and England, 2001-2031

Area	2001	Change 2001-09	% Change	2009	Change 2009-31	% Change	2031
Cambridge City	109,900	9,200	8.4%	119,100	32,700	27.5%	151,800
East Cambridgeshire	70,900	9,400	13.3%	80,300	17,900	22.3%	98,200
Fenland	83,700	9,600	11.5%	93,300	19,900	21.3%	113,200
Huntingdonshire	157,200	7,400	4.7%	164,600	12,200	7.4%	176,800
South Cambridgeshire	130,600	13,000	10.0%	143,600	38,300	26.7%	181,900
Cambridgeshire	552,100	48,700	8.8%	600,800	120,600	20.1%	721,400
Cambridgeshire and Peterborough	707,400	66,200	9.4%	773,600	185,300	24.0%	958,900
East England*	5,400,000	370,100	6.9%	5,770,100	1,246,400	21.6%	7,016,500
England*	49,450,000	2,367,100	4.8%	51,817,100	8,253,600	15.9%	60,070,700

Sources: 2001 figures from 2001 Census; 2009 figures from CCCRG mid-2009 population estimates, 2031 figures from CCCRG mid-2009 population forecast; \*2009 figures from ONS mid-2009 population estimates, 2031 figures from ONS 2008-based sub-national population projections.

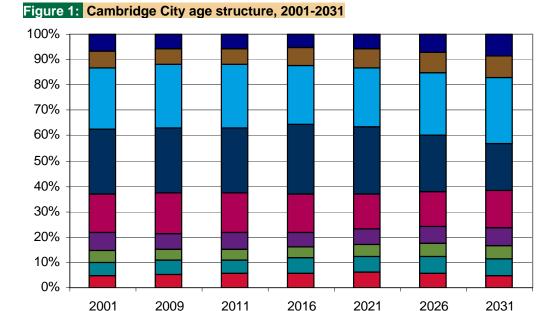
Cambridge City's population is forecast to increase by 32,700, from 119,100 in 2009 to 151,800 in 2031. That suggests 27.5% growth at an annual average of 2,500. The high growth is based on an assumption of significant future house building. That assumption is subject to some significant caveats (see Appendix 4 for more detail).

CCCRG forecasts that 46% of future population change will be attributable to net migration (the difference between numbers leaving and arriving in the area) with the remaining 54% due to natural change (the difference between births and deaths). Cambridge City's total growth is forecast to be the second highest in Cambridgeshire, and its percentage growth the highest.

### 1.2. Age structure

Figure 1 (below) shows that in 2009, more than 60% of Cambridge City's population was aged 25 years or older. That is low by comparison with the other districts which show proportions around 70% each, but can be explained by the large student population within the city – in 2009 the combined University of Cambridge (19,800) and Anglia Ruskin University (7,000) student roll was approximately 26,000.

The City's age structure is expected to change over the next 22 years. All age groups will grow in size, but some will also change as proportions of total population. 25-39 year olds, for example, will decrease from 26% of the total population to about 19%, while the 40-64, 65-74 and 75+ age groups will increase by around 2 percentage points each. Overall, that suggests that Cambridge's population will age.



Source: CCCRG mid-2009 population forecast

**■** 0-4 **■** 05-10 **■** 11-15 **■** 16-19 **■** 20-24

In 2009 all the districts except Cambridge City shared broadly similar age structures. As mentioned, Cambridge City is distinguished due to its large student population, which has the effect of reducing other age groups as proportions of the total district population. Consequently Cambridge City has the highest proportion of 16-24 and 25-39 year olds within Cambridgeshire, and the lowest proportion of residents aged 0-15 and older than 40. It is important to remember, however, that although proportions of non-student age groups are low by comparison with other districts, there are still large numbers of children and older people in Cambridge City.

**■** 25-39 **■** 40-64 **■** 65-74 **■** 75+

# 1.3. Where people live

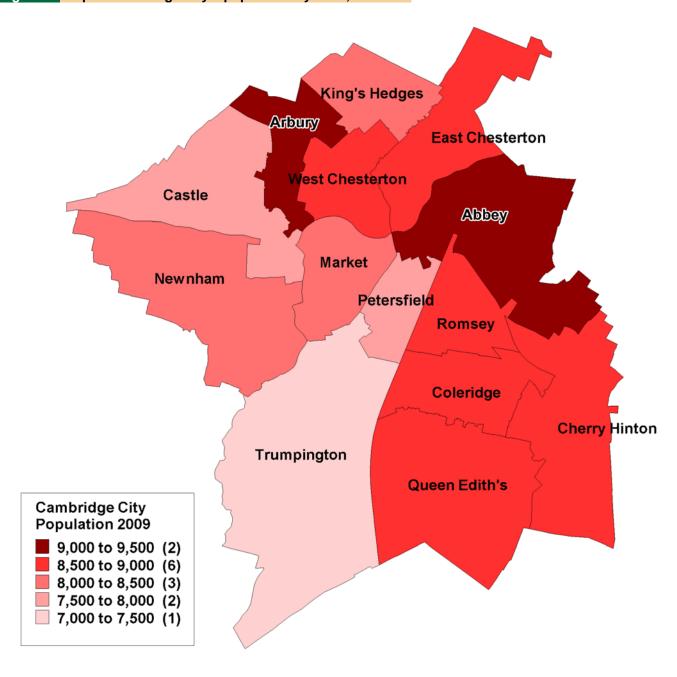
Figure 2 (below) shows that the largest ward populations are in the east and north of the city, in particular in Abbey (9,360), Arbury (9,280), and Romsey (8,950) wards. The smallest ward populations are in Trumpington (7,420), Castle (7,750) and Petersfield (7,770).

Figure 4 (below) shows that Petersfield and Arbury are the most densely populated wards, and Trumpington and Newnham the least.

When considered by Area Committee (i.e. North, South, East, West/Centre) North has the largest population (34,900) and West/Central the smallest (24,800) (see Figure 3). North is also the most densely population while South is the least (see Figure 5).

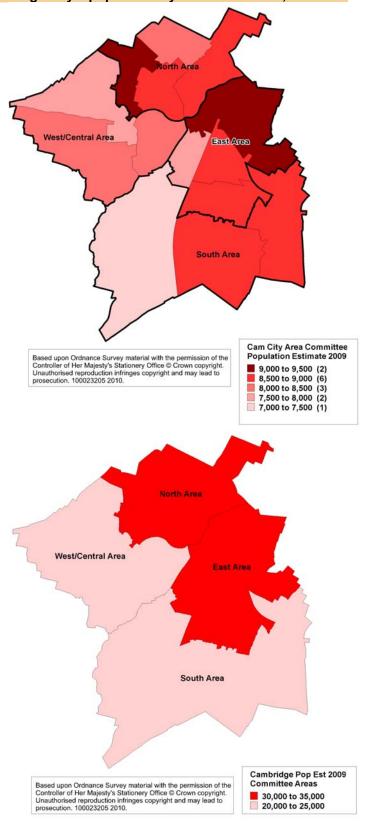
Full ward level population and dwelling stock estimates can be found in the '2009' column of Appendices 5 and 6.

Figure 2: Map of Cambridge City's population by ward, mid-2009



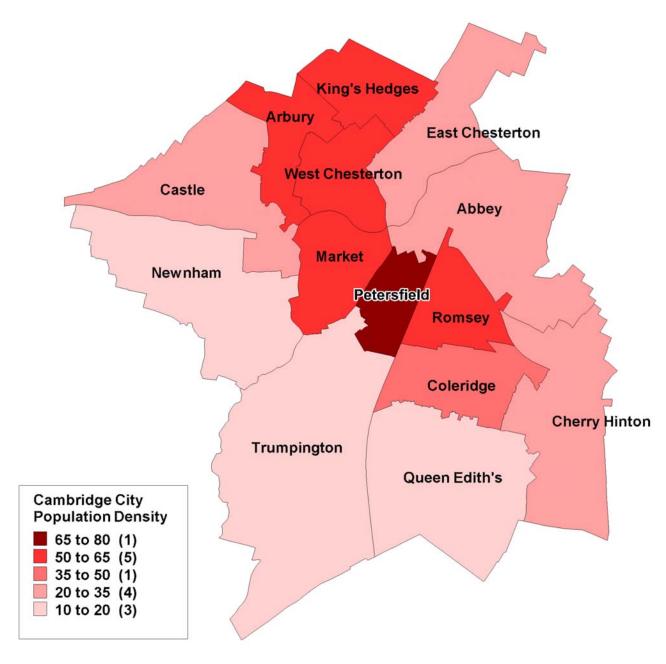
Based upon Ordnance Survey material with the permission of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes copyright and may lead to prosecution. 100023205 2010.

Figure 3: Map of Cambridge City's population by Area Committee, mid-2009



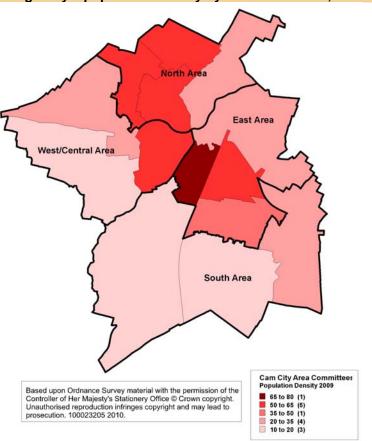
# Figure 4: Map of Cambridge City's population density by ward, mid-2009

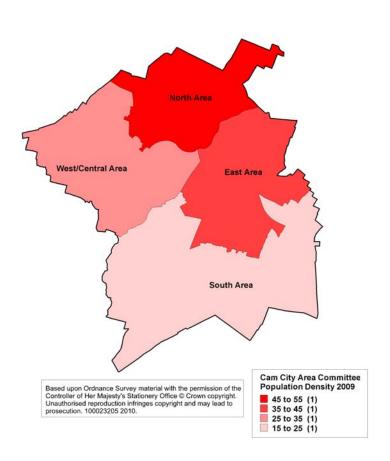
Density here is a measure of population per ward hectare. Wards with large areas of unoccupied land (i.e. parks, agricultural land) will necessarily have lower densities even if the occupied land is as densely populated as other wards.



Based upon Ordnance Survey material with the permission of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes copyright and may lead to prosecution. 100023205 2010.

Figure 5: Map of Cambridge City's population density by Area Committee, mid-2009





# 1.4. Changing population

Between 2001 and 2009 Cambridge City's population grew by around 8%. The highest level of growth occurred in East Chesterton (1,290, or 14% of the total growth), Coleridge (1,050 or 11.5% of total growth), and Romsey and Abbey (890 or 10 % of total growth each) wards. In the 22 years to 2031, Cambridge City's population is expected to grow by 28%. The highest levels of growth are forecast to occur in Trumpington ward (33% of total growth), Castle (28% of total) and Abbey (27% of total). These areas are identified sites for housing development, generally on the City fringes. However there is uncertainty over the future of some developments (see Appendix 4 for details).

Population forecasts by Area Committee suggest that the South Area is likely to see the greatest population growth (12,300 or 49%) while the North Area is likely to see the least (500 or 1.4%). See Appendices 6 and 7 for more details.

Cambridge Wards: 2009-2031 9,000 to 10,900 1,000 to 9,000 200 to 1,000 0 to 200 -300 to King's Hedges Arbury **East Chesterton** West Chesterton **Castle Abbey** Market Newnham Petersfield Romsey Coleridge **Cherry Hinton** Trumpington Queen Edith's Based upon Ordnance Survey material with the permission of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes copyright and may lead to prosecution. 100023205 2010.

Figure 6: Cambridge City's population growth by ward, 2009-2031

You will find further population information on our website here: http://www.cambridgeshire.gov.uk/business/research/populationresearch/population/

#### 1.4.1 Migration

Migration is one of the two components of population change; the second is natural change. Migration consists of inflows (in-migration) and outflows (out-migration) of people. Net migration is the difference between those flows. Each flow is made up of internal (people who live in the UK) and international (people who come to the UK from outside) components.

#### 1.4.2 National (internal)

The internal migration portion of the Office for National Statistics (ONS) mid-2009 population estimate for Cambridge<sup>5</sup> suggests that more people left Cambridge *for* other parts of the UK than came to Cambridge *from* other parts of the UK. Net out-migration was approximately 900 people.

Cambridge had the highest absolute levels of in- and out- internal migration in the County, with South Cambridgeshire and Huntingdonshire second and third respectively; results that reflect the large populations within those districts. South Cambridgeshire experienced the highest net internal in-migration (around 1,400).

#### 1.4.3 International

International migration is extremely difficult to measure. Currently two data sources can be used to estimate incoming migration: National Insurance Number (NINo) registrations and registrations for the Workers Registration Scheme (WRS).

NINos are required for employment or self-employment purposes or to claim benefits or tax credits and are allocated to overseas nationals by the Department for Work and Pensions. De-registration is not required, however, which means that NINo figures can only be used to estimate in-migration. In 2009 approximately 3,200 international migrants registered for NINos in Cambridge, which was 24% fewer than in 2008. Between 2002 and 2009 the largest proportion (33%) of registrations were from Western European migrants.

WRS registrations are required by migrants from the so-called A8 countries of Poland, Lithuania, Estonia, the Czech Republic, Slovenia, Latvia, Slovakia and Hungary. The scheme is due to end in April 2011. In 2009 nearly 600 WRS registrations were issued in Cambridge, which was 9% fewer than in 2008.

That both NINo and WRS registration were lower in 2009 than 2008 may indicate that international migration into Cambridge is slowing.

A guide figure for the level of international net migration can be inferred based on ONS data and the CCCRG population estimate. Taking population change in Cambridge between 2008 and 2009 as a base, ONS figures for internal migration and natural change as specified in the CCCRG estimate model can be subtracted from the total change figure. The remainder indicates the level of net international in-migration; approximately 1,600 for Cambridge. Please note: this figure should be taken as indicative rather than an official estimate.

For more information on migration within Cambridgeshire please see the CCCRG reports on international migration:

http://www.cambridgeshire.gov.uk/business/research/populationresearch/population.htm

### 1.4.4 Ethnicity

There has been no new data on Cambridge City's ethnic diversity since the 2001 Census, the results of which can be found in the census district profile for Cambridge:

http://www.cambridgeshire.gov.uk/business/research/populationresearch/census/Districtprofiles.htm

ONS publish 'experimental' estimates of population by ethnic group which can be downloaded from their website: <a href="http://www.statistics.gov.uk/statbase/product.asp?vlnk=14238">http://www.statistics.gov.uk/statbase/product.asp?vlnk=14238</a>

9

<sup>&</sup>lt;sup>5</sup> The internal migration portion is based on NHS data including GP registrations.

<sup>&</sup>lt;sup>6</sup> ONS figures are assumed to be accurate here.

However, users should take careful note of the methodologies involved (found at the same website) so as to be aware of the limitations of the figures.

#### 1.4.5 Travellers

The population of Travellers and Gypsies is difficult to estimate. Travellers were not identified as an ethnic group in the 2001 Census though that will change in the 2011 Census. The Cambridge Area Travellers Needs Assessment 2005 estimated that in Cambridgeshire and Peterborough there were 6,080 Gypsy/Travellers, making them one of the largest minority ethnic groups in the area.

Recent research on Traveller populations in Cambridgeshire can be found on our website: <a href="http://www.cambridgeshire.gov.uk/business/research/population/travellersresearch/">http://www.cambridgeshire.gov.uk/business/research/population/travellersresearch/</a>

Additional Traveller research can be found on the JSNA website: http://www.cambridgeshirejsna.org.uk/

### Other reports:

Cambridgeshire County Council Children and Young People Plan: <a href="http://www.cambridgeshire.gov.uk/childrenyoungpeople/">http://www.cambridgeshire.gov.uk/childrenyoungpeople/</a>

The Joint Strategic Needs Assessments (JSNAs) are collaborations between Cambridgeshire County Council and NHS, and includes other partner organisations. JSNAs cover diverse topics such as Children and Young People, Older People, New Communities, Mental Health and Travellers. Reports can be found on the JSNA website: <a href="http://www.cambridgeshirejsna.org.uk/">http://www.cambridgeshirejsna.org.uk/</a>

# 2. Households and housing

#### 2.1. Households

CCCRG estimates that in 2001 there were 42,700 households in Cambridge City. The estimate for 2009 is 46,000 (see Table 2). That represents 8% growth since 2001. By 2031 households are forecast to increase by a further 33% to 61,200, which would be the second highest percentage and total growth after South Cambridgeshire. In 2009 Huntingdonshire had the highest proportion of Cambridgeshire's total households (28%) followed by South Cambridgeshire (24%) and Cambridge City (18%). By 2031 the distribution is forecast to change with South Cambridgeshire and Huntingdonshire each contributing 25% of Cambridgeshire's total households.

Table 2: Household growth in Cambridgeshire and districts, 2001-2031

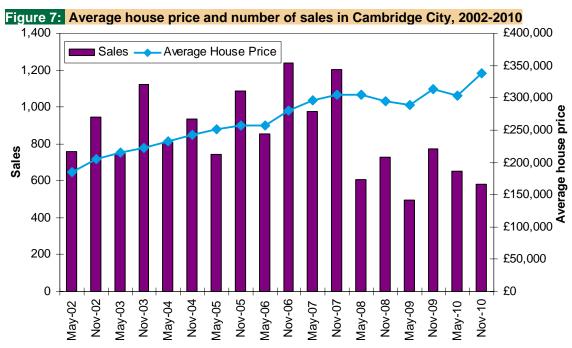
Area	2001	2009	Change 2001-09	% Change	2031	Change 2009-31	% Change
Cambridge City	42,700	46,000	3,300	7.7%	61,200	15,200	33.0%
East Cambridgeshire	29,900	34,800	4,900	16.4%	45,300	10,500	30.2%
Fenland	35,300	39,900	4,600	13.0%	51,000	11,100	27.8%
Huntingdonshire	63,100	69,300	6,200	9.8%	81,800	12,500	18.0%
South Cambridgeshire	52,300	59,800	7,500	14.3%	80,600	20,800	34.8%
Cambridgeshire	223,300	249,800	26,500	11.9%	319,900	70,100	28.1%

Source: CCCRG 2009-based population forecast

# 2.2. Housing

The CCCRG dwelling stock estimate for Cambridge in 2009 is 48,600.

#### 2.2.1 Housing trends in Cambridge City



Source: Hometrack sales and valuations (price), Hometrack sales only (sales)

The average house price in Cambridge in Jun-Nov 2010 was £338,171 – around 30% more expensive than the county average (£260,936). House prices in Cambridge increased by 65% (£133,616) between Jun-Nov 2002 and Jun-Nov 2010. The number of sales has fallen significantly since 2008. Lower quartile house prices are 9 times lower quartile income (Hometrack/CACI Paycheck Dec 2009-Nov 2010), which means that it is hard for households on lower to moderate incomes to afford to buy a home in the city. Cambridge is also the most expensive place to rent, at an average of £1,095/month (CCCRG, Jan 2011).

The number of households on the housing needs register has increased by almost three quarters, from around 4,500 in 2001, to nearly 7,800 in 2010 (CLG, Table 600). According to the Cambridgeshire County Council Research and Monitoring Team approximately 4,900 homes have been built in the city since 2001 of which 27% were affordable. See Table H1.6 at:

 $\underline{http://www.cambridgeshire.gov.uk/environment/planning/policies/monitoring/Housing+development+in+Cambridgeshire.htm}$ 

# 2.2.2 House building

In past years, local authority house building targets have been laid out in the East of England Plan (the Regional Spatial Strategy (RSS)). During 2009 and the early part of 2010, work was underway to review the RSS and roll it forward to 2031. On 12th March 2010, the Regional Assembly approved the draft East of England Plan > 2031, which set out a revised set of Policy H1 house-building targets for the local authorities making up the Eastern Region.

Following the General Election, however, the incoming Communities and Local Government Secretary, Eric Pickles, announced his intention to abolish RSS, a move that left a vacuum in local authority housing policy. Therefore there are currently no official housing targets. However, if the Policy H1 targets are taken as a guide and the phasing of building is based on house building trajectories laid out in district councils' December Annual Monitoring Reports (AMRs), then a dwellings forecast to 2031 may be constructed (see Table 3 below).

### Table 3: Dwellings forecast for Cambridgeshire and districts, 2009-2031

Area	Interim building 2010-2011	Policy H1: Regional Housing Provision 2011-2031	Total 2009- 2031
Cambridge City	1,050	14,000	15,050
East Cambridgeshire	600	11,000	11,600
Fenland	800	11,000	11,800
Huntingdonshire	1,650	11,000	12,650
South Cambridgeshire	1,450	21,000	22,450
Cambridgeshire	5,550	68,000	73,550

Source: CCCRG 2009-based population and dwelling stock forecast methodology

Note: Some forecasts are subject to caveats and may be revised downwards in future. Please see Appendix 4 for details.

It is likely, however, that these figures are optimistic, especially for Cambridge and South Cambridgeshire. For a full discussion of CCCRG 2009-based dwellings forecasts, please see the forecasts methodology document in Appendix 4. For a detailed breakdown of forecast house building by district and ward, please see our web pages:

http://www.cambridgeshire.gov.uk/business/research/population/research/population/forecasts/

-

<sup>&</sup>lt;sup>7</sup> Please see CLG live tables: <a href="http://www.communities.gov.uk/housing/housingresearch/housingstatistics/livetables/">http://www.communities.gov.uk/housing/housingresearch/housingstatistics/livetables/</a>

Table 4 shows the dwellings forecast for Cambridge City divided by Committee Area. It shows that the greatest percentage growth is forecast to take place in the West/Centre (66%) and South (49%). The largest total growth is forecast to take place in the South and East.

# Table 4: Mid-2009 dwellings forecast by Area Committee, 2001-2031

Area	Interim building	Policy H1: Regional Housing	Total 2009-
	2010-2011	Provision 2011-2031	2031
East Area*	200	4,850	5,050
North Area	100	550	650
South Area	500	4,600	5,100
West/Central Area	250	4,000	4,250

Source: Mid-2008 CCCRG dwellings forecast

Note: East Area forecasts are subject to caveats and may be revised downwards in future. Please see Appendix 4 for details.

#### For more information:

Cambridgeshire Horizons Strategic Housing Market Assessment (SHMA): http://www.cambridgeshirehorizons.co.uk/our challenge/housing/shma.aspx

Cambridge City Council Housing Strategy:

http://www.cambridge.gov.uk/ccm/content/housing/housing-strategy-and-research/housing-and-related-strategies.en

Cambridge City Council Local Development Framework:

http://www.cambridge.gov.uk/ccm/navigation/planning-and-building-control/planning-policy/local-development-framework/

# 3. Economy

# 3.1. The labour market in Cambridge City

According to the ONS Annual Population Survey (APS), 75% of Cambridge's population are aged 16 to 64 (working age), above the national figure of 65%. 75% of the population aged 16-64 is economically active (working or seeking work), below the national figure of 77%.

According to 2008 Jobs Density figures, Cambridge's labour demand is higher than its available workforce, with 100,000 jobs in 2008 and a jobs-to-population aged 16-64 ratio of 1.13.

The latest jobs data for Cambridgeshire wards and districts can be found in the Cambridgeshire Ward Atlas, available on the CCCRG website:

http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html.

The APS gives a wide measure of unemployment, which complies with the International Labour Office (ILO) definition. It includes people seeking work whether or not they are eligible for Jobseeker's Allowance (JSA). The June 2010 figure for the district's unemployment rate is 5.1% (% of economically active people aged 16 and over) while the England figure on that basis is 7.7%.

The narrow rate, claimant unemployment, for Cambridge is also below both the national and East of England figures. In December 2010, rates of Jobseeker's Allowance (JSA) claimants (% of all people aged 16 to 64) were Cambridge, 1.8%; East of England, 2.8%; and England, 3.5% (see Table 5).

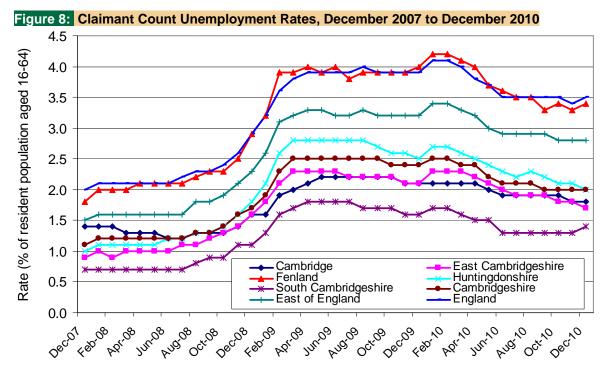
Table 5: Claimant count unemployment rates, December 2010

Area	All	Male	Female
Cambridge	1.8%	2.5%	1.0%
East Cambridgeshire	1.7%	2.5%	1.0%
Fenland	3.4%	4.7%	2.2%
Huntingdonshire	2.0%	2.8%	1.3%
South Cambridgeshire	1.4%	1.9%	0.8%
Cambridgeshire	2.0%	2.7%	1.2%
East of England	2.8%	3.9%	1.8%
England	3.5%	4.8%	2.1%

Source: Claimant Count, NOMIS

Rates of JSA claimants in Cambridge in December 2010 were lower than in December 2009 by 0.3 percentage points and the same as in November 2010 at 1.8 percent (see Figure 8 below).

<sup>&</sup>lt;sup>8</sup> The figure for Cambridge is the model-based estimate of unemployment produced by ONS, as the Annual Population Survey does not have a sufficiently large sample to provide precise estimates of unemployment for local authorities.



Source: Claimant Count, NOMIS

Rates of Out-of-Work Benefits claimants (% of all people aged 16 to 64) in Cambridge in May 2010 were lower than in May 2009 by 0.2 percentage points, according to DWP Benefits figures, with 6.8%, or 6,190 people, in May 2010, compared to 7.0%, or 6,390 people, in May 2009.

The latest benefits data can be found in the Cambridgeshire Ward Atlas, available on the CCCRG website: http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html.

According to the 2010 Annual Survey of Hours and Earnings, women working full-time in Cambridge earn less than their male counterparts. As Table 6 indicates, the workplace-based median full-time gross weekly earnings figures for employees for 2010 showed that men earned an average of £574.90 per week and women an average of £481.5. Overall, people working full-time in Cambridge have higher average weekly earnings than the national average.

Table 6:	Median full-time	gross week	ly earni	ings, April	2010
Area		All	Male	Female	

Cambridge	£539.2	£574.9	£481.5
East Cambridgeshire	£442.2	£483.4	£368.7
Fenland	£399.1	£429.7	£364.7
Huntingdonshire	£503.6	£531.9	£442.2
South Cambridgeshire	£599.9	£670.8	£488.8
Cambridgeshire	£520.3	£561.9	£466.1
East of England	£488.7	£535.0	£424.4
England	£504.5	£546.2	£442.2

Source: Annual Survey of Hours and Earnings - Workplace Analysis, NOMIS

Occupation figures taken from the June 2010 APS indicate that 52% of Cambridge's employed residents are in managerial and professional occupations, compared to a national figure of 30%. Industry participation figures show that 14% work in production and construction, compared to a national figure of 21%, and 86% work in service industries.

# 3.2. Businesses in Cambridge City

The annual ONS publication, *UK Business: Activity, Size and Location*, presents a snapshot of businesses in the UK as at March of each year. It contains detailed information on all businesses in the UK including size, classification and location. The 2010 edition was compiled from a snapshot of the Inter Departmental Business Register (IDBR) taken on 22 March 2010. It is available free on the National Statistics website: <a href="http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=933">http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=933</a> for years from 1995 onwards.

The IDBR combines ONS survey data with administrative information on VAT (Value Added Tax) traders and PAYE (Pay As You Earn) employers in a statistical register comprising 2.1 million businesses, representing nearly 99% of UK economic activity. The IDBR misses some very small businesses without VAT or PAYE schemes (self employed and those with low turnover and without employees). The National Statistics Quality Review of the IDBR found it to be among the leading statistical business registers in the world.

The geographical locations and industrial classifications of business activity on the IDBR are determined from responses to surveys, or from administrative data held in VAT and PAYE schemes. The IDBR contains information at both Enterprise and Local Unit (site) level. An individual site (for example a factory or shop) in an enterprise is called a local unit. Where an enterprise has several local units, the location of the enterprise is generally the main operating site or the head office. The following table presents data for VAT and/or PAYE based local units from UK Business 2010.

Table 7: Number of Local Units in Cambridge City by Size and Sector in 2010

Employment Size	Local Units
0 - 4	3,380
5 – 9	970
10 – 19	560
20 – 49	460
50 – 99	180
100 – 249	120
250 – 499	30
500 – 999	5
1,000 +	0
TOTAL	5,705
Industry Sector	Local Units
Agriculture, forestry & fishing	105
Production	205
Construction	345
Motor trades	90
Wholesale	175
Retail	700
Transport & storage (inc. postal)	75
Accommodation & food services	470
Information & communication	625
Finance & insurance	135
Property	180
Professional, scientific & technical	960
Business administration and support services	415
Public administration and defence	85
Education	395
Health	305
Arts, entertainment, recreation and other services	440
TOTAL	5,705

Source: UK Business: Activity, Size and Location - 2010, ONS

In 2010 there were 5,705 local units in VAT and/or PAYE based enterprises in Cambridge City. Table 7 shows the distribution of businesses by employment size and industry sector. The professional, scientific and technical sector accounts for the largest number of businesses with 17% of all local units. Analysis by size shows that 76% of businesses employed fewer than ten people, and 94% employed fewer than 50.

#### 3.3. Local economic assessment

Following the publication of the Local Democracy, Economic Development and Construction Act, upper tier local authorities now have a duty to undertake an Economic Assessment of their local area from April 2010. Cambridgeshire County Council has coordinated the development of Cambridgeshire's Economic Assessment working in partnership with local district councils and the Greater Cambridge Partnership. As a shared evidence base, the economic assessment highlights the most important economic issues facing the county and districts, and offers a comprehensive view of Cambridgeshire's economy and functional economic area.

The economic assessment shows Cambridgeshire to have a diverse, relatively resilient economy with nationally significant strengths in research and development, higher education, software consultancy, high value engineering and manufacturing, creative industries, pharmaceuticals, agriculture, processing and tourism. Many of these sectors are recognised to have significant growth potential which bodes well for the future health of the economy. Much of the resident population is highly skilled, levels of economic activity are high, crime levels are low and generally residents are satisfied with the area as a place to live. However, the gap in prosperity and skills between the north of the county and the south of the county is growing, women earn significantly less than men and transport congestion costs businesses millions in lost productivity. Low housing affordability and inadequate broadband access may severely restrict the capacity of the economy to grow and high carbon emissions will increase the vulnerability of business and residents to future hikes in energy prices.

Cambridgeshire's labour market is relatively self contained, with 80% of Cambridgeshire's residents working in the county, and 81% of Cambridgeshire's workers living in the county. These figures have not changed significantly since 2001, however there has been a slight increase in the number of residents commuting to London, mainly from South Cambridgeshire and Huntingdonshire. Cambridge acts as a regional centre of employment. Commuting patterns into Cambridge stretch across the Cambridgeshire local authority boundary into the surrounding districts of St Edmundsbury, Forest Heath and Uttlesford. These patterns overlap significantly with those of Peterborough. Analysis has therefore been undertaken at the level of the functional economic area (Greater Cambridge), county and district with comparisons taken at regional and national level.

The economic assessment is available at:

 $\underline{\text{http://www.cambridgeshire.gov.uk/business/economicandcommunitydev/ecodevelopment/economicassess}}\\ \underline{\text{ment.htm}}$ 

# 3.4. Mapping poverty in Cambridge City 2009

Produced by CCCRG for Cambridge City Council in 2010, *Mapping Poverty in Cambridge City 2009* examines the geographical distribution of people claiming Housing Benefit or Council Tax Benefit across the City Council area. The receipt of these income-related benefits is a useful indicator of low income. Examined across the City, the spread of claimants can help identify communities at risk of disadvantage.

Mapping Poverty 2009 examines benefit claimants from two perspectives: the claimant unit (which loosely corresponds to a household making a single benefit claim) and the benefit population (which includes a claimant plus a partner and dependent children where relevant). The benefit population is considered in terms of its composition of families, pensioners and adults of working age without dependent children. Characteristics of the benefit population, such as housing tenure, disability and the receipt of additional

income-related benefits are described. The final section of the report presents additional data that it is illuminating to consider alongside the rest of the report.

The report shows that one in nine people living in Cambridge lives in a household that receives Housing Benefit or Council Tax Benefit. Among pensioners and dependent children this rises to one in five. The distribution across the City is uneven with half of all people living in claimant households residing in one fifth of the City's output areas. The total number of claimants has risen by 5%, from approximately 7,770 in 2008 to around 8,180 in 2009.

The full report is available at:

http://www.cambridge.gov.uk/ccm/navigation/community-and-living/equalities-and-diversity/mapping-poverty/

# 3.5. Economic well-being and deprivation

CCCRG has done extensive analysis of the Indices of Deprivation 2007 (ID 2007), including mapping data to areas smaller than wards – Lower Super Output Areas (LSOAs; each LSOA contains on average 1500 residents). Two reports, *Deprivation in Cambridgeshire - Index of Multiple Deprivation 2007* and *Deprivation in Cambridgeshire - Individual Indices of Deprivation 2007*, are major resources for all partners. The first report presents data on the overall Index of Multiple Deprivation (IMD), and the second includes full details of deprivation on the seven separate domains: income; employment; health and disability; education, skills and training; barriers to housing and services; living environment; and crime. There is also analysis of income deprivation affecting children, and income deprivation affecting older people. The reports present results in district, county, regional and national contexts.

According to the 2007 IMD, Cambridge contains several LSOAs within the top 25% most deprived in the country. Those LSOAs are generally located in the north and east of the city (see Figure 9 below).

Both reports are available on our website:

http://www.cambridgeshire.gov.uk/business/research/economylab/deprivation/IMD2007.htm

Also available is data on the Economic Deprivation Index 2008:

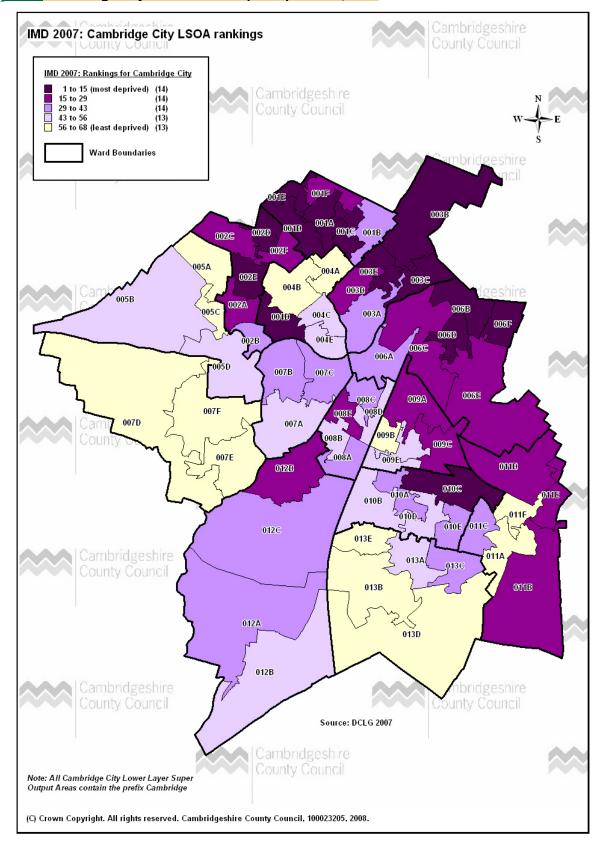
http://www.cambridgeshire.gov.uk/business/research/economylab/deprivation/The+Economic+Deprivation+Index+2008.htm

And the Local Index of Child Wellbeing 2009:

http://www.cambridgeshire.gov.uk/business/research/economylab/deprivation/Local+Index+of+Child+Well-Being+2009.htm

In addition to written reports, much of the data is presented in interactive maps linked to our web pages: <a href="http://www.cambridgeshire.gov.uk/business/research/researchmaps.htm">http://www.cambridgeshire.gov.uk/business/research/researchmaps.htm</a>

Figure 9: Cambridge City indices of multiple deprivation, 2007



# 4. Health

#### 4.1. General health information

The following section includes summary measures of health and health status for Cambridge. It reviews data from a number of sources and drawn from varying data releases from the ONS.

#### 4.1.1 Joint Strategic Needs Assessment

Comprehensive analysis of the health and well-being status and needs of different population groups within Cambridgeshire is provided in the Joint Strategic Needs Assessment (JSNA). Information is available at different administrative, geographic and statistical levels, including district council level, as well as ONS 'clusters'. So far, in four phases of the JSNA work, the following population groups have been included:

- Children and young people
- Older people, including dementia
- Adults of working age, including mental health
- Adults with a learning disability
- Adults with a physical disability or sensory impairment and/or long term conditions
- People who are homeless or at risk of homelessness
- Migrant workers
- Travellers
- New Communities

The JSNA documents and information is available from a dedicated Cambridgeshire JSNA website at: http://www.cambridgeshirejsna.org.uk

### 4.2. Health status of the Cambridge population

The health of people in Cambridge is generally significantly better than average for England. Deprivation levels are generally low and life expectancy for women is higher than average. It is estimated that more adults eat healthily and fewer people have been diagnosed with diabetes. However, there are more adults who binge drink, more hospital stays for alcohol related harm and more violent crime than the average for England. More information is available from "Cambridge Health Profile 2010" by Association of Public Health Observatories (APHO) at: <a href="http://www.apho.org.uk">http://www.apho.org.uk</a>

The NHS Cambridgeshire Cluster Dataset 2010 indicates that the health of Cambridge's population is similar to its ONS 'cluster' - Thriving London Periphery. Mortality from accidents in the over 65 population and male mortality from all causes is higher in Cambridge compared to the cluster group. Cambridge's teenage conception rate is significantly lower than the England and cluster averages. The childhood obesity prevalence in Reception and Year 6 is similar to the cluster average. More information is available form "Joint Strategic Needs Assessment Phase 4 Summary. Appendix A: NHS Cambridgeshire Cluster Dataset 2010" at: <a href="http://www.cambridgeshirejsna.org.uk">http://www.cambridgeshirejsna.org.uk</a>.

<sup>&</sup>lt;sup>9</sup> Clusters are areas that are similar in terms of demographic and socio-economic features.

#### 4.3. Life expectancy (LE) at birth

70.0

Cambridge

Fast

Cambridgeshire

Men born in Cambridge in 2007-2009 can expect to live 78.3 years, which is at the same level as in England but significantly lower than the county average (79.8 years). Women in Cambridge can expect to live 83 years, which is significantly higher than in England (82.3 years). Data are shown in Figure 10.

Figure 10: Life expectancy at birth (years) in Cambridgeshire and England, 2007-2009 ■ Male LE Female LE - England Male LE England Female LE 86.0 82.0 Ι -E (years) 78.0 74.0

Source: Office for National Statistics (ONS), Life expectancy at birth in the UK 2007-09, October 2010 (http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=8841)

Fenland

NOTES: Please note confidence intervals: if they do not overlap with the dashed lines marking average life expectancy in England, it indicates a statistically significant difference.

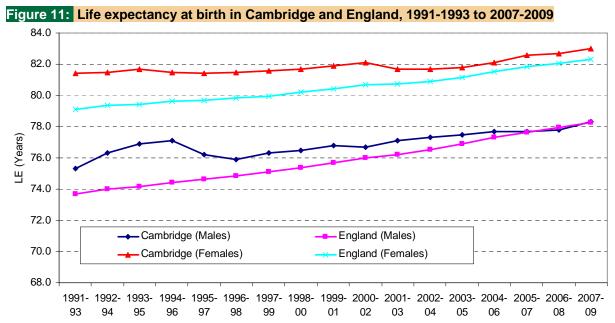
Huntingdonshire

South

Cambridgeshire

Cambridgeshire

Trends in male and female life expectancy in Cambridge and in England are shown in Figure 11. Until 2002-2004, male life expectancy was higher in Cambridge than in England, but since 2004-2006 it has been at the same level. During the whole period, female life expectancy was higher in Cambridge than in England, although in England it has been increasing faster than in Cambridge. More information about life expectancy is available from Joint Strategic Needs Assessment Phase 4 Summary at: http://www.cambridgeshirejsna.org.uk



Source: Office for National Statistics (ONS), Life expectancy at birth (years), United Kingdom, males and females, 1991-1993 to 2007-2009, October 2010 (http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=8841)

#### Main causes of death 4.4.

Cambridge has rates of mortality from all causes that are lower than for England as a whole, but the difference in directly age-standardised rates (DSR)10 is not statistically significant. When compared to Cambridgeshire, the rate of mortality in Cambridge is significantly higher. The data are in Table 8.

Table 8: All causes of death in people of all ages, Local Authorities, 2007-2009

Local Authority	Number of	Directly age-	95% confidence limits	
	deaths 2007-2009	standardised rates (DSR) per 100,000 population	Lower CI	Upper CI
England	1,405,724	567	566	568
Cambridgeshire	14,476	505	496	514
Cambridge	2,527	551	527	575
East Cambridgeshire	2,023	475	454	498
Fenland	3,077	590	568	613
Huntingdonshire	3,699	501	484	518
South Cambridgeshire	3,150	445	429	462

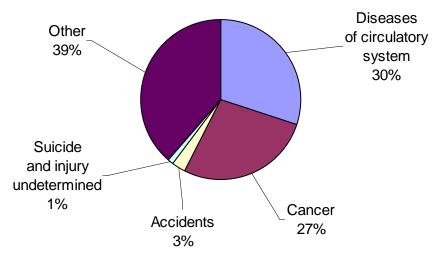
Source: East of England Public Health Observatory, 2011

Definition: All age, all cause mortality: Directly standardised rates and counts with 95% confidence intervals.

Mortality from circulatory diseases (including heart disease and stroke) in people in Cambridge is lower than in England but the difference is not significant. The same is true for cancer mortality. 11

Figure 12 shows the proportion of deaths for selected causes of death in Cambridge among the resident population. The most common cause of death is circulatory disease at 30% of all deaths, followed by cancer at 27%.

Figure 12: Proportion of deaths for selected causes of mortality in Cambridge, 2009



Source: ONS Vital Statistics (VS3) tables, 2010

22

<sup>&</sup>lt;sup>10</sup> Age standardised rates are used to eliminate the impact of age distributions when comparing populations. Direct agestandardisation is used to compare common outcomes in large populations. When comparing small population or rare outcomes a method of indirect standardisation is used.

11 Figures for both can be found at: <a href="http://www.erpho.org.uk/">http://www.erpho.org.uk/</a>

# 4.5. Healthy lifestyles

Adult smoking and obesity are estimated to be significantly lower in Cambridge (17% and 17% respectively) than in England (22% and 24% respectively). Estimated consumption of five or more portions of fruits or vegetables a day is significantly higher (37%) than seen nationally (29%). Nearly one in three adults (28%) are estimated to binge drink in Cambridge, which is significantly higher than the England (2%) and Cambridgeshire averages (18%). Detailed information about lifestyle behaviours synthetic estimates based on 2006-2008 data is available from APHO at:http://www.apho.org.uk.

# 4.6. Child obesity

The prevalence of overweight Reception age and Year 6 children in Cambridge is not significantly different from the prevalence in England. The same is true for the prevalence of obesity in Reception children. The prevalence of obesity in children in Year 6 is significantly lower in Cambridge than nationally. The data are in Table 9.

Table 9: Child obesity for local authorities, GOR, and country, 2010

Area	Overweight			Obese				
	Reception		Year 6		Reception		Year 6	
	Prevalence	95% confidence interval ±						
England	13.3%	0.1%	14.6%	0.1%	9.8%	0.1%	18.7%	0.1%
Cambridgeshire	12.7%	0.9%	14.3%	0.9%	8.7%	0.7%	15.6%	1.0%
Cambridge	13.0%	2.2%	14.1%	2.4%	8.7%	1.8%	14.6%	2.5%
East Cambridgeshire	11.3%	2.1%	13.8%	2.4%	9.7%	2.0%	17.3%	2.6%
Fenland	13.1%	2.2%	14.3%	2.2%	10.3%	2.0%	19.7%	2.5%
Huntingdonshire	12.3%	1.6%	15.0%	1.7%	8.8%	1.4%	14.6%	1.7%
South Cambridgeshire	13.3%	1.7%	13.9%	1.8%	7.1%	1.3%	13.5%	1.8%

Source: National Child Measurement Programme England, 2009/10; http://www.ic.nhs.uk/ncmp

More information about the health of children and young people in Cambridgeshire can be found in 'Data Profile of Children and Young People in Cambridgeshire' at:

http://www.cambridgeshire.gov.uk/childrenyoungpeople/childrentrust/ and http://www.cambridgeshirejsna.org.uk/children-and-young-people/children-and-young-people

### 4.7. Teenage conceptions

The teenage conception rate in Cambridge is significantly lower than England overall, based on 2006-2008 data. The data are in Table 10 below.

Teenage conception rates have fallen nationally and locally in the last 8 years, but in some areas in the City areas (Abbey, King's Hedges) the rate is significantly higher than for the district. See the Cambridgeshire ward profiles for more data: http://www.cambridgeshire.gov.uk/business/research/researchmaps.htm

### Table 10: Teenage conceptions for local authorities, GOR, and country, 2006-2008

Area	Total conceptions (2006-08)	Rate per 1,000 (2006-08)	95% CI	% change in rate 1998/00-2006/08
England	118,286	41	(40.7 - 41.1)	-9.1%
East of England	10,417	33	(32.0 - 33.2)	-10.6%
Cambridge	156	29	(24.5 - 33.4)	-13.5%
East Cambridgeshire	89	21	(16.9 - 25.4)	-29.4%
Fenland	188	38	(33.0 - 43.7)	-27.5%
Huntingdonshire	260	27	(23.9 - 30.4)	-7.4%
South Cambridgeshire	136	18	(15.1 - 21.0)	3.2%
Cambridgeshire	829	26	(24.3 - 27.8)	-13.6%

Source: Office for National Statistics and Teenage Pregnancy Unit

Definition: ONS estimates of conceptions in girls aged under 18. Rates are per 1,000 female population aged 15-17 years.

More information about the health of children and young people in Cambridgeshire can be found in 'Data Profile of Children and Young People in Cambridgeshire' at:

http://www.cambridgeshire.gov.uk/childrenyoungpeople/childrentrust/ and

http://www.cambridgeshirejsna.org.uk/children-and-young-people/children-and-young-people

#### **Further information:**

APHO, Estimates Adult's Health and Lifestyles GOR, SHA, County, Local Authority, Primary Care Trust, 2010: <a href="http://www.apho.org.uk">http://www.apho.org.uk</a>

Cambridgeshire County Council, NHS Cambridgeshire, Data Profile of Children and Young People in Cambridgeshire, 2010: http://www.cambridgeshire.gov.uk/childrenyoungpeople/childrentrust/

Cambridgeshire County Council, NHS Cambridgeshire, Joint Strategic Needs Assessment Phase 4 Summary, 2010: <a href="http://www.cambridgeshire.gov.uk/business/research/health/">http://www.cambridgeshire.gov.uk/business/research/health/</a>

Joint Strategic Needs Assessment documents, 2008-2010: http://www.cambridgeshirejsna.org.uk

# Community safety

Cambridgeshire has five Community Safety Partnerships (CSP); one in each district. Each partnership has a statutory duty to reduce crime and disorder in its area. The Cambridge CSP, which includes representatives from the Police, County Council, PCT and Probation also considers wider issues surrounding drug and alcohol misuse, the importance of the positive involvement of young people in the community, and the role that the Neighbourhood Panels will be able to play in dealing with community issues. A strategic assessment of the district's progress is carried out annually. Copies can be downloaded at: http://www.cambridgeshire.gov.uk/business/research/rescrime/

The assessment process helps to inform the district's targets and priorities for the coming year, feeding into the Community Safety Plan, which can be found here:

http://www.cambridge.gov.uk/ccm/content/community-and-living/community-safety/cambridge-community-safety-partnership.en

#### 5.1. Overview

Countywide, crime has decreased by around 7% between 2009 and 2010 (Jan-Dec). Crime levels in Cambridge City have declined by a similar proportion (7%) over the same period. Across a longer term period of three years 2007-2010 crime in Cambridge has seen a 9% reduction, from 15,101 crimes to 13,806.

Figure 13: Monthly Crime Count for Cambridge City, 2007-2010

Source: Cambridgeshire Constabulary, Corporate Performance Department

Table 11: Total police recorded crime by CDRP area, 2009-2010

Table 11 shows changes in recorded crime over the past 12 months by district:

•	•	•	
District	Jan - Dec 09	Jan - Dec 10	% change
Cambridge City	14,868	13,806	-7%
East Cambridgeshire	3,573	3,346	-6%
Fenland	6,931	6,636	-4%
Huntingdonshire	9,151	8,887	-3%
South Cambridgeshire	6,243	5,257	-16%
Cambridgeshire County	40,766	37,932	-7%

Source: Cambridgeshire Constabulary, Corporate Performance Department

Not all areas of crime in Cambridge have decreased. Increases have been noted in:

- Dwelling thefts
- Sexual offences and violent crimes also a countywide concern
- Cycle crimes

#### Decreases have been seen in:

- Criminal damage
- Vehicle interference
- Drugs offences

Table 12 shows counts of police-recorded crime within Cambridge for 2010 and 2009. 12 It is important to note that while percentage changes may be significant, in many cases total change is minimal.

### Table 12: Police recorded crime figures for Cambridge, 2009-2010

Crime Type	Jan - Dec 2009	Jan - Dec 2010	Change	% change
All Crime	14,868	13,806	-1,062	-7.1%
Serious Acquisitive Crime	2,355	2,097	-258	-11.0%
Burglary Dwelling	996	934	-62	-6.2%
All Vehicle Crime	1,150	975	-175	-15.2%
Most Serious Violence	131	99	-32	-24.4%
Wounding Endangering Life	82	65	-17	-20.7%
Grievous Bodily Harm without Intent	47	27	-20	-42.6%
Assaults With Less Serious Injury	832	820	-12	-1.4%
All Recorded Violence with Injury	963	919	-44	-4.6%
All Violent Crime	2,737	2,879	142	5.2%
All Violence Against The Person	2,398	2,562	164	6.8%
All Robbery	209	188	-21	-10.0%
All Criminal Damage	1,963	1,402	-561	-28.6%
Shoplifting	1,481	1,442	-39	-2.6%
Theft from the Person	309	367	58	18.8%
Theft in a Dwelling	127	154	27	21.3%
Theft of Pedal Cycles	2,593	2,873	280	10.8%
Vehicle Interference	88	33	-55	-62.5%
All Racially Aggravated Crime	89	93	4	4.5%
All Drugs Offences	834	525	-309	-37.1%

Source: Cambridgeshire Constabulary, Corporate Performance Department

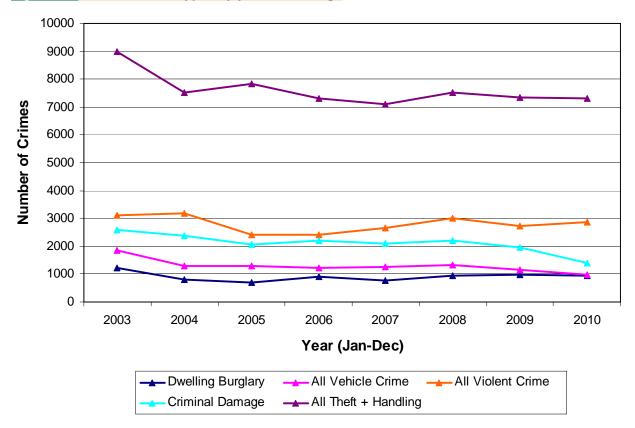
Cambridge has seen reductions in the majority of crime types. According to Strategic Assessment offender data, between April and July 2010 38% of offenders across Cambridgeshire came from Cambridge City. Minority ethnic groups are over-represented within the district's offender community. 71% are male (a lower percentage than for other districts). The most common crime is theft and handling (41%), followed by violent crime (29%).

The average offender was male, aged in their late teens or early 20s (younger than those within other districts), white, and single. Drug misuse, issues with relationships, and problems with general decision-making behaviour were common. Violent crime and criminal damage offenders were typically older, with an average age of just over 30 and 27 respectively. The significant majority of drugs offences recorded between April and July 2010 were related to cannabis use. A high incidence of youth ASB is also notable.

Figure 14 (below) shows a longer series of data for selected crime types. In particular it shows decreases in theft and handling, and criminal damage over the past eight years. Dwelling burglary incidents are of particular concern because, despite occurring less often than other crime types, the cost of the crime – both financially and emotionally – is significantly higher.

<sup>&</sup>lt;sup>12</sup> Crime types are defined by the Home Office: <a href="http://rds.homeoffice.gov.uk/rds/countrules.html">http://rds.homeoffice.gov.uk/rds/countrules.html</a>

Figure 14: Selected crime types by year, Cambridge



Source: Cambridgeshire Constabulary, Corporate Performance Department

# 6. Education

# 6.1. School pupils

## 6.1.1 Early years foundation stage profile

The Early Years Foundation Stage Profile (EYPS) assesses the achievement of children at the end of the Foundation Stage (age 5) against 13 assessment scales, which are grouped into six areas of learning. Table 13 shows the current results for Cambridgeshire for each assessment scale by area of learning. The children included in these results are only those in receipt of a government funded early education place at the end of the Foundation Stage. <sup>13</sup> In Cambridgeshire, the majority of children are working securely within the early learning goals, closely reflecting the results of England as a whole. Overall, 55% of children in Cambridgeshire achieved a good level of development in 2010. <sup>14</sup> For more information please see: <a href="http://www.education.gov.uk/rsgateway/DB/SFR/s000961/index.shtml">http://www.education.gov.uk/rsgateway/DB/SFR/s000961/index.shtml</a>

Further information about the EYPS profile can be found at: http://www.education.gov.uk/childrenandyoungpeople/earlylearningandchildcare.

# Table 13: Percentage of children achieving six points or more for each assessment scale, 2010 Learning Area Cambridgeshire England

Learning Area	Cambridgeshire	England
Personal, social, and emotional development		
Dispositions and attitudes	90	91
Social development	86	86
Emotional development	79	81
Communication, language and literacy		
Language for communication and thinking	84	84
Linking sounds and letters	81	77
Reading	75	74
Writing	66	65
Problem solving, reasoning and numeracy		
Numbers as labels and for counting	90	89
Calculating	77	76
Shape, space and measures	85	84
Knowledge and understanding of the world	83	83
Physical development	89	91
Creative development	80	82

Source: DCSF, Early Years Foundation Stage Profile Results in England, Statistical First Release, 2009/10 (URL: <a href="http://www.education.gov.uk/rsgateway/DB/SFR/s000961/index.shtml">http://www.education.gov.uk/rsgateway/DB/SFR/s000961/index.shtml</a>)

#### 6.1.2 Key stage 2 results

Tasks and tests in English and Maths are taken at the end of Key Stage 2 by pupils aged 11+. The expected level of performance is Level 4. Key Stage 2 Science tests were replaced by teacher assessments and sampling tests in 2009. The latter are administered to 5% of all maintained schools, providing an estimate of national attainment. Science results are therefore excluded from this report.

<sup>13</sup> Local authorities are legally required to secure a free Government-funded early education place (currently for 12.5 hours per week over a minimum of 38 weeks per year) for every three and four year old in their area. This entitlement is to be extended to 15 hours per week by September 2010.

<sup>14</sup> A good level of development is defined as a score of 78 points or more across the Early Years Foundation Stage, and 6 points or more in each of the seven scales in personal, social and emotional development, and communication, language and literacy.

Performance in Key Stage 2 English and Maths varies across Cambridgeshire, with a trend over the last five years for schools in Fenland and East Cambridgeshire to score below the County average in the two subjects, while schools in South Cambridgeshire score above, and Cambridge City and Huntingdonshire fluctuate around the County average.

# **English**

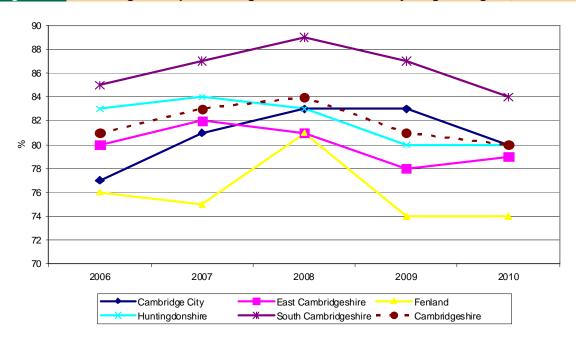
Since 2006 the percentage of Cambridge City's pupils gaining Level 4 in Key Stage 2 English increased from 77% to 83% in 2009. Results dipped in 2010, matching the County average of 80%.

#### **Maths**

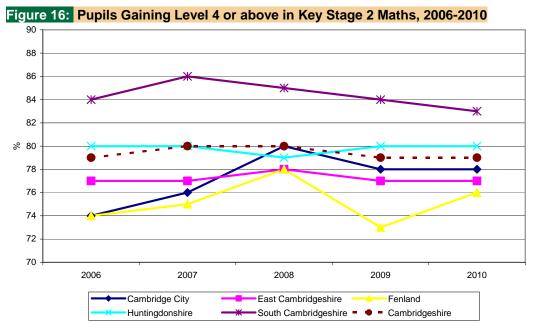
The percentage of pupils in Cambridge City gaining Level 4 in Maths has also been increasing. Results matched the County average of 80% in 2008 and have since dipped just below this to 78%.

Figures 15 and 16 show the percentage of pupils gaining Level 4 or above in Key Stage 2 English and Maths, in all schools by district and for the Cambridgeshire County average.

Figure 15: Percentage of Pupils Gaining Level 4 or above in Key Stage 2 English, 2006-2010



Source: DCSF, National Curriculum Assessments at Key Stage 2 in England, Statistical First Release (Revised), 2005/06-2009/10. Data by district of school location. (URL: <a href="http://www.education.gov.uk/rsgateway/whatsnew.shtml">http://www.education.gov.uk/rsgateway/whatsnew.shtml</a>)



Source: DCSF, National Curriculum Assessments at Key Stage 2 in England, Statistical First Release (Revised), 2005/06-2009/10. Data by district of school location. (URL: <a href="http://www.education.gov.uk/rsgateway/whatsnew.shtml">http://www.education.gov.uk/rsgateway/whatsnew.shtml</a>)

#### **6.1.3** GCSE performance

While all districts in Cambridgeshire have seen rises in the percentage of pupils gaining 5 or more A\*-C grades, GCSE performance varies across the County. Schools in South Cambridgeshire have achieved scores above the County average, and those in Fenland and parts of Cambridge City achieve below average scores. Since 2006, the percentage of pupils gaining 5 or more A\*-C grades in Cambridge City steadily increased from 58% to 70% in 2010, but remains below the County average. Note that Figure 17 data does not include pupils in Special Schools or Pupil Referral Units.

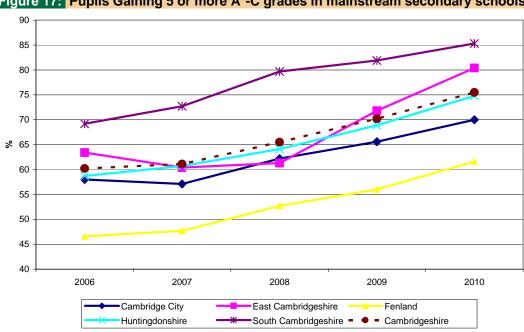


Figure 17: Pupils Gaining 5 or more A\*-C grades in mainstream secondary schools, 2006-2010

Source: DCSF, GCSE and Equivalent Results in England, Statistical First Release (Revised), 2005/06-2009/10. Data by district of school location. (URL: <a href="http://www.education.gov.uk/rsgateway/whatsnew.shtml">http://www.education.gov.uk/rsgateway/whatsnew.shtml</a>)

Summaries of both Key Stage 2 and GCSE results for Cambridgeshire's wards and districts can be found at: http://www.education.gov.uk/inyourarea/.

Results by schools can be found here: http://www.dcsf.gov.uk/performancetables/index.shtml

### 6.2. School leavers

In 2010 there were 781 Year 11 school leavers from mainstream schools in Cambridge City. Of these, 93% remained in full time education. Variation in the percentage of pupils that remained in full time education and the secondary school they had attended is smaller this year in comparison to 2009. Parkside Community College had the highest rate of pupils remaining in full time education (97%), which was also the highest in the County, while Coleridge Community College had the lowest rate (86%). The Manor saw a significant increase in the percentage of pupils remaining in full time education from 77% to 91% between 2009 and 2010.

As of 1st November 2010, 0.5% of all Cambridge City school leavers were in full time training, while 2.6% were in full time employment (Figures 18 and 19). The most popular occupations of pupils coming from secondary schools in the City were: construction (30%) and E2E - Entry to Employment scheme (21%) for males and hairdressing and beauty (30%), retail (30%) and office (20%) for females. At a County level the most popular occupations were: engineering (21%), construction (16%) and motor vehicle (11%) for males and hairdressing and beauty (37%), retail (14%) and catering (12%) for females.

1.5% of leavers were not in education, employment or training (NEET) but actively seeking one of the three. 2.3% had either moved, their status was unknown, or they were involved in other activities such as voluntary or part time work.

Table 14 shows destinations of Year 11 school leavers in all districts in Cambridgeshire. It can be noted that Cambridge City has the highest percentage of Year 11 school leavers in full time education. Further information can be found at:

http://www.cambridgeshire.gov.uk/childrenyoungpeople/connexions/parents/destinations.htm

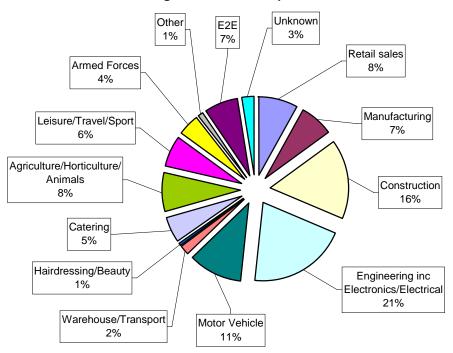
Table 14: Destinations of Year 11 school leavers in Cambridgeshire, 2010

Destination	Cambridge City	East Cambs	Fenland	Hunts	South Cambs	County
Full time education	93.1%	90.5%	90.9%	89.6%	92.7%	91.2%
Full time training	0.5%	1.3%	1.7%	0.2%	0.6%	0.7%
Full time Employment	2.6%	4.5%	2.4%	4.3%	4.0%	3.7%
NEET Actively Seeking	1.5%	1.6%	2.8%	2.4%	1.2%	1.9%
Moved away	1.0%	0.9%	0.8%	1.4%	0.9%	1.1%
Others	1.3%	1.2%	1.3%	2.1%	0.6%	1.3%

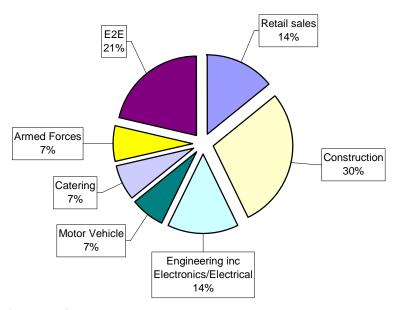
NEET: Not in education, employment or training Source: *CCC Connexions*, *November 2010* 

Figure 18: Occupations of male school leavers

## **Cambridgeshire Male Occupational Breakdown**



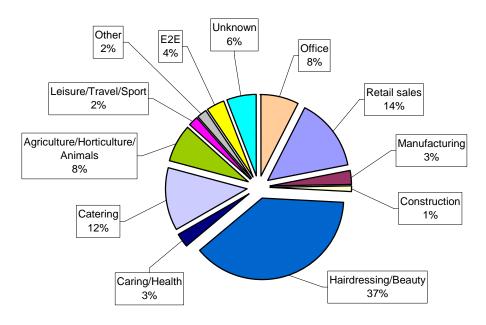
## **Cambridge City Male Occupational Breakdown**



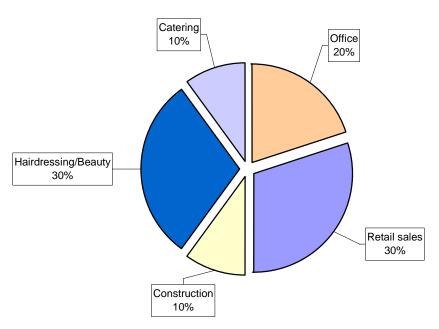
E2E - Entry to Employment scheme Source: CCC Connexions, November 2010

## Figure 19: Occupations of female school leavers

## **Cambridgeshire Females Occupational Breakdown**



## **Cambridge City Female Occupational Breakdown**



E2E - Entry to Employment scheme Source: CCC Connexions, November 2010

## 7. Environment

## 7.1. CO<sub>2</sub> emissions

In 2008 Cambridge City had total  $CO_2$  emissions of 782 kilotonnes (kt), an increase of nearly 12 kt since 2007. That accounted for 16% of Cambridgeshire's total  $CO_2$  emissions. Cambridge had the lowest emissions per capita of all the districts at 6.6 tonnes per head of population (see Table 15). This can be explained by Cambridge's low total emissions (the lowest in the county) and high population (it is the third most populated district).

In 2008, Cambridge's output in three emissions categories – domestic, road transport and LULUCF<sup>15</sup> – was lower than in 2005. The sole increase was industry and commercial, for which emissions were around 18 kt higher in 2008 than 2005.

Table 15: District estimates carbon emissions by end user, 2008

Area	Industry and Commercial	Domestic	Road Transport	LULUCF*	Total	Population ('000s, mid- year estimate)	Per Capita Emissions (t)
Cambridge	436.6	236.3	109.0	0.2	782.1	118.7	6.6
East Cambridgeshire	193.7	187.8	261.6	158.7	801.7	82.6	9.7
Fenland	473.1	222.8	189.3	151.2	1036.3	91.6	11.3
Huntingdonshire	518.2	385.2	736.4	135.1	1774.9	165.2	10.7
South Cambridgeshire	729.1	348.7	643.1	18.2	1739.0	142.4	12.2
Cambridgeshire	2350.6	1380.6	1939.3	463.4	6133.9	600.6	10.2

Source: Department for Environment, Food and Rural Affairs (DEFRA)

Notes: Population estimate is given in 1000s and is ONS-based

For full national data sets please visit the DEFRA website:

http://www.decc.gov.uk/en/content/cms/statistics/climate\_change/data/data.aspx

## 7.2. Air quality

Air quality is primarily measured in concentrations of nitrogen dioxide and fine particles. These pollutants are monitored at a range of sites around Cambridge.

#### 7.2.1 Nitrogen dioxide

Nitrogen dioxide (NO<sub>2</sub>) is an acid gas and ozone pre-cursor, which can badly affect human health, vegetation, and buildings. It is present from the high temperature combustion of fossil fuels, generally derived from road traffic and industry and is thought to have both acute and chronic effects on airways and lung function, which can in turn lower resistance to respiratory infections. Health effects are only observed at higher concentrations. NO<sub>2</sub> is monitored continuously at stations on Parker Street, Gonville Place, Regent Street, Newmarket Road and Montague Road, and monthly using diffusion tubes at other sites around the city.

Monitoring shows some regular NO<sub>2</sub> readings above the National Air Quality Objective of 40μg m<sup>3</sup>.

34

Totals may not sum due to rounding

<sup>\*</sup> Land use, land use change and forestry

<sup>&</sup>lt;sup>15</sup> Land use, land use change and forestry.

For more information please see the <u>Cambridge City Council Air Quality Progress Report 2010</u>. For NO<sub>2</sub> monitoring in particular, see pages 19-24.

#### 7.2.2 Fine particles

Other sources of air pollution are the so-called fine particles, which are composed of a wide range of materials arising from sources such as: combustion (mainly road traffic); secondary particles, mainly sulphate and nitrate formed by chemical reactions in the atmosphere; coarse particles, suspended soils and dusts, sea salt, biological particles and particles from construction work. Fine particles can be carried deep into the lungs where they can cause inflammation and a worsening of the condition of people with heart and lung diseases.

Particles are measured in a number of different size fractions according to their mean aerodynamic diameter. Most monitoring is currently focused on  $PM_{10}$ , but the finer fractions such as  $PM_{2.5}$  and  $PM_1$  are of increasing interest.  $PM_{10}$  are measured 10µm (10 thousandths of a millimetre) in diameter or smaller. They are continuously monitored at three city centre locations: Montague Road, Parker Street and Gonville Place. Cambridge City consistently achieves average annual concentrations below the National Air Quality Objective of  $40\mu$  m<sup>3</sup>.

For more information please see the <u>Cambridge City Council Air Quality Progress Report 2010</u>. For Fine particle monitoring in particular, see pages 25-26.

### 7.2.3 Air quality management areas (AQMAs)

AQMAs are areas in which air quality standards are considered unlikely to be achieved. They are declared by local authorities who are then required to create a Local Air Quality Action Plan through which to improve air quality. AQMAs may be declared across different areas for different pollutants.

Cambridge currently has one AQMA for NO<sub>2</sub> that covers the inner ring road and all the land within it (including a buffer zone around the ring road and its junctions with main feeder roads).

For more information please see DEFRA web site and Air Quality progress Report.

For more information on air quality monitoring in Cambridge City, please see:

Cambridgeshire City Council air pollution web pages:

http://www.cambridge.gov.uk/ccm/navigation/environment-and-recycling/pollution-noise-and-nuisance/air-pollution/

Cambridge City Council updated air pollution monitoring results:

http://www.cambridge.gov.uk/ccm/content/environment-and-recycling/pollution-noise-and-nuisance/air-pollution-monitoring-results.en

Cambridge City Council air quality reports, including the 2010 Air Quality Progress report: <a href="http://www.cambridge.gov.uk/ccm/content/environment-and-recycling/pollution-noise-and-nuisance/air-pollution/national-air-quality-strategy.en">http://www.cambridge.gov.uk/ccm/content/environment-and-recycling/pollution-noise-and-nuisance/air-pollution/national-air-quality-strategy.en</a>

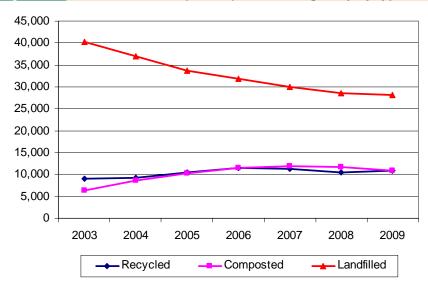
Cambridgeshire County Council air quality web pages: <a href="http://www.cambridgeshire.gov.uk/environment/air/">http://www.cambridgeshire.gov.uk/environment/air/</a>

## 7.3. Waste and recycling

In 2009/10 Cambridge City produced 49,950 tonnes of household waste, which amounts to 18% of Cambridgeshire's total (284,163). 22% of Cambridge's household waste was recycled.

Figure 20 shows that the amount of Cambridge's landfilled waste has decreased by 30% since 2003/04, while the amounts of recycled and composted waste have increased by 20% and 71% respectively.

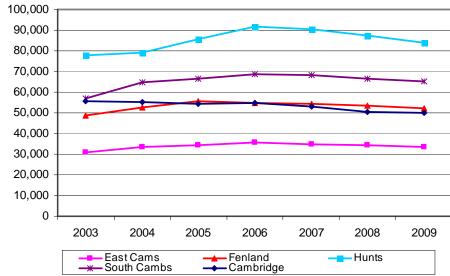
Figure 20: Household waste (tonnes) in Cambridge City by type, 2003/04-2009/10



Source: Cambridgeshire County Council Waste Management Team

Figure 21 shows that Cambridge's level of total household waste has decreased since 2003/04.

Figure 21: Household waste (tonnes) by district, 2003/04-2009/10



Source: Cambridgeshire County Council Waste Management Team

Table 16 shows that, by comparison with the other districts, in 2009/10 Cambridge had neither the highest nor lowest figures for household waste, either in total or by waste category.

Table 16: Household waste (tonnes) by district, 2009/10

	Cambridge	East Cambs	Fenland	Hunts	South Cambs	Overall
Recycled	10,905	6,739	13,048	25,425	14,173	70,290
Composted	10,892	6,736	14,228	22,953	21,258	76,067
Landfilled	28,153	19,864	24,701	35,399	29,689	137,806
Total	49,950	33,339	51,977	83,777	65,120	284,163

Source: Cambridgeshire County Council Waste Management Team

In terms of the respective district waste output totals, Huntingdonshire had the highest percentage of recycled household waste (30%) whilst East Cambridgeshire had the lowest (20%). South Cambridgeshire had the highest percentage of composted waste (33%) and East Cambridgeshire the lowest (20%). East Cambridgeshire had the highest percentage of landfilled waste (60%) and Huntingdonshire the lowest (33%).

Of its total household waste, Cambridge City recycled 22%, composted 22%, and landfilled 56%. 16

More information on recycling in Cambridge City can be found on the City Council website: http://cambridge.gov.uk/ccm/navigation/environment-and-recycling/rubbish-waste-and-recycling/

Cambridgeshire County Council works in partnership with the five district councils and Peterborough City Council to manage waste. A new Cambridgeshire and Peterborough Minerals and Waste Plan is currently under consideration by the Secretary of State.

For more information please see our web page: http://www.cambridgeshire.gov.uk/environment/planning/mineralswasteframework/

The County Council is required to conduct an annual assessment of its waste policy and targets. The 2010 Waste Annual Monitoring Report can be found here:

 $\underline{\text{http://www.cambridgeshire.gov.uk/environment/planning/mineralswasteframework/annualmonitoringreport.ht}\\ \text{m}$ 

Up to date data on waste and recycling by Cambridgeshire local authority can be found here: <a href="http://www.cambridgeshire.gov.uk/environment/recycling/about/Measuring+our+performance.htm">http://www.cambridgeshire.gov.uk/environment/recycling/about/Measuring+our+performance.htm</a>

## 7.4. Land use

The Cambridgeshire County Council Research and Monitoring Team (R&M) have recently produced a report on land use in Cambridgeshire. The report maps land use in each district according to 13 major categories (including agricultural, wetland, residential, and industrial/commercial) and 52 sub-categories (including salt mares, allotments, railways and offices). The full report and downloadable maps is available on the R&M web pages here: <a href="http://www.cambridgeshire.gov.uk/environment/planning/projects/Landuse.htm">http://www.cambridgeshire.gov.uk/environment/planning/projects/Landuse.htm</a>

<sup>&</sup>lt;sup>16</sup> Figures include waste collected at the Milton Recycling Centre at which 3,836 tonnes of landfilled, 4,690 tonnes of recycled, and 1,473 tonnes of composted waste was collected. 3/2 was attributed to Cambridge City and 1/3 to South Cambridgeshire.

## 8. Community insight

#### 8.1. Introduction

It is essential that local authorities understand their citizens and local communities. A number of customer insight tools offer local intelligence to public services with the aim of developing more efficient services. CCCRG uses Output Area Classification (OAC)<sup>17</sup> to provide deeper knowledge about the county. The socio-demographic data included in the classification enables description of the character and demography of local neighbourhoods down to output area level. 18 OAC has been used to help analyse survey data, assist in service redesign, and display local intelligence.

## 8.2. Output area classification (OAC)

OAC is a geodemographic tool that uses data from the 2001 census to offer socio-demographic data for local neighbourhoods. OAC differs from other social classification tools in that it is freely available, accredited by ONS, and is an open source platform that allows users to understand the data and freely share it.

There are three levels to the classification: seven supergroups, 21 groups and 52 subgroups (see Table 18). Each output area in the country is assigned a specific classification. These classifications are based upon 41 key variables (shown in Table 17 below) from the 2001 Census, which cover demographic structure, household composition, housing, socio-economic, and employment factors. They represent the key social, economic and population trends in the UK.

Table 17: OAC's 41 census variables

Demographic	Household Composition	Housing	Socio- economic	Employment
V1. Age 0-4 V2. Age 5-14 V3. Age 25-44 V4. Age 45-64 V5. Age 65+ V6. Indian, Pakistani or Bangladeshi V7. Black African, Black Caribbean or Other Black	V10. Separated/ Divorced V11. Single person household (not pensioner) V12. Single pensioner household V13. Lone parent household V14. Two adults	V16. Rent (public) V17. Rent (private) V18. Terraced housing V19. Detached housing V20. All flats V21. No central heating V22. Average	V24. HE qualification V25. Routine/ Semi-Routine Occupation V26. 2+ Car Households V27. Public transport to work V28. Work from home	V31. Students (full-time) V32. Unemployed V33. Working part-time V34. Economically inactive looking after family V35. Agriculture/ Fishing employment V36. Mining/ quarrying/ construction employment V37. Manufacturing employment V38. Hotel & catering employment
V8. Born outside the UK V9. Population Density	no children V15. Households with non-dependent children	house size V23. People per room	V29. Limiting long term illness V30. Provide unpaid care	V39. Health and social work employment V40. Financial intermediation employment V41. Wholesale/ retail trade employment

<sup>&</sup>lt;sup>17</sup> Additional information about OAC can be gained from our Social Classification webpage: <a href="http://www.cambridgeshire.gov.uk/business/research/Social+classification.htm">http://www.cambridgeshire.gov.uk/business/research/Social+classification.htm</a>

<sup>&</sup>lt;sup>18</sup> Output areas are Census level geographies. Please follow this link for more detail: http://www.statistics.gov.uk/geography/census geog.asp#oa

Table 18: The different levels of OAC

Table 18: The different levels of OAC Supergroups	Groups	Subgroups
1 Blue Collar Communities	C, capo	1a1
1 Bide Golidi Golfillidilides	1a Terraced Blue Collar	1a2
Housing in these areas is more likely to be terraced rather	<u> </u>	1a3
than flats and residents mainly rent from the public sector.		1b1
There is a high proportion of 5-14 year-olds. Residents tend to	1b Younger Blue Collar	1b2
have fewer higher educational qualifications than the national		1c1
average. A high proportion work in manufacturing, retail or	1c Older Blue Collar	1c2
construction.	To Gladi Blad Gollar	1c3
2 City Living		2a1
Residents in these urban areas are more likely to live alone.	2a Transient Communities	
They are more likely to hold higher educational qualifications		2a2
and are often first generation immigrants to the UK. Housing		2b1
is often made up of flats and detached homes are rare and	2b Settled in the City	2b2
residents typically rent their homes from the private sector.		202
3 Countryside	3a Village Life	3a1
Residents in these rural areas are likely to work from home	<u>Sa village Lile</u>	3a2
and to be employed in agriculture or fishing. They often live in	3b Agricultural	3b1
detached houses; in households with more than one car.	3b Agricultural	3b2
Areas are less densely populated than other parts of the	3c Accessible Countryside	3c1
<u>country.</u>	SC Accessible Countryside	3c2
4 Prospering Suburbs	4a Prospering Younger	4a1
	<u>Families</u>	4a2
		4b1
District College Control of the Cont	4b Prospering Older	4b2
Residents in these prosperous areas often live in detached	<u>Families</u>	4b3
houses and less frequently in flats or terraced housing. Fewer residents rent their homes and homes are more likely to have		4b4
central heating. Households often have access to more than		4c1
one car.	4c Prospering Semis	4c2
<u>one san</u>		4c3
	4d Thriving Suburbs	4d1
	40 THINING SUBUIDS	4d2
5 Constrained Circumstances	5a Senior Communities	5a1
	Sa Senior Communities	5a2
		5b1
Residents in these less well off areas typically live in flats and	Eb Older Werkere	5b2
rent from the public sector. They are less likely to have higher	5b Older Workers	5b3
qualifications. They rarely live in detached houses or in		5b4
households with more than one car.		5c1
	5c Public Housing	5c2
		5c3
6 Typical Traits	Co Cottled Households	6a1
<del></del>	6a Settled Households	6a2
		6b1
These are areas of terraced housing, where residents are	6b Least Divergent	6b2
unlikely to rent from the public sector. There are a range of		6b3
ethnic backgrounds and types of households. Residents work	6c Young Families in	6c1
in a range of industries.	Terraced Homes	6c2
	6d Aspiring Households	6d1
	od Aspiring Households	6d2
7 Multicultural		7a1
Residents in these areas are often non-white, mainly from	7a Asian Communities	7a2
Asian or Black British backgrounds. Many are first generation		7a3
immigrants. Housing is mostly rented from the public or	7b African-Caribbean	7b1
private sectors and is often split into flats. The main means of	Communities	7b2
travelling for residents is by public transport.		102

Source: An introduction to the Output Area Classification, Collective Insights

## 8.3. Cambridge City OAC profile

Table 19: OAC group profile

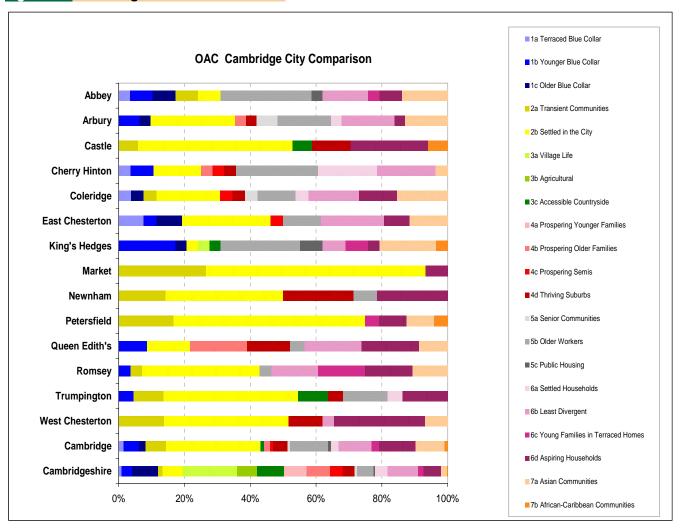
	Cambridge	
Group	Output Areas	%
1a Terraced Blue Collar	5	1.47
1b Younger Blue Collar	16	4.69
1c Older Blue Collar	7	2.05
2a Transient Communities	21	6.16
2b Settled in the City	97	28.45
3a Village Life	1	0.29
3b Agricultural	0	0.00
3c Accessible Countryside	4	1.17
4a Prospering Younger Families	0	0.00
4b Prospering Older Families	6	1.76
4c Prospering Semis	3	0.88
4d Thriving Suburbs	15	4.40
5a Senior Communities	3	0.88
5b Older Workers	39	11.44
5c Public Housing	3	0.88
6a Settled Households	8	2.35
6b Least Divergent	34	9.97
6c Young Families in Terraced		0.0=
Homes	8	2.35
6d Aspiring Households	38	11.14
7a Asian Communities	30	8.80
7b African-Caribbean Communities	3	0.88
Total	341	100

A breakdown of Cambridge by OAC group (Table 19) shows a more in-depth picture of the city. Each of the supergroups can be segmented into two or more groups to show the diversity of Cambridge's communities. The city's largest supergroup, City Living, is segmented into two groups. One of these, Settled in the City, is the largest group in the city accounting for 28% of output areas. The second largest group is Older Workers (11%) from the Constrained Circumstances supergroup. These are almost wholly located in parts of the north and east of the city. Other significant groups include Aspiring Households, Least Divergent and Asian Communities.

The Cambridge OAC profile is diverse and this can be seen in the ward 'dna' chart below (Figure 22). It shows the make up of each of the city's wards and how it differs to the overall city and county profiles. A more in-depth picture of OAC in the city and the wider county can be viewed here: Cambridgeshire Atlas: OAC. 19

<sup>&</sup>lt;sup>19</sup> Cambridgeshire Atlas: Output Area Classification: <a href="http://map1.cambridgeshire.gov.uk/observe/Flash/OAC/atlas.html">http://map1.cambridgeshire.gov.uk/observe/Flash/OAC/atlas.html</a>

Figure 22: Cambridge OAC ward 'dna' chart



## 8.4. Consultation database

Cambridgeshire County Council can conduct anywhere between 150 and 200 consultations per year, from large-scale postal surveys to finely selected focus groups. The topics considered are related to the numerous council services on offer. Consultee groups include the general public, county council staff and certain hard to reach groups. With such a wide range of different consultations being conducted a huge amount of information is being collected. To help the council manage this and to make the best use of all the information a Consultation Database has been set up.

The Consultation Database is a library of information about surveys and consultation projects undertaken by the County Council. The database was developed to ensure that surveys and consultation work undertaken across the authority is properly shared, preventing duplication or gaps, and allowing better planning and quality.

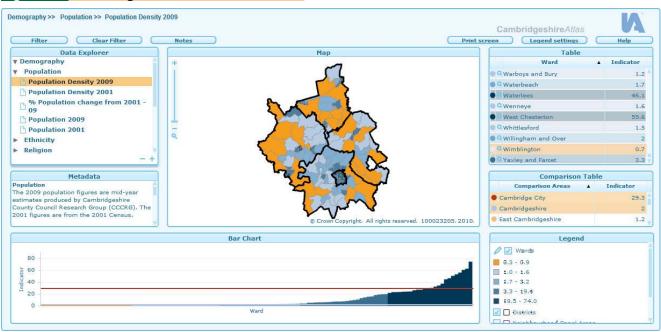
It contains information about surveys and consultations currently being undertaken, and work that is planned for the future. Past consultations are stored and these date back to April 2006. For each survey/consultation, the following information is available:

- Name of survey/consultation
- Consultation status, including consultation period dates
- Brief details of the consultation
- Purpose of the consultation
- Contact details for the lead officer
- Major Findings (completed consultations)
- Links to relevant web pages

To discover consultations occurring in Cambridge City or the wider county area please explore the consultation finder.<sup>20</sup>

## 8.5. Cambridge ward profiles

## Figure 23: Cambridgeshire Atlas: Ward Profiles



This atlas<sup>21</sup> is our most comprehensive to date and includes a range of socio-economic and demographic data to develop a more complete picture of issues affecting local areas in Cambridgeshire. In all there are 85 indicators included, in seven categories. The data explorer can be used to investigate data for wards across the county and there is an on screen metadata box to explain the data showing on screen.

<sup>&</sup>lt;sup>20</sup> Consultation Finder: <a href="http://www.cambridgeshire.gov.uk/business/research/consultations/">http://www.cambridgeshire.gov.uk/business/research/consultations/</a>

<sup>&</sup>lt;sup>21</sup> Cambridgeshire Atlas: Ward Profiles
<a href="http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html">http://map1.cambridgeshire.gov.uk/observe/Flash/Profiles/WardProfiles/atlas.html</a>

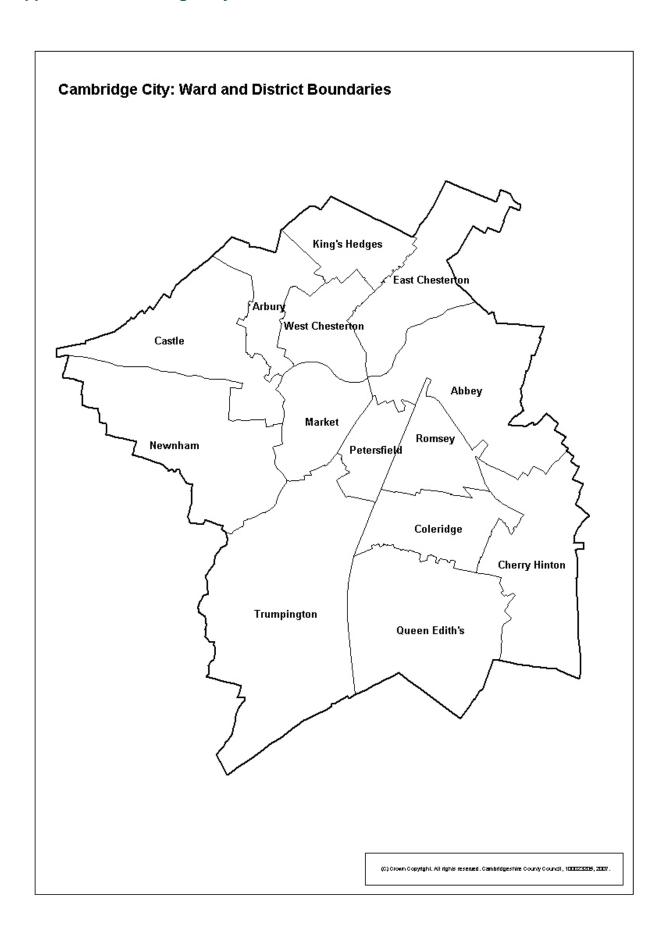
# **Appendices**

Appendix 1: Cambridge City by district boundaries, roads, settlements and river

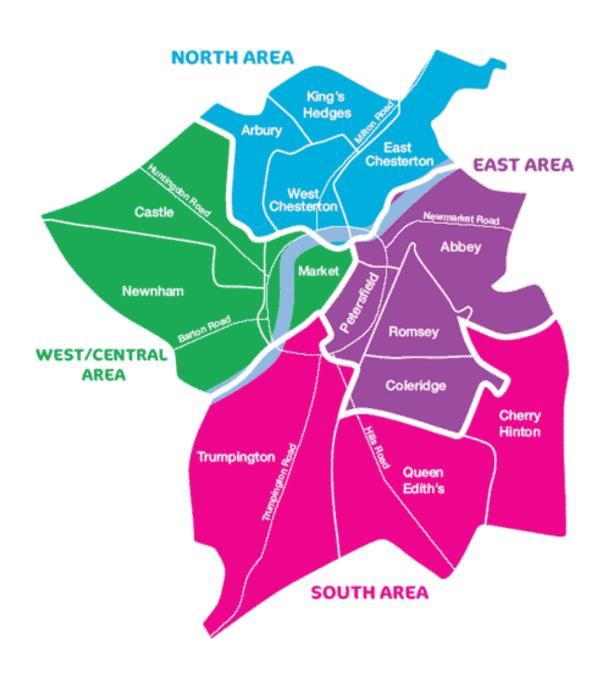
## **Cambridge City**



**Appendix 2: Cambridge City ward boundaries** 



Appendix 3: Map of Cambridge City's Area Committees



Source: Cambridge City Council

http://www.cambridge.gov.uk/ccm/navigation/about-the-council/meetings/area-committees/

## Appendix 4: Demographic methodology and notes for users

## Cambridgeshire County Council Research Group 2009-based population and dwelling stock forecasts

Forecasting Methodology

November 2010

This paper describes the methods, data and assumptions used to produce Cambridgeshire County Council Research Group's population forecasts. It accompanies the 2009-based suite of population and dwelling stock forecasts published in November 2010. The 2009-based forecasts run to 2031 and are available by local authority and ward and by age.

The 2009-based suite of forecasts comprises the following:

- Population forecasts by local authority district to 2031. A summary set of figures is published online, however the forecasts are available by single year of age and sex and for all years through to 2031 on request.
- Dwelling stock forecasts by local authority district and ward, through to 2031, for the years 2011, 2016, 2021, 2026 and 2031. These show the level of house-building that is assumed in the Research Group's published population forecasts.
- Population forecasts by ward to 2031, for broad age groups and for the years 2011, 2016, 2021, 2016 and 2031.

The 2009-based forecasts have been affected by a unique set of circumstances related to both policy changes and local conditions. These are discussed below. Readers requiring a full technical discussion of the entire methodology should read the whole document. Readers who are primarily interested in the unique circumstances surrounding these forecasts will find the Introduction and Section 2 of most use.

#### **Summary**

- The Research Group's (RG) local population forecasts take planned levels of house-building into account. The latest forecasts run to 2031 from a base year of 2009 and are consistent with dwelling figures specified by the East of England Plan draft revision Policy H1: Regional Housing Provision. This is a major revision of policy assumptions used in previous RG forecasts.
- The local authority forecasts are produced by ageing forward the population by sex and single year of age from 2009, year by year. Population change is forecast by allowing for the main components of population change: births and deaths (which together give natural change), and migration. This is the standard population forecasting methodology, as used by the Office for National Statistics (ONS).
- The forecasts assume the completion of over 70,000 additional dwellings in Cambridgeshire between 2009 and 2031. The primary driver for this assumption is the East of England Plan draft revision Policy H1: Regional Housing Provision of 68,000 additional dwellings between 2011 and 2031. The forecasts include the proposed Cambridge Fringe developments and the new town of Northstowe. However, uncertainty over housing policy and other local factors mean that these forecasts may be optimistic and should therefore be used in the knowledge of possible major revisions in future forecasts.

#### Introduction

Cambridgeshire County Council Research Group (RG) produces annual population and dwelling stock forecasts for the County, districts and wards. The RG's forecasts are 'policy led', which means that they are consistent with planned levels of house-building across the County. They are therefore different to projections produced by the Office for National Statistics (ONS), which are trend-based, meaning that they assume that recent trends will continue in the future (see Section 4 for further discussion).

While the forecasts are based on local policies, the location and phasing of housing development suggested within them does not represent County or district council policy. Rather they indicate possible population implications of development and other demographic change. All forecasts are based on a series of assumptions and are subject to change in the light of new information.

In previous years, the RG forecasts have been consistent with housing targets laid out in the East of England Plan (the Regional Spatial Strategy (RSS)), with phasing based on the district councils' December Annual Monitoring Report (AMR) housing trajectories. During 2009 and the early part 2010, work was underway to review the RSS and roll it forward to 2031. On 12th March 2010, the Regional Assembly approved the draft East of England Plan > 2031, which set out a revised set of Policy H1 house-building targets for the local authorities making up the Eastern Region.

Following the General Election, however, the incoming Communities and Local Government Secretary, Eric Pickles, announced his intention to abolish Regional Spatial Strategies, a move that left a vacuum in local authority housing policy. The 2009-based forecasts have therefore been based on the Policy H1 targets set out in the draft East of England Plan > 2031. These were chosen because there are no other consistent housing targets for Cambridgeshire that have official or policy status (though it should be noted that the Policy H1 figures used here are not actually part of a formal housing policy either).

As the draft East of England Plan > 2031 targets have been used, the forecasting period has been extended to 2031 instead of 2021, which was the target year under the original RSS. Phasing is still based on the district councils' December 2009 AMR housing trajectories. In addition, significant local factors affect the current forecasts. It is known, for example, that several developments in Cambridge and South Cambridgeshire are unlikely to take place as laid out in the 2009 AMR trajectories – details can be seen below (see Section 2 for more detail). At the time of producing these forecasts, however, it was unknown precisely how those developments would be affected. Since no alternative figures exist that could have provided guidance, the forecasts continue to assume that building in those developments will occur as shown in the trajectories.

Given these considerations the RG advises that the 2009-based population forecasts be used in the knowledge of possible major revisions in future forecasts.

When published elsewhere, the forecasts must be properly referenced<sup>22</sup> and rounded to the nearest 100 people.

#### Definitions:

The total population figures are forecasts of the resident population. This definition is the same as that used in the 2001 Census as all students are counted at their term-time address. The forecasts include all persons living in communal establishments as well as those living in private households.

Forecasts of dwelling stock relate to the number of self-contained residential units whereby, if there is more than one separate area of living accommodation within a property, each is counted separately. Vacant properties, second homes and holiday homes are included, as are non-permanent dwellings, such as caravans and houseboats (where these are used for dwellings).

Cambridgeshire County Council Research Group 2009-based ward level population and dwelling stock forecasts

<sup>&</sup>lt;sup>22</sup> The forecasts should be referenced as:

#### Section 1: District-level forecasts

The RG uses an Excel spreadsheet model originally developed by Norfolk County Council and run at a district level. Figures for Cambridgeshire are aggregated from the district-level figures.

The main population forecasts are produced by ageing forward the population by sex and single year of age from a base date, year by year. Population change is forecast by allowing for the main components of population change: births and deaths (which together give natural change), and migration. This is the standard population forecasting methodology, as used, for instance, by the ONS. This section outlines the methodology in more detail.

## 1.1 Base Population

The base year for the population used in the latest forecasts is 2009. The base populations are derived from the RG's population model, run forward from an original base year of 2001 to give annual mid-year population estimates for each year since 2001. The original 2001 base is derived from the 2001 Census.

The population model is run to produce population estimates in the same way as it is run to produce population forecasts, as detailed below, except that actual births and deaths by age are input instead of forecast ones. Net migration rates are then adjusted until the model generates the estimated mid-year total population of the area concerned. This total estimated population is produced by rolling forward the 2001, census-based, total population on the basis of changes in electoral rolls, numbers of children aged 0-3 (from NHS GP Registrations), changes in school rolls and data on house-building. Changes in the transient population (principally students and members of the Armed Forces) are calculated separately, on the basis of annual surveys of institutional populations and other data sources.

The estimated population by age and sex calculated by the model is then calibrated with other known data, particularly for specific age-groups. The main groups used recently for calibration are 0-4s from the NHS GP Registrations, 4-15s from school rolls, 17+ population based on electoral rolls, older age groups from NHS GP registration data. The estimates produced by the model are further checked by comparing the numbers of households calculated by the model with information on numbers of dwellings completed since 2001.

An important feature of the population forecasting model, which is particularly applicable in Cambridgeshire, is the division of the population into two main groups: firstly, the resident or local population and, secondly, the transient population. The population contains a number of groups of significant size that have different characteristics to the rest of the usually resident or local population. People in the transient category include members of the armed forces living in barracks, students living in colleges and boarding schools and people living in places of detention. Armed forces personnel and their families living in married quarters and students living in ordinary households are included with the local, non-transient population. Experience suggests that most of the people in transient categories do not remain in the area for more than a few years. They therefore do not age forward with the local population through the forecast period but instead are regularly replaced by new people with similar demographic characteristics. Because of this the numbers of people in this transient sub-group are forecast separately and then added to the figures for the resident population produced by the main population forecasts to give overall population totals.

The base population is therefore split between the local population and the transient population. The 2001 base transient population is derived from the 2001 Census. The figures used in 2001 were numbers of people enumerated as "resident" (census definition) in relevant institutions.

#### 1.2 Fertility Assumptions

Births are forecast by applying age-specific fertility rates to the numbers of women of child-bearing age in the local population. These age-specific fertility rates provide a basic fertility curve that can be adjusted upward or downward according to forecast changes in age-specific fertility. The numbers of births forecast in any year are therefore dependent on the forecast age-specific fertility rate and on the numbers of women in childbearing age groups. The forecast age-specific fertility rates used in the model are derived from the

national series used in the 2008-based ONS population projections. The national age-specific fertility rates are adjusted at district level to take account of differences between local and national fertility patterns. The adjustment is done on the basis of a detailed comparison of recent national and local age-specific rates.

### 1.3 Mortality Assumptions

The process by which deaths are calculated in the model is very similar to that used to calculate births. Deaths are forecast by applying age-specific mortality rates to the number of men and women in the local population. These rates provide a basic pattern of mortality that can be varied according to forecast changes in age- and sex-specific mortality rates. The number of deaths forecast in any one year is therefore a product of the sex and age structure of the population and the death rates being applied to the population in that year. The forecast sex- and age-specific mortality rates used in the model are derived from the national series used in the 2008-based ONS population projections. The national mortality rates are adjusted at district level to take account of differences between local and national mortality patterns. The adjustment is done on the basis of a detailed comparison of recent national and local age-specific rates.

### 1.4 Migration Assumptions

Migration is modelled in two stages: firstly, an age and sex structure of in- and out-migrants is determined; secondly, annual totals for the level of net migration are forecast. Net migration is the balance between migration into an area and migration from it. The age and sex structure of migrants gives the probability of migrants being of a particular age and sex. This structure is determined for the base year of the model and then fitted to forecast totals of net migration to produce numbers of migrants into or out of an area by sex and age.

The age and sex structure of migrants used in the model is based on that found at the 2001 Census for each district. Adjustments have been made to the age-structures of migrants in some districts during the course of running the model to produce annual mid-year estimates. Migration is the only variable in the model that significantly affects the size of many age-groups as they move through the population – the child and adult age-groups before the ages at which mortality begins to have a major impact. When calibration with other sources of age-group data, such as school rolls, suggested that too many or too few migrants were being added to or taken out of those age-groups, the age-structure of migration in the model was adjusted to bring changes in the total numbers in those year-groups back in line with the trends suggested by the other sources of data.

The model operates by holding out-migration constant (at 2001 levels) and adjusting in-migration to give an assumed rate of net migration. In this model run, in-migration is adjusted such that the number of households generated by the model is consistent with the number of dwellings that are expected to be built between 2009 and 2031 (see Section 2).

### 1.5 Reliability

Forecasts are only as accurate as the assumptions on which they are based. Assumptions used here about fertility, mortality and migration are based on the best available information, but they are complex factors with countless influences. It is impossible to predict the future; we can only make reasoned guesses based on what we know about the past and the present. The forecasts are continually revised as new assumptions become available. This means that current figures will differ to those published (for the same time frame) in previous years. In some cases differences may be quite considerable due to revised assumptions about the phasing of planned development.

The district level forecasts rely on dwelling targets being achieved and are therefore subject to the same reliability issues that affect the dwelling stock forecasts (see section 2.1 below). In general, the forecasts become less reliable the further they project into the future. The total population forecasts will be more reliable than for individual ages and sexes. Users are advised that figures have been rounded to the nearest 100 to avoid a spurious perception of accuracy.

#### Section 2: Dwelling stock forecasts

Dwelling stock forecasts form the basis of the population forecasts. In previous years these were based on RSS policy targets to 2021, but this year the draft East of England Plan > 2031 targets for the period 2011-2031 were used instead (see Introduction). Table 20 sets out the future levels of house-building assumed in the forecasting model. Overall, more than 73,000 additional dwellings are assumed will be completed between 2009 and 2031. These include the proposed Cambridge Fringe developments and the new town of Northstowe although caveats attached to those developments are outlined below (see Section 2.1).

Table 20: Summary of house building 2001-2031

District	1: Actual	2: Interim	3: draft East of England Plan >	4: Total	5: Total
	completions	building	2031 Policy H1: Regional	2001-2031	2009-2031
	2001-2009	2010-2011	Housing Provision 2011-2031		
Cambridge City	4,050	1,050	14,000	19,100	15,050
East Cambs	5,100	600	11,000	16,700	11,600
Fenland	5,350	800	11,000	17,150	11,800
Huntingdonshire	5,100	1,650	11,000	17,750	12,650
South Cambs	6,300	1,450	21,000	28,750	22,450
Cambridgeshire	26,000	5,550	68,000	99,450	73,550

Column 3 shows house-building provision for 2011-2031 as set out in the 2010 draft East of England Plan > 2031. In the absence of official policy targets, this provisional figure for each district is used as a target within the forecast.

Column 2 represents expected house building between the mid-2009 dwelling stock estimates and the beginning of the Policy H1 provision period, and is taken from the district council's December 2009 Annual Monitoring Report housing trajectories.

Column 5 (the sum of columns 2 and 3) shows total forecast house building from mid-2009 to mid-2031. Given the likelihood of change and complicated local factors the forecasts may represent an optimistic view.

The phasing and location of new housing by ward is determined through what was formerly the Local Plan process and is now the Local Development Framework (LDF) process. District councils produce annual housing trajectories, detailing the number and phasing of dwellings expected to come forward on individual sites. These trajectories are used to guide the distribution of house-building between wards and five-year time-bands, although some 'smoothing' may take place and the trajectories may not be followed exactly. The trajectories extend to April 2024 which leaves a phasing 'gap' between 2024 and 2031. Totals housing figures for that period (May 2024-April 2031) are simply the difference between the Policy H1 provision figure and the aggregate of building for the years 2011-2024 as laid out in each district's trajectory. The distribution of these additional dwellings is guided by the location of identified sites in district Core Strategies and discussion with district council planners, but the final decision rests with the RG and does not reflect district council policy.

The districts' trajectories follow financial years, while the RG forecasts reflect the mid-year point. For simplicity, the financial years are assumed to correspond to the nearest mid-year point. In other words, where a trajectory details development expected between April 2010 and March 2011, these are assumed to occur between mid-2010 and mid-2011 in our forecasts. We assume that the Policy H1 targets apply from the 2011/12 financial year through to the 2030/31 financial year.

### 2.1 Reliability & Local Factors

The district- and ward-level dwelling stock forecasts present an optimistic view of dwelling stock growth as they assume that all planned dwellings are built according to policy. In terms of planning for the future it is necessary to consider the full implications of policy, even if there are questions as to whether policy can be achieved. The extent to which policy targets are achieved depends on many factors, including market forces and the economy. All development is subject to the development control system; development on

designated sites depends on suitable planning applications being received from developers. In addition, "windfall" sites, which have not been allocated for housing growth, are likely to become available.

In addition to changes in overall housing policy, local factors may also affect the accuracy of these forecasts, especially in Cambridge City and South Cambridgeshire.

### Relocation of Marshall Aerospace: the Cambridge East Development

Marshall has long said that it would be willing to relocate some of its Aerospace activities in order to accommodate the needs of Cambridge by making way for a large urban extension on its airfield in Cambridge, always provided that a suitable site could be found which would ensure the companies long term future and which was convenient for its customers, its local suppliers and its many highly skilled employees. Over the last few years, the company examined many potential relocation sites in the local area. Marshall have now concluded following an exhaustive evaluation of options that in the immediate future there are no suitable relocation options open to it. This does not rule out the possibility that circumstances may change again in future, in which case the company would be prepared to reconsider it.

#### Withdrawal of funding for A14 improvements: Northstowe and north west Cambridge

Since the publication of the South Cambridgeshire housing trajectory in 2009 emerging factors have raised questions over the delivery of some sites, particularly around the major developments on the edge of Cambridge and the new town of Northstowe. Factors affecting Northstowe primarily concern the Coalition Government's decision not to fund the A14 Ellington to Fen Ditton improvements, as announced in its October 2010 Comprehensive Spending Review. The implications of these announcements on the development strategy will be addressed in the South Cambridgeshire District Council's review of its Core Strategy. In addition, without the A14 upgrade, some developments in Huntingdonshire may not proceed.

#### Section 3: Ward level population forecasts

The mid-2009 population estimates by ward and age group form the base for the ward level forecasts. The total population change by age for each district for 2009-2011, 2011-2016, 2016-2021, 2021-2026 and 2026-2031 is taken from the district level forecasting model, as described above. Age changes are distributed between constituent wards on the basis of the distribution and phasing of housing growth as contained within the ward level dwelling stock forecasts. Changes are applied sequentially, such that the 2009 ward age estimates are used as the base for the 2011 forecasts, which then become the base for the 2021 forecasts, and so on. The method used is as follows.

The ward level forecasting methodology considers two distinct population groups. The first is the "new" population: people moving into new dwellings. People moving into new houses usually have different characteristics to the existing population and often tend to be younger. This is particularly the case for new settlements like Cambourne and Northstowe. The second is the "local" population: people currently living in existing housing in the area. This population is, in general, ageing, so the number of people in younger age groups is dropping while the number in older age groups is rising.

In terms of the "new" population, additional population is allocated to wards based on the number of additional dwellings forecast. An average of 2.5 people is allocated per new dwelling, with a relatively young age structure as indicated by Census data. This is slightly higher than the average household size in the population overall, reflecting the tendency for families and younger people to move into new housing. Total population change by age related to new dwellings across the district is then subtracted from overall population change by age. This leaves the population change that can be attributed to change in the "existing" population. This change is then distributed between wards on the basis of the ward's current population size and structure. In other words, change to the existing population is assumed to be equally spread (in proportional terms) across all the wards in a district.

#### 3.1 Reliability

The ward age forecasts are subject to the same reliability issues as identified in Sections 1 and 2 above. In addition it should be noted that the methodology assumes the same average household size for all new dwellings, though it will vary depending on the size and types of dwellings actually built. Some wards may in reality show slightly higher or lower average household size amongst their new population. There is increasing pressure for new developments to include a range of housing types, however, and across a ward the average is unlikely to vary greatly from the district average. Further, the methodology assumes that change to the "existing" population is evenly spread across the district. In reality, some areas may age or change faster than others, depending on factors such as population turnover.

The total population forecast for each ward is more reliable than the age group breakdown. The forecasts will become less reliable the further they project into the future. When the age group forecasts are used, the age bands should be grouped as broadly as possible. All forecasts should be published rounded to the nearest 100. The age group forecasts are for planning purposes only and demonstrate the potential effects of possible demographic change and house building on local populations. The population forecasts themselves do not represent any form of population policy.

#### Section 4: Comparison with other population projections

These forecasts differ from those produced by the Office for National Statistics (ONS) in two main respects. Firstly, and most importantly, they are policy based rather than trend based. ONS projections use recent trends to project future changes. This means that projections for areas where the population has grown considerably in recent years (such as East Cambridgeshire, for example, due to the rapid growth that occurred in Ely) are likely to be an overestimate. For areas where significant growth is about to start, they are likely to underestimate growth. The RG policy based forecasts are based on the best available assessment of what is planned to occur within the forecast period.

Secondly RG projections are available at ward level. ONS produces projections at a local authority district (or PCT) level only. No information is available for wards or for market towns. The RG ward level forecasts are the only source of small area population forecasts available.

The RG forecasts also differ from those produced elsewhere as they benefit from local knowledge. This enables local factors, such as the student population, to be taken into consideration.

Appendix 5: 2009-based population forecasts by age groups in Cambridge City, 2001-2031

	2001	2009	2011	2016	2021	2026	2031
0-4	5,100	6,400	6,900	7,900	8,800	8,300	7,200
05-10	5,800	6,400	6,700	8,300	9,400	10,200	9,800
11-15	5,200	5,000	5,200	5,900	7,000	7,700	8,400
16-19	7,700	7,700	7,900	8,500	9,300	10,300	10,800
20-24	16,900	19,100	19,500	21,100	20,300	20,100	21,700
25-39	28,300	30,300	31,800	38,100	39,500	33,500	28,500
40-64	26,500	30,100	31,100	32,200	34,100	37,300	39,500
65-74	6,900	7,200	7,800	9,800	11,300	12,000	12,900
75+	7,500	6,900	6,900	7,300	8,700	10,700	12,800
Total	109,900	119,100	123,800	139,100	148,400	150,100	151,600

Appendix 6: 2009-based ward level population forecasts for Cambridge City, 2001-2031

Area Commit	tee Wards	2001	2009	2011	2016	2021	2026	2031
East	Abbey	8,500	9,400	9,600	11,300	15,500	18,200	18,400
East	Coleridge	7,500	8,600	8,800	9,200	9,500	9,300	9,400
East	Petersfield	7,000	7,800	8,100	8,900	8,700	8,300	8,400
East	Romsey	8,100	9,000	9,400	9,600	9,300	9,100	8,700
	Sub-Total	31,100	34,800	35,900	39,000	43,000	44,900	44,900
North	Arbury	8,900	9,300	9,400	9,400	9,400	9,100	9,300
North	East Chesterton	7,500	8,800	9,000	8,900	8,800	8,800	9,000
North	King's Hedges	8,400	8,300	8,500	8,400	8,200	7,900	8,100
North	West Chesterton	8,100	8,500	8,900	9,300	9,300	9,200	9,000
	Sub-Total	32,900	34,900	35,800	36,000	35,700	35,000	35,400
South	Cherry Hinton	8,400	8,700	8,900	8,700	8,500	8,600	8,600
South	Queen Ediths	8,200	8,800	9,100	10,300	10,200	10,300	10,300
South	Trumpington	6,600	7,400	8,500	14,400	17,000	17,600	18,300
	Sub-Total	23,200	24,900	26,500	33,400	35,700	36,500	37,200
West/Centre	Castle	7,300	7,800	8,300	13,400	16,300	16,400	17,100
West/Centre	Market	7,600	8,500	8,900	9,600	9,400	9,000	9,300
West/Centre	Newnham	7,900	8,500	8,500	8,700	8,400	8,300	8,400
	Sub-Total	22,800	24,800	25,700	31,700	34,100	33,700	34,800
Total	Total	110,000	119,100	123,700	139,300	148,200	150,000	151,800

Appendix 7: 2009-based ward dwelling forecasts, 2001-2031

Area Commit	tee Wards	2001	2009	2011	2016	2021	2026	2031
East	Abbey	3,800	4,050	4,100	4,800	6,600	7,750	7,950
East	Coleridge	3,350	3,900	3,950	4,200	4,300	4,300	4,350
East	Petersfield	3,200	3,750	3,800	4,150	4,150	4,150	4,200
East	Romsey	3,600	4,000	4,050	4,250	4,250	4,250	4,250
	Sub-Total	13,950	15,700	15,900	17,400	19,300	20,450	20,750
North	Arbury	4,050	4,100	4,050	4,150	4,150	4,150	4,200
North	East Chesterton	3,400	4,150	4,150	4,200	4,200	4,200	4,250
North	King's Hedges	3,750	3,900	3,950	3,950	3,950	3,950	3,950
North	West Chesterton	3,850	3,950	4,050	4,350	4,350	4,350	4,350
	Sub-Total	15,050	16,100	16,200	16,650	16,650	16,650	16,750
South	Cherry Hinton	3,650	3,700	3,700	3,700	3,700	3,700	3,700
South	Queen Ediths	2,950	3,150	3,250	3,800	3,800	3,800	3,800
South	Trumpington	2,900	3,500	3,900	6,300	7,450	7,600	7,950
	Sub-Total	9,500	10,350	10,850	13,800	14,950	15,100	15,450
West/Centre	Castle	2,250	2,350	2,500	4,550	5,850	5,900	6,150
West/Centre	Market	1,950	2,050	2,150	2,400	2,450	2,450	2,450
West/Centre	Newnham	1,800	2,050	2,050	2,100	2,100	2,100	2,100
	Sub-Total	6,000	6,450	6,700	9,050	10,400	10,450	10,700
Total	Total	44,500	48,600	49,650	56,900	61,300	62,650	63,650

## **CONTACTS**

**Population** 

Mark Henare (Research Officer)

Te: 01223 706332

Email: mark.henare@cambridgeshire.gov.uk

Housing

Polly Jackson (Senior Research Officer)

Te: 01223 715308

Email: polly.jackson@cambridgeshire.gov.uk

Health

Kamila Gielnik (Research Officer)

Te: 01223 715304

Email: kamila.gielnik@cambridgeshire.gov.uk

**Community Safety** 

Leigh Roberts (Senior Research Officer)

Te: 01223 715310

Email: leigh.roberts@cambridgeshire.gov.uk

**Mapping and Cambridgeshire Atlas** 

Hendrik Grothuis (Senior Research Officer)

Te: 01223 715305

Email: hendrik.grothuis@cambridgeshire.gov.uk

**Education** 

Gina Wales (Research Officer)

Te: 01223 715313

Email: gina.wales@cambridgeshire.gov.uk

Gurjeet Rajania (Consultations Manager)

**Economy and labour market** 

Rebecca Roebuck (Senior Research Officer)

Te: 01223 715311

Email: rebecca.roebuck@cambridgeshire.gov.uk

Consultations, OAC and Cambridgeshire Atlas

Te: 01223 699923

Email: Gurjeet.rajania@cambridgeshire.gov.uk