Housing Need in Cambridge & South Cambridgeshire

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SMARTER PLANNING CHAMPION

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1 Introduction

1.1 Background

1.1.1 Both Cambridge City Council (CCC) and South Cambridgeshire District Council (SCDC) have submitted their respective Local Plans for examination in public, and are to be considered together at examination starting in November 2014. Both Local Plans cover the period from 2011 to 2031.

1.1.2 Both CCC and SCDC have recognised that future development will be led by employment growth related to the universities and research and development focus of the City. CCC has identified a need for 22,100 jobs up to 2031, whilst SCDC has identified a need for 22,000 jobs over the same period. To support this additional workforce and accommodate any natural growth in the existing population, CCC proposes a target of 14,000 additional new dwellings whilst SCDC proposes a target of 19,000 additional new dwellings.

Figure 1.1: Boundaries of Cambridge City and South Cambridgeshire Local Authority Areas

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1.1.3 There is significant concern that the levels of additional housing proposed do not adequately reflect the objectively assessed housing need of the two local authority areas given the high levels of employment growth expected. The employment need is not disputed as it reflects levels of growth seen prior to the recession and the high levels of investment already being realised at the Cambridge Biomedical Campus and the Cambridge Science Park.

1.1.4 The purpose of this report is to consider the implications of employment growth on the housing need of the two local authority areas, and the implications of maintaining the current housing targets on employment growth and commuting.

1.2 Methodology

1.2.1 The methodology used in this assessment is based on the principles set out in Government policy and guidance (see Chapter 2).

1.2.2 The assessment makes use of the POPGROUP model (version 4.0) under licence from the Local Government Association (LGA). POPGROUP is a flexible set of demographic models that can forecast population, households and labour force. It is a highly complex model that can accommodate detailed data on age, sex, births, deaths and migration.

1.2.3 A series of existing population projections are considered first to provide context:

- ONS 2006-based Sub National Population Projections
- ONS 2008-based Sub National Population Projections
- ONS 2010-based Sub National Population Projections
- ONS 2011-based (interim) Sub National Population Projections (linear trend beyond 2021)
- ONS 2012-based Sub National Population Projections
- Linear trend based on the last five years of Mid-Year Population Estimates (2009-2013)

1.2.4 These are supplemented by three assessment scenarios:

- Scenario P1 (baseline): based on all available data from ONS, it applies 5-year averages for natural change and 10-averages for migration. This scenario is not constrained by employment or housing growth.
- Scenario P2 (employment-led): applies the data from the baseline scenario but constrains the forecast to the employment growth set out in the two local plans. This assumes levels of commuting and economic activity remains the same as seen in the 2011 Census.
- Scenario P3 (housing-led): applies the data from the baseline scenario but constrains the forecast to the net housing growth set out in the two local plans.

1.2.5 Scenarios P1 and P2 are converted to household forecasts (Scenarios H1 and H2 respectively). Scenario P3 is derived from the Council's housing targets which are defined as Scenario H3.

1.2.6 The process of converting population forecasts to household forecasts is based on the detailed headship rates set out in the DCLG 2011-based (interim) Sub National Household Projections 2011-2031. Whilst the trajectory of these projections is disputed, the headship rates are considered to be the best available information at the time of writing. However, there has been some dispute regarding their potential accuracy (see Appendix 2).

1.2.7 The modelling has also considered the implications of communal establishments (particularly student housing), vacant dwellings (including second homes) and shared dwellings (i.e. more than one household sharing a single dwelling).

2 National Policy Context

2.1 Housing Strategy for England

2.1.1 Laying the Foundations (November 2011) (Reference Document RD/H/100) was published by HM Government to set out the overall strategy for housing in England[1]. It stated that *"… we have a housing market which is currently failing to deliver the homes that people need, in the places they wish to live – with serious consequences for social mobility, for jobs and for growth".* Consequently, there is a clear requirement to understand the nature of local population change and the resulting need for housing.

2.2 National Planning Policy Framework

2.2.1 The National Planning Policy Framework (NPPF) (Reference Document RD/NP/010) was first published in March 2012[2]. It sets out the broad policy objectives of the Government in terms of achieving sustainable development through the planning system.

2.2.2 Paragraph 14 of the NPPF sets out the presumption in favour of sustainable development which means that:

- Local planning authorities should positively seek opportunities to meet the development needs of their area; and
- Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change, unless this would entail adverse impacts that would significantly outweigh the benefits.

2.2.3 Paragraph 17 of the NPPF sets out the core planning principles, which include that planning should:

"proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business and other development needs of an area, and respond positively to wider opportunities for growth. Plans should take account of market signals, such as land prices and housing affordability, and set out a clear strategy for allocating sufficient land which is suitable for development in their area, taking account of the needs of the residential and business communities."

2.2.4 Paragraph 47 of the NPPF says that *"local planning authorities should use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area…".*

2.2.5 Paragraphs 158 and 159 of the NPPF discuss the importance of using a proportionate evidence base, stating that it should be:

- Adequate,
- Up-to-date; and
- Relevant.

2.2.6 Paragraph 159 makes clear that the Strategic Housing Market Assessment (SHMA) should assess the full housing need and that local planning authorities should work with neighbouring authorities where the

1 https://www.gov.uk/government/publications/laying-the-foundations-a-housing-strategy-for-england--2
2 https://www.gov.uk/government/publications/national-planning-policy-framework--2

housing market area crosses boundaries (i.e. the Duty to Cooperate). The full housing need should take into account household and population projections including migration and demographic change.

2.2.7 This assessment does not include the breadth and depth of analysis of the housing market that would be required for a formal SHMA. However, some consideration of housing market signals is included to provide context.

2.3 National Planning Practice Guidance

2.3.1 The National Planning Practice Guidance (NPPG) (Reference Document RD/NP/020) is the Government's web-based guidance on interpreting the policies in the NPPF[3].

2.3.2 The NPPG defines housing need as :

"…the scale and mix of housing and the range of tenures that is likely to be needed in the housing market area over the plan period – and should cater for the housing demand of the area and identify the scale of housing supply necessary to meet that demand."

2.3.3 The same paragraph goes onto state that the assessment should be proportionate and only assess scenarios that could be reasonably expected to occur. The subsequent paragraph states that this is an objective assessment based on facts and unbiased evidence.

2.3.4 It is not the intention of an assessment of housing need to determine where and how the housing should be built; only the scale, mix and tenure that the housing market demands. Other parts of the evidence base, including the Strategic Housing Land Availability Assessment (SHLAA), should apply any constraints affecting the area.

2.3.5 The NPPG recommends that the ONS Sub National Population Projections (SNPP)[4] and the DCLG Sub National Household Projections (SNHP)[5] are used as the starting point for determining housing need. However, the NPPG recognises that these should not be used in isolation and the assessment should take account such as local changes in migration, age structure and employment trends.

2.3.6 In addition, NPPG recommends that housing market signals are considered, such as land prices, house prices, rents, affordability, rate of development and overcrowding.

2.3.7 The final housing need requirement should reflect the needs for all household types, including the private rented sector, people wishing to build their own homes, family housing, housing for older people, and households with specific needs. The need for affordable housing also needs to be considered.

2.3.8 The more detailed methodological points made in the NPPG are considered through this assessment as appropriate.

2.4 Other Relevant Guidance

2.4.1 In addition to the NPPG, the Planning Advisory Service (PAS) has commissioned a technical advice note on objectively assessed need[6]. Whilst this is not official guidance it does provide some best practice. It recognises that official projections produced by ONS and DCLG are trend driven and consequently may not reflect an accurate picture of housing need. In particular:

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3 http://planningguidance.planningportal.gov.uk/
4 http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2012-based-projections/stb-2012-based-snpp.html
5 https://www.gov.uk/government/collections/household-projections
6 PBA. June 2014. Objectively Assessed Need and Housing Targets.

- The projections might be technically flawed due to inaccuracies in historic data;
- The projections assume non-demographic factors, such as the wider economy or planning policy, remain constant;
- The projections assume that historically the demand for housing was fully met and not constrained in any way.

3 Critique of the Local Authorities' Approach

3.1 Introduction

3.1.1 The Strategic Housing Market Assessment that covers Cambridge City and South Cambridgeshire is a substantial body of work that covers seven local authorities (Reference Document RD/Strat/090). It has been produced by Cambridgeshire Insight; originally in 2008 but subsequently updated in a piecemeal fashion. The majority of the latest SHMA dates from mid to late 2013 but appears to be based on information from 2010/11 – 2011/12.

3.1.2 There are a considerable number of flaws in the data used and the approach taken to considering population and housing forecasts in the SHMA. The following is not an exhaustive list but rather a selection of the more worrying issues.

3.2 The Need for an Up-to-date Baseline

3.2.1 The most recent SHMA appears to pre-date the following:

- Detailed results of the 2011 Census, particularly in terms of migration, commuting and the workplace population, For example, in Section 3.2.4 Table 4 it states that Cambridge 'net out commuting 2011' was approximately 39,000. Whilst this is ambiguous, it is likely to refer to the number of jobs in Cambridge occupied by people who are not residents of Cambridge (i.e. employment leakage). In actual fact the 2011 Census states this is 51,299 workplaces (NOMIS Census 2011 Table WU01UK).

- The most recent Sub National Population Projections (2012-based) were published in May 2014 and therefore cannot have been taken into account in the SHMA.

- Finally the SHMA predates the formal adoption of the NPPG and more recent guidance endorsed by PAS.

3.2.2 There have also been a number of updates to annual statistical releases from ONS and DCLG that cannot have been taken into account in the SHMA. As demographics are showing responses to the recent recession and a return to economic growth, it is fundamental that the most up-to-date information is used when determining future population and housing growth.

3.3 Issues with the Method Applied in the SHMA

3.3.1 There are a number of serious concerns in relation to the methodology applied to the SHMA. Overall, it is clear that the SHMA does not follow the method addressed in the NPPG:

- The latest official population forecasts (2012-based) have not been taken into account, which is fundamental given that the SHMA dismisses the previous forecasts (2011-based).

- The Housing Market Area (HMA) has not been clearly defined and instead the SHMA assumes that it will cover all seven local authorities and will be co-terminus with their outer boundaries. This is highly unlikely to be the case, particularly when considered against the evidence set out in research previously undertaken for the DCLG. This research suggests that the HMA for Cambridge extends further to the southwest, including the towns of Royston, Sandy and Biggleswade, but excludes Bury St Edmunds to the east[7].

[7] Coombes, M. Wymer, C. November 2010. Alternatives for the definition of Housing Market Areas (Geography of Housing Market Areas – Paper B).

3.3.2 On more detailed points:

- Use of a single population per household ratio and an assumed depreciation of household size by 4.5% by 2031 as suggested in the Technical Report (Reference Document RD/strat/080) does not adequately reflect the complexity and diversity of household formation (see Appendix 2). The method used by the DCLG and the POPGROUP model used in this report use a total of 153 ratios relating to different headship rates for different age ranges and different household compositions.

- Tables 12 and 13 in Chapter 3 of the SHMA set out the process through which the projections on which the Local Plans are based are produced. The process set out is extraordinarily simple and shows a failure to fully understand the complex variables that can affect population and household change over time. In particular:

  – Table 13 Row E indicates that the total population in 2031 is derived from 'Census trends' set out in a number of tables in the Technical Report referred to above. Paragraph 6.1.5 of the Technical Report states that the *"Census trend forecast is a continuation of the population change from mid-2001 to mid-2011"*. **Therefore, fundamentally, the calculation of population change in the SHMA is based on nothing more than a line drawn between 2001 and 2011 and continued to 2031. No other projections appear to have informed the SHMA in any way.**

  – Table 13 Row F indicates that in-migration is calculated simply by subtracting the natural change population set out in the Technical Report, which is calculated using the County Council's own model and therefore not necessarily compatible, from the total population. This shows a substantial lack of understanding of the mechanics of demography. In-migration (which possibly means net migration in this instance) is largely independent of natural change and cannot be derived in this way.

3.4 Conclusions

3.4.1 The SHMA and its accompanying Technical Report are clearly not fit for purpose. They fail to use the latest data, follow the accepted adopted methodologies and show any real understanding of the subject matter. As such the objectively assessed housing need on which the two submission Local Plans is based is fundamentally flawed.

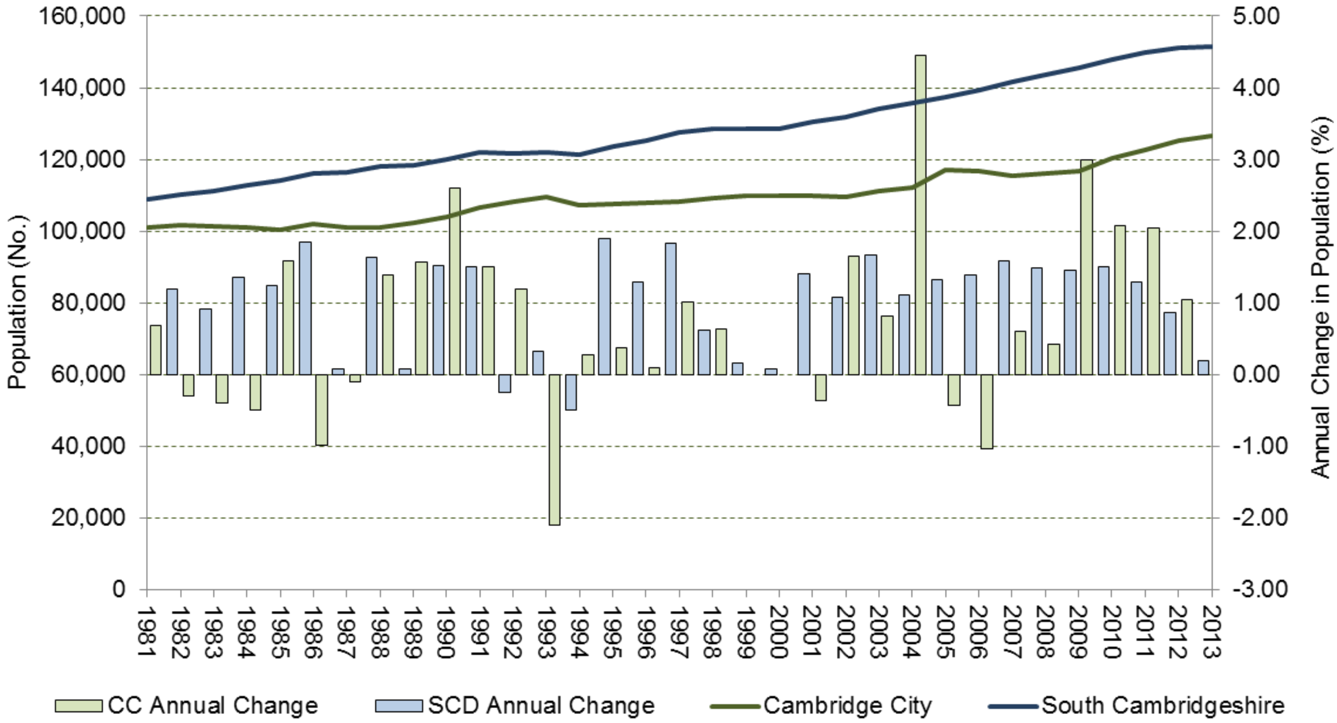
4 Population and Household Baseline

4.1 Mid-Year Population Estimates

4.1.1 For each year ONS produces Mid-Year Population Estimates (MYPE) based on registered births and deaths, and assumptions on internal (within UK) and international (overseas) migration.

4.1.2 Following the 2011 Census, it was found that the estimates between 2001 and 2011 had become less reliable due to year-on-year compound errors, predominantly due to difficulties in estimating migration flows. ONS have revised their methodology for estimating migration flows[8&9] and published revised mid-year population estimates between 2002 and 2010 to reflect the 2011 Census[10]. These revised estimates are set out in Figure 4.1.

Figure 4.1: Mid-Year Population Estimates 1981-2013



Source: ONS Mid-Year Population Estimates 1981-2013, Crown Copyright © 2014.

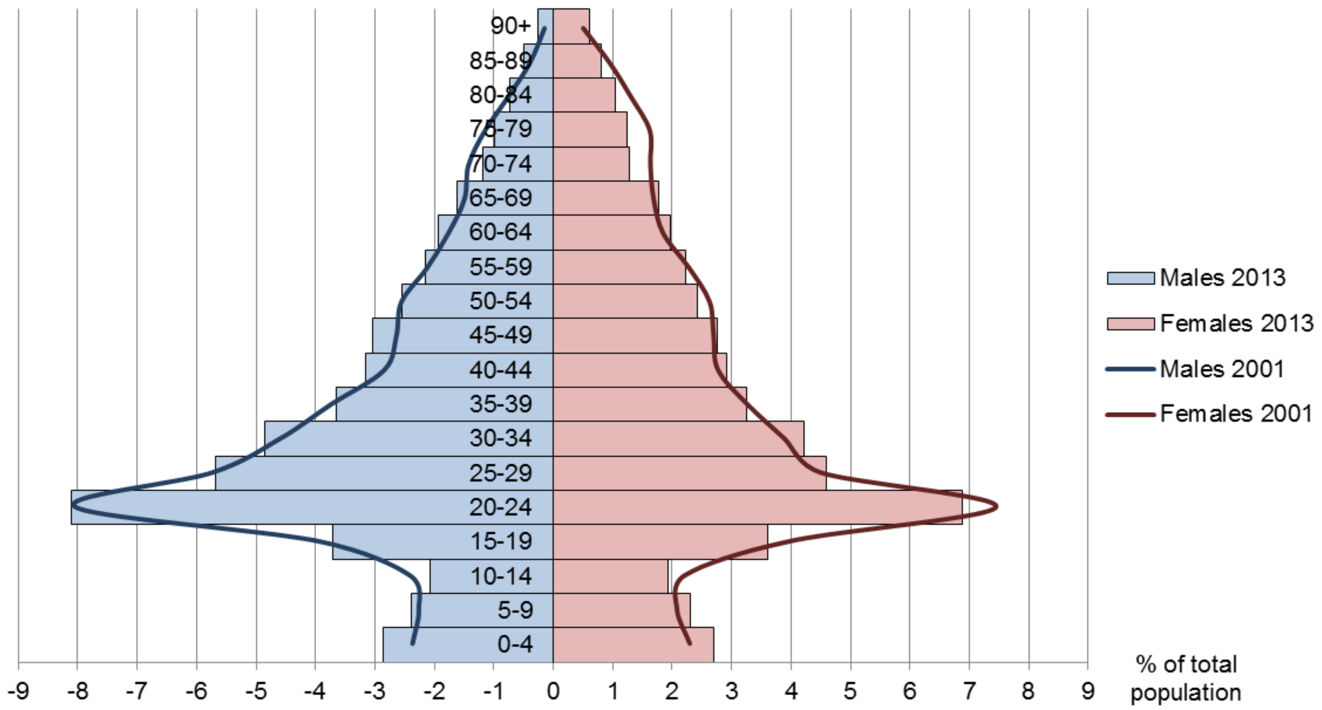
4.1.3 Whilst there have been regular fluctuations in annual population change in both local authority areas for the last 32 years, change has been predominantly positive. The average annual change in population over this period was 0.7% for Cambridge City and 1.0% for South Cambridgeshire.

4.2 Demographic Profile

4.2.1 There is significant variation in the demographic profiles of the two local authority areas (Figures 4.2 and 4.3). This is mainly a result of the substantial student population in Cambridge City; the profile of South Cambridgeshire compares well with other local authorities in the East of England.

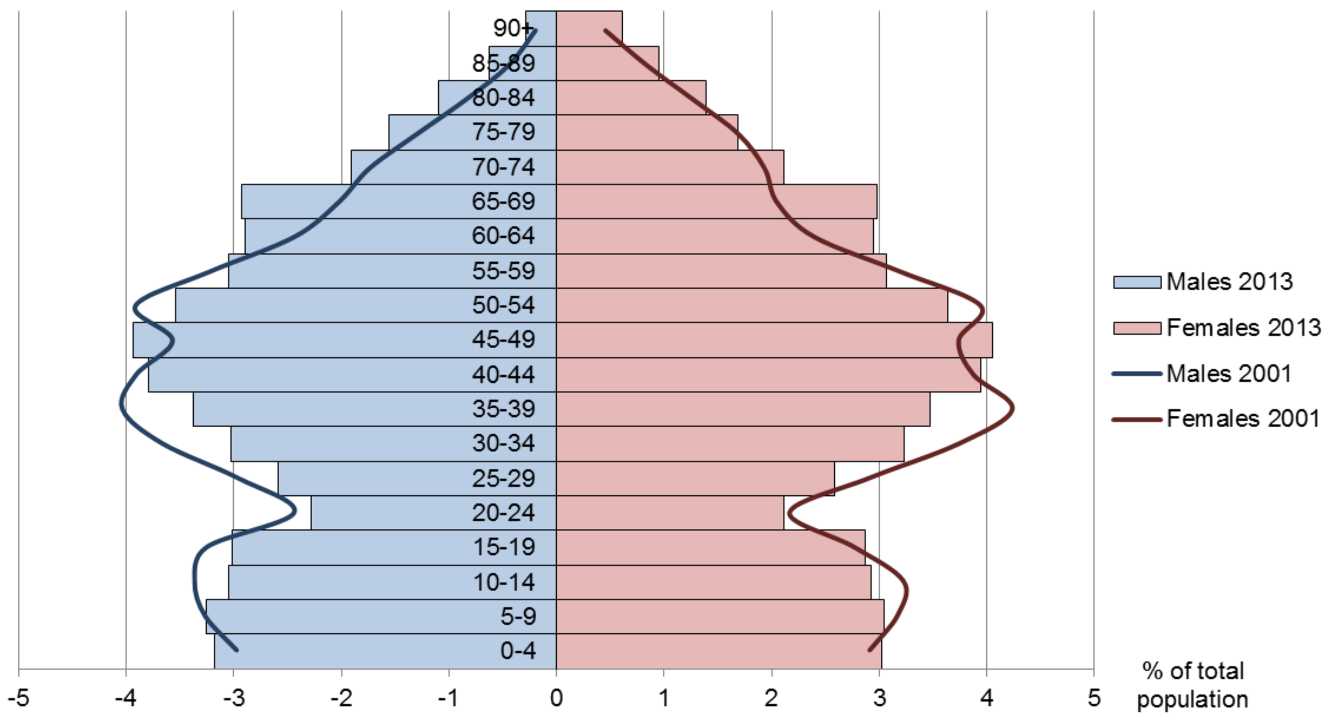
8 ONS. June 2014. International Migration Estimates Methodology Document.
9 ONS. August 2014. Long-Term International Migration Estimates Methodology Document, 1991 onwards.
10 ONS. April 2013. Mid-2002 to Mid-2010 Subnational Population Estimates revised following the 2011 Census.

Figure 4.2: Demographic Profile for Cambridge City



Source: ONS Mid-Year Population Estimates 2001 and 2013, Crown Copyright © 2014.

Figure 4.3: Demographic Profile for South Cambridgeshire



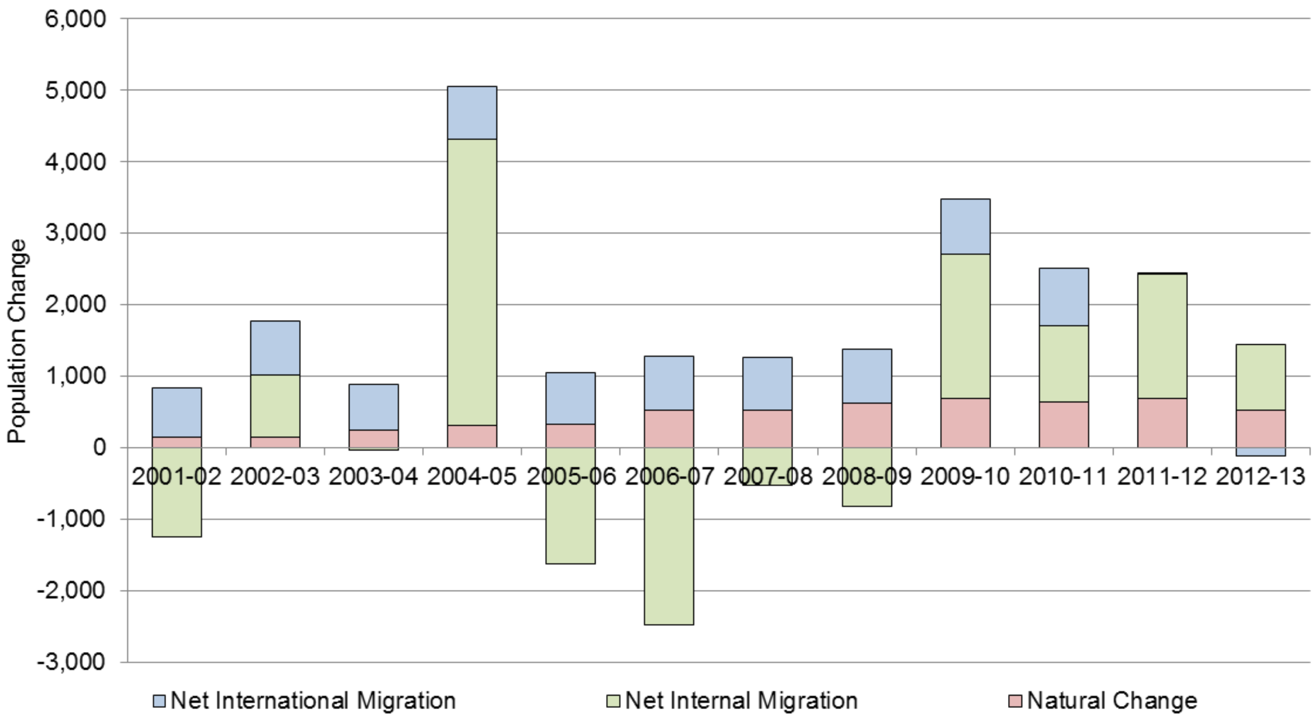
Source: ONS Mid-Year Population Estimates 2001 and 2013, Crown Copyright © 2014.

4.2.2 The demographic profiles also indicate that the population in South Cambridgeshire is becoming older whilst in Cambridge City, by virtue of its student population, the average age is relatively static.

4.3 Components of Change

4.3.1 Population change in Cambridge City is predominantly driven by migration from elsewhere in the UK and is highly dependent on the strength of the economy (Figure 4.4). There is a clear correlation between the level of internal migration and the effects of the recession. International migration has been relatively constant at a net gain of approximately 740 persons per year. However, over the last two years this has decreased dramatically, most likely as a result of stricter controls on student visas. Natural change (births less deaths) has provided a relatively constant contribution, averaging a net gain of approximately 630 persons per year.

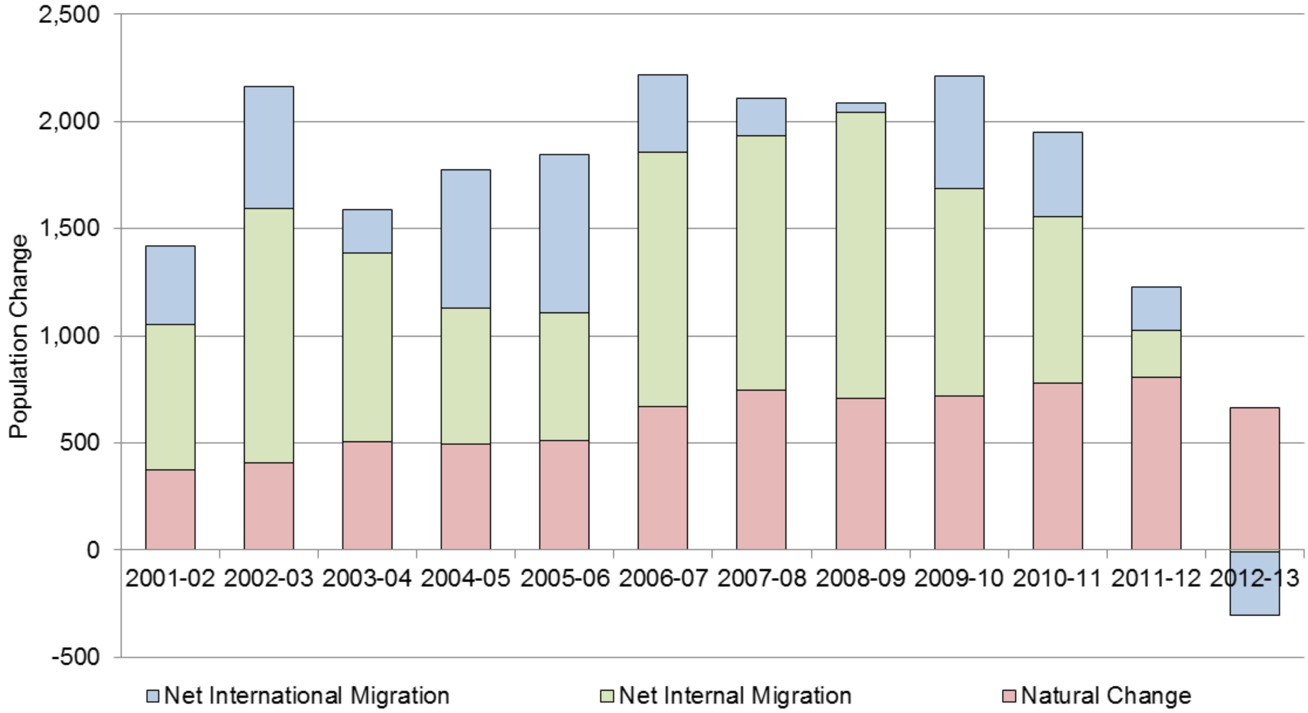
Figure 4.4: Components of Population Change in Cambridge City



Source: ONS Mid-Year Population Estimates 2001-2013, Crown Copyright © 2014.

4.3.2 Within South Cambridgeshire, natural change plays a more dominant role, averaging a net gain of approximately 730 persons per year (Figure 3.5). Internal migration has previously been the most significant component, averaging a net gain of approximately 940 persons per year from 2001-02 to 2010-11. However, this has significantly declined in the last two years, a result of a limited supply of housing and the resultant increase in the cost of housing (see Section 4.4). International migration has fluctuated over the last twelve years, averaging a net gain of approximately 328 persons per year.

Figure 4.5: Components of Population Change in South Cambridgeshire



Source: ONS Mid-Year Population Estimates 2001-2013, Crown Copyright © 2014.

4.4 Household Estimates

4.4.1 The DCLG maintains live tables on the housing market, particularly in terms of the number, type and tenure of dwellings completed each year[11]. This is largely based on Council Tax returns and information held by local planning departments.

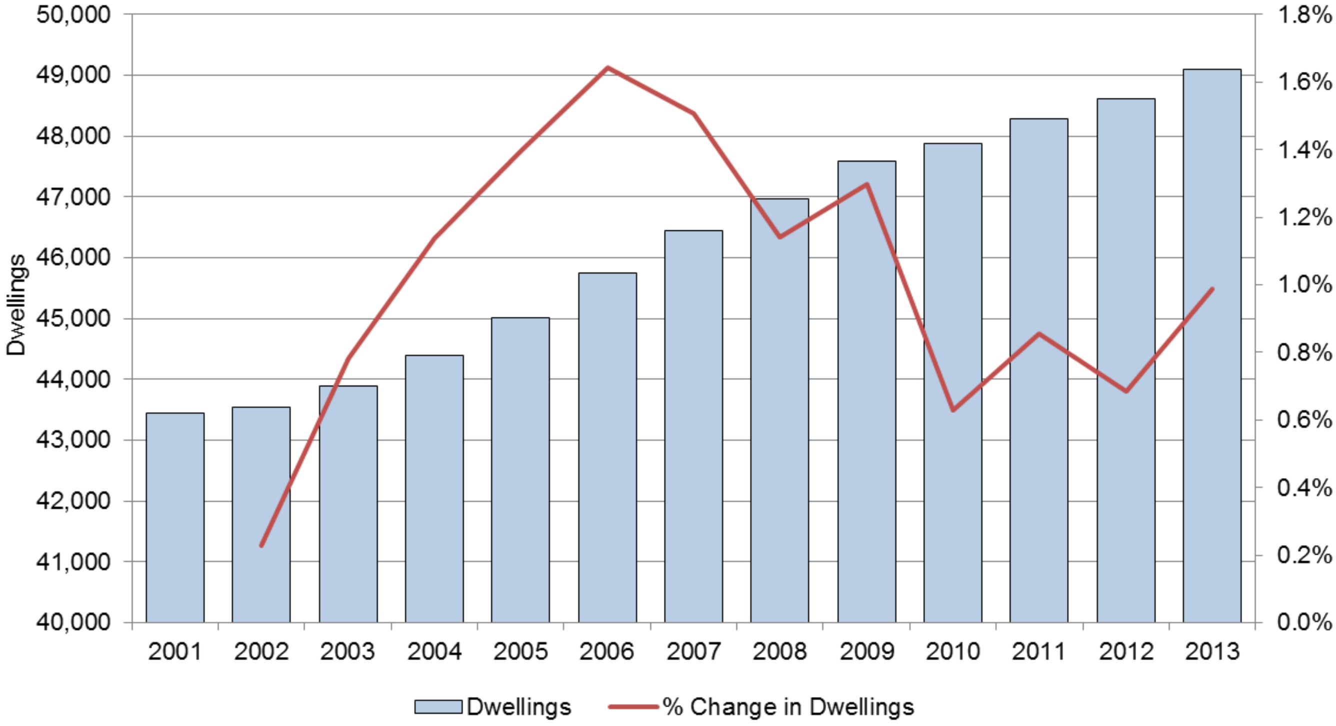
4.4.2 Figure 4.6 shows the number of dwellings and annual change in the number of dwellings in Cambridge City. This clearly shows the high growth between 2004 and 2009, equating to an average annual growth of 1.4%, and then the sudden decline following the onset of the recession. The recession resulted in an average annual growth between 2010 and 2013 of just 0.8%.

4.4.3 In South Cambridgeshire the peak of the housing market, and following decline, is more marked (Figure 4.7). Between 2004 and 2008 the number of dwellings in the district grew on average by 1.7%, but suddenly declined to 1.1% between 2009 and 2013.

4.4.4 It is also likely that the over reliance of very large housing sites to provide the majority of housing supply has caused stepped changes in supply, which does not reflect the reality of a continuous demand for housing. Whilst these very large sites are an important part of the housing delivery strategy, their size increases their complexity and delays in actually completing houses onsite are inevitable. As such ongoing supply of small sites is also necessary to smooth away the peaks and troughs in supply caused by the very large sites.

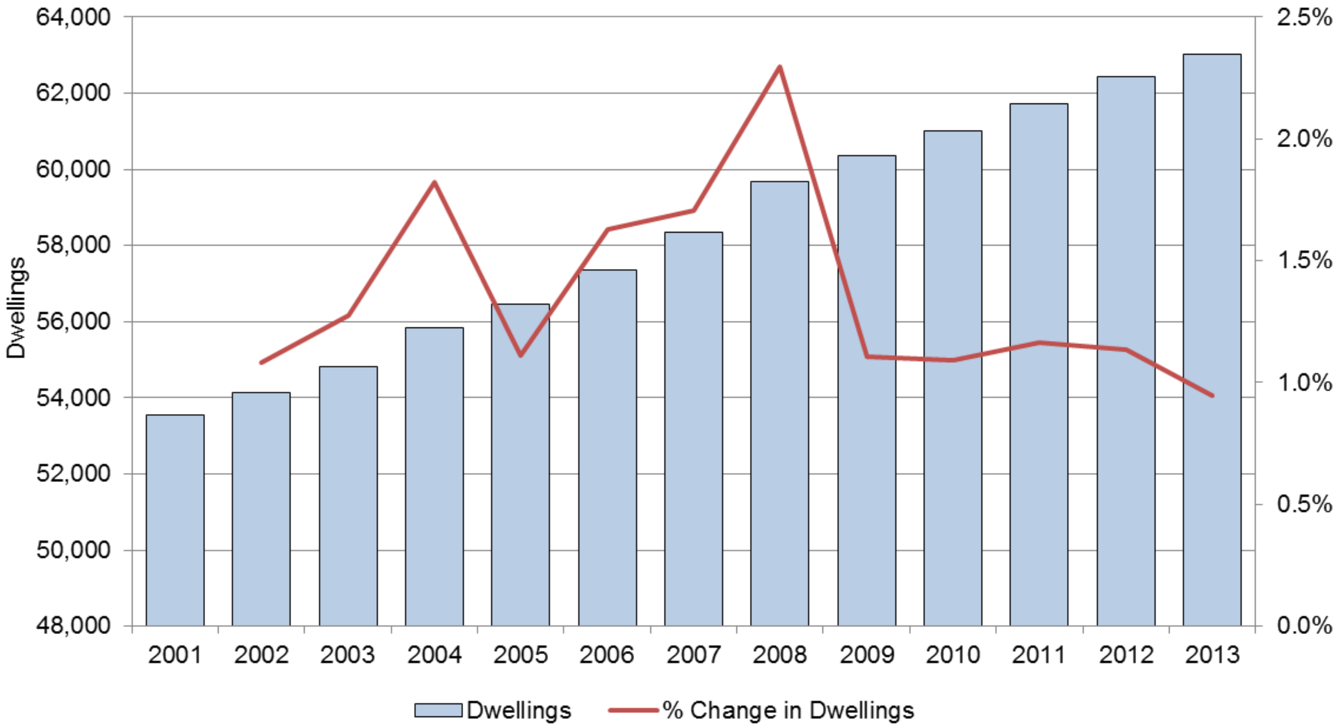
[11] https://www.gov.uk/government/statistical-data-sets/live-tables-on-housing-market-and-house-prices

Figure 4.6: Dwelling Stock in Cambridge City



Source: DCLG Live Table 125 Dwelling Stock by District, Crown Copyright © 2014.

Figure 4.7: Dwelling Stock in South Cambridgeshire



Source: DCLG Live Table 125 Dwelling Stock by District, Crown Copyright © 2014.

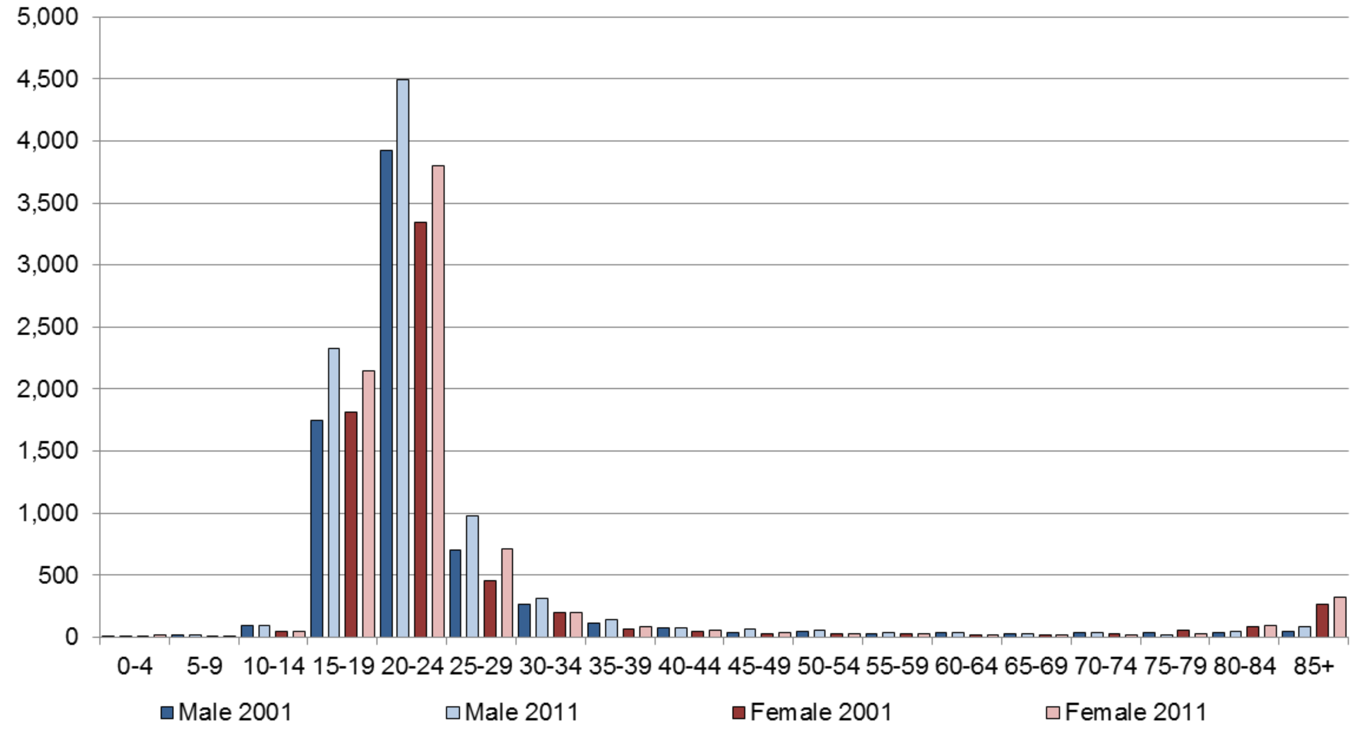
4.5 Communal Establishments

4.5.1 Communal establishments include all people who are not a defined household; including hospitals, care homes, defence, prisons, and student halls of residence.

4.5.2 The 2011 Census shows that there were 16,522 people residing in communal establishments in Cambridge City. Some 15,251 (92.3%) of these people resided in 'education' establishments. Only 228 of these were aged 0-15 with the majority (12,480 people, 75.5%) aged 16-24. The vast majority of these will be university students in purpose-built student accommodation (i.e. not private dwellings rented and shared by students).

4.5.3 Figure 4.8 clearly shows that this student population in communal establishments grew significantly between 2001 and 2011 (e.g. those aged 20-24 increased by 14.2%). With the exception of those aged 15-29, growth has been relatively low.

Figure 4.8: Communal Establishment Population in Cambridge City

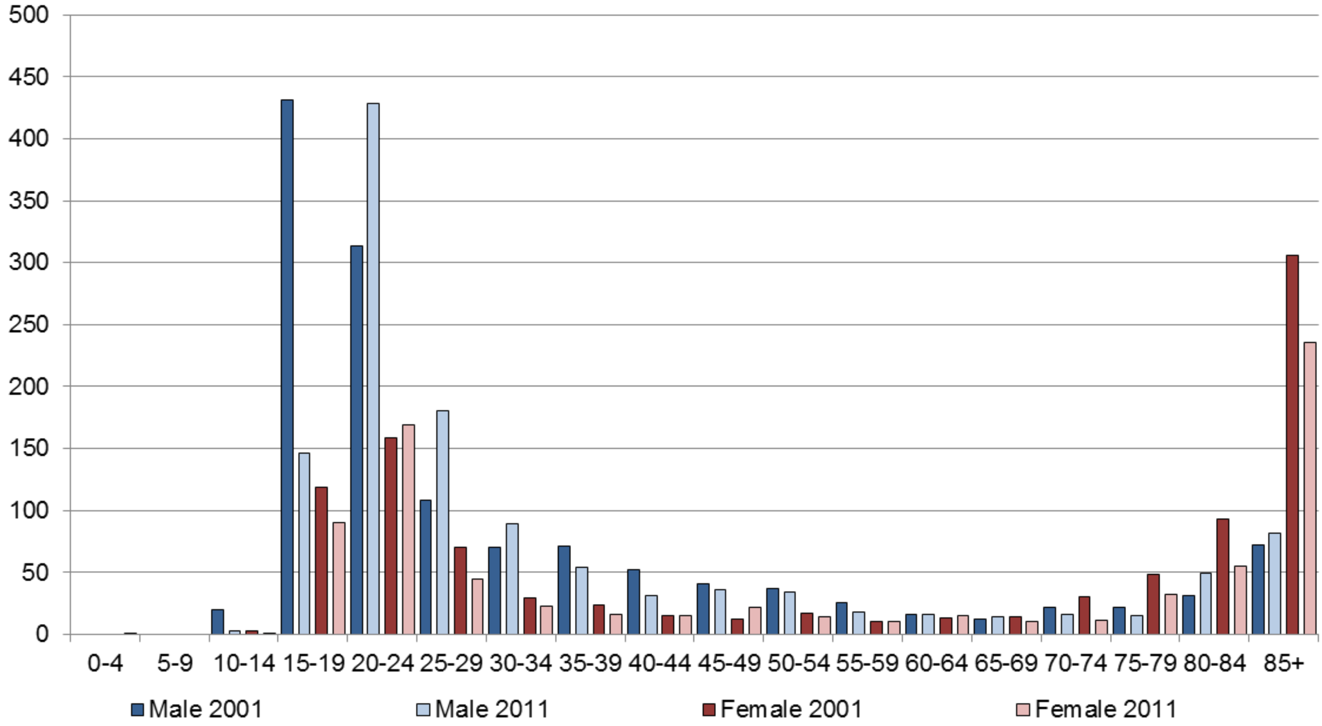


Source: ONS 2001 Census Standard Tables & 2011 Census Table DC1104EW, Crown Copyright © 2014.

4.5.4 By contrast, South Cambridgeshire has a communal establishment population of just 1,976 people according to the 2011 Census (Figure 4.9). Some 546 people (27.6%) resided at defence establishments, most likely all located at Waterbeach Barracks which closed in March 2013. Another 451 people (22.8%) resided in student accommodation.

4.5.5 Overall, the communal establishment population in South Cambridgeshire declined between 2001 and 2011 by 14.3%. In particular the male population aged 15-19 declined drastically, most likely due to the reduction of training at the Waterbeach Barracks. This was slightly offset by small increases in the number of people aged 20-29 in student accommodation.

Figure 4.9: Communal Establishment Population in South Cambridgeshire



Source: ONS 2001 Census Standard Tables & 2011 Census Table DC1104EW, Crown Copyright © 2014.

4.6 Economic Activity

4.6.1 Economic activity is an important influence on demographic change, particularly in terms of migration.

4.6.2 Table 4.1 sets out the main changes in economic activity in Cambridge City between 2001 and 2011. It shows that the actual number of residents that were economically active (those in employment or seeking employment) increased by approximately 12,000. However, as a proportion of the resident population economic activity declined slightly, most likely due to the high level of growth of full time students.

4.6.3 Despite the recent recession, unemployment in the City has declined in real terms and as a proportion of economic activity. However, the 2001 Census results were affected by the 'dot com bubble' of the late 1990s, which led to a severe decline in the value and viability of many internet and information technology businesses. This was in effect a single-sector recession which disproportionately hit those cities, such as Cambridge, most invested in this sector and related areas.

4.6.4 Whilst the number of residents in the City increased by approximately 13,800 between 2001 and 2011, the number of people working in the City increased by approximately 15,500. The net effect is an increase in commuting into the City and a reduction in the commuting ratio.

4.6.5 In total approximately 51,300 people commute into Cambridge, 54.5% of the workplace population. Whilst approximately 23,400 live in South Cambridgeshire, the remaining 28,000 (29.7% of the workplace population) come from further afield.

Table 4.1: Economic Factors in Cambridge City, Aged 16-74

	2001		2011	
	No.	%	No.	%
Economic Activity	51,595	60.5	63,320	59.7
Employment	46,062	89.3	59,865	94.5
Unemployment	5,533	10.7	3,455	5.5
Workplace Population	78,706		94,190	
Commuter Ratio	0.656		0.636	

Source: ONS 2001 Census Standard Tables & 2011 Census Tables DC6107EW & WP101EW, Crown Copyright © 2014.

4.6.6 In South Cambridgeshire the level of economic activity has increased in terms of the number of people, but noticeably declined as a percentage of the resident population (Table 4.2). This is likely to be mainly related to an increase in the age of the retirement aged population.

4.6.7 Similar to the City, unemployment fell between 2001 and 2011. This again is likely to be mainly due to the dot com bubble, although the effect was significantly less than that seen in the City itself.

4.6.8 The resident population in employment has increased in the District by approximately 12,500 people whilst the workplace population has increased by 10,300 people. This indicates an increase in the level of out commuting; South Cambridgeshire was already a net exporter of labour. Unsurprisingly the majority is to Cambridge. Indeed if the flows between the City and District were discounted, South Cambridgeshire would be a net importer of labour with a commuter ratio of 0.852.

Table 4.2: Economic Factors in South Cambridgeshire, Aged 16-74

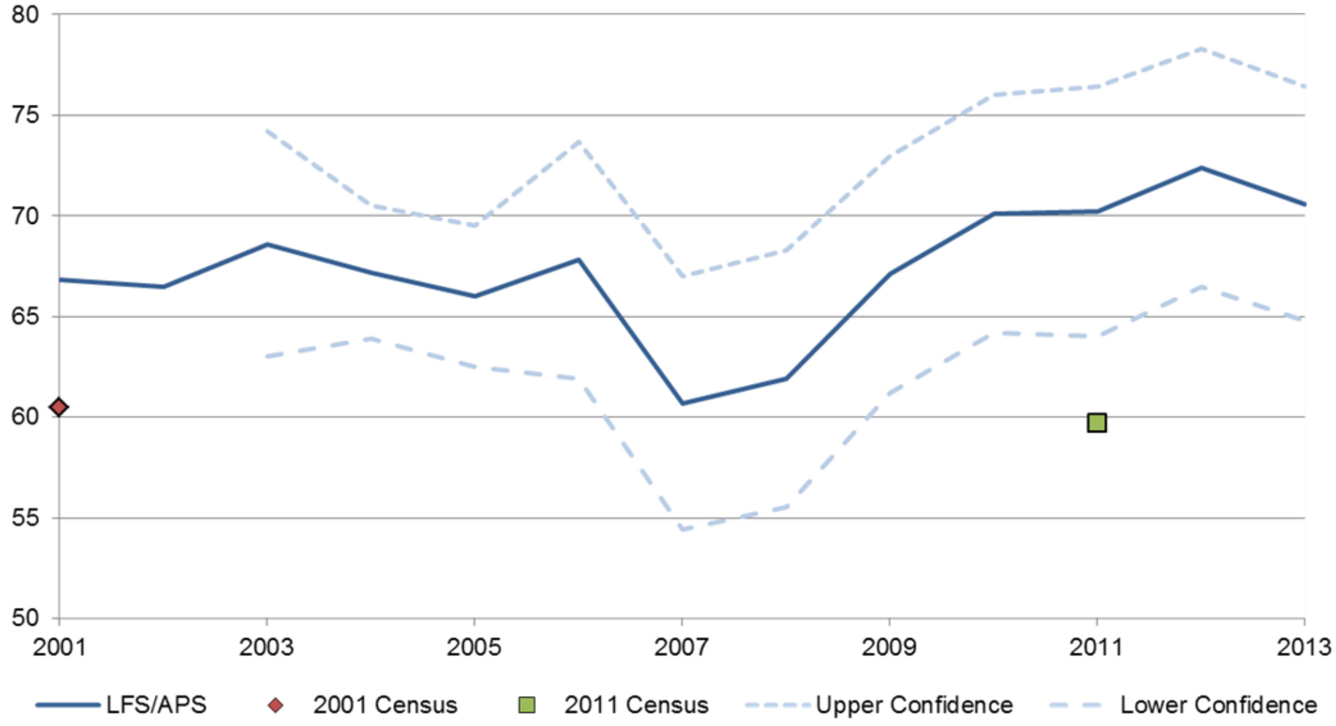
	2001		2011	
	No.	%	No.	%
Economic Activity	70,828	74.7	82,632	69.2
Employment	67,238	94.9	79,690	96.4
Unemployment	3,590	5.1	2,942	3.6
Workplace Population	64,094		74,393	
Commuter Ratio	1.105		1.071	

Source: ONS 2001 Census Standard Tables & 2011 Census Tables DC6107EW & WP101EW, Crown Copyright © 2014.

4.6.9 The Labour Force Survey (LFS) and its replacement, the Annual Population Survey (APS), have been reviewed to understand fluctuations in economic activity in the period between 2001 and 2013. Both the LFS and APS are regular surveys of a sample of a local authority's population. The responses of that sample are then applied to the entire population to give an overall picture of economic activity in the local authority area. These samples are often very small and not necessarily fully representative of the larger population. As such wide margins of error are often reported.

4.6.10 Figure 4.10 shows the economic activity in the City according to the LFS/APS. There is a clear disparity between the LFS/APS and the Census results, which fall outside the lower confidence levels. The Census, as a far more comprehensive survey, is undoubtedly the most accurate. Consequently, for the purposes of demographic modelling, the LFS/APS results have been adjusted to better reflect the Census results.

Figure 4.10: Economic Activity in Cambridge City



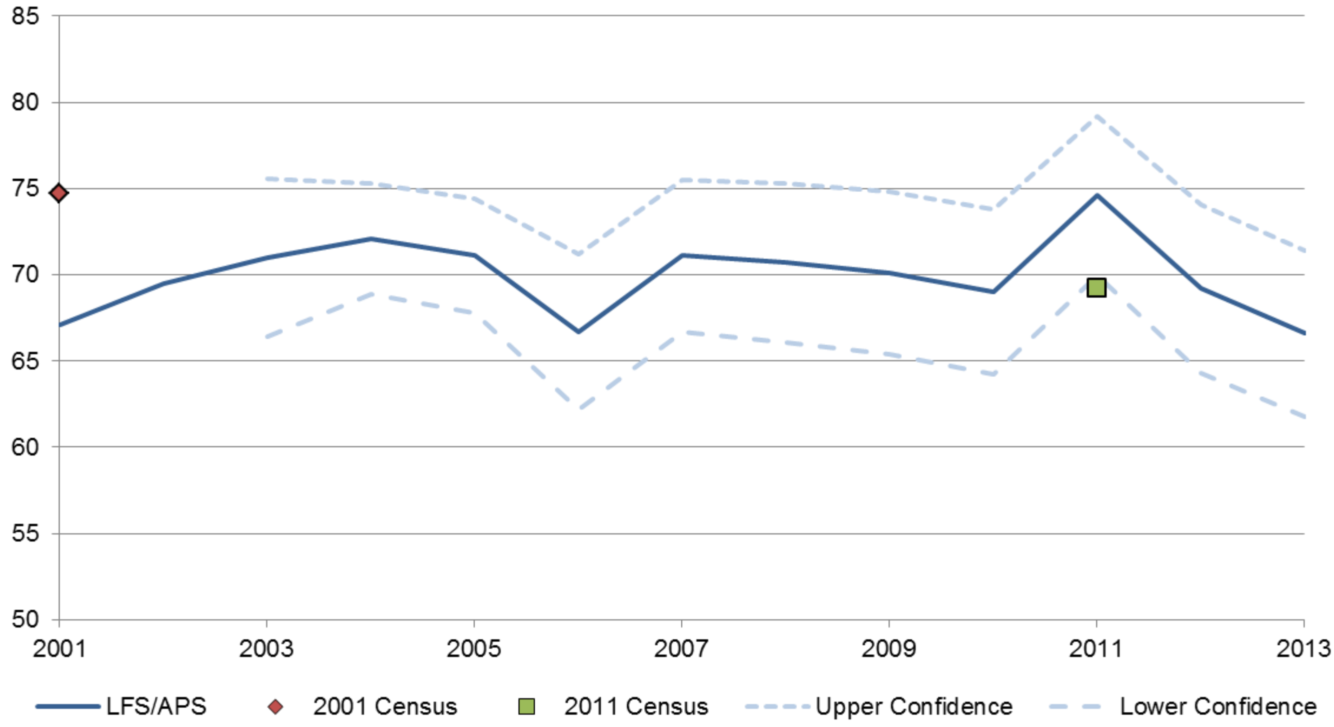
Source: ONS 2001 Census Standard Tables, 2011 Census Table DC6107EW, Labour Force Survey & Annual Population Survey, Crown Copyright © 2014.

4.6.11 The same process has been undertaken for South Cambridgeshire (Figure 4.11). For the District the LFS/APS and Census results are slightly better aligned, although again it is necessary to adjust the LFS/APS results to fit better with the Census.

4.6.12 In both the City and South Cambridgeshire, it is likely that there was a decline in economic activity as a result of the recession. This is likely to have been a result of continued growth in the inactive population (net natural growth, students and an increasing retirement population) whilst in-migration of workers stalled.

4.6.13 It is likely that in both areas economic activity is in fact recovering, and not declining as suggested by the Census results in isolation. However, the increasing student population in the City and the retirement age population in the District are likely to somewhat subdue the rate of recovery.

Figure 4.11: Economic Activity in South Cambridgeshire



Source: ONS 2001 Census Standard Tables, 2011 Census Table DC6107EW, Labour Force Survey & Annual Population Survey, Crown Copyright © 2014.

5 Published Projections

5.1 Sub National Population Projections

5.1.1 Every two years ONS produce sub national population projections (SNPP), the most recent being the 2012-based SNPP[12]. The NPPG advises that these should form the starting point in assessing housing needs.

5.1.2 The SNPPs based on data from 2006, 2008 and 2010 used the unrevised mid-year population estimates which were revised following the 2011 Census. As such the base data suffered errors that were compounded further through the projections. The 2011-based SNPP was an interim measure to reflect the 2011 Census results. However, the mid-year population estimates had yet to be revised and consequently led to some clearly erroneous projections.

5.1.3 The 2012-based SNPP is the first set of projections based on the revised mid-year population projections. As such it represents the most well-founded official projections available for many years. Notwithstanding this, concerns have already been raised that it underestimates the effect of migration flows[13]. In this instance, this is a key issue given the past significance of migration in contributing population change within the City in particular.

5.1.4 Figure 5.1 sets out the SNPPs for Cambridge City. It is clear that these include a considerable level of variation with the 2010 and 2011 based SNPPs undoubtedly erroneous. The 2006, 2008 and 2012 based SNPPs appear to give a relatively good reflection of trends since 2001. However, as shown by the MYPE trend for the last five years, population growth has been considerably greater between 2009 and 2013 (average of 1.7% per year) than it was between 2001 and 2008 (average of 0.7%).

5.1.5 It is likely that the wide variation in the SNPPs for Cambridge City is a result of the student population. Most migration within the UK is measured using GP registrations, which assumes that everyone who moves between local authority areas will register with a GP local to their new home. However students, particularly those whose parental home is relatively close by, may choose to stay with their current GP. As such the original MYPEs prior to the 2011 Census would have significantly underestimated in-migration to the City. The revised MYPEs largely resolve this issue as a result of the information provided by the 2011 Census.

5.1.6 By contrast the SNPPs for South Cambridgeshire show relatively little variation. The MYPE shows a clear change in direction between 2011 and 2013, which is inconsistent with the growth seen between 2001 and 2010 (and indeed since 1981, see Figure 4.1). This change has influenced the trajectory of the MYPE trend and the 2012-based SNPP.

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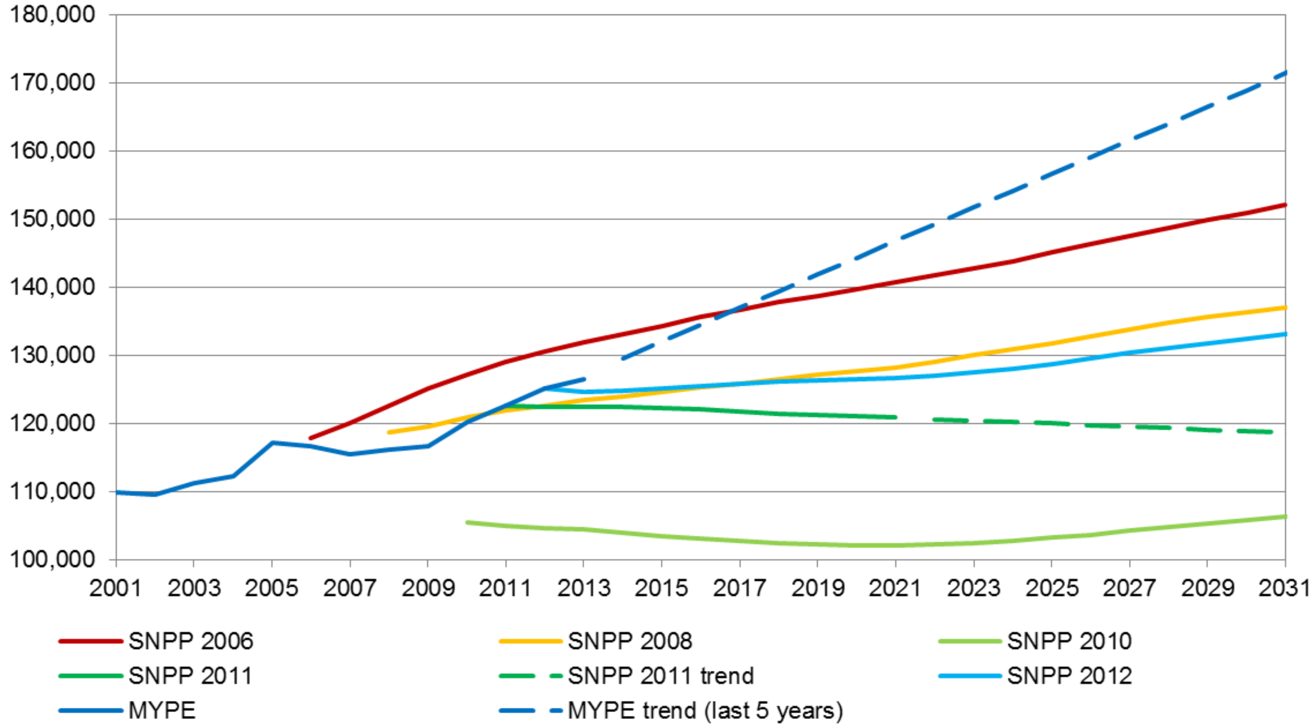
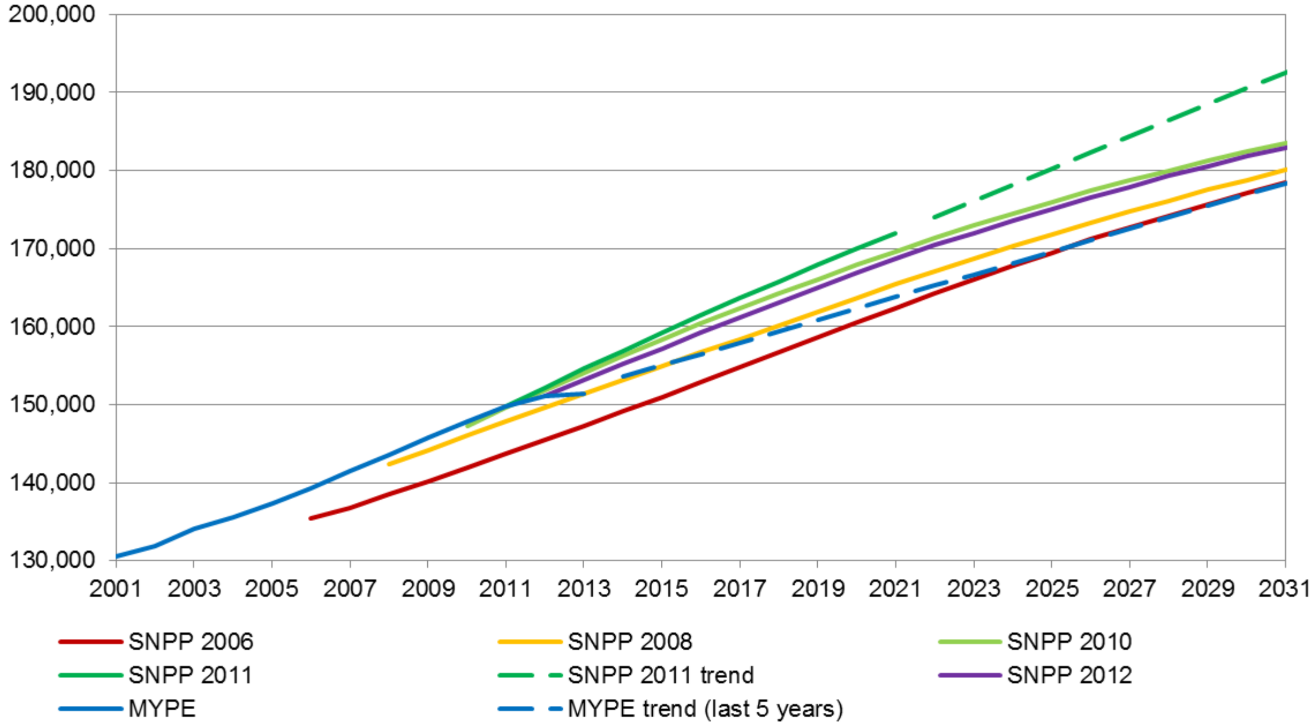
[12] ONS. May 2014. 2012-based Subnational Population Projections for England.
[13] http://www.planningresource.co.uk/article/1296591/2012-based-subnational-population-projections-england

Figure 5.1: Sub National Population Projections for Cambridge City



Source: ONS Mid-Year Population Estimates 2001-2013 and Sub National Population Projections 2006-2012, Crown Copyright © 2014.

Figure 5.2: Sub National Population Projections for South Cambridgeshire



Source: ONS Mid-Year Population Estimates 2001-2013 and Sub National Population Projections 2006-2012, Crown Copyright © 2014.

5.1.7 The reason for this reduction in population growth between 2011 and 2013 is likely to be a reflection of the housing market. Figure 4.7 shows that the growth in dwellings in the District has been considerably subdued in recent years, which has undoubtedly affected the volume of houses coming to the market (Figure 7.2), and consequently house prices (Figure 7.3). House affordability has consequently led to a reduction in net migration (Figure 4.5) and an increase in commuting (Table 4.2).

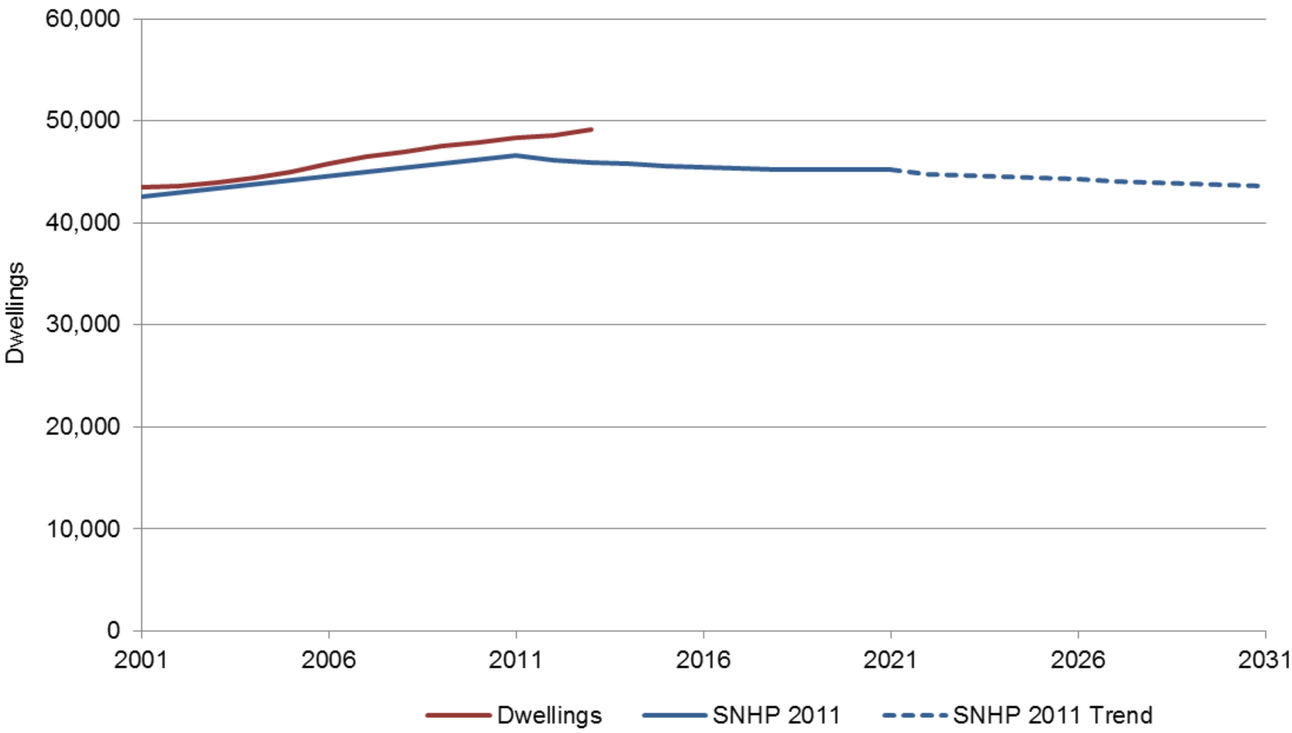
5.1.8 With these constraints inherent in the baseline data on which the SNPPs are based it is reasonable to conclude that the SNPPs simply roll forward historic constrains and do not reflect the actual population growth potential.

5.2 Sub National Household Projections

5.2.1 Every two years the DCLG produces Sub National Household Projections (SNHP) based on the ONS's SNPP. The most recent of these is the 2011-based (interim) SNHP; the 2012-based SNHP has yet to be published. SNHPs prior to the 2011 Census were found to significantly overestimate the number of one-person households and consequently are unreliable (see Appendix 2).

5.2.2 For the City, since the 2011-based SNHP was based on the clearly erroneous 2011-based SNPP, it is not surprising that the SNHP trajectory is erroneous (Figure 5.3). It is clear from the MYPE and Council Tax data on the number of dwellings that the number of households is continuing to increase, and not decline as suggested by the SNHP.

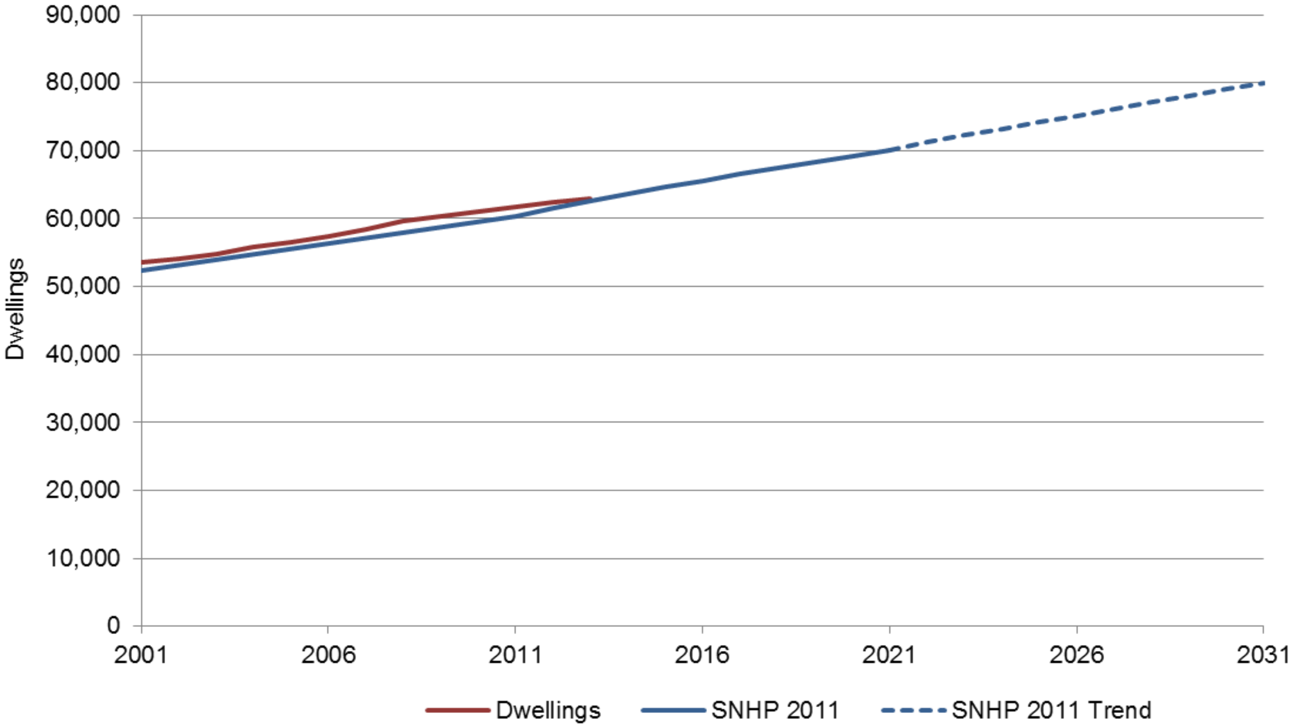
Figure 5.3: Sub National Household Projections for Cambridge City



Source: DCLG Sub National Household Projections 2011-based (interim), Crown Copyright © 2014.

5.2.3 For South Cambridgeshire, the 2011-based SNHP is a little more successful (Figure 5.4). However, as discussed in paragraphs 5.1.6 and 5.1.7, the SNPPs are inherently flawed by simply rolling forward historic constraints on population growth. Therefore the SNHP only shows the number of households formed as a result of the population allowed by the dwelling stock available.

Figure 5.4: Sub National Household Projections for South Cambridgeshire



Source: DCLG Sub National Household Projections 2011-based (interim), Crown Copyright © 2014.

5.3 Conclusions

5.3.1 Whilst the SNPPs and SNHPs produced by ONS and DCLG respectively provide a useful basis to start to understand housing need, they are inherently inaccurate. As trend-based projections they do not take account of changes on policy, either locally or nationally, and they do not consider changes in economic growth and resulting migration patterns. Fundamentally they do not consider constraints that would have affected population or household change in previous years on which the projections are based.

5.3.2 Consequently, it is important to produce local projections that better reflect local circumstances.

6 Bidwells Assessment Scenarios

6.1 Population Scenarios

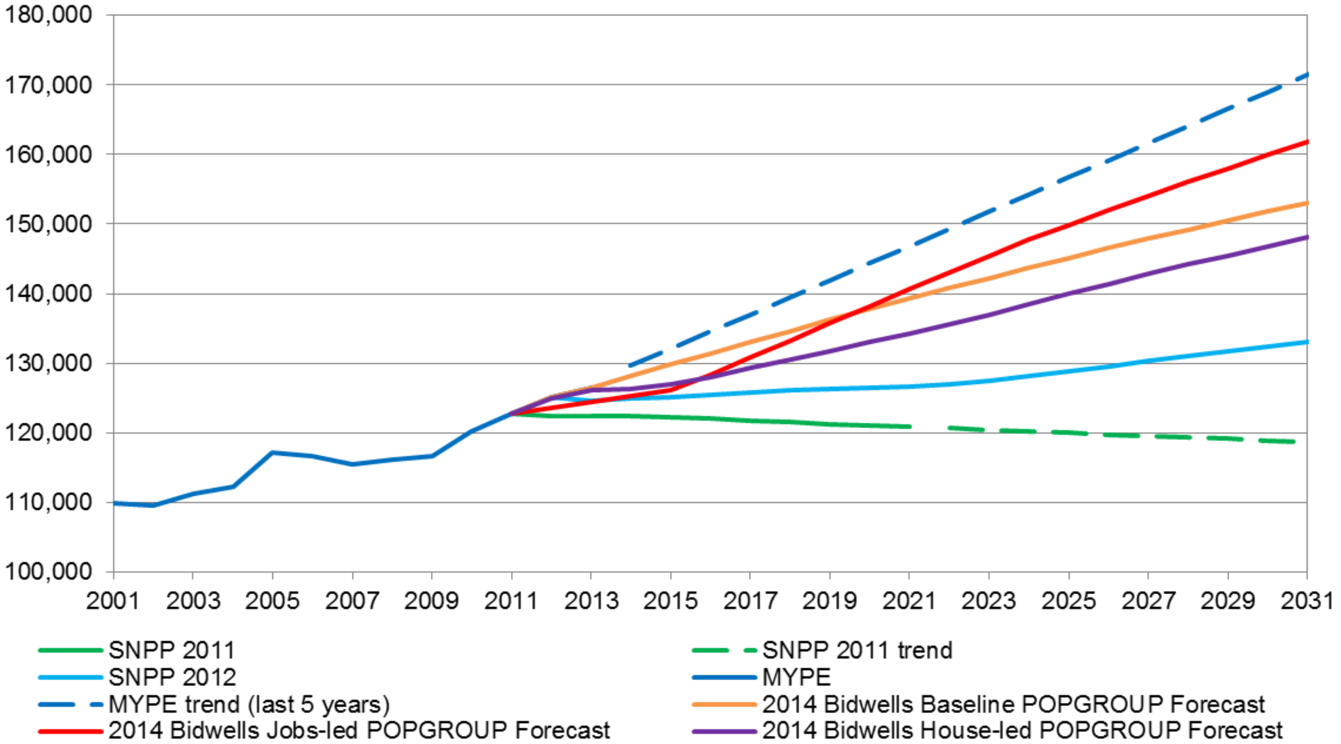
6.1.1 As discussed in Chapter 1, three population scenarios have been derived:

- Scenario P1 (baseline): based on all available data from ONS, it applies 5-year averages for natural change and 10-year averages for migration. This scenario is not constrained by employment or housing growth.
- Scenario P2 (employment-led): applies the data from the baseline scenario but constrains the forecast to the employment growth set out in the two local plans. This assumes levels of commuting and economic activity remains the same as seen in the 2011 Census.
- Scenario P3 (housing-led): applies the data from the baseline scenario but constrains the forecast to the net housing growth set out in the two local plans.

6.1.2 The results of these for Cambridge City and South Cambridgeshire are shown in Figure 6.1 and 6.2 respectively. For clarity the older SNPPs are omitted.

6.1.3 For the City, the baseline scenario clearly shows that unconstrained growth is likely to be significantly greater than that seen in the 2011 and 2012 based SNPPs, but not as great as the recent MYPE trend. When linked to the projected employment forecasts for the City, population growth increases further but still does not achieve the recent MYPE trend.

Figure 6.1: Population Projections and Assessment Scenarios for Cambridge City



Source: ONS Sub National Population Projections 2011-2012, Crown Copyright © 2014 & Bidwells.

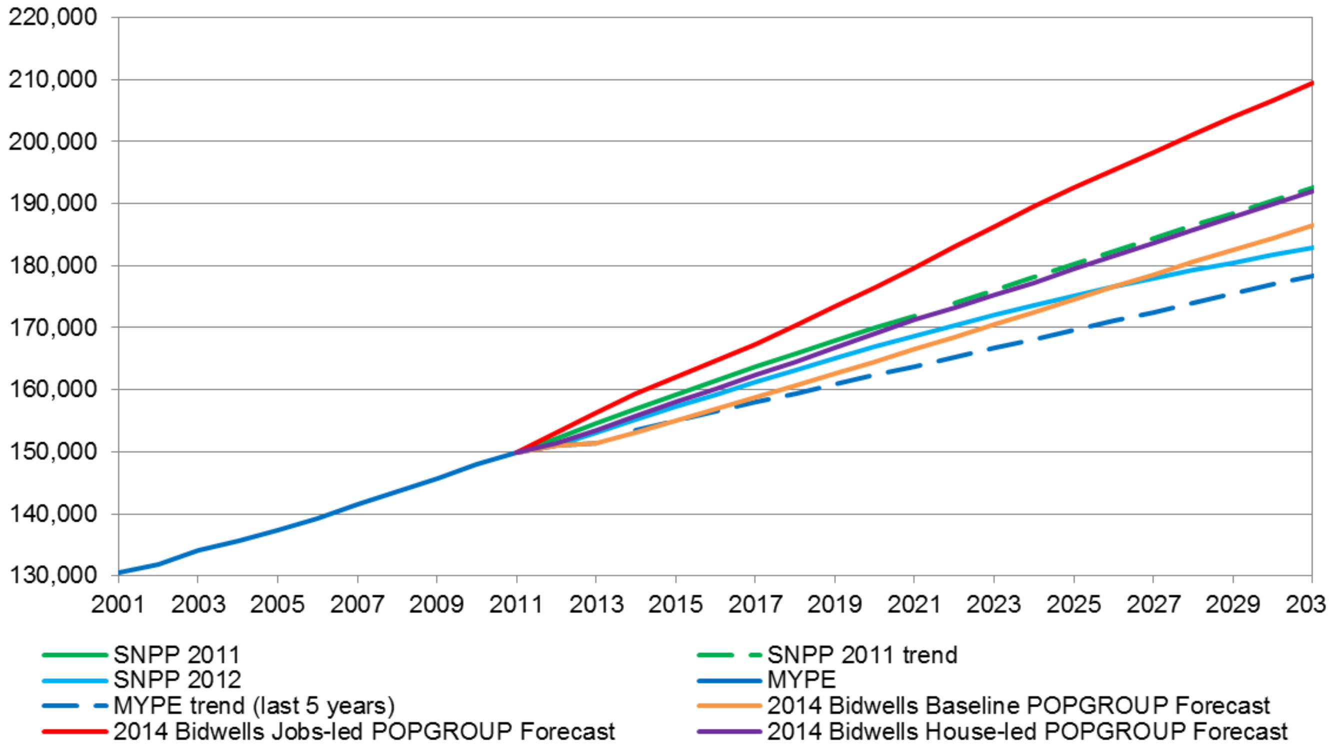
6.1.4 The employment led forecasts assume that the commuting ratio stays at the same level as shown in the 2011 Census. This will still lead to an increase in the number of people commuting into the City; only that the ratio of these people to the resident labour force will stay the same. To suggest that the commuting ratio would decrease further would be contrary to the sustainable development principles of the NPPF.

6.1.5 The third scenario constrains population growth to the level of housing proposed by CCC in their submission Local Plan, which is relatively comparable to the baseline scenario.

6.1.6 In terms of South Cambridgeshire, the baseline scenario suggests a slightly lower trajectory to that seen prior to 2011. This scenario does, however, suffer from many of the same issues as the SNPPs in that it is heavily reliant of historical growth, which appears to have been constrained by a lack of housing supply. The employment-led scenario suggests far greater levels of population growth. As with the City, this assumes the same commuting ratio as the 2011 Census.

6.1.7 The housing-led scenario largely reflects the 2011-based SNPP. As such, the Council's proposed housing targets would meet the baseline levels of demand, which is constrained by a historic undersupply of housing, but would not meet the requirements for the employment targets set out in the submission Local Plan. It's worth noting also that the SHMA dismisses the 2011-based SNPP as inaccurate but the fully modelled implications of the housing target, based on the SHMA, only accommodates the 2011-based SNPP levels of growth.

Figure 6.2: Population Projections and Assessment Scenarios for South Cambridgeshire



Source: ONS Sub National Population Projections 2011-2012, Crown Copyright © 2014 & Bidwells.

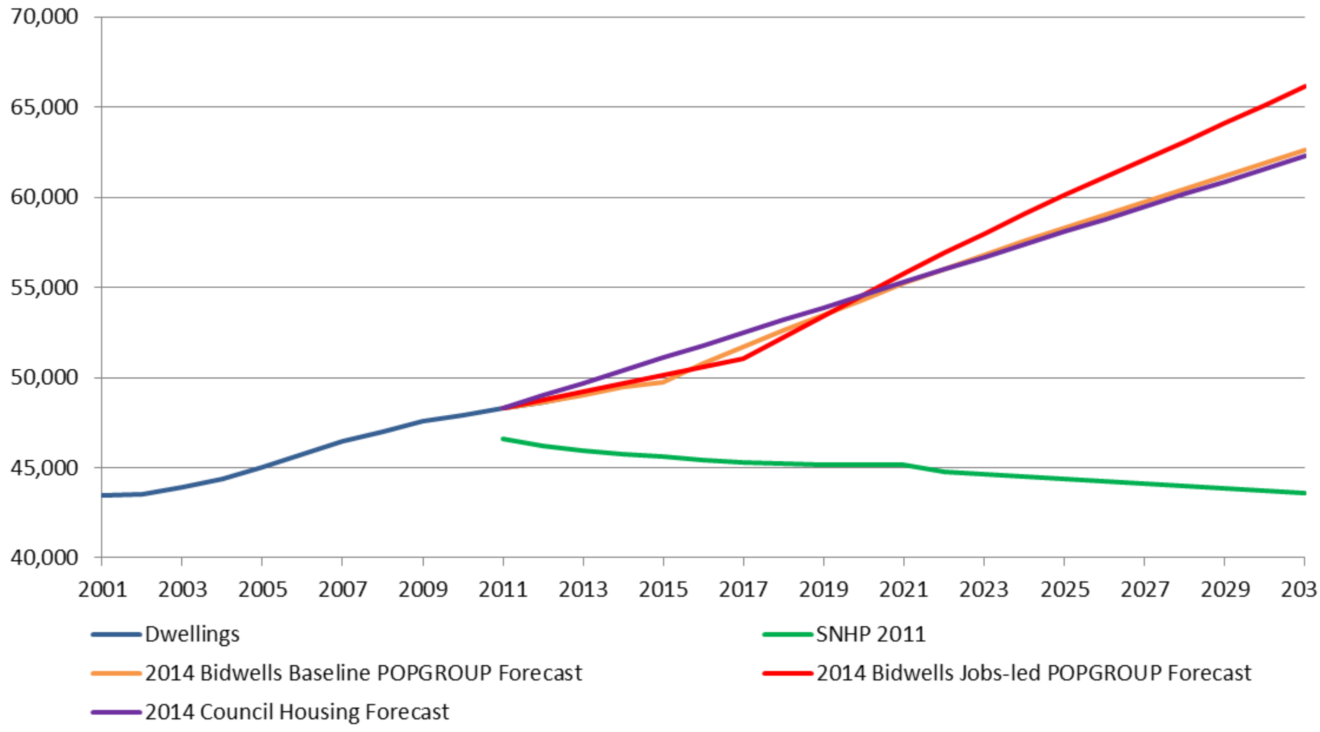
6.1.8 It is therefore clear that the housing and employment targets set out within the two Local Plans are not consistent and mutually supportive. The level of housing proposed is not sufficient to support the job targets being proposed. Given that the two Local Plans purport to provide an employment-led strategy, it is clear that this approach is not sound.

6.2 Household Scenarios

6.2.1 The three population scenarios have been converted to household scenarios. As discussed previously, headship rates are taken from the 2011-based SNHP and are assumed to stay constant beyond 2021. The population in communal establishments is expected to continue to change at the same rates as seen between 2001 and 2011, which allows for continued high growth in student housing in the City. It is also assumed that dwelling vacancy rates and levels of household sharing stay constant at 2011 rates. As discussed in Chapter 3, this is a considerably more comprehensive approach to the single population to housing ratio applied in the SHMA.

6.2.2 In Cambridge City, the baseline scenario identifies a growth of 14,310 households between 2011 and 2031, which is comparable to the 14,000 dwellings proposed in the submission Local Plan (Scenario 3). However, the employment-led scenario indicates far greater growth at 17,850 households between 2011 and 2031 (Figure 6.3).

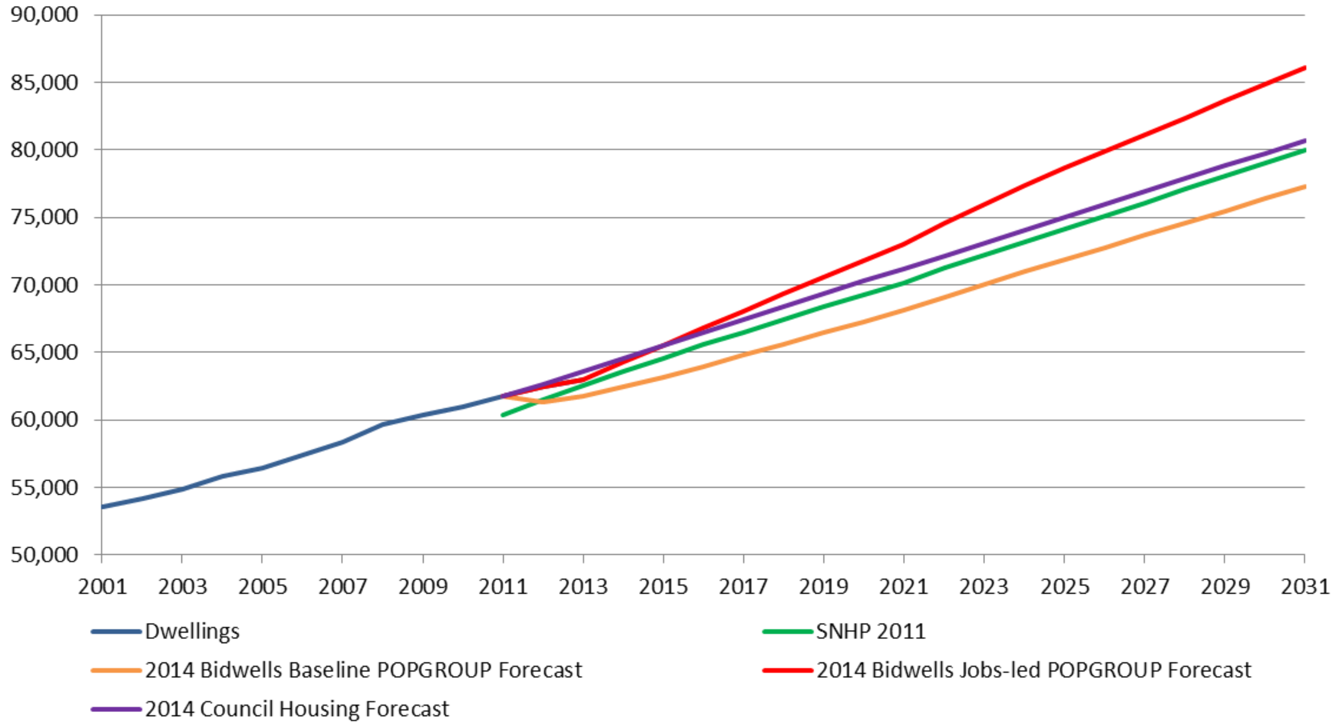
Figure 6.3: Household Assessment Scenarios for Cambridge City



Source: DCLG Sub National Household Projections 2011, Crown Copyright © 2014 & Bidwells.

6.2.3 Figure 6.4 shows that in South Cambridgeshire the baseline scenario would see growth of 15,600 households, less than that of the Council's target of 19,000 in the submission Local Plan. However, to achieve the Council's employment target, it is projected that 24,400 households would need to be formed.

Figure 6.4: Household Assessment Scenarios for South Cambridgeshire



Source: DCLG Sub National Household Projections 2011, Crown Copyright © 2014 & Bidwells.

7 Housing Market Signals

7.1 Introduction

7.1.1 The NPPF and NPPG make clear that in addition to demographic trends and economic signals a SHMA should also consider housing market signals. This section does not intend to replicate the entire suite of housing market data that should be taken into account in a SHMA. Instead it is intended only to show the direction of travel of the housing market for comparison with the demographic forecasts.

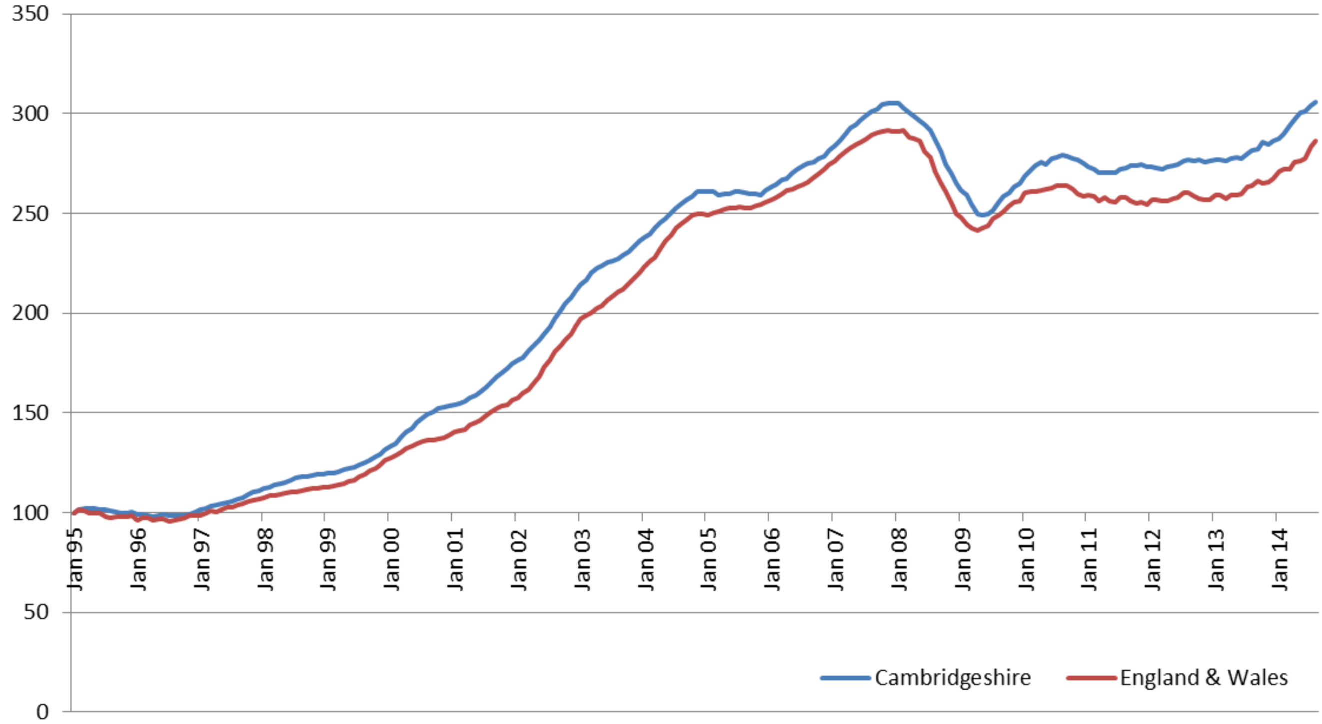
7.2 Land Registry Data

7.2.1 Data on the housing market is principally available from the Land Registry. The latest data provided is only available for Cambridgeshire as a whole rather than the individual local authority areas.

7.2.2 Figure 7.1 shows the House Price Index (HPI) for Cambridgeshire compared to England and Wales. The HPI provides an important measure of the changes in house prices over time. Simplistically, it compares the average price changes in repeat sales on the same types of property. The HPI for each area started at 100 in January 1995. An increase to 200 therefore reflects a doubling of average house price whilst a decrease to 50 would constitute a halving of house price.

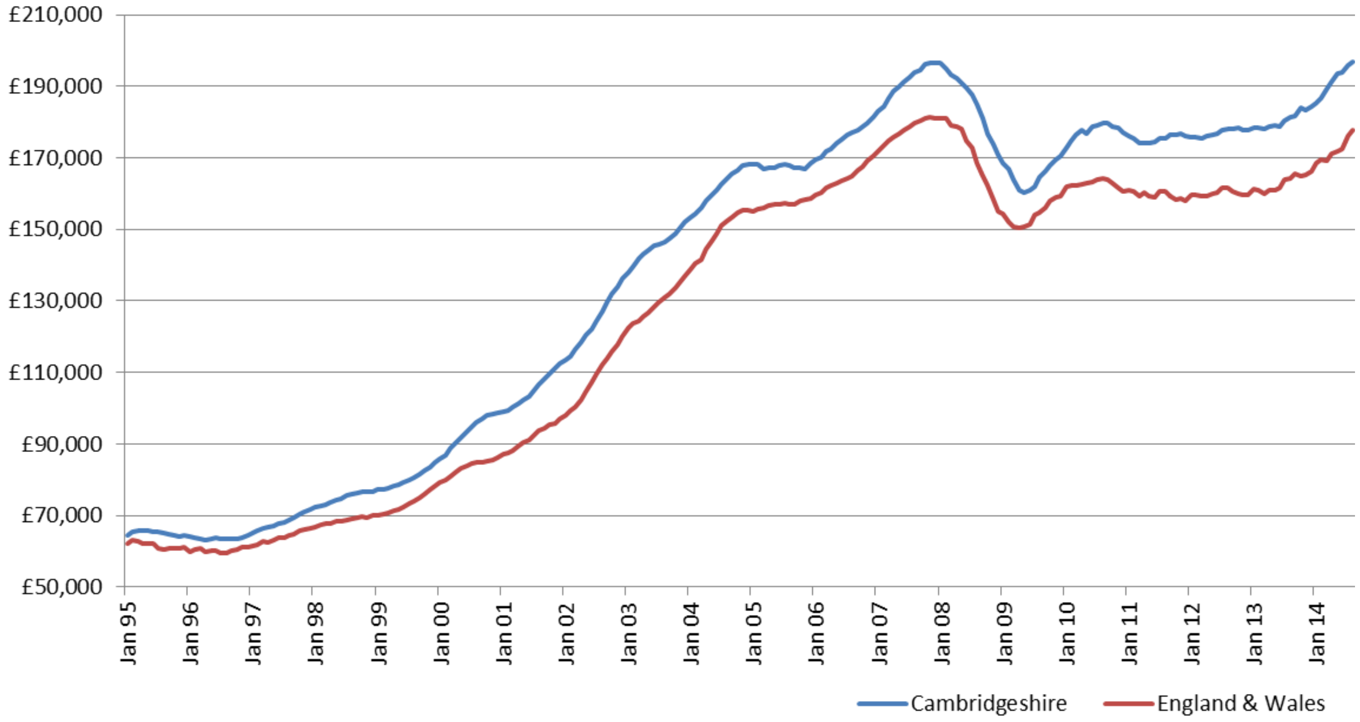
7.2.3 Figure 7.1 indicates that the HPI in Cambridgeshire has largely returned to its pre-recession peak at the end of 2007, with houses costing over three times more than they did in 1995. Whilst the picture for England and Wales is similar, the country has not yet fully recovered to pre-recession levels. As such the gap between Cambridgeshire and England and Wales is widening. This is particularly visible in Figure 7.2, which shows the change in average house price.

Figure 7.1: House Price Index for Cambridgeshire and England and Wales



Source: Land Registry, Crown Copyright © 2014.

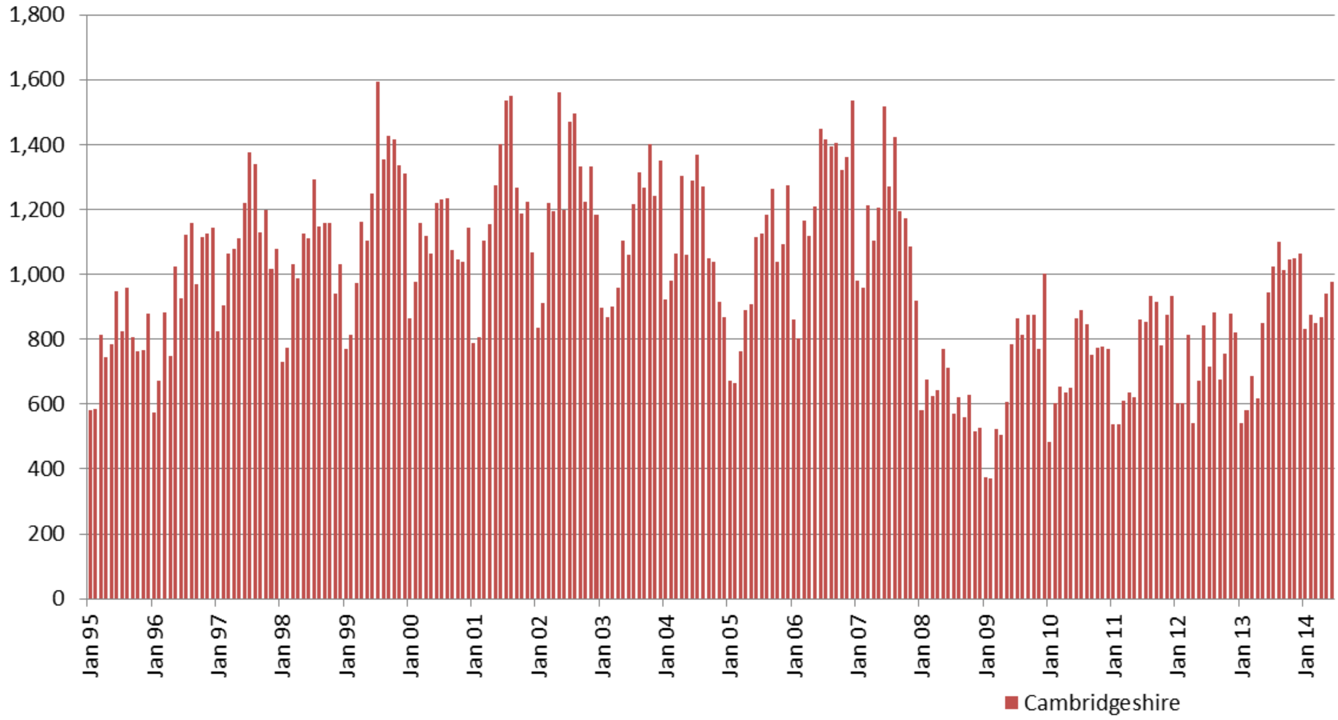
Figure 7.2: Average House Price in Cambridgeshire and England and Wales



Source: Land Registry, Crown Copyright © 2014.

7.2.4 Part of the reason for the increases in house prices is the relatively low levels of houses coming onto the market (Figure 7.3). This clearly shows that across Cambridgeshire the number of houses on the market has decreased considerably since 2007. There are signs that the volume of house sales is increasing slightly, but the greater rate of growth in house prices suggests that the volume is significantly below market demand.

Figure 7.3: Volume of House Sales in Cambridgeshire



Source: Land Registry, Crown Copyright © 2014.

7.3 DCLG Data

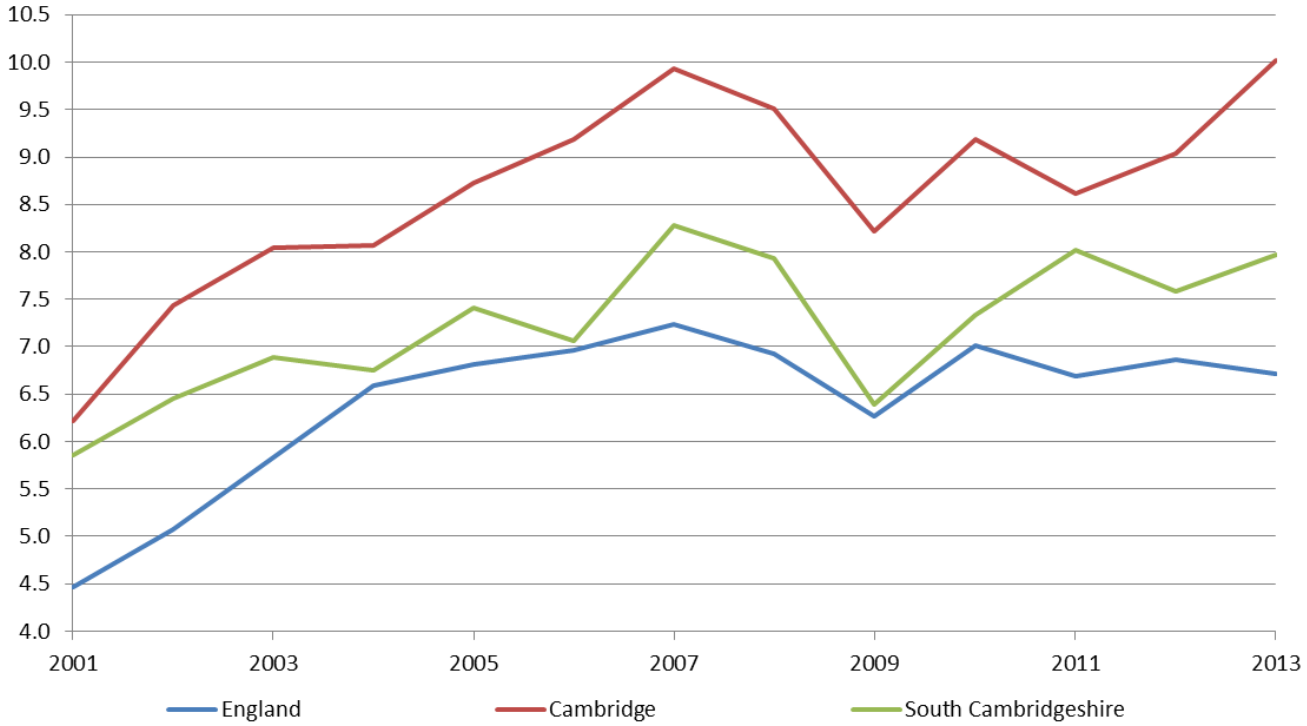
7.3.1 The DCLG use much of the Land Registry data and combine it with other factors to measure the strength of the housing market. This information is available at local authority level.

7.3.2 Figure 7.4 shows that median house prices in Cambridge are now at ten times higher than the level of median earnings whilst for South Cambridgeshire ratio is eight times higher. Across England the ratio is just under seven times higher. Clearly the cost of living in the City and South Cambridgeshire is considerably more than much of the rest of the country. It is also notable that since 2009 the ratio for both the City and South Cambridgeshire has steadily risen whilst the national ratio has stagnated. This indicates that the cost of living in this area is worsening relative to the rest of the country.

7.3.3 Figure 7.5 shows the mean house prices, which exclude some of the outliers included in the Land Registry data (Figure 7.2). It shows that compared to Cambridgeshire, in both the City and South Cambridgeshire house prices are considerably higher and are increasing at a greater rate than both the County and England.

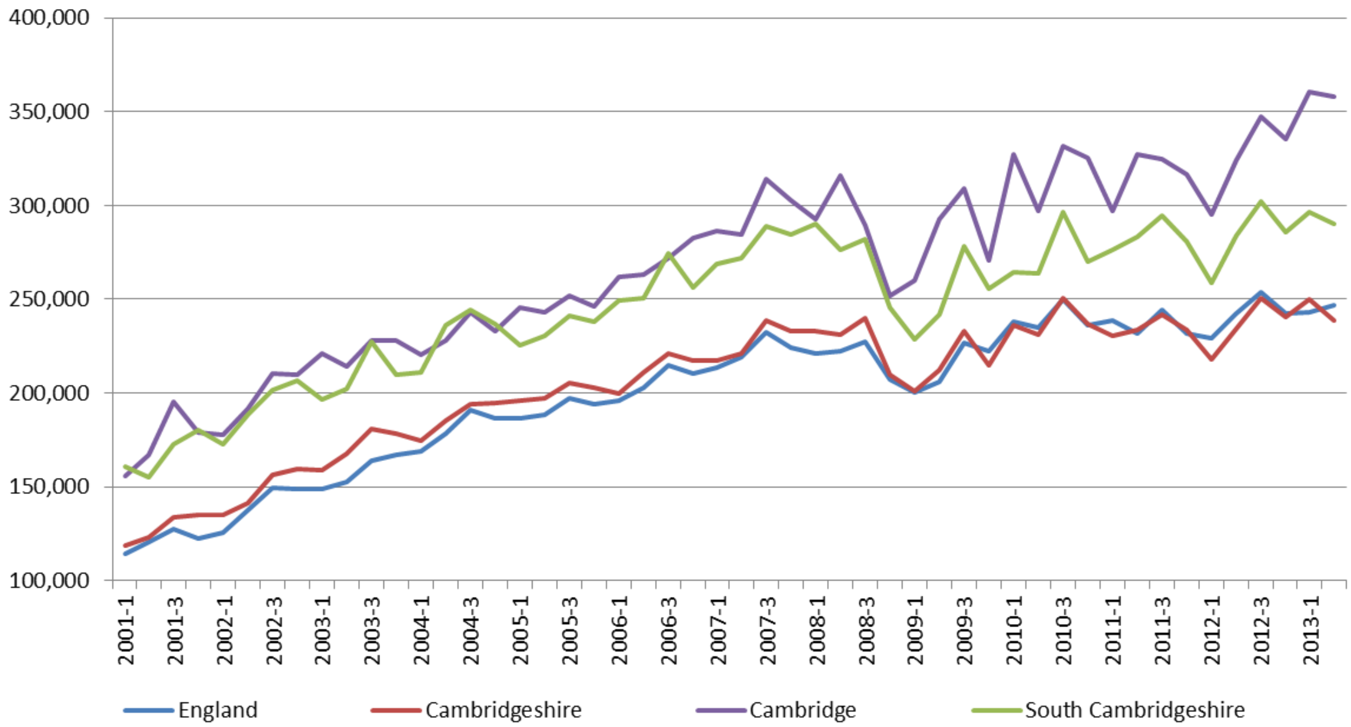
7.3.4 It is clear from the DCLG data that issues of house prices and the cost of living are considerably more acute in the City and South Cambridgeshire than the rest of Cambridgeshire, which in turn is worse than the rest of England. As a result, measures like the HPI are likely to be considerably higher in the City and South Cambridgeshire compared to the rest of Cambridgeshire.

Figure 7.4: Ratio of Median House Price to Median Earnings



Source: DCLG Live Table 577, Crown Copyright © 2014.

Figure 7.5: Quarterly Mean Housing Prices



Source: DCLG Live Table 581, Crown Copyright © 2014.

7.4 Local Authority Housing Waiting Lists

7.4.1 Data held by DCLG indicates that in 2013 CCC had 2,204 households on their waiting lists whilst SCDC had a waiting list of 1,291 households. These are households that are likely to be sharing (with parents or other families) or in temporary accommodation. This is effectively latent housing need within the local authority areas which is not being met.

7.5 Housing Need

7.5.1 Overall, it is clear that the housing market is suffering from the lack of supply shown in Figures 4.6 and 4.7. As a result, the volume of housing transactions has fallen considerably and prices have grown significantly compared to earnings. There are currently in total 3,495 households on Council waiting lists, a firm indicator of the limited availability of affordable housing.

7.5.2 This picture further reinforces the concerns set out previously that the SNPPs and SNHP published by ONS and DCLG respectively have been affected by existing constraints on the housing market and therefore significantly underestimate the actual level of housing need. Therefore, because of this existing demand, the housing targets of an additional 17,850 dwellings in Cambridge City and 24,400 dwellings in South Cambridgeshire between 2011 and 2031 that are set out in Chapter 6 should be seen as minimum targets.

8 Conclusions and Recommendations

8.1 Overview

8.1.1 The submission Local Plans set out a combined target of 33,000 dwellings (14,000 in the City and 19,000 in South Cambridgeshire). Combined, this might accommodate population growth based on current trends. However, it is highly likely that population growth over recent years has been constrained by a lack of housing supply as evidenced by increasing house prices, low volumes of housing on the market and large housing waiting lists. It cannot, therefore, constitute the objectively assessed housing need of the two local authority areas which will need to reflect the existing demand for housing, future background population growth and future employment-related migration.

8.1.2 Significantly, the housing need set out in the SHMA is solely derived from a line showing population growth extrapolated from the 2001 and 2011 Census returns. As such the methodology on which the target of 33,000 dwellings is fundamentally flawed.

8.2 Implications for Employment Growth and Commuting

8.2.1 Both submission Local Plans set out clear aspirations in terms of the number of jobs that are expected to be created by 2031 (22,100 in the City and 22,000 in South Cambridgeshire). To achieve the levels of employment growth in a sustainable manner it will be necessary to increase the combined housing target to at least 42,250 dwellings (17,850 in the City and 24,400 in South Cambridgeshire); 9,250 dwellings more than the current target in the Local Plans.

8.2.2 If housing supply is not increased and the employment targets are maintained, the inevitable result will be a substantial increase in commuting into both local authority areas from areas that are further afield. This is clearly contrary to the sustainable development priorities set out in the NPPF.

8.3 Housing Market Signals

8.3.1 Data from the Land Registry and DCLG shows that the housing market has largely recovered from the recession in terms of house prices. However, this is driven by a significantly lower volume of sales than before the recession, which is clearly unsustainable. Without further supply the recovery will undoubtedly stall. This too will likely lead to further commuting as the cost of living in the City or District will be significantly greater than the costs of commuting.

8.3.2 It will also inevitably lead to increasing housing lists as those already living in the areas and not able to afford private market housing (either through private rental or mortgage) have no choice but to share or move out of the areas.

8.4 Planning Response

8.4.1 It is beyond doubt that additional housing allocation(s) are required to those in the submission Local Plans to accommodate the requirement for a further 9,250 dwellings minimum. As discussed in Section 4.4, the stepped changes in housing supply seen over recent years is highly likely to be a result of an over reliance on large housing sites that provide a sudden increase in supply. It is clear in the submission Local Plans that this reliance on large housing sites is expected to continue, which, inevitably, will result in the same peaks and troughs in supply.

8.4.2 It is recommended therefore that the additional 9,250 dwelling requirement is used to allocate small housing sites in and around Cambridge, and further afield in other areas of South Cambridgeshire. This approach would not affect the overall hierarchy of settlements promoted by the two submission Local

Plans but would assist in providing a smooth regular supply of housing to better reflect the projected rate of population and household growth.

Appendices

Appendix 1

Abbreviations

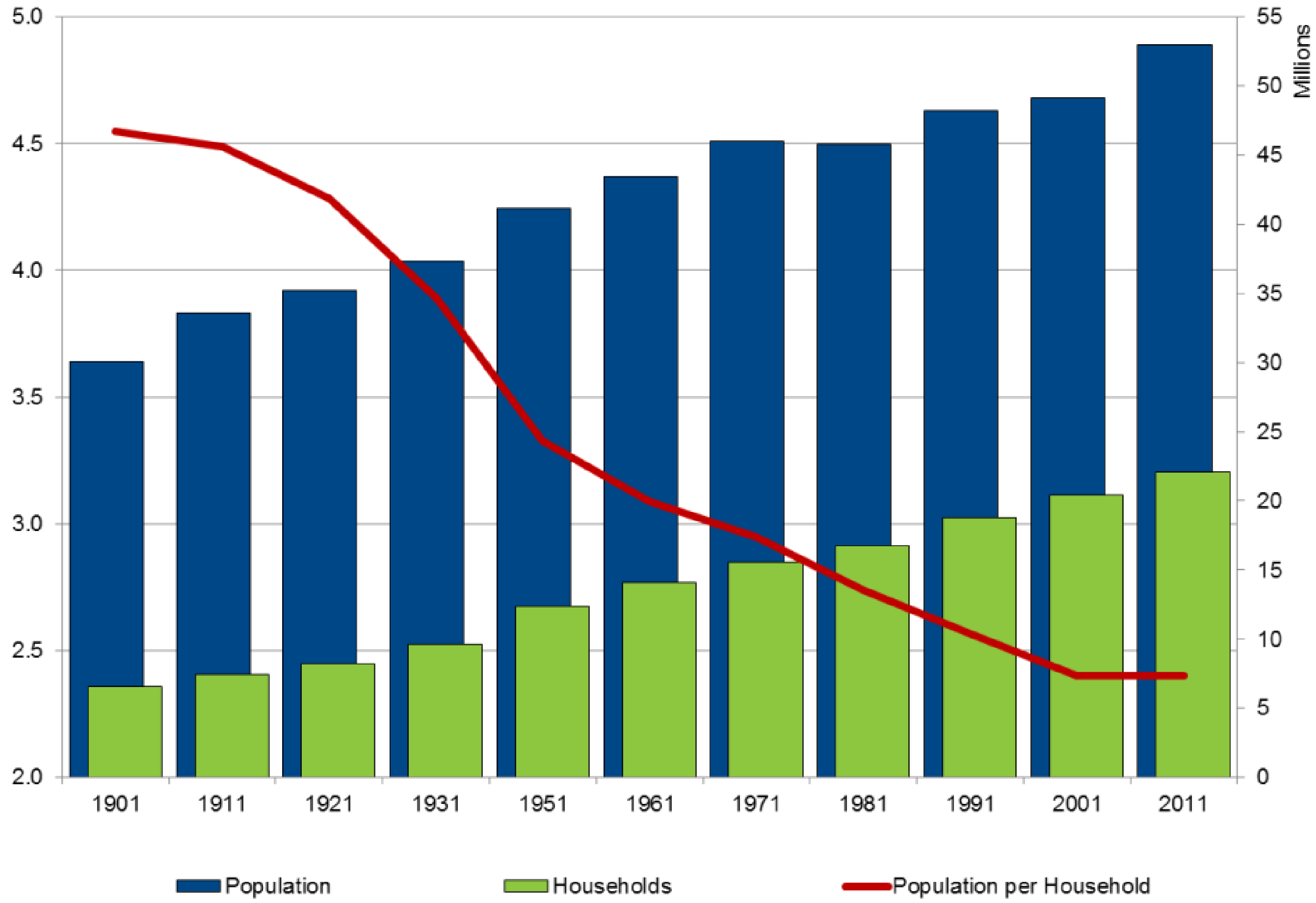
APS	Annual Population Survey
CCC	Cambridge City Council
DCLG	Department for Communities and Local Government
HMA	Housing Market Area
HPI	House Price Index
LFS	Labour Force Survey
LGA	Local Government Association
MYPE	Mid-Year Population Estimates
NPPF	National Planning Policy Framework
NPPG	National Planning Policy Guidance
ONS	Office for National Statistics
PAS	Planning Advisory Service
SCDC	South Cambridgeshire District Council
SHLAA	Strategic Housing Land Availability Assessment
SHMA	Strategic Housing Market Assessment
SNHP	Sub National Household Projections
SNPP	Sub National Population Projections

Appendix 2

Household Size

Household size and formation is a contentious subject as small variations can lead to significant differences in projected housing need. Prior to the publication of the 2011 Census, it was assumed that average household size was continuing to fall as had been the case in recent decades. The presumption was that more single person households would be formed and family size would remain small. The 2011 Census, however, indicated that this had not been the case over the previous decade.

Figure A3.1: Change in Population per Household in England



Source: ONS & University of Plymouth: A Vision of Britain through Time.

It is at least in part due to the higher birth rates seen nationally over the last decade (11.4 births per 1,000 population in 2001 increasing to 12.9 births per 1,000 population in 2011). Households with dependent children account for 29.0% of all households in England in 2011, down only slightly from 29.4% in 2001, and therefore continue to have a large influence on the average household size.

In addition, the rise in single person households, particularly amongst young adults, has not been as great as was expected, mainly due to affordability. These people have instead had to look at different housing arrangements such as sharing or continuing to live with parents. Those that share are included in the definition of 'other' households, whilst those living with parents are predominantly included as non-dependents.

It is not only single persons that have been affected by affordability. Many couples, with and without children, have also been affected. This has led to a rise in the number of 'concealed' families, i.e. more than one family living in a single household. Again these are included in the 'other' household definition. According to the 2011 Census, concealed families now account for 1.9% of all families in England.

Table A3.1: Change in Household Composition in England

Household Composition		Change 2001-11
One Person	65+	-7.3
	Other	+22.7
One Family	All pensioner	-2.0
	Couple with no children	+7.1
	Couple with dependent children	+0.3
	Couple with all non-development children	+4.5
	Lone parent with dependent children	+19.9
	Lone parent with all non-development children	+23.1
Other Household	Other Household with Dependent Children	+27.4
	All student	+57.0
	All pensioner	-25.1
	Other	+32.8
All Households		**+7.9**

Source: ONS Census 2001 and 2011.

It is unclear at this stage how household formation will be affected in the future by affordability, but it is likely to be self-fulfilling, i.e. if house building rates increase such that affordability declines, the number of 'other' households will decline, and vice versa.

Household formation and size varies significantly as a result of the age of the individuals it includes. Therefore, average household size will continue to fluctuate even if affordability remains at current levels. To model the likely changes in household size, the headship rates produced by DCLG for the 2011-based (interim) Sub-National Household Projections (SNHP) 2011-2021 are used. These headship rates are divided into nine age ranges (15-24, 25-34, 35-44, 45-54, 55-59, 60-64, 65-74, 75-84 and 85+), which are in turn divided into the following seventeen household types:

Table A3.2: Household Composition used in Household Projections

DCLG Code	Description	POPGROUP Code
OPM	One person households: Male	OPMAL
OPF	One person households: Female	OPFEM
OCZZP	One family and no others: Couple: No dependent children	FAMC0
OC1P	One family and no others: Couple: 1 dependent child	FAMC1
OC2P	One family and no others: Couple: 2 dependent children	FAMC2
OC3P	One family and no others: Couple: 3+ dependent children	FAMC3
OL1P	One family and no others: Lone parent: 1 dependent child	FAML1
OL2P	One family and no others: Lone parent: 2 dependent children	FAML2
OL3P	One family and no others: Lone parent: 3+ dependent children	FAML3

DCLG Code	Description	POPGROUP Code
MCZDP	A couple and one or more other adults: No dependent children	MIXC0
MC1P	A couple and one or more other adults: 1 dependent child	MIXC1
MC2P	A couple and one or more other adults: 2 dependent children	MIXC2
MC3P	A couple and one or more other adults: 3+ dependent children	MIXC3
ML1P	A lone parent and one or more other adults: 1 dependent child	MIXL1
ML2P	A lone parent and one or more other adults: 2 dependent children	MIXL2
ML3P	A lone parent and one or more other adults: 3+ dependent children	MIXL3
OTAP	Other households	OTHHH

Source: DCLG & POPGROUP

These headship rates are based on the 2011 Census and consequently are symptomatic of the recession and issues of affordability. Consequently, they are likely to reflect the lower of the spectrum in terms of formation rates, particularly amongst those aged 15-34 who are most likely to form single person household, if affordability permits. It is, however, unclear what might be the upper end of that spectrum but in any event, the 2011 headship rates must be considered a minimum.

As a recent RTPI paper concludes[14]:

"This is a difficult time to plan for housing. Over the last 10 years household formation patterns have departed significantly from the previous long term trends and there is considerable uncertainty as to what will happen over the next 20 years. Authorities need to consider their own specific situation carefully, taking the latest DCLG projections as their starting point and using the guidance above to identify the potential range of outcomes. Plans should be robust to that range of outcomes. They should then be reviewed regularly and adjustments made if need be."

[14] McDonald N & Williams P. January 2014. RTPI Research Report No.1: Planning for Housing in England: Understanding Recent Changes in Household Formation Rates and their Implications for Planning for Housing in England. University of Cambridge.

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