

Demographic context and forecasting

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Chapter 10. Demographic context and forecasting

10.1 Introduction – the land-use planning context

As has been explained in chapter 9 outlining the economic and labour market context to the housing market assessment, the main driver for future population and household growth in the Cambridge sub-region is the 2003 Cambridgeshire & Peterborough Structure Plan. The policies of the Structure Plan aim to accommodate substantial growth in the immediate Cambridge area, significantly above that generated by 'natural change'. Following a sequential approach, housing development is proposed at a number of locations on the edge of Cambridge City, at a new settlement north-west of Cambridge (Northstowe) and at market towns. Other village development is guided by measures of 'sustainability', linked to the range of services provided, such as schools.

In the case of the five Cambridgeshire districts, the growth agenda is effectively 'dwellings-led'. In order to ensure compatibility with expected economic change, the forecast labour supply related to the Structure Plan's proposed new house-building programme was compared with the forecast increase in jobs, or labour demand. A general alignment was forecast. This continues the broad balance of employment and resident labour force which has been recorded since 1991. However, within the county there is a shift in terms of the location of new dwellings, concentrating these closer to Cambridge to reduce the need for commuting and to promote the use of public transport.

The policies of the Cambridgeshire Structure Plan have been adopted as part of the draft East of England Plan. Together with policies approved by Suffolk District and County Councils for Forest Heath and St Edmundsbury, they form the basis of the expected development in the seven-district Cambridge housing sub-region over the period 2001 to 2021.

The sections which follow firstly provide a summary of change in population and households occurring between 1991 and 2001. They then outline the latest population forecasts which are essentially 'dwellings-led'. For Cambridgeshire, the forecasts have been produced by the County Council's Research Group, incorporating not only 2001 Census analysis but also the latest national analysis of fertility and mortality rates as well as household formation. In the case of the two Suffolk districts, the forecasts have been produced by Anglia Ruskin University using the Chelmer population forecasting model.

It is possible to provide a wide range of population forecasts using different assumptions about future growth, such as past migration trends. However, because the Cambridge area is expected to manage a significant increase in the rate of house building it is considered more appropriate to work to the 'dwellings-led' variant.

It is important to note that the Secretary of State, in responding to the Panel Inspectors' report on the draft East of England Plan, has proposed a further increase in house-building to 19,000 in Cambridge City. In any event, the Secretary of State proposes that all house building figures should be considered to be the 'floor', with higher levels of growth encouraged. The Cambridgeshire authorities are opposed to this additional building in Cambridge and to the treatment of the targets as a minimum.

Alongside population and household forecasts, this paper attempts to provide detailed information on the types of household by district (in Cambridgeshire). An analysis of population change by age group is also provided. This helps identify issues relating to housing for elderly people. Finally, this chapter shows clearly the broad breakdown of

population and household growth for each decade according to that which can be attributed to 'natural change' and that arising from net migration.

10.2 From 1991 to 2001

There are two sources of information on population change between 1991 and 2001. The first is the national Census and the second is the mid-year population estimates series produced by the Office for National Statistics (ONS). Table 1 compares Census data on the population living in the districts in the housing sub-region for 1991 and 2001. It should be noted that the 2001 data aimed to provide a 'One Number' estimate of the total resident population, grossing up to account for non-response. The 1991 Census made some allowances by imputation to account for households who were known to exist, but who failed to return a Census form, or returned a partially completed form. The consequence is that the 1991 Census under-recorded the population in some areas. This also means that the change 1991 to 2001 is likely to be over-estimated. The 1991 Census operated differently to the 2001 Census, as students were counted at their home, rather than their term-time address. SO although students were counted, they do not appear in the same way they appear in the 2001 Census.

Table 1: Resident Population 1991 and 2001, Cambridge sub-region districts

	1991	2001	Change 1991 to 2001	% change	% of 2001 population
Cambridge City	101,643	108,863	7,220	7.1	15.4
East Cambridgeshire	59,477	73,214	13,737	23.1	10.4
Fenland	73,217	83,519	10,302	14.1	11.8
Huntingdonshire	141,008	156,954	15,946	11.3	22.2
South Cambridgeshire	118,692	130,108	11,416	9.6	18.4
Forest Heath	54,834	55,510	676	1.2	7.9
St Edmundsbury	91,731	98,193	6,462	7.0	13.9
Cambridge sub-region	640,602	706,361	65,759	10.3	100.0

Source: Census

Table 1 covers the entire population, including people living in communal establishments such as university halls of residence, barracks and prisons. To this extent it is considerably higher than the 'private household population', especially in Cambridge City. The Census results suggest that the sub-region's population increased by almost 65,800, or 10%. Huntingdonshire experienced the highest growth in terms of numbers, with an additional 16,000 people recorded in 2001 as compared with 1991. East Cambridgeshire also experienced very high population growth of over 13,700 – although there is some concern here that the 2001 Census calculations actually over-estimate the true numbers! The mid year population estimates subsequently produced by ONS for 1991 and 2001 have resulted in a somewhat different profile, as Table 2 shows

Table 2: Mid Year Population Estimates for 1991 & 2001, Cambridge sub-region districts, '000

	1991	2001	Change 1991 to 2001	% change
Cambridge City	106.7	110.1	3.4	3.2
East Cambridgeshire	60.9	73.4	12.5	20.5
Fenland	75.1	83.7	8.6	11.5
Huntingdonshire	146.1	157.2	11.1	7.6
South Cambridgeshire	121.9	130.5	8.6	7.1
Forest Heath	57.7	56.2	- 1.5	- 2.6
St Edmundsbury	92.5	98.3	5.8	6.3
Cambridge sub-region	660.9	709.4	48.5	7.3

Source: ONS

Table 2 suggests that the 'true' 1991 population was more likely to be around 661,000, some 20,000 higher than the Census estimate. Together with a small uplift for the 2001 figures to 709,400, this shows population growth over the decade to be around 48,500. The 'uplift' to the 1991 Census count primarily affected Cambridge City, Huntingdonshire, South Cambridgeshire and Forest Heath – all districts with significant numbers of people living in communal establishments or on armed forces bases. Consequently there is a revised pattern of growth.

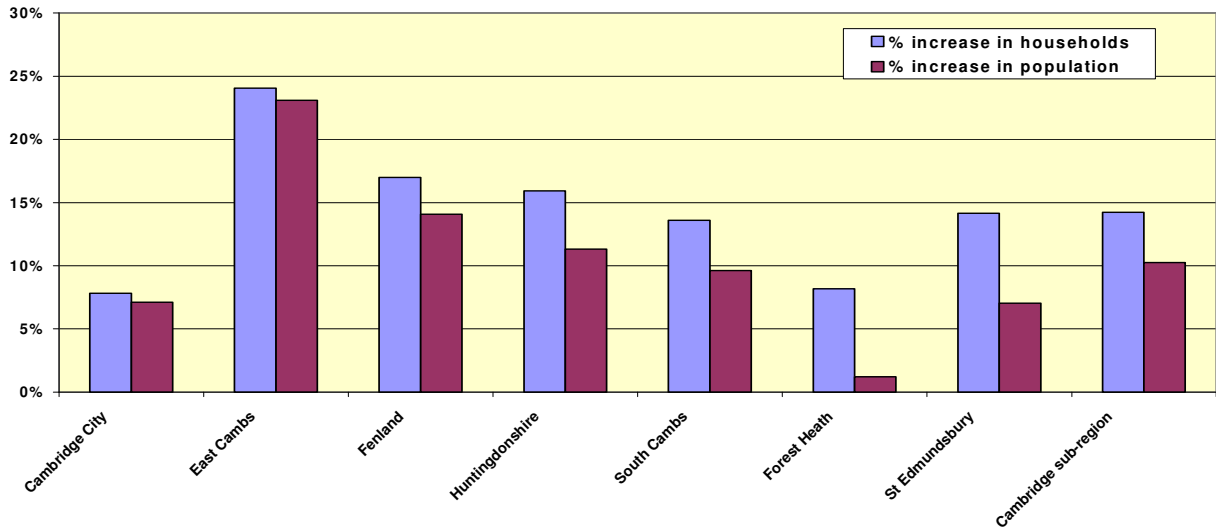
Table 3 shows the Census results for private households and indicates an increase of around 35,700 households in the sub-region as a whole, equivalent to 14.2% of the 1991 stock. However, as explained above, this is likely to be an overestimate of total growth as the 1991 Census under-recorded population and, to a lesser extent, numbers of households. The Table shows that East Cambridgeshire recorded the highest rate of increase, at 24%. Five of the seven districts recorded increases of 5,000 or more households over the decade, with just Cambridge City and Forest Heath experiencing significantly lower growth. The rates of growth are shown in Figure 1.

Table 3: Private Households, 1991 and 2001, Cambridge sub-region districts

	1991	2001	Change 1991 to 2001	% change	% of 2001 households
Cambridge City	39,561	42,658	3,097	7.8	14.9
East Cambridgeshire	24,004	29,780	5,776	24.1	10.4
Fenland	30,077	35,192	5,115	17.0	12.3
Huntingdonshire	54,404	63,062	8,658	15.9	22.0
South Cambridgeshire	45,934	52,181	6,247	13.6	18.2
Forest Heath	21,274	23,018	1,744	8.2	8.0
St Edmundsbury	35,532	40,560	5,028	14.2	14.2
Cambridge sub-region	250,786	286,451	35,665	14.2	100.0

Source: Census

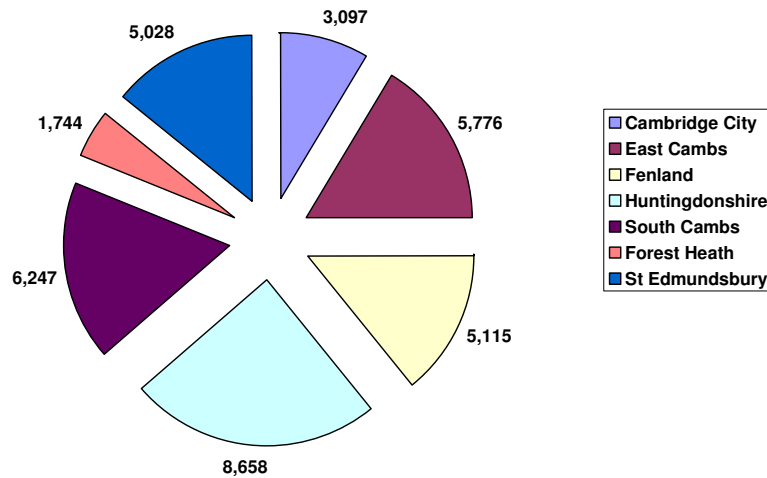
Fig 1: % increase in population and households, 1991 to 2001



Source: Census

Figure 2 shows the increase in the numbers of households by district, 1991 to 2001 (source Census).

Fig 2: Increase in households, 1991 to 2001



Source: Census

Table 4 looks at changes in the main types of household over the period 1991 to 2001 by district. It breaks households down into three types – (i) single people, (ii) couples (without children) and (iii) others, such as couples and lone parents with children, several adults and more than two generations living together as a household.

Table 4: Change in Household Types, 1991 to 2001, Cambridge sub-region districts

	Singles	Couples	Others	Total change
Cambridge City	2,699	- 3,298	3,696	3,097
East Cambridgeshire	2,451	254	3,071	5,776
Fenland	3,376	- 1,595	3,334	5,115
Huntingdonshire	5,363	419	2,876	8,658
South Cambridgeshire	5,448	- 573	1,372	6,247
Forest Heath	2,205	- 1,344	883	1,744
St Edmundsbury	6,790	- 567	- 1,195	5,028
Cambridge sub-region	28,332	- 6,704	14,037	35,665

Source: Census

Table 4 shows that the number of couples (all without children), decreased in virtually every district apart from those experiencing high rates of household growth overall. The numbers of households composed of single people increased by over 28,000 over the decade in the sub-region as a whole. There was also growth in the number of 'other' households, increasing by just over 14,000. This category includes single parent households, couples with children and other households, both with and without children.

10.3 Looking Forward: 2001 to 2021 – Population & Households

In the preparation of the Regional Spatial Strategy a considerable number of population and household forecasts have been produced for the constituent districts of the Cambridge housing sub-region, including the Office for National Statistics (ONS), Anglia Ruskin University (ARU) (under contract to EERA) and by Cambridgeshire County Council's Research Group, (Cambridgeshire districts only). The ONS forecasts have effectively been projections, looking at the continuation of past migration trends. In contrast both ARU and CCCRG have sought to forecast population and households arising from particular programmes of house building. The 'reality' checks here have considered the feasibility of achieving different rates of building in terms of infrastructure provision, planning etc, and have also reviewed the likely labour supply and future provision of employment. This exercise aimed to satisfy the planning authorities about the sustainability of the new dwelling proposals, in terms of providing a balance of employed residents and local jobs.

It is important to be aware that the initial proposals for new housing in the draft East of England Plan followed the Cambridgeshire & Peterborough Structure Plan review faithfully. However, both the Panel inspectors and the Secretary of State, after examining the evidence and argument, are proposing some increase in dwelling provision, particularly in Cambridge City. The tables which follow incorporate the most up-to date analyses of fertility, mortality, migrant age and sex structure and household formation. The forecasts for the five Cambridgeshire districts have been prepared by CCCRG and the forecasts for the two Suffolk districts have been prepared by ARU. Table 5 shows forecast population growth by district.

Table 5: Forecast Population Growth, Cambridge Sub-region Districts, 2001 to 2021, '000s

	2001	2021	Charge 2001-2021	Population % change	% of 2021 population
Cambridge City	109.9	149.9	40.0	36.4	17.8
East Cambridgeshire	70.9	80.7	9.8	13.8	9.6
Fenland	83.7	99.3	15.6	18.6	11.8
Huntingdonshire	157.2	165.6	8.4	5.3	19.7
South Cambridgeshire	130.6	170.5	39.9	30.6	20.3
Forest Heath	55.9	66.1	10.2	18.2	7.9
St Edmundsbury	98.4	108.8	10.4	10.6	12.9
Cambridge sub-region	706.6	840.9	134.3	19.0	100.0

Sources: % Cambridgeshire Districts: Cambridgeshire County Council Research Group; Suffolk Districts: Anglia Ruskin University

It should be noted that this forecast incorporates the Panel Inspectors' and Secretary of State's proposed dwelling targets (or 'floors'). This has particular implications for Cambridge City where the uplift, as compared with the initial draft East of England Plan, is 4,300 dwellings. In population terms this equates to between 8,600 and 10,000 additional population by 2021. The forecast increase in population of over 134,000 in twenty years requires a faster rate of growth than experienced in the past. It is equivalent to a 19% increase as compared with the 2001 'baseline' population. In line with the Cambridgeshire & Peterborough Structure Plan and now the draft East of England Plan, it can be seen that this growth is heavily concentrated in Cambridge City and South Cambridgeshire – taking around 80,000, or two-thirds of the total increase forecast. Significant increases are also forecast for Forest Heath and Fenland, equivalent to 18% or more over twenty years. The lowest rate of increase is forecast for Huntingdonshire, which experienced very rapid rates of growth in the period 1970 to 2001.

Table 6 shows the related forecast of households for each district in the Cambridge sub-region over the period 2001 to 2021. In total an increase of 87,300 additional households is forecast, a very high growth rate of over 30% over the twenty year period. As with population, it is Cambridge City and South Cambridgeshire which are expected to undergo the highest rates of household growth.

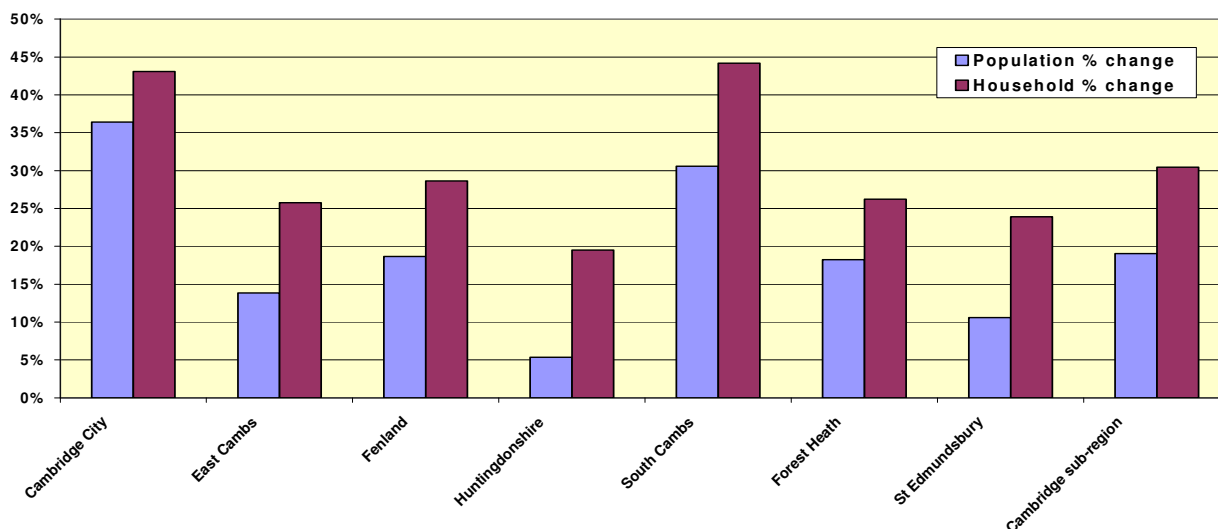
Table 6: Forecast Household Growth, Cambridge Sub-region Districts, 2001 to 2021, '000s

	2001	2021	Charge 2001-2021	Household % change	% of 2021 households
Cambridge City	42.7	61.1	18.4	43.1	16.3
East Cambridgeshire	29.9	37.6	7.7	25.8	10.1
Fenland	35.3	45.4	10.1	28.6	12.1
Huntingdonshire	63.1	75.4	12.3	19.5	20.2
South Cambridgeshire	52.3	75.4	23.1	44.2	20.2
Forest Heath	22.9	28.9	6.0	26.2	7.7
St Edmundsbury	40.6	50.3	9.7	23.9	13.4
Cambridge sub-region	286.8	374.1	87.3	30.4	100.0

Sources: % Cambridgeshire Districts: Cambridgeshire County Council Research Group; Suffolk Districts: Anglia Ruskin University

South Cambridgeshire is expected to experience an increase of over 23,000 households, equivalent to 44% of the 2001 baseline. A similar rate of growth is forecast for Cambridge City, providing for an additional 43% of households in twenty years. Even in the district with the lowest rate of growth, Huntingdonshire, an additional 20% of households are forecast by 2021. Figure 3 compares the rates of forecast population and household growth across all seven districts.

Fig 3: % forecast growth in population and households, 2001 to 2021



Source: ARU, CCRG

The dwelling figures supporting the forecast increases in population and households are shown in Table 7. This indicates the housing completions achieved by the end of March 2006.

The total dwellings 'required' by the Secretary of State as a minimum in her response to the draft East of England Plan amounts to 89,700 in the Cambridge housing sub-region, although the Cambridge City figure is being challenged as too high. As discussed above, this relates to an additional 87,300 households, with some allowance for vacancies. By early 2006 some 18,080 dwellings had been completed, 20.2% of the total. This means that, in order to meet the target, the rate of new building must speed up in the remaining 15 years of the Plan period.

Table 7 shows that in some districts development is running ahead of schedule, with East Cambridgeshire having achieved almost 38% of the total requirement in just 5 years. Fenland has also experienced relatively high rates of new building, with 30% of the total Plan programme already completed. In contrast it is some of the districts which are expected to deliver most of the new growth where progress has been relatively slow, including Cambridge City and South Cambridgeshire. However, gearing up to high rates of new building requires a long lead time and it is now anticipated that much higher rates of new build will be achieved from 2007 onwards.

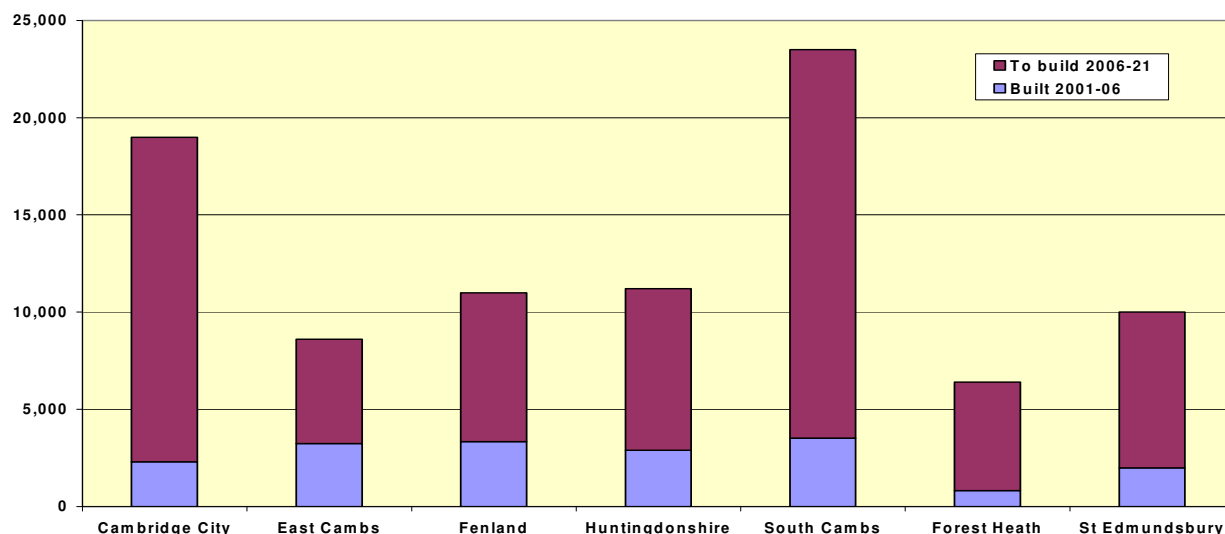
Figure 4 shows progress with respect to the target for each district in the housing sub-region.

Table 7: Forecast Dwelling Completions 2001-2021, Cambridge housing sub-region Districts, (Secretary of State's proposals for the East of England Plan)

	Built 2001 to 2006	To build 2006 to 2021	Total 2001 to 2021	% built 2001 to 2006
Cambridge City	2,300	16,700	19,000	12.1
East Cambridgeshire	3,240	5,360	8,600	37.7
Fenland	3,340	7,660	11,000	30.4
Huntingdonshire	2,890	8,310	11,200	25.8
South Cambridgeshire	3,520	19,980	23,500	15.0
Forest Heath	810	5,590	6,400	12.7
St Edmundsbury	1,980	8,020	10,000	19.8
Cambridge sub-region	18,080	71,620	89,700	20.2

Source: ARU

Fig 4: New dwellings forecast for Cambridge sub-region 2001 to 2006 and 2006 to 2021



10.4 Forecast Population by Age

In order to inform future building programmes and to provide an input to issues concerning people with disability and infirmity, it is important to consider the future age profile of the forecast population. There is particular interest in the population aged 75 and over, as this group is likely to have special requirements in terms of mobility housing and services to maintain independence – as well as placing demands on institutional and 'special needs/supported' housing and support services.

Tables 8, 9 and 10 provide a broad age breakdown of population for each district for the years 2001 and 2021 and the overall change occurring 2001/21. Although this provides a snap shot at the start and end dates of the current East of England Plan it should be appreciated that some age groups will have reached higher numbers in intervening years; we cannot assume a steady 'trend' year on year change for every age group over the 20 year period. Cambridgeshire County Council Research Group produced the forecasts for the

five Cambridgeshire districts and Anglia Ruskin University the Suffolk District data. Figure 5 shows the changes for each district by broad age groups.

Table 8: Population by Broad Age Group, Cambridge housing sub-region districts, 2001

	0-15	16-18	20-29	30-59	60-74	75+	Total
Cambridge City	16,100	7,700	28,150	39,600	10,850	7,500	109,860
East Cambridgeshire	14,300	3,100	7,550	31,000	9,700	5,400	71,000
Fenland	16,400	3,500	8,550	34,650	13,200	7,400	83,650
Huntingdonshire	34,000	7,100	17,100	71,100	18,550	9,350	157,150
South Cambridgeshire	26,300	6,300	13,650	58,750	16,400	9,150	130,550
Forest Heath	11,600	2,400	8,600	22,700	6,700	3,900	55,900
St Edmundsbury	18,950	4,250	11,600	42,200	13,700	7,700	98,400
Cambridge sub-region	137,650	34,350	95,200	300,000	89,100	50,400	706,510

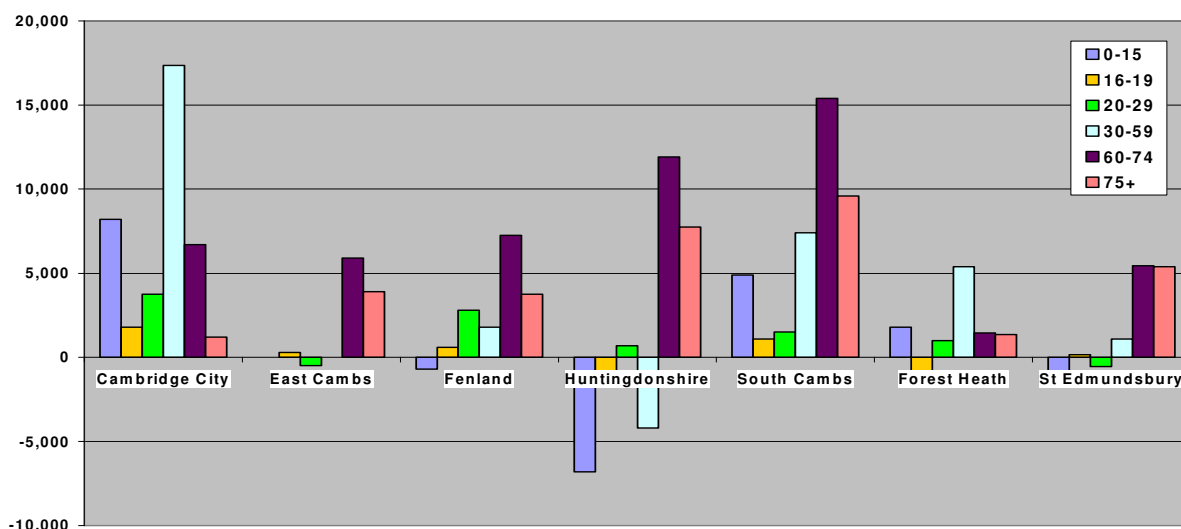
Table 9: Forecast Population by Broad Age Group, Cambridge housing sub-region districts, 2021

	0-15	16-18	20-29	30-59	60-74	75+	Total
Cambridge City	24,300	9,500	31,900	56,950	17,550	8,700	148,900
East Cambridgeshire	14,300	3,400	7,050	31,000	15,600	9,300	80,650
Fenland	15,700	4,100	11,350	36,450	20,450	11,150	99,200
Huntingdonshire	27,200	6,200	17,800	66,900	30,450	17,100	165,600
South Cambridgeshire	31,200	7,400	15,150	66,150	31,800	18,750	170,450
Forest Heath	13,400	1,550	9,600	28,100	8,150	5,250	66,050
St Edmundsbury	17,800	4,400	11,050	43,300	19,150	13,100	108,800
Cambridge sub-region	143,900	36,550	103,900	328,850	143,150	83,350	839,650

Table 10: Change in Population by Broad Age Groups, 2001 to 2021, Cambridge sub-region districts

	0-15	16-18	20-29	30-59	60-74	75+	Total
Cambridge City	8,200	1,800	3,750	17,350	6,700	1,200	39,040
East Cambridgeshire	0	300	- 500	0	5,900	3,900	9,650
Fenland	- 700	600	2,800	1,800	7,250	3,750	15,550
Huntingdonshire	- 6,800	- 900	700	- 4,200	11,900	7,750	8,450
South Cambridgeshire	4,900	1,100	1,500	7,400	15,400	9,600	39,900
Forest Heath	1,800	- 850	1,000	5,400	1,450	1,350	10,150
St Edmundsbury	- 1,150	150	- 550	1,100	5,450	5,400	10,400
Cambridge sub-region	6,250	2,200	8,700	28,850	54,050	32,950	133,140
<i>% increase</i>	<i>4.5%</i>	<i>6.4%</i>	<i>9.1%</i>	<i>9.6%</i>	<i>60.7%</i>	<i>65.4%</i>	<i>18.8%</i>

Fig 5: Forecast population change by broad age groups, 2001 to 2021



Sources: Cambridgeshire County Council Research Group; Anglia Ruskin University

It is clear that the age groups forecast to show the biggest increase overall are older people. The age group 60 to 74 is expected to increase by over 54,000, from 89,100 to over 143,000, a huge rise of around 61% in just twenty years. This reflects the 'Post War bulge' entering retirement. In percentage terms there is an even bigger increase in the numbers of residents aged 75 and over, at 65%. This age group is expected to increase from 50,400 in 2001 to over 83,300 by 2021, a rise of around 33,000. In contrast, despite the overall population increase, the number of children aged 0 to 15 is only expected to increase by 6,250, less than 5% more than the 2001 baseline. In many districts this age group is expected to decline.

The reduction in the rate of house-building in Huntingdonshire as compared with the recent past means that there is likely to be a reduction in numbers in most age groups apart from the elderly. In order to gauge the requirements for services for the very elderly, Table 11 shows the forecast population aged 85 and over.

Table 11: Forecast Population aged 85+, Cambridge housing sub-region Districts, 2001-2021

	2001	2021	Charge 2001-2021	% change
Cambridge City	2,180	2,360	180	8.3
East Cambridgeshire	1,420	2,550	1,130	79.6
Fenland	1,850	3,550	1,700	91.9
Huntingdonshire	2,360	4,350	1,990	84.3
South Cambridgeshire	2,520	4,700	2,180	86.5
Forest Heath	1,000	1,400	400	40.0
St Edmundsbury	1,900	3,850	1,950	102.6
Cambridge sub-region	13,230	22,760	9,530	72.0

Sources: Cambridgeshire County Council Research Group; Anglia Ruskin University

The age group likely to require most support, either to retain independent living or in an institutional community, is the over 85s. The sub-region can anticipate an increase of over 9,500 residents of this age, a 72% increase on the numbers in 2001. The increases are forecast to be particularly high in St Edmundsbury (doubling the 2001 numbers) as well as in Fenland, Huntingdonshire and South Cambridgeshire. All four districts can anticipate increases of 80% or more. The exceptions are Cambridge City and Forest Heath. Past trends suggest that there is net out-migration of the elderly from Cambridge City. The changes in population by age group clearly pose a number of challenges for supported housing, in particular.

10.5 Household Type – 2001 to 2021

At the time of writing a detailed breakdown of forecast household numbers by type is only available for the five Cambridgeshire Districts. The analysis does not attempt to model households according to the number of children in each as it effectively makes assumptions about the extent to which adults are 'household representatives', similar to the previous notion of a 'head of household'. The analysis which follows in Tables 12 to 14 identifies couples (both married and cohabiting), lone parents, single people and other multi person households.

Table 12: Breakdown of Households by Type, 2001, Cambridgeshire Districts

	Couples	Lone parents	Single person	Other multi-adult	Total
Cambridge City	17,075	3,400	17,075	5,175	42,700
East Cambridgeshire	16,775	2,050	9,075	1,975	29,875
Fenland	18,500	3,000	11,755	2,000	35,275
Huntingdonshire	35,425	5,250	19,000	3,425	63,100
South Cambridgeshire	29,475	3,550	16,050	3,175	52,250
Cambridgeshire	117,250	17,250	72,975	15,750	223,200
<i>% of all</i>	<i>52.5%</i>	<i>7.7%</i>	<i>32.7%</i>	<i>7.1%</i>	<i>100.0%</i>

Source: Census 2001, Cambridgeshire County Council Research Group

Table 12 shows that just over half of all households in Cambridgeshire in 2001 were composed of couples, either married or cohabiting, although the share was lower in Cambridge City (40%) and higher in South Cambridgeshire, East Cambridgeshire and in Huntingdonshire, (all 56%). Unconcealed lone parents constituted 7.7% of all households in the county. Single person households accounted for just under a third of the total and other 'multi adult' households contributed a further 7%.

Table 13: Breakdown of Households by Type, 2021, Cambridgeshire Districts

	Couples	Lone parents	Single person	Other multi-adult	Total
Cambridge City	21,350	5,800	26,600	7,325	61,050
East Cambridgeshire	19,075	2,200	13,325	3,000	37,575
Fenland	21,200	3,600	17,975	2,650	45,425
Huntingdonshire	36,200	5,250	29,750	4,250	75,425
South Cambridgeshire	36,800	4,200	29,350	5,075	75,425

	Couples	Lone parents	Single person	Other multi-adult	Total
Cambridgeshire	134,625	21,050	117,000	22,300	294,900
<i>% of all</i>	<i>45.7%</i>	<i>7.1%</i>	<i>39.7%</i>	<i>7.6%</i>	<i>100.0%</i>

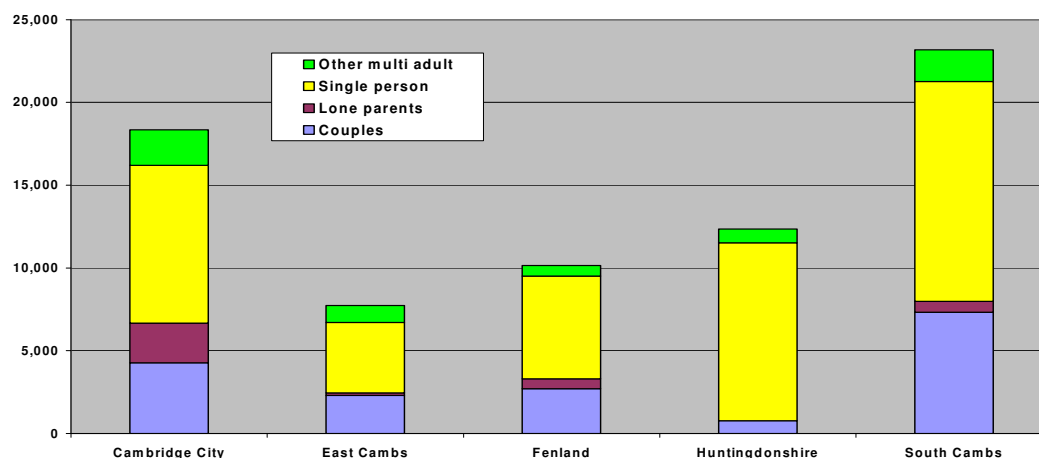
Table 13 shows that the major change in household composition forecast over the period 2001 to 2021 is an increase in single person households – up from 32.7% of the total to 39.7%. The share of households accounted for by couples is forecast to reduce to 45.7% in the county overall by 2021. In Cambridge City the share accounted for by couples falls to 35% and the share attributed to single people rises to 43.6%, from 40% in 2001. Shares of households accounted for by unconcealed lone parent households and other multi-person households are little changed from 2001.

Table 14: Change in Forecast Households by Type, 2002-2021, Cambridgeshire Districts.

	Couples	Lone parents	Single person	Other multi-adult	Total
Cambridge City	4,275	2,400	9,525	2,150	18,350
East Cambridgeshire	2,300	150	4,250	1,025	7,700
Fenland	2,700	600	6,200	650	10,150
Huntingdonshire	775	0	10,750	825	12,325
South Cambridgeshire	7,325	650	13,300	1,900	23,175
Cambridgeshire	17,375	3,800	44,025	6,550	71,700
<i>% of all</i>	<i>24.2</i>	<i>5.3</i>	<i>61.4</i>	<i>9.1</i>	<i>100.0</i>
<i>% change over 2001</i>	<i>14.8</i>	<i>22.0</i>	<i>60.3</i>	<i>41.6</i>	<i>32.1</i>

Overall, the number of households in Cambridgeshire is forecast to increase by 71,700 over 20 years, accounting for 32% of the 2001 baseline. The increase in single person households is forecast to be over 44,000, around 60% increase in just 20 years. Multi person household numbers are expected to increase by around 6,500, or 42%, with lone parent households increasing by 22%. The number of 'couple' households is forecast to increase by almost 17,500, just under 15%. Figure 6 shows the forecast change for each district.

Fig 6: Breakdown of household forecasts, 2001 to 2021 by type



Source: Cambridgeshire County Council

This analysis spells out clearly that there will be a considerable increase in smaller households. However, it should be noted that although single people may be counted as 'needing' only one bedroom accommodation, in practice the active demand is for at least two bedrooms.

Applying the Cambridgeshire factors to the sub-region household forecast of 87,300 would give an extra 21,150 couples, an additional 4,600 lone parents, an extra 53,600 single persons and an extra 7,950 multi-person households, 2001 to 2021.

10.6 Elderly Households

The preceding section has identified that the number of residents aged 75 and over – and especially 85 plus – is forecast to increase at a faster rate than the population overall. By making assumptions about the likelihood each person has of 'heading' a household, it is possible to make a broad assessment of what this increase will mean in terms of different types of household. Table 15 looks at what might be considered the most vulnerable households in terms of requiring support to live independently – couples and single people.

Table 15: Forecast Couples & Single Households with a 'head' aged 75 and over, 2002 & 2021, Cambridgeshire Districts

	Couples				Singles			
	2001	2021	2001-21 change	% change	2001	2021	2001-21 change	% change
Cambridge City	1,090	1,280	190	17%	3,480	3,680	200	6%
East Cambridgeshire	850	1,930	1,080	127%	2,330	3,330	1,000	43%
Fenland	1,140	2,070	930	82%	3,010	4,020	1,010	34%
Huntingdonshire	1,450	2,890	1,440	99%	3,810	6,020	2,210	58%
South Cambridgeshire	1,470	3,330	1,860	127%	3,820	6,890	3,070	80%
Cambridgeshire	6,000	11,500	5,500	92%	16,450	23,940	7,490	46%

Source: Cambridgeshire County Council Research Group

Table 15 shows an increase of 92% in the number of 'couple' households in Cambridgeshire where the 'head' is aged 75 and over in the period 2001 to 2021. This is a growth of 5,500 in the county as a whole. The relatively high rise in the number of couples reflects increasing life expectancy of men as compared with the past. The increase in numbers of single person households is greater numerically, at around 7,500, but this is equivalent to a somewhat lower 46% growth rate. Cambridge City will not be affected as much as other districts if past patterns continue in terms of the age structure of migrants. Cambridge City has experienced net out-migration of older people whereas other districts have experienced net in-migration – including some movement from the City!

Applying the Cambridgeshire rates to the sub-region as a whole would indicate an additional 6,800 couple households with a 'head' aged 75 or more and an extra 9,250 single person households.

10.7 Natural Increase & Migration – the Components of Population Change

Cambridgeshire has in recent years sustained relatively high rates of population growth, significantly above the rates associated with 'natural change' – i.e. the births and deaths occurring to the baseline population. Such a role has been very much driven by the prosperous local economy and hence employment growth. As explained in chapter 9, *Economic context and forecasting*, there has been a general 'balance' between employment and employed residents for well over a decade, with most 'migrant' growth linked to job opportunities within the area. There has been relatively little growth generated by people moving to the county as a 'home' base but then commuting to work elsewhere. There is one exception to this model of 'employment led' growth. This relates to some growth in Fenland which is primarily driven by people retiring to the area.

Cambridgeshire County Council's Research Group has analysed past and forecast population and household growth into 'natural change' and 'migration' blocks, each covering 10 year periods. It is important to appreciate that this is merely illustrative. The 'natural change' model assumes nil net migration which assumes that net migration for every age group is zero. (An alternative approach could assume that net migration sums to zero, but could include net out-migration of 20-24 year olds, for example, exactly counterbalanced by net in-migration of 60 to 64 year olds; this would give a very different profile of change).

The 'natural change' model run includes assumptions about changing headship rates etc and so enables a forecast to be produced of households (and hence household change) associated with nil net migration.

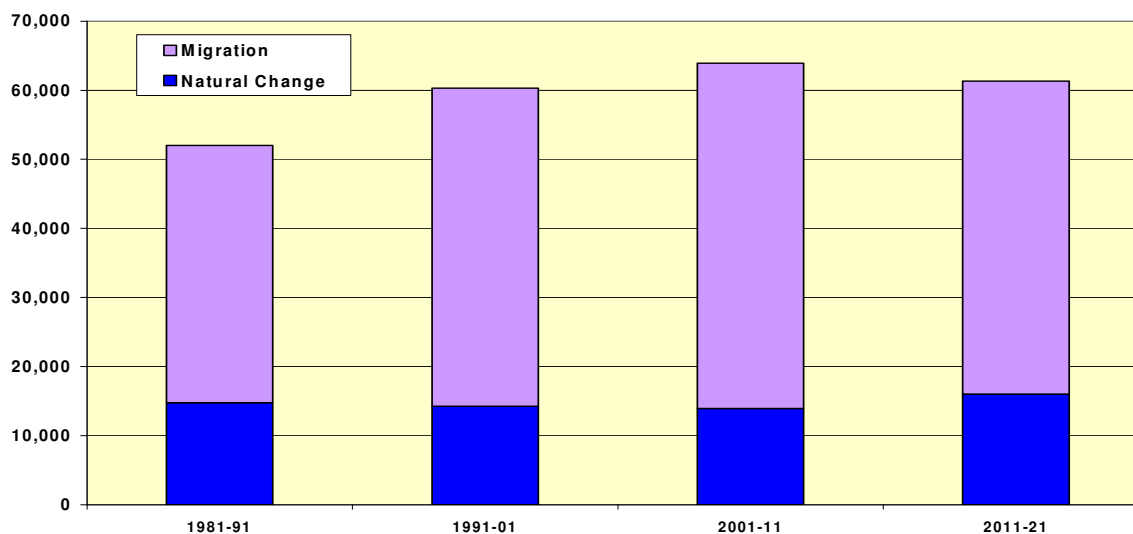
It should be noted that the 'migration' element of the model, constrained to the dwelling forecasts indicated by the Secretary of State in response to the draft East of England Plan, will also include any births and deaths occurring to the 'migrant' population once they have moved into Cambridgeshire. This assumption is held for ten years; at that point the total population (local plus migrant) becomes the new baseline – on which 'natural increase' is calculated for the following ten years. Table 16 and Figure 7 show the recent past and future forecast breakdown.

Table 16: Population Estimates & Forecasts: 'Natural' Change and net Migration, 1961 – 2021, Cambridgeshire

	Total change	Natural change	Migration	Natural change %	Migration %
1961 to 1971	67,650	31,100	36,550	46.0	54.0
1971 to 1981	45,550	15,350	30,200	33.7	66.3
1981 to 1991	52,000	14,750	37,250	28.4	71.6
1991 to 2001	60,300	14,250	46,050	23.6	76.4
2001 to 2011	63,900	13,900	50,000	21.8	78.2
2011 to 2021	61,300	16,000	45,300	26.1	73.9

Source: Cambridgeshire County Council Research Group

Fig 7: Past and forecast population change for Cambridgeshire, natural change and migration components



Source: Cambridgeshire County Research Group

The forecasts indicate that in recent years 'natural change' has generally accounted for around 15,000 increase in the county's population each decade, although the share has been declining. This rate of growth changes only marginally in the forecast period. The bulk of the county's growth has been due to in-migration, (including any subsequent excess of births over deaths amongst that migrant population). In the 1991 to 2001 period this element is estimated to have amounted to 46,000 people. The population forecasts associated with the East of England Plan indicate that the 'net migration' element will increase to 50,000 between 2001 and 2011. The subsequent slight fall to just over 45,000 people in the second decade of the forecast, 2011 to 2021, reflects in part the enlarged 'base line' population in 2011, which generates a larger 'natural increase' in the second decade of the forecast.

It is possible to produce associated 'natural change' and 'net migrant' household forecasts alongside the population breakdown. This is shown in Table 17 and diagrammatically in Figure 8.

Table 17: Forecast Population & Household Change Cambridgeshire – Natural Change and net Migrant Components, 2001-2021

	Pop natural change	Net migration population	Households natural change	New migration households
2001 to 2011	13,900	50,000	19,500	14,600
2011 to 2021	15,990	45,310	15,400	20,900
Total	29,890	95,310	34,900	35,500
% of total	23.9%	76.1%	49.6%	50.4%

Source: Cambridgeshire County Council Research Group

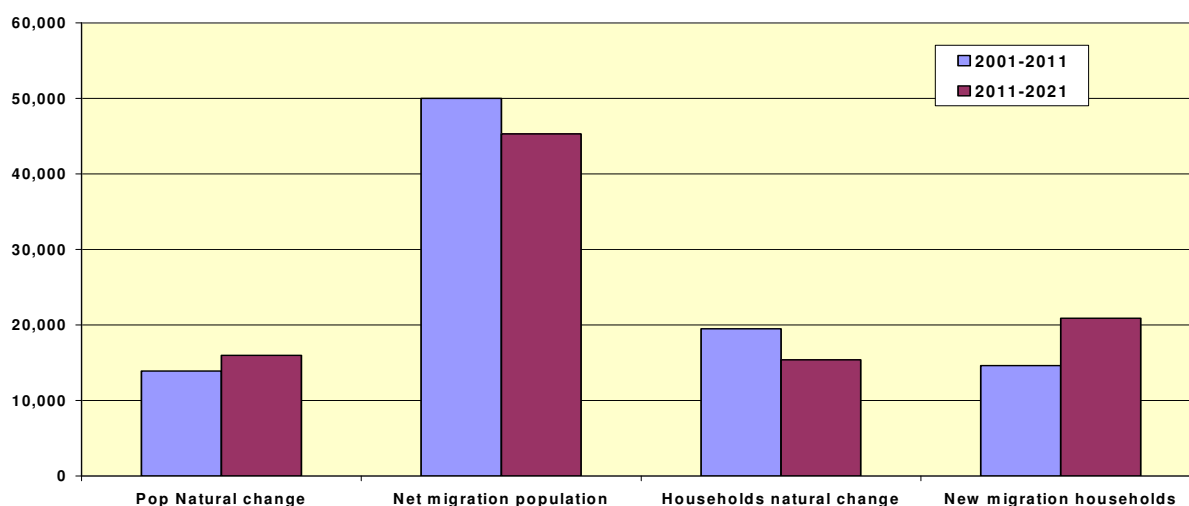
It is immediately noticeable that the 'natural change' households constitute a higher share of the total change than does the 'natural change' population. This is because factors such as increasing 'headship rates' – whereby more small households are formed – are applied to

the total population, not just the additional population. Without any population growth we would be forecasting a significant increase in the number of households.

Table 17 shows that whereas population 'natural change' accounts for only 24% of total population growth forecast in Cambridgeshire between 2001 and 2021, household 'natural change' accounts for a much higher 50% of the total forecast increase in the number of households.

If this model holds true for the Cambridge sub-region as a whole, of the additional 87,300 households forecast 2001 to 2021, around 44,000 will be required for 'natural change' to accommodate household formation arising from the local population.

Fig 8: Forecast population and households in Cambridgeshire: Components of change 2001 to 2021 – natural increase and net migration



Source: CCCRG

10.8 Key Issues Arising

- Population growth is primarily generated by the success of the local economy and labour market growth, although there is modest net in-migration of retired people to Fenland
- The framework for growth has been well-established in Cambridgeshire with the adoption of the Cambridgeshire & Peterborough Structure Plan (review 2003); these policies have been incorporated into the East of England Plan
- The sub-region has experienced relatively high rates of population and household growth in the past and these rates are forecast to continue or be exceeded
- 'Natural change' of population has historically been significantly lower than 'migrant change'.
- The growth in number of households has exceeded population growth as average household size has fallen
- 'Natural change' in households 2001 to 2021 is forecast to account for around 50% of 'extra' households forecast – up to 44,000 in the sub-region.

- The high number of migrant households presents a real challenge in determining what an appropriate strategy should be for providing 'affordable' housing as a share of the total. Historically, migrant households have tended to live in the private sector in the main – as owner-occupiers, private renters or renting from employers.
- There is particularly high growth forecast for single person households – 60%, or 53,600
- The age group to experience the highest rate of growth is the over 75s at – 65% over 20 years. The over 85 year old age group will increase even more – by a forecast 72% in 20 years.
- A major challenge to be faced is the increase in potentially vulnerable elderly couple and single person households – with a 'household' head aged 75 and over. This could amount to 6,800 additional couple households and 9,250 elderly single person households.
- ⑥ This analysis concentrates on private households, although there are key groups living in 'communal establishments', particularly students and especially in Cambridge. More work is required to identify their demand for housing and whether the institutions they attend are providing for such need.

10.9 Demographic Context: summary

- Cambridge City will see the largest population increase in the 30-59 age group and the greatest percentage of in migration.
- Huntingdonshire will see a decrease in the 30-59 and the 0-15 age group.
- Every district except Cambridge City will see an increase in the most vulnerable households i.e. the elderly . The largest increase of this type is in South Cambridgeshire and Huntingdonshire.
- Everywhere will see an increase in single person households.