Cambridge and South Cambridgeshire Local Plan Examination
Objectively Assessed Housing Need: Further Evidence

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November 2015

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EXECUTIVE SUMMARY

Introduction

1   This report was commissioned by Cambridge City Council and South Cambridgeshire District Council to provide evidence on housing need and housing targets (requirements), in response to questions raised by the Inspectors examining the plans.

2   The submitted Local Plans set housing targets of 14,000 new dwellings for Cambridge City and 19,000 for South Cambridgeshire over the plan period 2011-31. These targets are based on the objectively assessed housing need (OAN) calculated in the Cambridgeshire Strategic Housing Market Assessment ('the SHMA'), which the plans aim to meet in full. In their letter to the Councils the Inspectors asked the Councils to consider whether these numbers were compliant with national Planning Guidance (PPG), in three respects:

- Whether they took adequate account of market signals;

- Whether they should be increased in order to provide more affordable housing;

- Whether they should be reconsidered in the light of the new official household projections published by the Department of Communities and Local Government (CLG) in February 2015.

3   Below, we discuss the household projections first, followed by market signals and affordable housing. This order is based on the National Planning Practice Guidance (PPG), which sets out a sequence of steps for the plan-maker determining housing needs and housing targets. That sequence starts from demographic projections - specifically the CLG household projections, and more specifically the 2012-based release ('CLG 2012'), which is 'the most up-to-date estimate of future household growth' Other factors - including market signals and future employment - come into the calculation later, through adjustments to the demographic projections.

4   In reading this further report, it should be understood that the SHMA followed a different method. The SHMA does not provide a purely demographic projection. Rather, it derives future population from an integrated view of demographic trends and future jobs.

Demographic projections

5   We have revisited the demographic evidence used in the SHMA in the light of the CLG 2012-based household projections and other up-to-date information, including a new ONS publication issued on 17 September 2015, which has major implication for Cambridge City.

6   We conclude that the most robust trend-based projections available at this time are:

- For South Cambridgeshire, the CLG 2012-based household projection, which implies 17,579 new dwellings in 2011-31;

- For Cambridge, the alternative PG-10yr-HH12 projection from Edge Analytics, which implies 10,069 new dwellings.

7   In line with the PPG these figures are only the second step in determining the OAN (after the first step, which is the CLG projections). They simply roll forward past demographic trends, taking no account of future changes in the factors that drive those trends, such as government policy and the economic climate. In line with the PPG, if such factors are expected to change in the future the trend-based projections should be adjusted accordingly. We discuss these adjustments below.

Market signals

8   Our analysis suggests that past housing delivery in the study area was suppressed by land supply, mainly due to the Green Belt; and development elsewhere in the HMA did not fully compensate for this. This suppression is particularly significant for Cambridge City and less so for South Cambridgeshire. This suggests that the above demographic projections underestimate housing need and should be adjusted upwards.

9   The PPG does not specify the size of this adjustment, saying only that it should be 'reasonable', and authorities should monitor the situation and review supply accordingly. But EiP Inspectors' decisions on three occasions have used rules of thumb as follows:

- Modest underprovision / market pressure (Uttlesford, Eastleigh) 10%

- Significant underprovision / market pressure (Canterbury) 30%.

10 In our opinion the first of these approaches applies to South Cambridgeshire and the second to Cambridge City. Therefore, to determine the OAN we adjust the above demographic projections as follows:

- South Cambridgeshire: 17,579 x 110% = 19,337 new dwellings

- Cambridge: 10,069 x 130% = 13,090 new dwellings.

11 The above OAN figures take account of trend-based demographic projections and market signals. They do not take account of future jobs, because this factor has already been considered by the SHMA, in an analysis which the Inspectors have not questioned.

12 The emerging plans for Cambridge and South Cambridgeshire propose a sub-regional approach to future labour market balance, where new jobs in Cambridge and South Cambridgeshire are partly filled by increased commuting from other parts of the HMA, and new transport infrastructure makes that commuting more sustainable. That approach has been agreed by authorities across the HMA under the duty to cooperate.

13 On this basis, the SHMA concluded that the housing required to support future employment was 19,000 in South Cambridgeshire and 14,000 in Cambridge City. Our own analysis of trend-based demographic projections and market signals suggests that the South Cambridgeshire need is 19,337 dwellings and the Cambridge need is 13,090 dwellings.

14 In short, there are two alternative housing need figures: the PBA projection, based on past demographic trends and market signals, and the SHMA projections, which take account of future employment. To ensure that it meets all the tests in the PPG, the objectively assessed housing need should be the higher of these two numbers.

15 Accordingly, we conclude that the objectively assessed housing needs in the study area are:

- 19,337 dwellings for South Cambridgeshire
- 14,000 dwelling for Cambridge City.

16 These housing numbers are consistent with past demographic trends as adjusted for market signals in each local authority area, and also provide enough labour to support expected job growth as part of an HMA-wide strategy.

Affordable need

17 As well as the OAN, which covers all tenures, the Cambridgeshire SHMA calculated the need for affordable housing, through a method based on the 2007 Planning Practice Guidance (that guidance has since been revoked, but is replaced by a similar method set out in paragraphs 022-029 of the PPG). These calculations were revised later in the light of new data for 2013/14. The resulting net affordable need, as set out in the Councils' Matter 3 statement (Appendix 4, Table 9) is 10,402 homes for Cambridge and 5,573 homes for South Cambridgeshire, a total of 15,975 homes over the plan period.

18 Council officers estimate that over the plan period it will be viable for 35% of all new housing to be delivered in affordable units in Cambridge and 30% in South Cambridgeshire. On this basis, if total housing development is in line with the OAN South Cambridgeshire will receive enough developer contributions from market housing to meet all of its affordable housing need. Cambridge City will receive enough developer contributions to meet just under half of its affordable need.

19 In line with the PPG, therefore, it is appropriate to consider whether Cambridge City's total housing target should be increased above the OAN calculated earlier, in order to help pay for more affordable homes. This will depend partly on the city's sustainable capacity and the viability of market housing. But such an increase may undermine housing delivery in other parts of the HMA and it would probably not reduce the local shortage of affordable housing.

CONTENTS

1   INTRODUCTION

1.1   This report was commissioned by Cambridge City Council and South Cambridgeshire District Council to provide evidence on housing need and housing targets (requirements), in response to questions raised by the Inspectors examining the plans.

1.2   The submitted Local Plans set housing targets of 14,000 new dwellings for Cambridge City and 19,000 for South Cambridgeshire over the plan period 2011-31. These targets are based on the objectively assessed housing need (OAN) calculated in the Cambridgeshire Strategic Housing Market Assessment ('the SHMA'), which the plans aim to meet in full. In their letter to the Councils[1] the Inspectors asked the Councils to consider whether these numbers were compliant with national Planning Guidance (PPG), in three respects:

   ■ Whether they took adequate account of market signals;

   ■ Whether they should be increased in order to provide more affordable housing;

   ■ Whether they should be reconsidered in the light of the new official household projections published by the Department of Communities and Local Government (CLG) in February 2015.

1.3   Below, we discuss the household projections in Chapter 2, market signals in Chapter 3 and affordable housing in Chapter 4. This order is based on paragraphs 015-029 of the PPG, which sets out a sequence of steps for the plan-maker determining housing needs and housing targets. That sequence starts from demographic projections - specifically the CLG household projections, and more specifically the 2012-based release ('CLG 2012'), which is '*the most up-to-date estimate of future household growth*'[2]. Other factors - including market signals and future employment - come into the calculation later, through adjustments to the demographic projections.

1.4   In reading this further report, it should be understood that the SHMA followed a different method. The SHMA does not provide a purely demographic projection. Rather, it derives future population from an integrated view of demographic trends and future jobs.

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[1] *Letter from the Inspectors to the Councils regarding preliminary conclusions dated 20 May 2015,* RD/GEN/170
[22] Reference ID: 2a-016-20150227

2 DEMOGRAPHIC PROJECTIONS

Introduction

2.1 The Inspectors' letter to the Councils referred to demographic projections as follows (our emphasis):

'The DCLG 2012-based household projections were published in late February 2015 after the relevant hearing had taken place and notwithstanding the comments in your Matter 3 statement that these projections would not have any implications for objectively assessed housing need, **we are asking you to consider whether the 2012 based household projections suggest a different level of need and if so, how big is the difference and does it indicate that further modifications should be made to the Plans***. We will also be seeking the views of those who made relevant representations on this issue.'*

2.2 The Inspectors' question should be understood in the context of the PPG. As mentioned earlier the Guidance advises the plan-maker should start from demographic projections, and also it notes that these projections are based on rolling forward historical demographic trends, so in effect they assume that the factors that drive demographic change – including policy and the economy – will be the same in the future and in the past. Accordingly, the projections may be tested and adjusted in two different ways:

- Firstly to ensure that they are a good reflection of actual past demographic trends – which means taking account of the latest, most accurate and most relevant historical data;
- Secondly to reflect future changes that are not captured in past demographic trends – including market signals and affordable housing need, on which the Inspectors have asked for additional evidence.

2.3 In this chapter we deal with the first question, testing the CLG projections against the demographic evidence. The question is particularly important for Cambridge, because it is generally agreed, and has been acknowledged by the Inspectors, that the ONS underestimates net migration into the city and this is likely to be carried forward into the official projections. Chapters 3 and 4 will consider the second question, dealing with market signals and affordable need respectively.

2.4 Below, to test the CLG household projections we use alternative demographic scenarios from the Greater Essex Demographic Forecasts produced by the demographers Edge Analytics for the Essex Planning Officer's Society (EPOA), hereafter called the Edge figures. As we explain later, the Edge study builds alternative scenarios to test the impact of altering selected assumptions underpinning the CLG projections including base periods and the treatment of Unattributable Population Change. It was commissioned by EPOA to facilitate co-operation between planning authorities and other bodies involved in Local Plan preparation. The study also covers additional planning authorities that are not in Essex and are not contributing to the cost, including Cambridge and South Cambridgeshire. The foreword to the report advises that '*this broader approach has been taken in order to*

provide EPOA members with equivalent demographic data for all their neighbouring authorities or sub-regional partners'.[3.]

2.5 The Edge projections are useful for our purpose because they are the work of respected demographers, using a recognised method (the PopGroup model) to produce consistent results across a large geographical area. This method is widely used and recognised by local authorities, objectors and Inspectors as a tool in housing needs assessment[4]. The alternative would be to model our own alternative projections; this would wastefully duplicate effort and may confuse matters.

Methods and assumptions

2.6 Table 2.1 shows the CLG 2012-based projections, which in line with the PPG should be starting point for housing needs assessment. It also shows alternative scenarios from the Edge study, which estimates the impact of altering key assumptions behind the official projections. The study has produced a series of reports, off which we use the latest, badged 'Phase 7' and published in May 2015[5]. The report shows projections for 2013-37; for the purpose of the present report Edge Analytics has kindly provided a different tabulation of the same projections, to cover the plan period 2011-31. The SHMA figures used in the submitted Local Plans are shown alongside in table 2.1 for comparative purposes, but it must be recognised that these are not demographic projections, as noted earlier.

2.7 The table below sets out change over the plan period in three variables – population, households and dwellings:

- The CLG projections are shown in the first row. Because they are derived from the SNPP 2012-based population projections, Edge refers to these projections as 'SNPP'. To avoid confusion we call them 'SNPP/CLG 2012'.

- The remaining rows show alternative scenarios developed by Edge. From the many alternative scenarios shown in the Edge report, we only consider the ones labelled 'PG'[6]. These are trend-driven demographic scenarios, which start from the 2012-based official projections and test the impact of altering certain inputs in those projections.

2.8 Before discussing the figures shown in the table, it will be useful to explain briefly how they were calculated[7].

- In the SNPP/CLG 2012 projection:
  - Population is taken from the official 2012-based Sub-National Population Projections published by the Office for National Statistics ('SNPP 2012'); in this

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[3] Edge Analytics, *Greater Essex Demographic Forecast 2013-37, Phase 7 Main Report*, May 2015, Foreword, (http://www.harlow.gov.uk/sites/harlow/files/documents/files/Greater%20Essex%20Demographic%20Forecasts.pdf)

[4] See for example the Inspector's Interim Conclusions on the South Worcestershire Development Plan, http://www.swdevelopmentplan.org/wp-content/uploads/2013/02/South_Worcestershire_Stage_1_-_Further_Interim_Conclusions.pdf and related evidence base document http://www.swdevelopmentplan.org/wp-content/uploads/2013/02/South_Worcestershire_Stage_1_-_Further_Interim_Conclusions.pdf (including Appendix B)

[5] Edge Analytics, *Greater Essex Demographic Forecast 2013-37, Phase 7 Main Report*, May 2015

[6] PG stands for PopGroup, the demographic model used to produce the scenarios.

[7] For a more detailed discussion of demographic projections see Planning Advisory Service (PAS), *Objectively Assessed Need and Housing Targets, technical advice note, second edition,* July 2015.

projection, future migration for each demographic group[8] is the average of the five years previous to the base date, 2007-12.

- The household projections are derived from that population, which the CLG groups into households by applying factors called household reference rates (HRRs, headship rates) to each demographic group[8].

- The household representative rate (HRR, formerly headship rate) is the proportion of people in each demographic group who are household representative persons (formerly heads of household). Since each household has only one representative (or head), for a given population higher HRRs means smaller household sizes, more households, and hence greater housing need.

- To translate household numbers into dwellings, users of the household projections make a small adjustment for unoccupied dwellings (vacant or second homes).

■ The Edge PG scenarios are based on the same approach, first projecting population and then using HRRs to group it into households. There are two main population scenarios, based on alternative migration trends:

- The 'PG 5yr' scenario carries forward the trend of the previous five years, replicating the ONS approach.

- The 'PG 10yr' scenario extends this 'base period', or 'reference period' to 10 years. The rationale for this variant is that a longer reference period is more likely to be a good indicator of underlying long-term trends, especially bearing in mind that migration often fluctuates widely from year to year, and also the five-year base period is dominated by the last recession – which in many areas has probably suppressed migration below its long-term trend.

  (For brevity, in the rest of this report we refer to these scenarios as '5yr' and '10yr', omitting the prefix 'PG'.)

■ For each Edge population scenario there are two household scenarios:

- 'HH12' takes headship rates from the SNPP/CLG 2012 projection.

- In 'HH08' headship rates are taken from the previous CLG household projection, which was 2008-based. In general the 2008 rates are substantially higher than the 2012 ones, for reasons which are discussed later in this report.

■ For all scenarios, to calculate numbers of dwellings we have assumed that 3% of dwellings are vacant or second homes, so each 100 dwellings accommodates 97 households. (Based on ONS Table KS401EW, the ratio on Census day was 96.7 for Cambridge and 97.2 for South Cambridgeshire).

■ The SHMA, which pre-dated the PPG, used a different method to assess housing need:

- To derive future population it integrates past demographic trends and future jobs forecasts and therefore is not directly comparable to demographic forecasts.

- To derive future dwellings it translates population directly into dwellings, without projecting numbers of households first.

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[8] A demographic group is a combination of age, sex and (in relation to HRRs) marital/relationships status: for example, men aged 45 in a mixed-sex relationship.

2.9   Later in this report we consider the implications of this in relation to the Inspectors'
       questions on market signals and affordable housing.

Results

Greater Cambridge

2.10   The table below shows the alternative demographic projections. For context it also shows
       the SHMA figures - which are not directly comparable, because as noted earlier they are
       based on an integrated approach to economic factors and demographic trends. For the total
       of the two plan areas ('Greater Cambridge'), the SNPP/CLG 2012 projection implies 24,400
       new dwellings[9] over the plan period. This is below both the Edge scenarios – which range
       from 25,200 and 30,100 dwellings. The SHMA figure of 33,000 exceeds all the
       demographic projections.

Table 2.1 Alternative demographic scenarios and the SHMA

Change 2011-31	Cambridge			South Cambs			Greater Cambridge		
	Population	Households	Dwellings	Population	Households	Dwellings	Population	Households	Dwellings
CLG 2012	10,400	6,591	6,795	33,100	17,052	17,579	43,500	23,643	24,374
Edge 5yr HH12	24,231	12,641	13,032	28,065	14,153	14,591	52,296	26,794	27,623
Edge 10yr HH12	19,004	9,767	10,069	29,235	14,675	15,129	48,239	24,442	25,198
Edge 5yr HH08	24,231	13,310	13,722	28,065	15,879	16,370	52,296	29,189	30,092
Edge 10yr HH08	19,004	10,754	11,087	29,235	16,196	16,697	48,239	26,950	27,784
SHMA	27,000	-	14,000	38,000	-	19,000	65,000	-	33,000

Source: ONS, CLG, Councils, Edge Analytics

2.11   To understand the reasons for these differences, we need to look at the two local authority
       areas individually. We also need to consider separately the two factors that drive household
       change, population and HRRs (headship rates).

Cambridge

Overview

2.12   Figure 2.1 replicates the left-hand panel of the table above, comparing the different
       projections for Cambridge City over the plan period. SNPP/CLG 2012 projection implies
       6,795 new dwellings. The Edge 5yr HH12 projection shows 13,000 dwellings, almost twice
       as many as SNPP/CLG 2012. The remaining Edge scenarios also show many more new
       dwellings than SNPP/CLG 2012[10]. In the SHMA the number of dwellings is almost twice as
       much as SNPP/CLG 2012 and close to but higher than the highest of the Edge scenarios
       but as stated previously the SHMA is not a purely demographic projection.

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[9] Numbers quoted in the text are rounded.

[10] These differences in dwelling numbers exactly parallel those in household numbers, because the ratio of the two
numbers is fixed – except in the SHMA, which as mentioned earlier does not show household numbers.

Figure 2.1 Alternative demographic projections and the SHMA: Cambridge
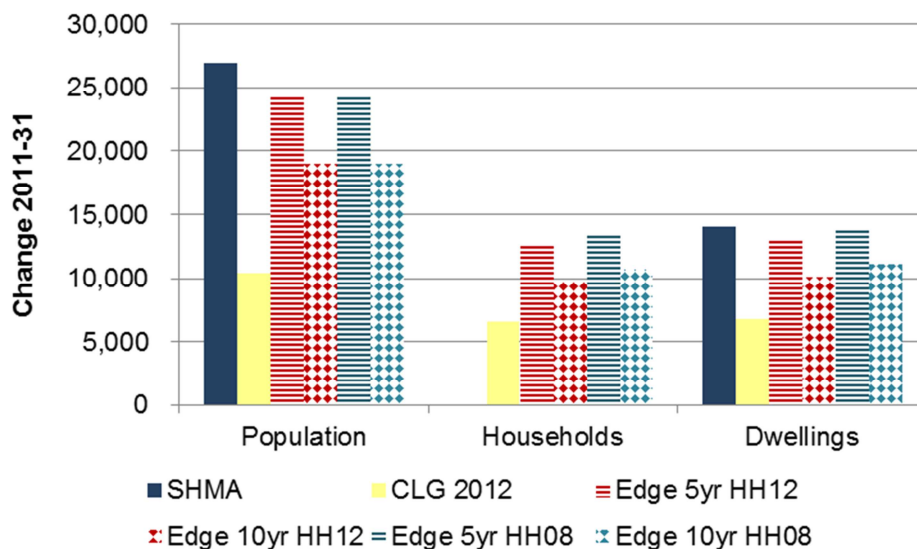
Source: Table 2.1

2.13 The difference in dwelling numbers between SNPP/CLG 2012 and the other scenarios is largely due to different population numbers, which show a similar pattern. All the Edge scenarios show far more population growth than SNPP 2012, which as noted underpins SNPP/CLG 2012.

2.14 In the next section we look at these differences more closely.

Cambridge population: the UPC

2.15 Before we consider which demographic projections is more robust, we need to understand why they differ, and first of all why the Edge projections are so very different from SNPP/CLG 2012. The main reason cannot be different base periods, because the Edge 5yr projection uses almost the same base period (2008-2013 against 2007-12 for SNPP/CLG 2012), yet it shows more than twice as much population growth as SNPP/CLG 2012.

2.16 But there is one important methodological difference between Edge and CLG: the CLG projection does not take account of Unattributable Population Change (UPC), while the Edge projections do. It may be that UPC explains the vastly different results. Later in this section we will analyse the projections to see if this is the case. But first we need to provide some background on the UPC in general.

2.17 As the PAS advice note[7] explains in more detail, the UPC is a discrepancy in the official data on population change between the 2001 and 2011 Censuses. It happens when the population change recorded between the Censuses is not consistent with the annual changes estimated by the ONS each year, which are the outcome of three components: births, deaths and migration (both within-UK and international). The error does not relate to natural change, because the recording of births and deaths is near-perfect in this country. Hence there are two possible reasons for the UPC:

- One or both of the Censuses may have miscounted the population, and /or

- The ONS migration estimates may be wrong; the evidence suggests that any error relates to international migrants, both in relation to total numbers and their distribution between local authority areas.

2.18 Following research and consultation, for the purpose of its 2012-based projections and subsequent releases ONS decided to exclude the UPC from the migration flows that it projects forward. In effect, this assumes that the UPC is due to miscounting in one of the Censuses rather than misrecorded migration. There are three main reasons for this decision:

- Firstly, the causes of the UPC are unknown.

- Secondly, the error will have a small and diminishing impact on future rounds of projections, because ONS have improved their methods; this is helpful, but it is not relevant to users of the 2012-based projections.

- Thirdly, at national level the UPC is very small: just 103,000 for England over 10 years, equal to around 3% of total population change. But this number is the net outcome of positive and negative numbers for individual local authority areas, and these local numbers are sometimes much larger. Thus, there are 91 local authority areas for which UPC is more than half of the recorded population change between the two Censuses[11].

2.19 Regardless of the reasons behind the ONS's approach, by endorsing the SNPP/CLG 2012 projection (see paragraph 1.3 above), the PPG in effect implies that by default plan-makers should follow the same approach – setting aside the UPC for the purpose of demographic projections. But the wider logic of the PPG suggests that this default approach can be overridden by local evidence that uncovers factors not reflected in the official projections.

2.20 The Edge Analytics projections, contrary to the official ones, assume that the UPC represents international migration and hence include them in the past migration flows that they roll forward into the future. The impact of this assumption is to lift future net migration, and hence the city's future population, above what it would be otherwise.

2.21 For Cambridge, the UPC is very large at 15,000 persons. In other words, the 2011 Census found some 15,000 more people in the city than are accounted for by ONS's recording of births and deaths and estimates of migration since 2001. This unexplained change equals 120% of the intercensal population growth of 12,600.

2.22 For the period 2013-37 the size of this impact can be measured precisely, because as well as the main 5yr scenario the Edge report provides a '5yr-X' variant that excludes the UPC, as the official projections do. The 5yr-X scenario shows net migration of 33 persons p.a., virtually the same as the SNPP net migration of +6 persons per year. By contrast, Edge's 5yr scenario, which does take account of the UPC, shows net migration of 404 p.a., and consequently much higher population growth[12]. The impact of including the UPC is the difference between the Edge 5yr and 5yrX scenarios:

404-33 = 371 persons p.a.

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[11] L Simpson and N McDonald, *Making Sense of the New English Household Projections,* in *Town & County Planning* April 2015
[12] Edge Phase 7 report, table on page 95)

2.23   So, for the period 2013-37 virtually all the difference in population between the SNPP/CLG 2012 and the Edge 5yr scenario is due to the UPC. It is very likely that the same holds true of the shorter period to 2031, although Edge have not provided a 5yr-X scenario figures for that shorter period. Therefore, to decide between the two very different views of population growth taken by the official projections and Edge, we need to take a view on the causes of the UPC.

2.24   An obvious hypothesis is that that the UPC is caused by unrecorded or misrecorded movements of students, especially international students. This seems likely because many towns and cities with high concentrations of students have a large UPC. This may be because when students joined the university their arrival in the UK was not properly recorded. If that is the case, the ONS will have under-estimated in-migration and hence population growth between the Censuses. When students left at the end of their courses, if their departures *were* correctly recorded then the projections could have over-estimated the propensity of people in student age groups to leave the area. Thus, the UPC could be explained by the ONS under-estimating gross inflows, over-estimating gross outflows or both.

2.25   To see if this is likely to be the case for Cambridge we have estimated the age distribution of the UPC, by comparing two vintages of ONS's population estimates – the final pre-Census estimates and the revised version that was produced once the Census population count became known. The analysis is in Table 2.2 and Figure 2.2 below. The data are available by five-year age group and rounded to the nearest hundred, which makes them very approximate.

2.26   Despite these limitations, it is clear that UPC is very unevenly distributed between age groups. It peaks strongly at the 25-29 and 30-34 age bands: for each of these groups it is between 4,200 and 4,400 persons, around a quarter of the total for all ages. It is also relatively high in the groups from 35 to 49, where each five-year year band accounts for roughly 1,000-2,000 persons Outside these age groups the UPC is much lower, though nearly always positive.

Table 2.2 Estimated age structure of the UPC, Cambridge, 2001-11

Age	Male	Female	Persons	%
0-4	200	300	500	3%
5-9	300	300	600	4%
10-14	500	0	500	3%
15-19	100	200	300	2%
20-24	-400	300	-100	-1%
25-29	2,100	2,300	4,400	26%
30-34	1,500	2,700	4,200	25%
35-39	1,200	1,000	2,200	13%
40-44	900	200	1,100	6%
45-49	700	400	1,100	6%
50-54	500	200	700	4%
55-59	300	300	600	4%
60-64	300	200	500	3%
65-69	200	100	300	2%
70-74	100	-100	0	0%
75-79	100	100	200	1%
80-84	-100	100	0	0%
85+	0	100	100	1%
Total	8,400	8,600	17,000	100%

Source: ONS

Figure 2.2 Approximate age structure of the UPC, Cambridge, 2001-11
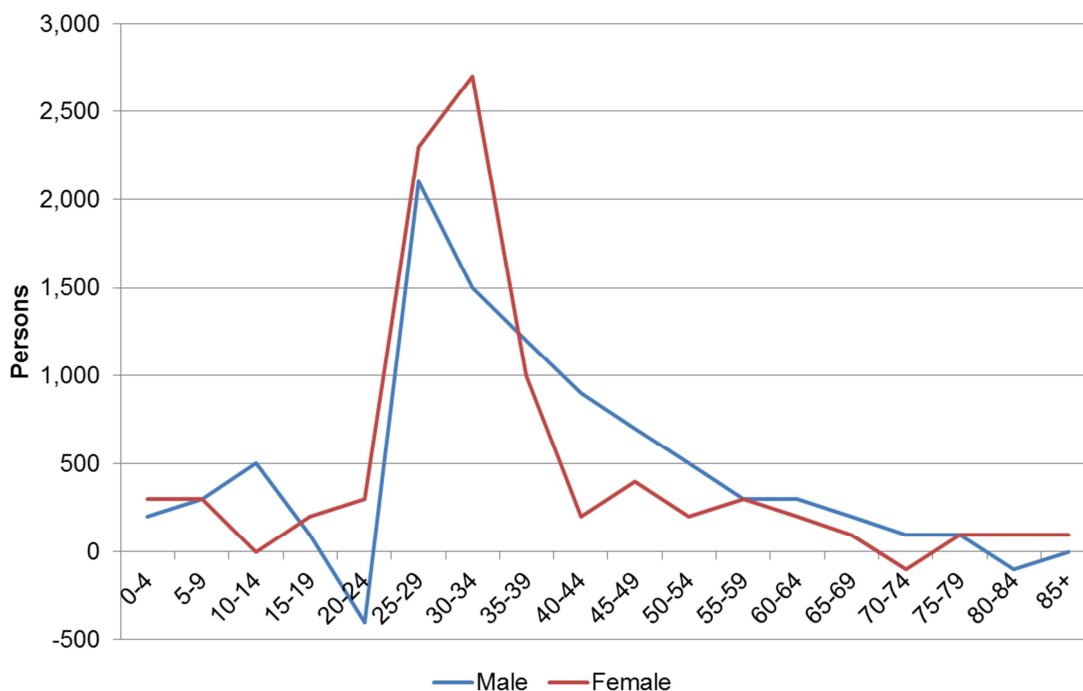
Source: Table 2.2

2.27   This suggests that if the UPC does relate to international students those students are postgraduates rather than undergraduates. The Higher Education Statistics show that at the University of Cambridge two thirds of international students are postgraduates - unlike the rest of the UK, where the proportion is less than half (Table 2.3).

Table 2.3 Students domiciled outside the UK, academic year 2013/14

	Undergraduate	Postgraduate
University of Cambridge	2,340	4,080
UK - all higher education	231,200	204,295

Source: Higher Education Statistics

2.28   Thus, it seems reasonable to think that at least some of the UPC reflects errors or omissions in estimating international migration of postgraduate students. It may also relate to academic staff – who may be more internationally mobile than other workers, especially in the most prestigious universities, though we have no statistical evidence of this. The same applies to highly qualified staff in knowledge industries outside higher education, which are greatly over-represented in the study area.

2.29   In summary, our analysis tentatively concludes that Cambridge's UPC is largely due to unrecorded and / or misrecorded migration. This conclusion is now confirmed by a new ONS 'data tool', which provides evidence on the causes of the UPC by local authority area.

The data sheet relating to Cambridge is reproduced overleaf – though the analysis can only be fully read and understood in the online version[13].

2.30   In the data sheet, the most telling feature is the predominance of purple cells in the right-hand columns of both the 'Male' and 'Female' blocks of data. The sheet tells us that the ONS migration data significantly underestimate net in-migration into Cambridge, mostly international but also domestic. In other words, it is likely that a large proportion of the UPC is unrecorded or misrecorded migration.

2.31   If that part of the UPC which is due to migration could be measured, it should be included in demographic projections as past migration, and the rest of the UPC should be left out. But unfortunately it cannot be measured, so there are only two options for the projections: either include the UPC or leave it out. This choice cannot be entirely determined by evidence, because the available evidence is not good enough. Therefore it is a matter of judgment. Our judgment, bearing in mind that in line with national policy planning should plan positively to support growth, is that on balance the calculation for Cambridge should include the UPC – in effect assuming that all of it is unrecorded or misrecorded migration.

2.32   This means that the Edge scenarios, which take account of the UPC, are more robust projections of past demographic trends than SNPP/CLG 2012, which excludes the UPC. Therefore the Edge projections are preferable as a demographic 'starting point' for assessing housing need. But these Edge-with-UPC projections should be considered a maximum, or ceiling, because in reality some of the UPC may be due to badly enumerated population in the Census. Cambridge population: alternative reference periods

2.33   As well as the UPC, an important factor that impacts on population projections is the reference period from which migration and other trends are carried forward. In the Edge projections at Table 2.1 and Figure 2.1, this impact is measured by the difference between the 5yr and 10yr projections – which use the same inputs as each other, except for having different reference periods. The 5yr scenario shows population growth of 24,200 over the plan period, while in the 10yr version growth is lower at 19,000.

2.34   The likely explanation for this difference is apparent from Figure 2.4 below. In the base period of the 5yr scenario, 2008-13, the trend of population growth was steeper than the previous five year, 2003-08. Therefore the 10yr projection, which is based on the whole period from 2003 to 2013, rolls forward a lower growth rate than the 5yr projection, though the difference is not large.

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[13] *Further understanding of the causes of discrepancies between rolled forward and census based local authority mid-year population estimates for 2011*, http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/population-statistics-research-unit--psru-/latest-publications-from-the-population-statistics-research-unit/index.html

Figure 2.3 Causes of the UPC
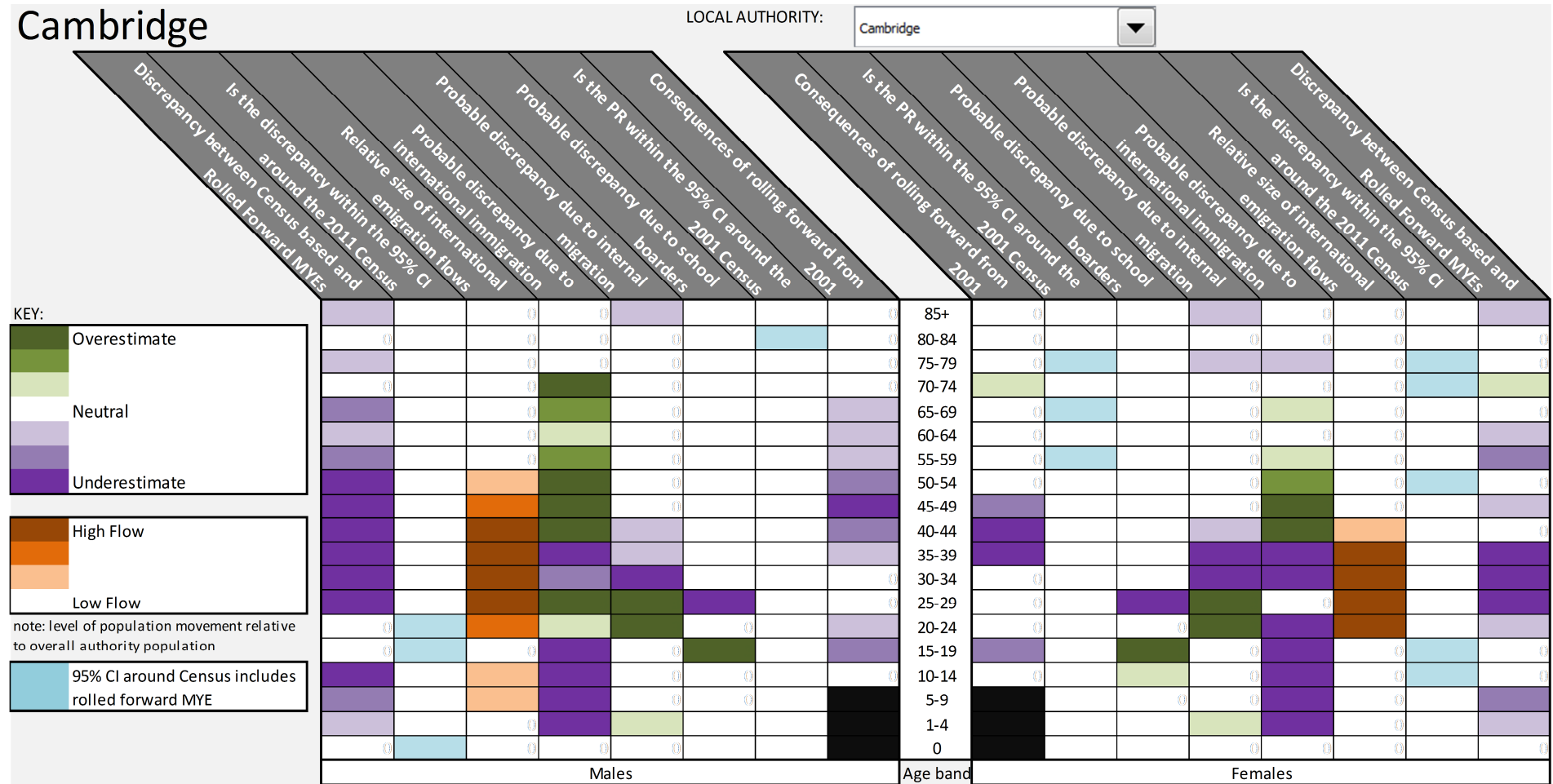
Source: ONS

Figure 2.4 Population growth, Cambridge, 2001-13
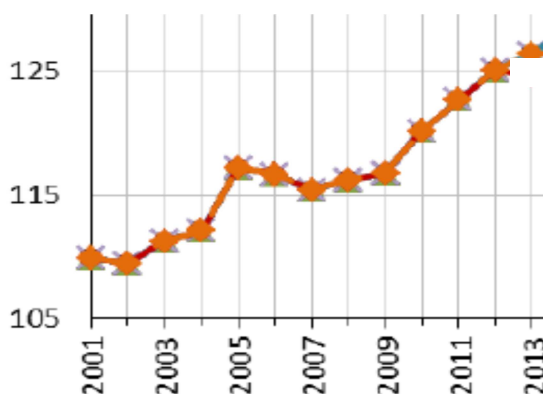
Source: Reproduced from Edge Phase 7 report, page 95. The figures are from the ONS Mid-Year Population Estimates (as revised by ONS to be as consistent as possible with the Census results).

2.35 Other things being equal a longer base period should provide a more robust projection, because it should be a better reflection of underlying trends, less impacted by short-term fluctuations ('noise in the system') and the economic cycle (the five-year base period is strongly impacted by the recession and its aftermath). This approach has been endorsed by the Bath and North East EiP Inspector and the Cornwall Inspector among others:

'Given the uncertainties inherent in some of the data, particularly for flows of migrants internationally, a 10 year period is a reasonable approach … The inter-censal period provides a readily understandable and robust check… (BANES)[14]

'Given the significance of migration as a component of change for Cornwall and to even-out the likely effect of the recent recession on migration between 2008-2012 a longer period than 5 years would give a more realistic basis for projecting this component'. (Cornwall[15]).

2.36 We also note that the Uttlesford SHMA (September 2015) uses the same EPOA Edge report and concludes that the 10yr scenario is the most appropriate. So the Edge 10yr scenario is likely to be preferable to the 5yr one, unless other things are not equal – that is, unless there are special circumstances that make the first half of the 10-year base period unrepresentative or untypical. To our knowledge there are no such circumstances. Therefore the Edge 10yr projection is the more robust.

Cambridge household representative rates

2.37 As noted earlier, the factor that translates population into numbers of households, and hence numbers of dwellings, is HRRs. The higher are HRRs, the more dwellings are needed for any given population. As was also explained earlier in this chapter, for each of the Edge population scenarios there are two household scenarios, reflecting two views of future HRRs.:

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[14] Planning Inspectorate, *Report on the Examination into Bath and North East Somerset Council's Core Strategy,* June 2014

[15] Cornwall Local Plan Examination, *Inspector's preliminary findings* ,11th June 2015

- In the 'HH08' scenarios, HRRs are taken from the 2008 CLG household projection (CLG 2008).

- The 'HH12' scenarios are from the SNPP/CLG 2012 projection. They are generally lower, because the Census, and also the Labour Force Survey, showed that the 2008 projection overestimated actual HRRs. Accordingly, for each version of future population the HH12 projection shows fewer households and dwellings than the HH08 one.

2.38   But in the case of Cambridge the difference is small: over the plan period 5yr HH12 shows 13,000 dwellings and HH08 shows 13,700 dwellings.

2.39   As discussed in more detail in the PAS advice note, there has been much debate about HRRs: Some analysts maintain that household formation will return to the 2008-based rates, because those rates represent long-term trends which were only interrupted due to the last recession. Others, such as Professor Ludi Simpson[16], consider that the 2008-based rates never did provide a robust view of long-term trends and are now irrelevant, because societal change is slowing down historical rise in HRRs and resulting fall in household sizes.

2.40   In our opinion the balance of the evidence supports the latter view, and it is wrong to expect a return to 2008 rates. But in relation to housing need the debate is largely academic, for two reasons. Firstly, a sentence recently added to the PPG endorses the SNPP/CLG 2012 household projections as '*the most up-to-date estimate of future household growth*'[17]. This implies that plan-makers should normally use future HRRs from SNPP/CLG 2012. Secondly, in relation to Cambridge the choice of HRRs makes very little difference.

2.41   In other words, the PPG suggests that plan-makers should not disagree with the national 'macro' view of HRRS built into SNPP/CLG 2012. But, in line with the wider logic of the Guidance, the rates may be amended if there is local evidence to show that they are wrong. In the case of Cambridge we have found no such evidence.

2.42   Accordingly, we consider that the Edge HH12 scenario is a more robust projection than HH08.
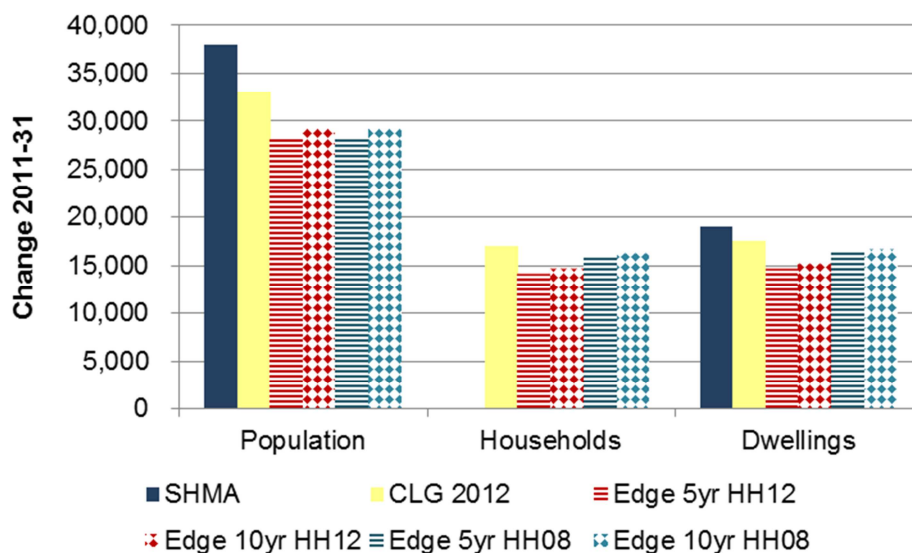
South Cambridgeshire

Overview

2.43   Figure 2.5 pictures the different demographic projections for South Cambridgeshire over the plan period (the same information is shown at Table 2.1). The differences between scenarios are much smaller than for Cambridge. The CLG projection implies 17,579 new dwellings. The Edge scenarios are slightly below SNPP/CLG 2012 and close to each other, ranging from 14,591 to 16,697 dwellings. Again the differences between SNPP/CLG 2012 and Edge are accounted for by population, which shows a

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[16] L Simpson, *Whither household projections?* in *Town and Country Planning*, December 2014

[17] Reference ID: 2a-016-20150227

very similar pattern. The SHMA figure of 19,000 dwellings is above all the demographic scenarios.

**Figure 2.5 Alternative demographic scenarios and the SHMA: South Cambridgeshire**

Source: Table 2.1

South Cambridgeshire population

2.44 As explained earlier in relation to Cambridge, the Edge population scenario that is methodologically closest to SNPP/CLG 2012 is the 5yr one. Between these two scenarios there is a small difference of some 5,000 persons (250 per year). It is likely that at least part of this difference is due to the UPC, which for South Cambridge is small and negative at some 100 persons per year.

2.45 In contrast to Cambridge, for South Cambridgeshire we have found no local evidence to suggest that the UPC is misrecorded migration. As discussed earlier, where there is no such evidence the PPG suggests that the default answer is to leave the UPC out of the projections, as the SNPP/CLG do. For South Cambridgeshire, therefore, here is no justification for adjusting the official population projections to include the UPC.

2.46 We also need to consider if the SNPP/CLG projection should be adjusted in respect of its base period. As noted earlier, other things being equal a longer reference period should provide a more stable and therefore more robust projection, less influenced by short-term fluctuations including the economic cycle. But in the case of South Cambridgeshire the Edge scenarios suggest that the base period makes little difference to the result: over the whole plan period the 10yr scenario shows just 1,200 more people than the 5yr one. The chart below explains why the 5yr and 10yr projections are so similar: unlike Cambridge, in South Cambridgeshire the rate of population growth since 2001 has been quite stable, so whether we roll forward the last five years or the last 10 years does not make a significant difference to the outcome.

Figure 2.6 Population growth, South Cambridgeshire, 2001-13
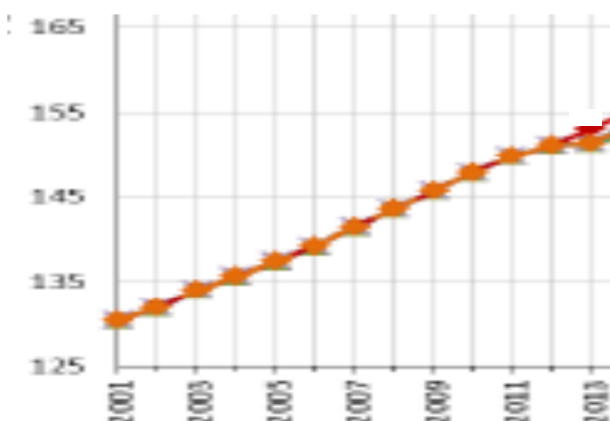
Source: Reproduced from Edge Phase 7 report, page 99. The figures are from the ONS Mid-Year Population Estimates (which were revised in 2012 to be fully consistent with the Census results).

2.47   Given that the population projection is quite insensitive to the reference period used, there is no justification for departing from the five-year-based official scenarios.

South Cambridgeshire HRRs

2.48   Similar to Cambridge, the Edge scenarios test two alternative sets of HRRS (headship rates), taken from the CLG 2008 and SNPP/CLG 2012 household projections respectively. For reasons explained earlier (paragraph 2.37 onwards), the 2008 set produces more households and greater housing need – in this case, some 1,800 additional dwellings over the plan period.

2.49   For the reasons stated above in relation to Cambridge, we consider that the 2012-based rates provide the more robust trend-based projection.

Conclusion

2.50   Starting from the SNPP/CLG 2012 projections, and after testing and adjustments in line with the PPG, we consider that the most robust trend-based demographic projections available at this time are:

- For Cambridge, the Edge 10yr HH12 projection, which implies 10,069 new dwellings in 2011-31;
- For South Cambridgeshire, the SNPP/CLG 2012 household projection, which implies 17,579 new dwellings.
- For Greater Cambridge as a whole, 27,648 net new dwellings.

2.51   All the above projections show fewer dwellings than the SHMA.

2.52   As mentioned earlier, the demographic projections are only the second step in determining the OAN (after the first step, or starting point, which is the CLG projections). They simply roll forward past demographic trends, taking no account of future changes in the factors that drive those trends, such as government policy, the macroeconomic climate and future jobs. In line with the PPG, if such factors are expected to change in the future the trend-based projections should be adjusted

accordingly. Any such adjustments should be made to the starting point SNPP/CLG 2012 figures or an appropriate alternative as in the case of Cambridge. (Again this approach is not applicable to the SHMA figures, because they are based on a different method, which does not involve a demographic starting point.)

2.53   We consider adjustments to the demographic projections in the next two chapters, focusing on the factors which the EiP inspectors asked about.

3 MARKET SIGNALS

Introduction

3.1 The Inspectors' letter to the Councils refers to market signals as follows:

'… There is no evidence before us that the Councils have carried out the kind of assessment of market signals envisaged in the Guidance; or considered whether an upward adjustment to planned housing numbers would be appropriate.'

3.2 To understand this question fully, we need to refer to paragraphs 015, 019 and 020 of the NPPF:

'*The household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends. For example, formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under delivery of housing. As household projections do not reflect unmet housing need, local planning authorities should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply.*'[18]

'*The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rents rising faster than the national/local average may well indicate particular market undersupply relative to demand …*'[19]

Appropriate comparisons of indicators should be made. This includes comparison with longer term trends (both in absolute levels and rates of change) in the: housing market area; similar demographic and economic areas; and nationally. A worsening trend in any of these indicators will require upward adjustment to planned housing numbers compared to ones based solely on household projections.[20]

3.3 Considered together, the above passages explain why market signals are relevant and how they should be used in relation to housing needs assessments. In summary:

- Demographic projections roll forward past reality – the amount of housing that has been provided in the reference period on which they are based.

- If this past supply met demand (need) in full, then other things being equal the projection should be an accurate reflection of future demand.

- But if past supply under delivered against demand, then the projections will carry forward that under delivery; therefore they understate demand and should be adjusted upwards.

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[18] Reference ID: 2a-015-20150227
[19] Reference ID: 2a-019-20150227
[20] Reference ID: 2a-020-20150227

- To determine whether past supply has indeed under-delivered against demand, the PPG suggests two kinds of evidence: a series of specified 'market signals' such as prices or rents, and 'other indicators' which are not specified.

3.4 Below, we use two kinds of evidence to assess the balance of demand and supply in line with the PPG. Firstly, we interrogate the history of past delivery to see if there is any direct evidence that the supply of housing land has underprovided against demand. Secondly, we analyse the specific market signals listed in the PPG.

Past delivery and land supply

History

3.5 Figure 3.1 below shows housing delivery (net housing completions) in Cambridge and South Cambridgeshire for the period 2001-2014. It is helpful to look at the two districts together, because much housing development in recent years has been on cross-boundary sites. Figure 3.2 for comparison shows the same trajectory for England.

Figure 3.1 Past net housing completions, Greater Cambridge
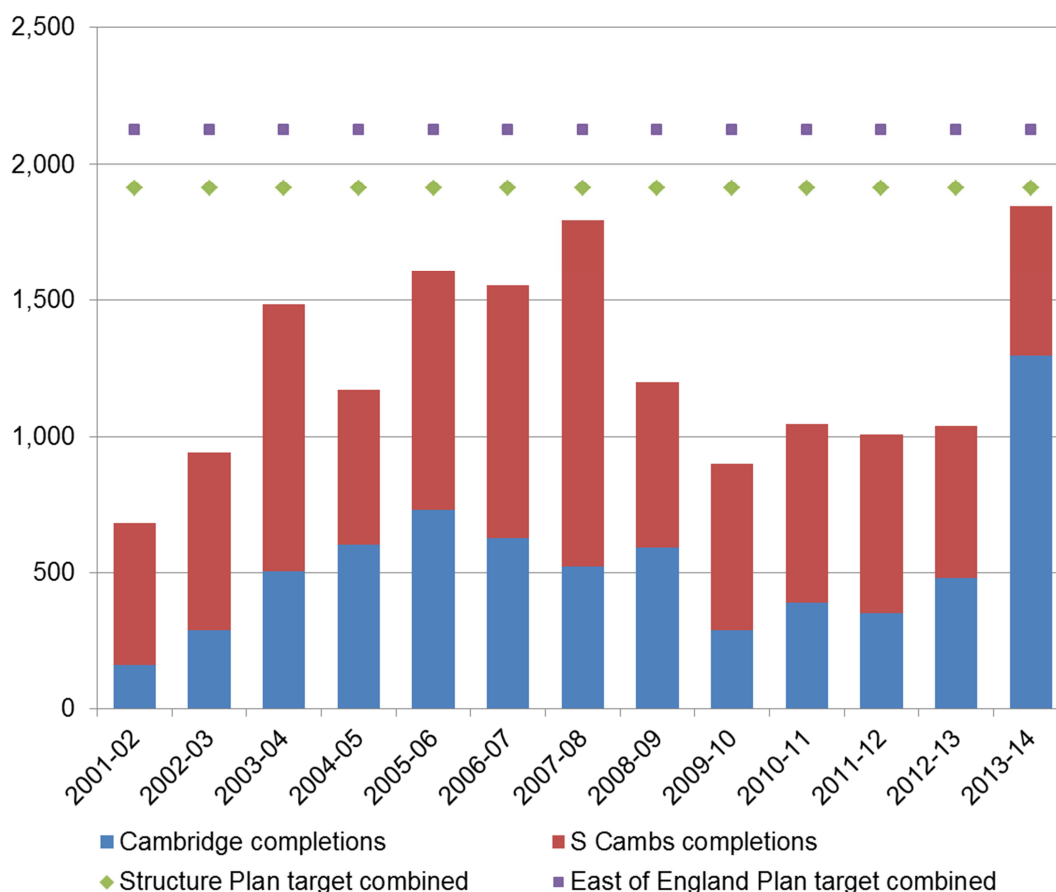
Source: Annual Monitoring Reports

Figure 3.2 Past net housing completions, England
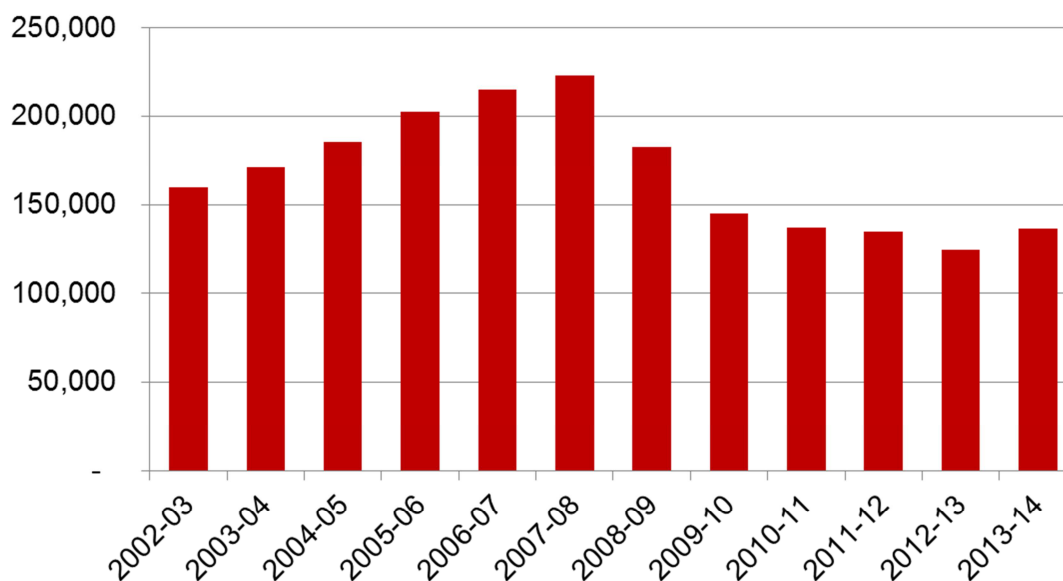
Source: CLG

3.6   In broad terms the study area shows a similar profile to the national total, following the economic cycle: delivery fell steeply in the recession, stayed low for a number of years and very recently started to recover. The national trajectory reflects the changing demand for housing, due to falling incomes and restricted credit in the recession, as opposed to supply conditions in particular areas. But Greater Cambridge does not exactly follow the national trajectory. Rather, it departs from that trajectory in three ways.

- Firstly, in the early years of the last decade, while national housing completions were on a high plateau (and had been for several years before the period pictured), in Greater Cambridge completions were relatively low. Not till the middle of the decade did the area see an upswing in completions, reflecting the change in planning strategy.

- Secondly, the recessionary slump was slightly more severe than the national trend. In 2009/10 local delivery was just half what it had been at the peak of the boom. For England as a whole the rate of delivery fell less steeply.

- Thirdly, Greater Cambridge saw a steeper recovery than the national total, with delivery in 2013/14 double the previous year and slightly above its pre-recession peak. (The recovery was concentrated in Cambridge, due to the phasing of cross-boundary sites, where construction started at the Cambridge end).

3.7   This history is explained by the pattern of planned land supply. Historically planning policy for Cambridge and South Cambridgeshire had focussed on protecting the Green Belt, so that housing demand was exported to places beyond the Green Belt and hence beyond the South Cambridgeshire boundary. The Cambridgeshire and Peterborough Structure Plan (2003), based on Regional Planning Guidance (RPG) 6 (2000), introduced a new strategy, to facilitate large-scale housing growth in the area,

through a small number of large urban extensions and the new settlements of Cambourne and Northstowe.

3.8 Around Cambridge these urban extensions required a review of the Green Belt, which was implemented in the 2006 Cambridge Local Plan, the 2008 Cambridge East Area Action Plan, the 2008 Southern Fringe Area Action Plan, the 2009 North West Cambridge Area Action Plan and the 2010 Site Specific Policies DPD for land between Huntingdon and Histon Roads in South Cambridgeshire.

3.9 The 2006 Local Plan provided for around 50% of the city's housing delivery to be on newly released Green Belt sites. But delivery could not commence immediately, as planning permission needed to be granted and in some cases infrastructure had to be provided before development could start. Planning permission for the large Southern Fringe urban extension was granted in 2009.

3.10 Only a year after the 2006 Local Plan the economic climate deteriorated and housing demand fell sharply. In mid-2007 the credit crunch; started to bite, leading to the failure of Northern Rock in autumn 2007. By the time Northstowe and the Cambridge sites were ready to deliver the market was in full recession.

3.11 This effective banking of ready to go development sites is probably the reason the local market has been able to respond so quickly to the upturn in demand. Resulting in the sharp upturn in 2013/14 seen in the local data but only now flowing through national statistics.

3.12 In summary, the Greater Cambridge area made provision to meet its full Structure Plan housing requirements. But delivery of this housing was stalled for several years by subdued demand in the credit crunch and recession. In this regard, Greater Cambridge followed the national trend. However, the exact timing of the downturn and recovery in greater Cambridge was did not precisely follow the national trajectory, due to the delivery route chosen, through large SUEs on land released from the Green Belt, and new settlements. It is only now, in an improved market, that we can now see these planned developments being implemented.

Implications

3.13 The above narrative suggests that for much of the past 10-15 years housing land supply in Greater Cambridge has fallen short of demand and need. Land supply is not to be blamed for the reduced delivery in the recession – which was plainly due to nationally collapsing demand. But in the long boom that ended in 2007-08 it is likely that land supply did constrain housing delivery. The new planning strategy introduced by the 2003 Structure Plan aimed to relieve that constraint; but due to the need to get Local Plans in place after 2003 and then the recession, delivery was delayed and the resulting upturn in housing delivery only materialised in 2013-14.

3.14 In 2014-15 and future years this high rate of delivery is expected to continue, compensating for earlier supply shortfalls. But this upturn is not captured in the demographic projections, whose reference periods end in 2012 (CLG) or 2013 (Edge).

3.15   The implication is that, for Cambridge and South Cambridgeshire considered in isolation, the demographic projections are likely to understate future housing need and should be adjusted upwards. This is not necessarily the case for the housing market area (HMA) as a whole, because the evidence suggests that at least some of the past underprovision in the study area has been offset by overprovision in East Cambridgeshire, Huntingdonshire and Fenland. Annual Monitoring Reports show that all these authorities consistently oversupplied housing against their Structure Plan requirements.

Market signals

3.16   Below, we analyse the main market signals set out at paragraph 019 of the PPG. But we exclude two of these signals:

- Land prices, because the necessary data are not available (the statistical series published by the Valuation Office Agency was discontinued in 2010);
- Rates of development, because the discussion in the PPG suggests that this signal is relevant to delivery and land allocations (buffers and reserve sites) rather than objectively assessed need.

House price change

3.17   The PPG identifies long-term change in house prices (house price inflation) as a market signal; it makes no mention of house prices. The underlying logic is probably that places where houses are expensive do not necessarily have a shortage of supply; they may simply indicate that some areas are more attractive places to live than others, for example due to job opportunities or the quality of life. But the relative attractiveness of different places generally does not change very much over time; therefore, therefore, if prices increase exceptionally fast in an area the likely reason is restricted supply.

3.18   In short, in relation to housing needs assessments house price change is a better market indicator than the absolute level of house prices, especially as the latter indicator is not mentioned in the PPG. Nevertheless, for completeness we have analysed both these indicators.

3.19   The latest annual Land Registry data (Table 3.1) show a median house price of £350,000 in Cambridge and £269,995 in South Cambridgeshire, against £216,962 for England and Wales. Thus housing in both local authority areas is significantly more expensive than the national benchmark, especially in Cambridge, where it is 61% above that benchmark. In the rest of the HMA house prices are considerably lower than in the study area, and also lower than in England and Wales.

Table 3.1 Median house prices, 2014

City of Cambridge	350,000
South Cambridgeshire	269,995
Huntingdonshire	198,250
Fenland	141,000
East Cambridgeshire	212,000
City of Peterborough	150,000
Forest Heath	162,500
St Edmundsbury	215,000
East of England	230,274
England and Wales	216,962

Source: ONS

3.20 The chart below shows change in house prices since 2002, for the Greater Cambridge districts and comparator areas.

Figure 3.3 Median house prices, 2002-14
Index 2002=100
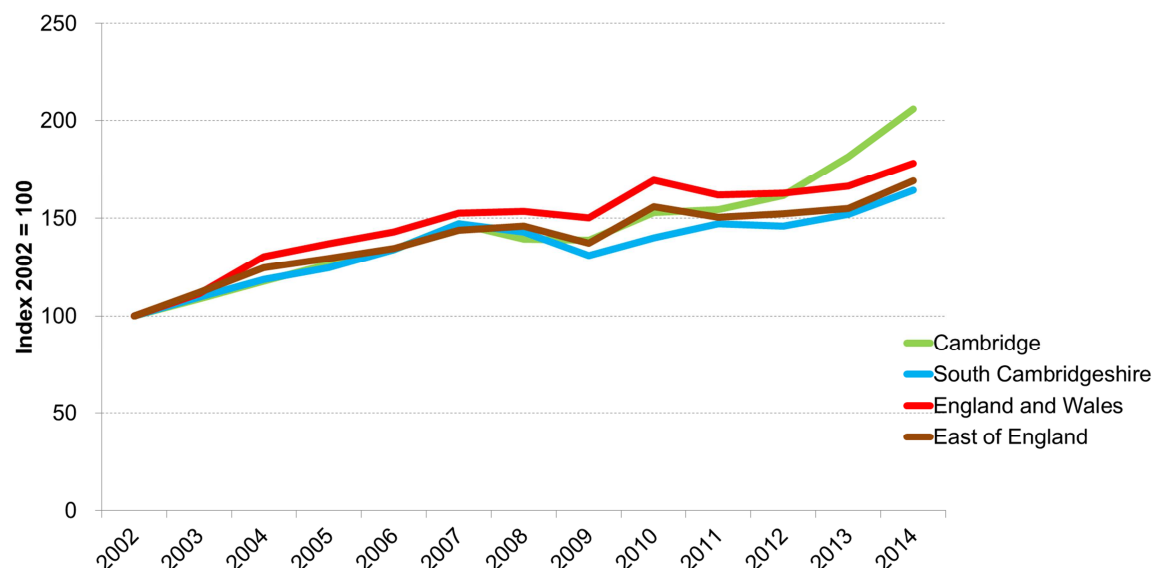
Source: ONS, *House Price Index,* Table 10

3.21 In South Cambridgeshire, house prices change was close to the national trend until 2007. But in the recession (2008 and 2009) if fell faster than the national figure, and in the recovery it has not caught up with the national trend. This pattern closely parallels the East of England as a whole.

3.22   Cambridge City until 2011 followed exactly the same trend as South Cambridgeshire and the region. But from 2012 onwards its house price increased faster than the comparator areas. Consequently by 2014 the median house price in Cambridge was 206% of what it had been in 2002, whereas for the comparator areas the median house price was between 169% and 178% of what it had been in 2002.

3.23   This evidence suggests that in Cambridge's market in recent years housing supply has been comparatively restricted in relation to demand. It also suggest that the more generous provision elsewhere in Cambridgeshire has not fully compensated for this undersupply.

Affordability

3.24   Affordability, as defined by CLG and referred to in PPG, is the ratio of lower-quartile house prices to lower-quartile earnings. A high ratio indicates low affordability, where the cheapest dwellings are less financially accessible to people on the lowest incomes.

3.25   Figure 3.4 shows the index for the study area and comparator areas since 1997. Cambridge has had a consistently higher index (lower affordability) than the all the comparator areas. South Cambridgeshire also has poor relative affordability, though not as consistently as Cambridge and to a lesser degree. Affordability for Cambridgeshire throughout the period was only slightly worse than for England and slightly better than for the East of England.

Figure 3.4 Housing affordability, 1997-2013
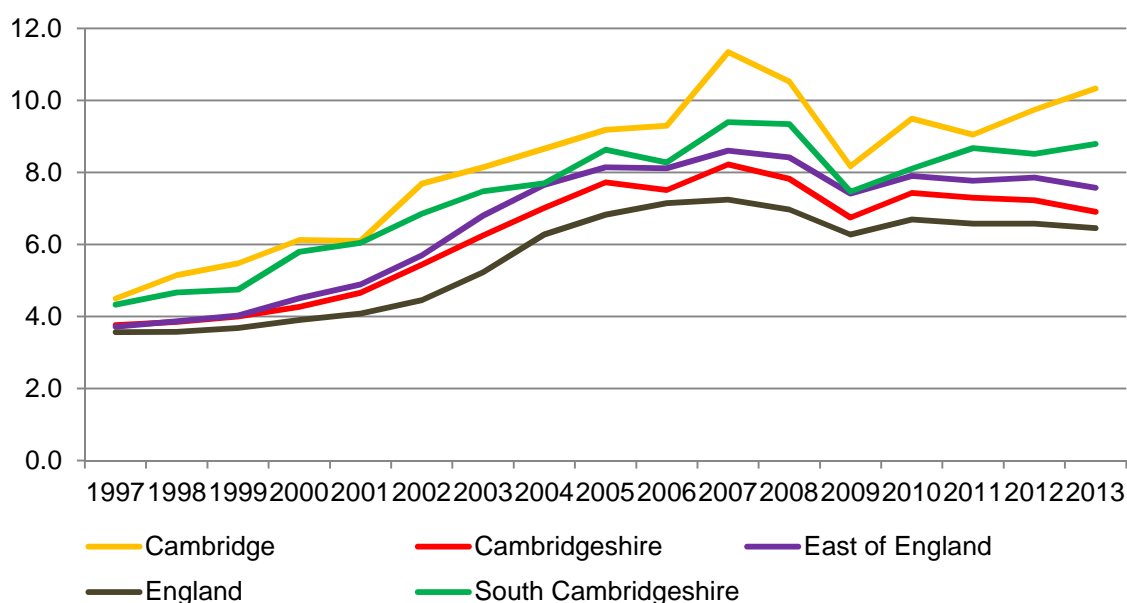
Source: CLG Table 576

Market rents

3.26   Data on market rents is only available for a short period, between 2011 and 2014. Throughout this period, average rents in both Cambridge and South Cambridgeshire have been higher than the county, regional and national averages. In 2011 the two

districts had virtually the same average rent – around £800 per month, against some £690 per month in England. Over the following three years the average rent increased faster than the national trend in both areas. The greater increase was in Cambridge, where the figure rose to £903 in just one year, from 2011 to 2012, and has stayed almost unchanged since.

**Figure 3.5 Market rents, £/month, 2011-14**
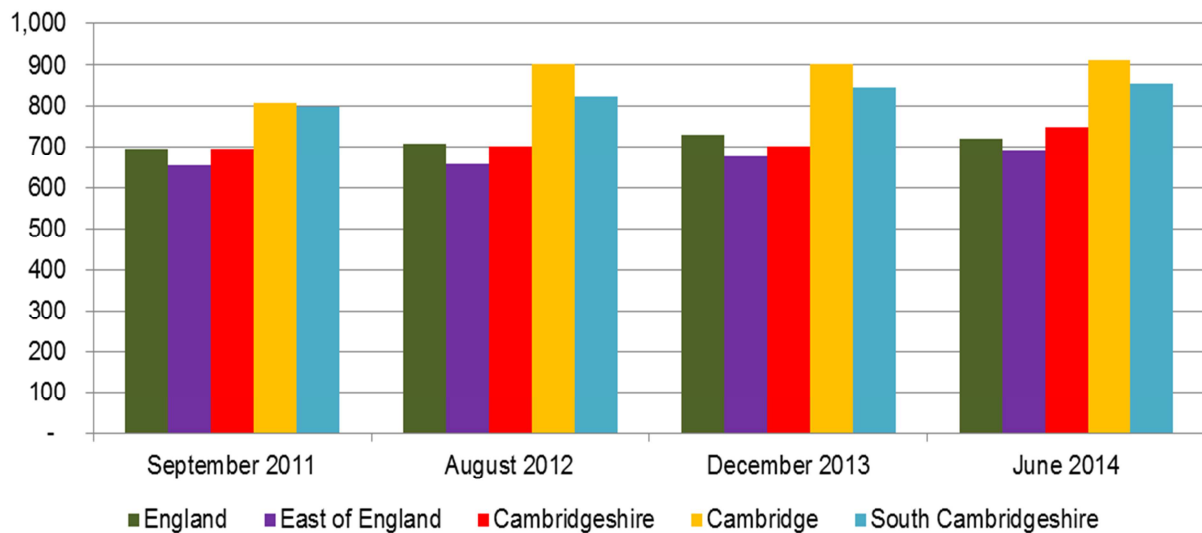
Source: VOA Private Rental Market Statistics

3.27   The above figures do not provide a reliable measure of change, because they cover a very short period. Still, the evidence taken as a whole points to a relatively tight market in both districts. It also suggests that in Cambridge City supply may have tightened against demand in the last 4-5 years.

Overcrowding

3.28   The chart below shows occupancy ratings, as defined by the ONS and calculated from Census data. Starting from the base of the columns, the chart counts the percentages of dwellings that are under-occupied, correctly occupied and over-occupied according to ONS definitions, which are based on the 'bedroom standard'..

Figure 3.6 Overcrowding, 2011
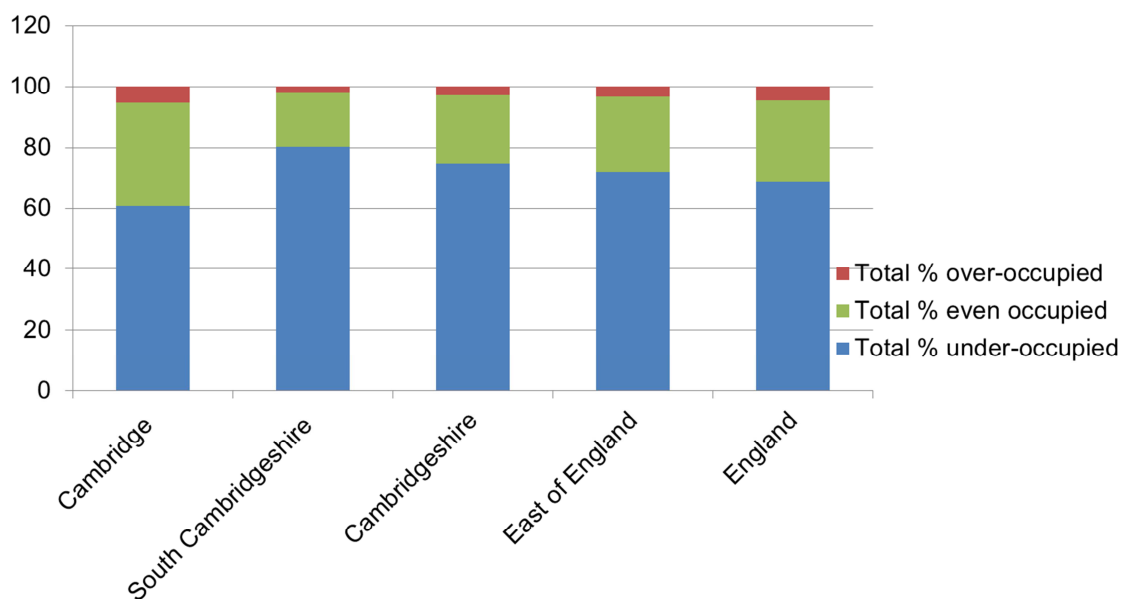
Source: ONS

3.29 In England as a whole the majority of the dwellings are considered under occupied. This is because many households have spare rooms. The propensity to under-occupy housing is greater in areas where the population is older, including rural areas. This is because many older people continue to occupy large family homes after children move out to form their own households. This may account for some of the South Cambridgeshire under occupancy.

3.30 On the other hand, students may be more likely to over-occupy and less likely to under-occupy than other people. House sharing means that most bedrooms are fully used and rooms which in normal family houses would not be occupied as bedrooms are often used as such. Possibility reflecting this, the Cambridge stock is more efficiently used, which fewer homes under occupied. The proportion over occupied is close to the national average.

3.31 It is impossible to work out a benchmark for university cities because the stock in each area is different, as are the wider market dynamics.

Implications

Demographic projections and market signals

3.32 The analysis above suggests that past housing delivery in the study area has fallen short of demand and need, because of restricted land supply due to the time it took to put local plans in place to implement the new strategy set in place in the Structure Plan 2003 and the recession. This shortfall is significant for Cambridge City but less so for South Cambridgeshire. Some of the resulting unmet demand was met by overprovision in other Cambridgeshire districts, beyond the Green Belt. But the evidence of fast-rising house prices in Cambridge suggests that development elsewhere in the HMA has not fully compensated for restricted supply in the city.

3.33 In short, the evidence suggests that the demographic projections underestimate housing need and should be adjusted upwards.

3.34 The PPG does not specify the size of this adjustment:

'Market signals are affected by a number of economic factors, and plan makers should not attempt to estimate the precise impact of an increase in housing supply. Rather they should increase planned supply by an amount that, on reasonable assumptions and consistent with principles of sustainable development, could be expected to improve affordability, and monitor the response of the market over the plan period.' [21]

3.35 There is no fixed empirical or statistical approach to arrive at the level of adjustment to address market signals. Based on the PPG requirements, Inspectors' decisions approached the matter as an exercise of judgment.

3.36 In Eastleigh, the Inspector noted that affordability had worsened more than the national average and rents had risen more than the average. On this basis he concluded that '*a cautious approach is reasonable bearing in mind that any practical benefit is likely to be very limited because Eastleigh is only a part of a much larger HMA… Exploration of an uplift [to the demographic projections] of, say, 10% would be compatible with the "modest" pressure of market signals'.*

3.37 In Uttlesford, the Inspector mentioned that house price increases had been slightly less than for Essex and England but from a very much higher base; median rents were higher than these comparators and had risen faster; and affordability had risen to a much higher peak prior to the recession. '*Taking in the round'* these market signals as well as affordable need, the Inspector advised an uplift of 10%. He did not apportion the uplift between these two factors.

3.38 In Canterbury, the Inspector focused on three main market signals:

- Median house prices 12% above the national average (for comparison, as noted earlier Cambridge house prices are 61% above the national average);
- House price growth some 20 percentage points above the national average (Cambridge is similar);
- Affordability ratio consistently above the national benchmark - currently 9 against 6.5 for England (the ratio for Cambridge is 10).

3.39 The Canterbury Inspector recommended an uplift of 30% to take account of these market signals, together with future jobs, affordable housing need and a post-recession recovery in household formation rates. The Inspector noted that these four factors overlapped and did not apportion the uplift between them.

3.40 From the three cases discussed above we cannot draw definite conclusions about the correct market signals uplift for Cambridge and South Cambridgeshire. This is partly because the evidence used in Eastleigh, Uttlesford and Canterbury is not directly comparable: the indicators used are not always the same, some are measured as

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[21] Reference ID: 2a-020-20140306

absolute levels and others as rates of change, they refer to different dates and are compared with different benchmarks. A further difficulty is that only one of the three Inspectors, in Eastleigh, provides an uplift for market signals alone. In the other two areas the adjustments they propose also take account of affordable need, future jobs and the impact of the recession on household formation.

3.41   In short, the size of any market uplift cannot be simply inferred from earlier examples; it also requires judgment. In our judgment, market signals for South Cambridgeshire point to 'modest' market pressures, similar to Eastleigh and Uttlesford, This suggests an uplift of 10% to the demographically projected housing need of 17,579 dwellings over the plan period. The resulting need is 19,337 dwellings, slightly above the SHMA figure of 19,000.

3.42   For Cambridge, in our judgment market signals are similar to Canterbury. The most important indicator, the rate of change in house prices, is similar in Cambridge to Canterbury. The affordability ratio is also similar in Cambridge and Canterbury. The absolute level of house prices is considerably higher in Cambridge than Canterbury, but as mentioned earlier this is a less helpful indicator, not referred to in the PPG: high relative prices in Cambridge are likely to reflect the city's greater job opportunities and earnings, rather than a more restricted supply of housing land.

3.43   If we apply a 30% uplift to Cambridge, as the Inspector did for Canterbury, the demographically projected need of 10,069 dwellings in the plan period rises to 13,090 dwellings. In relation to market signals this figure is a maximum, because in arriving at the 30% the Inspector also took account of other factors including future jobs. It is less than the need of 14,000 assessed in the SHMA, which took account of future jobs, though it made no explicit allowance for market signals.

3.44   In summary, our analysis of the SNPP/CLG 2012 projections and market signals suggests a maximum housing need over the plan period of:

-   19,337 net new dwellings for South Cambridgeshire, against 19,000 in the SHMA
-   13,090 net new dwellings for Cambridge, against 14,000 in the SHMA.

3.45   In relation to market signals these are maximum estimates, because in arriving at the adjustments of 10 and 30% Inspector also took account of other factors – which in relation to the Canterbury 30% including future jobs.

Future employment

3.46   In line with the PPG, as well as past demographic trends and market signals housing needs assessments must have regard to the impact of future employment.

3.47   In the present study we have not considered this factor, because it has already been addressed in the SHMA, and the Inspectors' letter has not asked the Councils tor further evidence on the matter.

3.48   In respect of employment growth, the PPG advises as follows::

'*Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to*

*the growth of the working age population in the housing market area. Any cross-boundary ~~migration~~ **commuting** assumptions… will need to be agreed with the other relevant local planning authority under the duty to cooperate. Failure to do so will mean that there would be an increase in unmet housing need*

Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems.[22]

3.49 The correction in bold type above is ours. The context suggests that the PPG in this passage intended to refer to commuting, and the word 'migration' is an error.

3.50 Cambridge City and South Cambridgeshire Councils, working with the other local authorities in the HMA, have followed the process now recommended by the PPG :

i Through the SHMA they identified future job growth, which was considered alongside other factors in assessing housing need across the HMA.

ii For the HMA as a whole, therefore, the SHMA estimated that labour demand and supply would be in balance.

iii But for South Cambridge and Cambridge City considered in isolation the labour supply resulting from the proposed housing numbers would not be enough to support the expected job growth.

iv Therefore the authorities' spatial strategy proposes that some of the new jobs in Greater Cambridge be filled by increased commuting from other parts of the HMA.

v This approach has been developed with the other relevant planning authorities under the duty to cooperate.

vi Policies on the location of housing are supported by new transport infrastructure, to ensure that this increased commuting is sustainable.

3.51 As part of this process, the SHMA concluded that the housing required to support future job growth as part of a HMA-wide strategy, and to balance jobs and homes across the HMA, was 19,000 in South Cambridgeshire and 14,000 in Cambridge City.

3.52 In short, there is already in place through the SHMA an analysis of the housing required to support future employment growth. Therefore there are two alternative housing need figures: the PBA projection, based on past demographic trends and market signals, and the SHMA projections, which take account of future employment.

3.53 For South Cambridgeshire the SHMA figure is fractionally below our own need assessment of 19,337 dwellings. Our figure took account of past demographic trends and market signals but not future jobs. The SHMA figure suggests that, if housing is built in line with our assessment, it will provide very slightly more workers than are

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[22] Reference ID: 2a-018-20140306

required to support expected job growth. Hence there is no justification for a 'jobs uplift' to our assessment.

3.54   Conversely, for Cambridge City the SHMA figure is above our assessed need of 13,090 dwellings. This suggests that, if housing is built in line with our assessment, the city will provide slightly fewer workers than are required to support the expected job growth. Hence our assessment should be adjusted upwards, to provide 14,000 dwellings as shown in the SHMA.

3.55   On this basis, we conclude that objectively assessed housing needs in the study area are:

- 19,337 dwellings for South Cambridgeshire
- 14,000 dwelling for Cambridge City.

3.56   These housing numbers that are consistent with past demographic trends as adjusted for market signals in each local authority area (as advised by the PPG), and also provide enough labour to support expected job growth as part of an HMA-wide strategy, are:

Uncertainty

3.57   As pointed out in the PPG, the measurement of housing need is not an exact science. Therefore our assessment, like any exercise of its kind, is surrounded by uncertainty: To manage that uncertainty, providing the *'flexibility to adapt to rapid change'* required by paragraph 14 of the NPPF, South Cambridgeshire Council has made provision for the development of 21,091 dwellings over the plan period, to give the plan flexibility to respond to changing market conditions. This means that, if the SHMA and our own calculations have underestimated the OAN, and hence the annual take-up of allocated sites runs ahead of the targets, there should be enough capacity to meet that increased need in the short term while targets are reviewed. Furthermore, as part of the City Deal the Councils have already committed to start a review of both Local Plans by 2019.

4 AFFORDABLE NEED

4.1 The Inspectors' question on affordable housing is as follows:

'There should be clear evidence that the Councils have fully considered the implications and likely outcomes of an upward revision in housing numbers on the provision of affordable housing.'

4.2 The question clearly relates to paragraph 029 of the PPG[23,] which advises on how housing needs assessments should take account of affordable housing need:

'*The total affordable housing need should be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.'*

4.3 As well as the OAN, which covers all tenures of housing, the Cambridgeshire SHMA calculated the need for affordable housing, through a method based on the 2007 Planning Practice Guidance (that guidance has since been revoked, but is replaced by a similar method set out in paragraphs 022-029 of the PPG). These calculations were revised later in the light of new data for 2013/14. The resulting net affordable need, as set out in the Councils' Matter 3 statement (Appendix 4, Table 9) is 5,573 homes for South Cambridgeshire and 10,402 homes for Cambridge over the plan period.

4.4 In considering the implications of these figures, we need to be clear about the relationship between the OAN and affordable need - which is discussed at length in the PAS advice note referred to earlier. As discussed in the note, logic suggests, and planning Inspectors generally agree, that affordable need, as calculated above, is not a component of the OAN to be added mechanically to the result of earlier calculations. (A clear discussion of the issues, not mentioned in the note, is in the Welford-on-Avon appeal decision, December 2012[24].) Rather, affordable need is a separate consideration, which may lead Councils to increase housing targets above the OAN calculated earlier.

4.5 This view of affordable need was arguably put in doubt by High Court judgments in the Satnam[25] and Oadby and Wigston[26] judgments, issued respectively on 19th February and 3rd July 2015. But more recently it was reiterated in the King's Lynn High Court judgement issued on 9 July 2015[27]. In the King's Lynn judgment Mr

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[23] Reference ID: 2a-029-20140306

[24] APP/J3720/A/14/2217495.

[25] Satnam Millennium Ltd v Warrington Borough Council, [2015] EWHC 370 (Admin), 19 February 2015

[26] Oadby and Wigston Borough Council v Secretary of State for Communities and Local Government and Bloor Homes limited, [2015] EWHC 1879 (Admin), 3 July 2015

[27] Borough Council of Kings Lynn and West Norfolk v Secretary of State for Communities and Local Government and Elm Park Holdings Ltd, [2015] EWHC 2464 (Admin)

Justice Dove 'respectfully disagrees' with an interpretation of the Oadby and Wigston judgment that suggests that affordable need is part of the OAN:

'…The Framework makes clear [affordable housing] needs should be addressed in determining the full objectively assessed need (FOAN), but neither the Framework nor the PPG suggest that they have to be met in full when determining that FOAN. This is no doubt because in practice very often the calculation of unmet affordable housing need will produce a figure which the planning authority has little or no prospect of delivering in practice...'

4.6   In the case of Cambridge, we are advised by Council officers that developer contributions over the plan period are expected to deliver around 35% of all new homes as affordable housing. This is well above the 23% achieved since 2006/07, when the current Local Plan was adopted. But it is similar to the affordable delivery of 33% achieved in 2013/14, when housing completions were largely in urban extensions. In future the Council expects the relative contribution of urban extensions, and hence the proportion of affordable housing delivered, to be similar to that year.

4.7   In the case of South Cambridgeshire, we are advised by Council officers that a reasonable estimate over the plan period for the purposes of this assessment is for the delivery of around 30% of all new homes as affordable housing.   To meet the estimated affordable need of 5,573 from developer contributions only would require total delivery of 18,576 dwellings. This is less than the OAN of 19,337 dwellings and therefore does not require the Council to consider an increase in its housing requirement above the OAN. As mentioned earlier, in practice, the Council has made provision for the development of 21,091 dwellings over the plan period. As well as flexibility to respond to changing market conditions, this will provide additional scope for affordable housing provision to meet identified needs if the overall proportion of affordable homes is below 30%.

4.8   For Cambridge City, meeting the OAN of 14,000 dwellings would result in 4,900 affordable units, just under half of the city's affordable need. To meet the affordable need in full from developer contribution would require total delivery of 29,720 dwellings over the plan period – more than double the overall need of 14,000 dwellings.

4.9   In practice, Council officers advise that some of the city's need will be met through shared nominations in the rest of the HMA as well as through use of existing homes.

4.10   In line with the PPG, it is appropriate to consider whether the overall housing target for Cambridge should be lifted so that more of its affordable need is met. This will depend partly on the area's sustainable supply capacity and the viability of market housing development.

4.11   But from a demand perspective, we do not see where additional demand for market housing over and above the OAN would come from – unless the city imports demand from other parts of the HMA, which is unlikely to be a sustainable or policy-preferable option and could impact on housing delivery in other parts of the HMA.

4.12 Planning Inspectors are alive to this issue, and it is one of the reasons why they have been cautious in recommending uplifts to overall housing targets in response to affordable need. Accordingly, the Eastleigh EiP Inspector[28] suggested that the district's uplift should be restricted to accommodating the unmet need from neighbouring Southampton. Similarly if there are shortfalls elsewhere in the HMA Cambridge City could consider accommodating them, but only if it has the necessary supply capacity, which seems unlikely. The inspector in the Welford-on-Avon appeal, referred to earlier, is sceptical about the potential for any uplift:

'*I am mindful of advice in the planning guidance, that the total affordable housing need should be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. It goes on to advise that an increase in total housing figures should be considered where it could help deliver the required number of affordable homes. It seems to me, however, that this is likely to be a rare circumstance, since it begs the question, since the OAN will, in all likelihood, have captured the full demand for market housing, of who the purchasers be of the additional market houses would be, who would, in turn, be funding the additional affordable housing. If they were to come from outside District for instance, that could have implications in terms of the 'duty to cooperate'. For the purposes of this appeal, a pragmatic approach seems to me, to take a realistic view based on how much affordable housing can viably be provided as part of the overall OAN which may, or may not meet the assessed need for affordable housing. Even if it did not, I am not persuaded, for the reason set out above, that it would be necessarily appropriate to increase the OAN.*'

4.13 Another issue, which the Inspectors do not mention, is that if an authority imports unmet need from neighbours a proportion of the imported households are likely to need affordable homes. If so, the previously calculated affordable need of the receiving authority will increase. Whether the net result is an increase or a fall in the balance of affordable need and affordable supply, will depend on local circumstances.

4.14 We do not know what these circumstances are in Eastleigh. But in Cambridge, if the city did accommodate unmet need from other parts of the HMA it seems likely that a high proportion of that need would be for affordable properties, because many people who could afford market housing elsewhere would not be able to afford the higher prices that prevail in the city. Therefore, even if the city did increase its target to accommodate unmet need from other parts of the HMA its unmet *affordable* need would not necessarily fall and might increase.

4.15 In summary, we estimate that, if the OAN we have calculated is delivered in full, South Cambridgeshire is likely to receive enough developer contributions from market housing to meet all of its affordable housing need, as assessed by the Council. Cambridge City will receive enough developer contributions to meet just under half of its affordable need.

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[28] The Planning Inspectorate, *Report to Eastleigh Borough Council,* February 2015

4.16   In line with the PPG, therefore, it is appropriate to consider whether Cambridge City Council should lift its overall housing target above 14,000 dwellings so that it can pay for more affordable units. This will depend partly on the area's sustainable supply capacity and the viability of market housing development. But from a demand perspective, it is not clear where additional demand for market housing over and above the OAN would come from. If – as seems likely – the other authorities in the HMA are able to meet their needs in full, to displace some of those needs to Cambridge City is unlikely to be a sustainable or policy-preferable option and could impact on housing delivery in other parts of the HMA.

4.17   Therefore, an increase in the overall target to help deliver more affordable housing may undermine housing delivery in other parts of the HMA and it would probably not reduce the local shortage of affordable housing.

5 SUMMARY

5.1 Based on the analysis above, we would suggest the following summary replies to the Inspectors' questions.

Demographic projections

5.2 We have revisited the demographic evidence used in the SHMA in the light of the SNPP/CLG 2012-based household projections and other up-to-date information, including a new ONS publication issued on 17 September which has major implication for Cambridge City.

5.3 We conclude that the most robust trend-based projections available at this time are:

- For South Cambridgeshire, the SNPP/CLG 2012 household projection, which implies 17,579 new dwellings in 2011-31;
- For Cambridge, the Edge 10yr HH12 projection, which implies 10,069 new dwellings.

5.4 In line with the PPG these figures are only the second step in determining the OAN (after the first step, which is the CLG projections). They simply roll forward past demographic trends, taking no account of future changes in the factors that drive those trends, such as government policy and the economic climate. In line with the PPG, if such factors are expected to change in the future the trend-based projections should be adjusted accordingly. We discuss these adjustments below.

Market signals

5.5 Our analysis suggests that past housing delivery in the study area was suppressed by land supply, mainly due to the Green Belt; and development elsewhere in the HMA did not fully compensate for this. This suppression is particularly significant for Cambridge City and less so for South Cambridgeshire. This suggests that the above demographic projections underestimate housing need and should be adjusted upwards.

5.6 The PPG does not specify the size of this adjustment, saying only that it should be 'reasonable', and authorities should monitor the situation and review supply accordingly. But EiP Inspectors' decisions on three occasions have used rules of thumb as follows:

- Modest underprovision / market pressure (Uttlesford, Eastleigh) 10%
- Significant underprovision / market pressure (Canterbury) 30%.

5.7 In our opinion the first of these approaches applies to South Cambridgeshire and the second to Cambridge City. Therefore, to determine the OAN we adjust the above demographic projections as follows:

- South Cambridgeshire: 17,579 x 110% = 19,337 new dwellings
- Cambridge: 10,069 x 130% = 13,090 new dwellings.

5.8 These figures are maximum estimates, because in arriving at the adjustments of 10 and 30% Inspector also took account of other factors – which in relation to the Canterbury 30% included future jobs.

5.9 The above OAN figures take account of trend-based demographic projections and market signals. They do not take account of future jobs, because this factor has already been considered by the SHMA, in an analysis which the Inspectors have not questioned.

5.10 The emerging plans for Cambridge and South Cambridgeshire propose a sub-regional approach to future labour market balance, where new jobs in Cambridge and South Cambridgeshire are partly filled by increased commuting from other parts of the HMA, and new transport infrastructure makes that commuting more sustainable. That approach has been agreed by authorities across the HMA under the duty to cooperate.

5.11 On this basis, the SHMA concluded that the housing required to support future employment was 19,000 in South Cambridgeshire and 14,000 in Cambridge City. Our own analysis of trend-based demographic projections and market signals suggests that the South Cambridgeshire need is 19,337 dwellings and the Cambridge need is 13,090 dwellings.

5.12 In short, there are two alternative housing need figures: the PBA projection, based on past demographic trends and market signals, and the SHMA projections, which take account of future employment. To ensure that it meets all the tests in the PPG, the objectively assessed housing need should be the higher of these two numbers.

5.13 Accordingly, we conclude that the objectively assessed housing needs in the study area are:

- 19,337 dwellings for South Cambridgeshire
- 14,000 dwelling for Cambridge City.

5.14 These housing numbers are consistent with past demographic trends as adjusted for market signals in each local authority area, and also provide enough labour to support expected job growth as part of an HMA-wide strategy.

Affordable need

5.15 As well as the OAN, which covers all tenures, the Cambridgeshire SHMA calculated the need for affordable housing, through a method based on the 2007 Planning Practice Guidance (that guidance has since been revoked, but is replaced by a similar method set out in paragraphs 022-029 of the PPG). These calculations were revised later in the light of new data for 2013/14. The resulting net affordable need, as set out in the Councils' Matter 3 statement (Appendix 4, Table 9) is 10,402 homes for Cambridge and 5,573 homes for South Cambridgeshire, a total of 15,975 homes over the plan period.

5.16 Council officers estimate that over the plan period it will be viable for 35% of all new housing to be delivered in affordable units in Cambridge and 30% in South

Cambridgeshire. On this basis, if total housing development is in line with the OAN South Cambridgeshire will receive enough developer contributions from market housing to meet all of its affordable housing need. Cambridge City will receive enough developer contributions to meet just under half of its affordable need.

5.17   In line with the PPG, therefore, it is appropriate to consider whether Cambridge City's total housing target should be increased above the OAN calculated earlier, in order to help pay for more affordable homes. This will depend partly on the city's sustainable capacity and the viability of market housing. But such an increase may undermine housing delivery in other parts of the HMA and it would probably not reduce the local shortage of affordable housing.