



Cambridge City and South Cambridgeshire Local Plan Examinations Matters and Issues Statement

Representor **Commercial Estates Group**
CCLP ID **5423**
SCDC ID **17653**
Prepared by **Nathaniel Lichfield and Partners**
Date **10 October 2014**

Matter 3 Housing Need (Tuesday 11 November 2014)

1.0 **A. Do the figures of 14,000 new homes (Cambridge City) and 19,000 new homes (South Cambridgeshire) reflect a robust assessment of the full needs for market and affordable housing, as required by the Framework (paragraphs 47 and 159)?**

1.1 Commercial Estates Group (CEG) consider that the combined provision of 33,000 new homes over the period 2011 to 2031 does not reflect a robust assessment of the full needs for market and affordable housing and would fail to meet full objectively assessed development needs as required by the NPPF. A full review and alternative evidence base is contained within the accompanying 'Housing and Economic Technical Assessment – Update' (referred to as "HETA Update" as an Appendix to this Statement). In the context of flaws in the Plans' approach to planning for housing, the HETA Update provides a comprehensive objective assessment of need for Cambridge and South Cambridgeshire in light of the NPPF and PPG.

1.2 We set out our response to the key issues regarding the proposed housing requirement as follows in response to Matter 3A, with our main concerns with the evidence base (and objective assessment of need) used to arrive at the housing requirement set out in our response to Matter 3B.

What is the full need for market and affordable housing in the housing market area?

1.3 CEG consider that the full needs for market and affordable housing, as required by the NPPF, across the two Local Authority areas is **42,780 dwellings over the period 2011-2031**, equivalent to an annual average of

2,139 dwellings per annum. This is based upon the analysis contained within the HETA Update as follows:

- a **Demographic-led needs** – These represent the starting point under the PPG. CEG agree with the Councils that the Government’s sub-national population projections (SNPP) are implausibly low for Cambridge and should not be relied upon. We therefore consider that the Councils’ alternative ‘indicative population’ population projections may represent a reasonable assessment based only on demographic-trends. Using appropriate household formation rates (as opposed to occupancy ratios, which fail to take account of changing household structures and changes to the profile of the population) demographic-led needs would total up to **38,700 dwellings**.
- b **Economic needs and alignment** – The Councils’ Plans include a target to deliver 44,100 jobs for the Plan period, a level which CEG consider is a realistic assessment of economic development needs, particularly given the level of growth already committed to Cambridge. In order to support such a level of job growth with a sufficient labour force, and without adversely affecting the resilience of business or creating adverse commuting patterns, an aligned total of **42,780 dwellings** would be needed.
- c **Affordable housing needs** - Affordable housing need is far in excess of purely demographic-led needs and is indicative of the scale of backlog and affordability pressures faced by the HMA. The affordable housing needs set out within the SHMA indicate **28,500 affordable homes** would need to be provided across the two authorities in order to meet needs. The total level of housing needed to deliver this, assuming an optimistic rate of 40% of housing delivery is affordable, would be **71,000 dwellings**.
- d **Market signals** – the PPG (ID:2a-020) sets out that where market signals indicate significant affordability constraints and strong demand, then an upward adjustment is required over and above needs led purely by demographic trends. In Cambridge and South Cambridgeshire the majority of market signals indicate supply has not previously kept pace with demand, causing huge affordability pressures. It is considered that upwards adjustment is fully necessary, and particularly as the scale of past under-delivery against Structure Plan and Regional Strategy figures (a market signal in itself) totals c.11,270 dwellings over the period 1999 to 2011.

How does the combined housing requirement figure of 33,000 new homes relate to the full assessment of needs?

- 1.4 The Councils’ combined housing requirement has been arrived at through an assessment of needs contained within the Cambridge Sub-Region SHMA (2012) and the accompanying Cambridge County Council Population, Housing

and Employment Forecasts Technical Report (April 2013). This evidence base arrived at an assessment of needs based upon an ‘indicative mid-point’ population projection for 2031. It is not made explicit how this indicative projection was arrived at beyond a purported triangulation based upon “*the balance of available forecasts*” which appeared to include both policy-on and policy-off scenarios (see RD/Strat/280).

- 1.5 Critically CEG do not consider that such an approach represents an assessment of full needs for market and affordable housing. An assessment of full needs must be one which includes consideration of affordable housing needs shown within the SHMA to be 28,500 affordable dwellings, a need significantly in excess of the level that could be delivered at an overall housing requirement of 33,000 dwellings. Furthermore, it is unclear that the 33,000 dwellings reflects market signals and would deliver sufficient housing to underpin and align with the economic potential and aspirations for Cambridge.

Is Cambridge City and South Cambridgeshire the relevant housing market area?

- 1.6 CEG consider that Cambridge and South Cambridgeshire is the relevant housing market area. It is considered that the objectively assessed needs for Cambridge and South Cambridgeshire should be met in full within the area, in line with the NPPF (para 47).

How reasonable and appropriate is it to assess housing needs based upon Cambridge and South Cambridgeshire’s likely future economic needs?

- 1.7 CEG consider that Cambridge and South Cambridgeshire’s likely future economic needs are the most reasonable and appropriate basis for considering likely housing needs over the Plan period. The NPPF is clear (para 19) that planning should do “*everything it can*” to support sustainable economic growth. Cambridge is a nationally and globally important economic hub, with centres such as Cambridge critical to the driving the economic competitiveness of the country. The NPPF (para 21) clearly indicates that planning policies should recognise and seek to address potential barriers to investment, including any lack of housing. This is a key factor recognised within the Plans which seek to jointly deliver 44,100 jobs over the plan period, an aspiration strongly supported by CEG.

2.0 **B. Is the methodology used consistent with the advice in Planning Practice Guidance? (Where technical matters are in dispute, the Inspector will expect the Councils and relevant representors to provide a statement of common ground so as to narrow and/or clarify areas of agreement and dispute. This will enable the examination hearings to focus on the implications of such matters rather than the underlying technical data.)**

2.1 CEG consider that the methodology used within the evidence base to identify full objectively assessed needs is deficient and is not consistent with the advice contained within the Planning Practice Guidance. A full review and critique of the approach is contained within the accompanying HETA Update. However, we set out our response to the key issues as follows.

2.2 It should be noted that CEG continue to dispute many of the technical matters. To this end CEG have contributed to the Council's statement of common ground. Notwithstanding, even within that statement there are areas of dispute. The issues CEG have with the overall approach and some of the underlying technical data go to the heart of why the Councils' evidence is not robust and hence that the plans are not justified and not positively prepared.

Is it reasonable to focus the assessment of need on the requirement to sustain economic growth rather than the Government's most recent population and household projections?

2.3 The PPG sets out that Government's projections should form the starting point for establishing need for housing (ID:2a-015). However, for Cambridge these are not considered to be credible; the underlying ONS sub-national population projections estimate future population decline, despite all trends and other corroborating evidence demonstrating continued population growth (see RD/Strat/080 paras 3.1.10 and 3.2.7). The PPG advises that the Government projections can be sensitivity tested, based upon alternative assumptions specific to local circumstances. However, this raises the question of what alternative basis to use. CEG strongly consider, given clear and agreed deficiencies in the Government's projections for the Cambridge area, that the most reasonable alternative would be a housing need derived from a requirement to support economic growth. Such an approach is supported by the policies in the NPPF and the advice in the PPG and would also avoid the clear pitfalls of attempting to 'triangulate' a population projection from a range of other sources which may not reflect the likely drivers of need and demand within the HMA.

What is the basis for the selection of the indicative 'mid-point' population projection within the SHMA?

2.4 The 'mid-point' population projection forms the basis for the SHMA's conclusion on objectively assessed needs. It is wholly unclear on what basis

the selection of the indicative 'mid-point' population projection has been made. Little reasoned justification is provided for the single projection adopted for each District, with the Councils only stating that it reflects a "broad convergence" and "encapsulates the overall outlook" (RD/Strat/280 para 2.2). The Councils included a number of unrealistic, unreasonable and subjective scenarios as part of this triangulation exercise, including 'policy-on' projections (i.e. "no build" and housing target based scenarios), natural change scenarios (i.e. excluding migration) as well as the deficient ONS projections. Individually none of these would be concluded as a robust objective assessment of need, yet they appear to have significantly affected the selection of the 'mid-point' population projection.

- 2.5 Furthermore, by utilising such an approach, a 'mid-point' for one authority area may be inconsistent in its underlying assumptions to a 'mid-point' for another. This is crucial across the HMA as the PPG indicates any cross-boundary migration assumptions must be consistent and agreed (ID:2a-018) which they cannot be through such an approach. CEG consider the approach to selecting the mid-point population projections is not robust and the Plans' subsequent reliance on them is unsound.

What is the basis for the assumed occupancy ratios and how do these relate to the latest evidence on age specific household formation (headship) rates?

- 2.6 The use of occupancy ratios (a measure of total population per dwelling) to translate population to dwellings takes no account of age and household structures in the population. It crudely applies a regional assumption on change in the occupancy ratio (drawn from a pre-recession decade 1996-2007 trend) to Cambridge and South Cambridgeshire. This, however, does not consider or account for how the population in those areas will actually change over time and organise itself into households, nor how population/household change may be different from the 1996-2007 period in the future. No account is taken of age specific dynamics within the population projections, with only overall population change considered. The implication of this is that the impacts of factors such as an ageing population and populations not in households (such as students in halls) are not assessed.
- 2.7 This is recognised in the PPG which advocates using the projected household representative rates as they provide information on both household levels and structures (ID:2a-015). The PPG states these "may require adjustment to reflect factors affecting local demography and household formation rates", however, the use of the occupancy ratios (with assumptions on change drawn from a regional average) fails to reflect the local demography and the scale of constrained household formation across the HMA that will have arisen from the level of past under-supply. CEG do not consider this approach is in accordance with the PPG advice and because of this the household growth

(and housing need) is significantly underestimated (by as much as 14% as indicated in the HETA Update).

Will the combined figure of 33,000 new homes be sufficient to support the delivery of 44,100 new jobs?

- 2.8 CEG consider the delivery of 33,000 new homes will be wholly insufficient to support delivery of 44,100 new jobs.
- 2.9 The assumed relationship between population and jobs within the Councils' assessment of need is wholly unclear and unsubstantiated. The use of the East of England Forecasting Model (EEFM), a 'black-box' econometric model, appears to suggest that greater levels of job growth will be able to be supported with lower overall levels of population growth, compared to long term demographic trends (e.g. with an ageing population and changes in economic activity). Without being able to interrogate why this is the case within the EEFM model and whether the underlying assumptions it makes are reasonable, CEG conclude that within the Councils' approach there are fundamental flaws in the way population and jobs are linked, meaning there is no alignment between economic needs and housing needs within the strategy. In particular, modelling by NLP, using the transparent and widely adopted POPGROUP model, indicates that to support delivery of 44,100 new jobs, 42,780 dwellings would be required (see HETA Update).

How has the assessment of need been adjusted to reflect worsening trends in market signals?

- 2.10 The PPG states in respect of market signals that *"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 on the balance between the demand for and supply of dwellings."* (our emphasis) (ID:2a-019)
- 2.11 Both RD/Strat/280 and RD/Strat/290 suggest that the assessment of need reflect market signals with the latter document referencing this requirement in the PPG to the forecasts contained within the SHMA (para 12.2.5) and the Technical Report (Section 5 and 6.1). However, this only presents the forecasts including the 'indicative population total' scenario, which is a demographic-led scenario representing the household projections, albeit the Councils' suggest it *'reflects market and economic signals'* (RD/Strat/280 para 12.3).
- 2.12 Although reference to the various market signals is made throughout the SHMA, it does not appear that the housing need number suggested by household projections has been adjusted to reflect market signals. The PPG does not advocate that it is simply enough to assess market signals, there must be a corresponding adjustment or action associated with those market

signals. The assessment undertaken does not do this, and therefore is inconsistent with the advice in the PPG.

How has the undersupply against the Structure Plan and Regional Strategy requirement been taken into account in the assessment?

2.13 The PPG sets out a clear requirement that needs must reflect past undersupply. It states (ID:2a-015) that any assessment will “need to reflect the consequences of past under delivery of housing” and that (ID:2a-019): “If the historic rate of development shows that actual supply falls below planned supply, future supply should be increased to reflect the likelihood of under-delivery of a plan.”

2.14 Past under-supply against the relevant requirements across the HMA is set out in Table 1 below. This shows that under the Structure Plan and East of England Plan requirements, total undersupply in the HMA over the period 1999 to the 2011 base date of the new Local Plans has been 11,271 dwellings.

Table 1 Historic Delivery against Requirements in Cambridge and South Cambridgeshire (The HMA)

Basis	Period	Requirement (dwellings)	Delivery (dwellings)	Surplus/ Shortfall
Structure Plan (1,911 p.a.)	1999/00 to 2010/11	22,932	14,306	-8,626
East of England Plan (2,440 p.a.)	2006/07 to 2010/11	12,200	6,491	-5,709
SP (1999-06) then EEP (2006-11)	1999/00 to 2010/11	25,577	14,306	-11,271

Source: NLP Analysis, Cambridgeshire Structure Plan, East of England Plan, Annual Monitoring Data (See NLP HETA Update)

2.15 The methodology used within the SHMA to identify objectively assessed needs for the HMA does not take into account this shortfall, which is substantial in scale and has been persistent over the long term. This does not accord with the advice contained within the PPG.

2.16 The Councils’ have pointed towards the judgment in ‘Zurich Assurance Ltd v Winchester City Council & Anor [2014] EWHC 758 (Admin)’ to justify that there is no requirement to add any ‘backlog’. There are two problems with this contention. Firstly, the hearing for “Zurich” pre-dated the PPG and did not consider the guidance contained therein (that backlog is a market signal – the response to which is a matter of judgement). Secondly, “Zurich” does not advocate that ‘backlog’ should not be taken into account in assessing future need. It merely takes issue with the methodological approach advanced by one party that you should preface any modelled estimate of future need with a ‘backlog’ figure (para 95). It does not say that you should entirely disregard backlog in arriving at a full objective assessment of need; indeed the judgment

concludes that in the case of Winchester the Inspector did properly take this into account (para 97).

Will the proposed housing requirement meet the full needs for affordable housing? How have affordable housing needs been taken into account in the assessment?

- 2.17 The SHMA itself sets out itself that affordable housing needs across the two districts totals 28,500 affordable dwellings 2011-2031 (SHMA Chapter 12, Table 23). To deliver 28,500 affordable homes as part of a total delivery of 33,000 homes over the Plan period would necessitate 86% of all homes to be delivered as affordable tenures. This is clearly not realistic. Conversely, the supply of new homes would need to be considerably in excess of 33,000 to deliver 28,500 homes at 40% of the total.
- 2.18 The PPG (ID:2a-029) indicates that an increase in the total housing figures should be considered where it could help deliver needed affordable homes. It is clear that this has not been considered within the overall proposed housing requirement. Affordable housing needs appear to have not been integrated into the assessment as required by the NPPF (para 159) and the PPG.

Summary

- 2.19 In summary, it is concluded that there are a number of significant issues with the approach that has been adopted through the CCC Technical Report and the Cambridge Sub-Region SHMA, with the main flaws in the methodology summarised as follows:
- a No reasoned justification is provided for the selection of the indicative 'mid-point' population projection as the basis for its concluded need for each district, particularly as a 'mid-point' for one authority area may be inconsistent in its underlying assumptions to a 'mid-point' for another;
 - b No account is taken of age specific dynamics within the population projections, with only overall population change considered. The implication of this is that the impacts of factors such as an ageing population are not assessed;
 - c The use of occupancy ratios (a measure of total population per dwelling) to translate population to dwellings takes no account of age and household structures in the population of the HMA;
 - d The assumed relationship between population and jobs is wholly unclear and unsubstantiated, with fundamental flaws in the way they are linked, meaning there is no alignment between economic needs and housing needs within the strategy; and
 - e No account appears to have been taken of affordable housing needs; economic demands; and housing market signals (including past under-supply) in the conclusions on full objectively assessed housing needs.

2.20

These issues lead to the conclusion that the evidence and approach to defining an objective assessment of development needs are fundamentally flawed and fail to address the requirements of the NPPF and the advice contained within the PPG. CEG considers the issues with the evidence base render the plan unsound.

**APPENDIX – HOUSING AND EMPLOYMENT TECHNICAL ASSESSMENT
UPDATE - NLP OCTOBER 2014**



Nathaniel Lichfield
& Partners
Planning. Design. Economics.

Cambridge South East

**Housing and Employment Technical
Assessment – Update**

PARTS A, B & C

Commercial Estates Group

10 October 2014

13577/MS/NB

Nathaniel Lichfield & Partners
14 Regent's Wharf
All Saints Street
London N1 9RL

nlplanning.com

This document is formatted for double sided printing.

© Nathaniel Lichfield & Partners Ltd 2014. Trading as Nathaniel Lichfield & Partners.
All Rights Reserved.
Registered Office:
14 Regent's Wharf
All Saints Street
London N1 9RL

All plans within this document produced by NLP are based upon Ordnance Survey mapping with the permission of Her Majesty's Stationery Office. © Crown Copyright reserved. Licence number AL50684A

Executive Summary

This report provides an updated evidence base underpinning CEG's Matters Statements to the examination into the Local Plans for Cambridge and South Cambridgeshire. It addresses new evidence, data sources and changed circumstances since the original representations were submitted in September 2013.

Cambridge's Economic Potential

- a Recent job growth projections indicate that the future rate of job creation in Cambridge **City** will significantly exceed past rates of growth. It is forecast that total workforce jobs will increase by circa 25% over the Local Plan period 2011 and 2031. This is equivalent to 1,190 net additional jobs each year.
- b These projections may represent an underestimate given that known pipeline developments and investment decisions are likely to yield in the region of 17,690 jobs in the short to medium term. The 17,690 jobs already identified could account for over 40% of the 44,100 additional jobs forecast across both local authority areas. On this basis, should this job growth trajectory continue over the entire plan period 2011-2031, it is likely Cambridge and South Cambridge will exceed their respective targets significantly.
- c Job growth is already running significantly ahead of housing delivery in Cambridge, front loading the development need pressures. This shows why there is such acute pressure on the housing market in Cambridge (as demonstrated by the housing market signals) and why reliance on new settlements coming forward at the back end of the plan period does not provide a mechanism for addressing these front-loaded needs.
- d If Cambridge is to continue to attract the best labour and thereby maintain its economic competitiveness on a global level it must ensure that housing growth maintains pace with labour growth to meet the needs of these groups.
- e Similarly, the global success of the Cambridge economy is built on a spatial concentration of activity in the centre and fringe of Cambridge City itself: a pattern typical of clusters of high value, knowledge-based activities. The Councils' proposed spatial strategy does not effectively reflect the characteristics of the local economy. It therefore poses significant risks to the ability of Cambridge to deliver future growth and innovation and thereby fails to meet the requirements of Paragraph 21 of the NPPF.

Cambridge and South Cambridgeshire Objectively Assessed Housing Needs

- f The Councils' have sought to retrospectively justify their approach to objectively assessing housing needs. However, NLP does not consider

that any of the justifications provided fundamentally address the shortcomings of the evidence base which mean it is not robust. The problems are that:

- i no reasoned justification is provided for the choice of the indicative 'mid-point' population projection;
 - ii the assumed relationship between population and jobs is wholly unclear and unsubstantiated meaning there appears to be no alignment between economic needs and housing needs within the strategy; and
 - iii that no account appears to have been taken of affordable housing needs; economic demands; and housing market signals in conclusions on full objectively assessed housing needs.
- g NLP conclude that, **full objectively assessed needs for the Cambridge HMA are 42,780 dwellings between 2011-2031** (1,239 per annum) on the basis that:
- i The Government's household and population projections are not realistic for considering needs within Cambridge and as such the 'starting point' demographic-trend-led needs are best represented by a scenario of 1,794 dwellings per annum;
 - ii To align with economic needs and deliver a labour supply to support 44,000 jobs there is an annual need of 1,987 to 2,139 dwellings, suggesting an uplift on the housing needs indicated by just demographic-led projections;
 - iii To deliver all affordable housing needs would necessitate delivery of 3,565 dwellings per annum, with 40% of those being affordable tenures; and
 - iv The market, economic and affordable housing 'signals' all indicate that to meet full housing need and demand in the HMA a level of delivery significantly in excess of purely demographic-led needs is required, with a reasonable upwards adjustment considered to be in line with one that seeks to meet economic needs.

Delivery of the Spatial Strategy

- h The identified necessary 'critical' infrastructure works for the new settlements will not be delivered in a timely manner in order to meet crucial infrastructure tipping points and ensure that the new settlements are delivered in the timescales anticipated.
- i There is in fact no certainty over the funding for the necessary 'critical' infrastructure, with funding unallocated and/or not committed and as such there are no defined delivery mechanisms for the infrastructure necessary to support the new settlements.
- j The above mean that the spatial strategy set out within the Plans will not be effective in delivering the necessary development in a timely manner to meet needs, with a more sustainable and deliverable strategy one that allocates more development on the edge of Cambridge City.

Contents

1.0	Introduction	1
	Part A – Potential	3
2.0	Cambridge’s Economic Potential	4
	Future Job Growth	4
	Latest Evidence on Spatial Concentration and Distribution of Growth	7
	Implications for Businesses in Cambridge	8
	Immediate Housing Barriers to Employment Growth	9
	Conclusion on Cambridge’s Economic Potential	10
	Part B – Objectively Assessed Needs	11
3.0	Updated Review and Critique of the Evidence	12
	Summary of HETA Critique	12
	New Evidence and Background Reports	13
	Conclusions on the Councils’ Approach	21
4.0	Approach to Assessing Housing Needs	22
	Changes to Policy and Data Sources	22
	Defining the Housing Market Area	23
	Latest Sub Regional Migration Patterns	25
5.0	Updated Objective Assessment of Development Needs	30
	Demographic-led Needs	30
	Market Signals	36
	Affordable Housing Needs	49
	Economic-led Needs	49
	Full Objectively Assessed Housing Needs in the Cambridge and South Cambridgeshire HMA	52
6.0	Duty to Co-Operate and Unmet Need	57
	Unmet needs in Cambridgeshire	57
	London Unmet Housing Needs	57
	Implications of Wider Factors	62
7.0	Conclusion on Full Objectively Assessed Need	63

Part C – Delivery of the Spatial Strategy	65
8.0 Infrastructure Delivery and Supporting the New Settlements	66
Lead Times and Build out Rates	66
Infrastructure Delivery and Trigger Points	67
9.0 Conclusions on Delivering the Spatial Strategy	74

Appendices

- Appendix 1 Model Inputs and Assumptions
- Appendix 2 Model Outputs
- Appendix 3 Market Signals Comparator Data

1.0 Introduction

- 1.1 This Housing and Employment Technical Assessment (HETA) Update has been prepared by Nathaniel Lichfield & Partners (NLP) on behalf of Commercial Estates Group (CEG). It is an update to the HETA prepared in September 2013 and submitted as part of CEG's representations to the submission drafts of the Cambridge and South Cambridgeshire Local Plans respectively.
- 1.2 The purpose of this HETA Update is to review the assessment previously made in light of new guidance and new data. In particular, since the HETA was undertaken a year ago the Planning Practice Guidance (PPG) was published in March 2014, there have been further data releases from ONS providing newer evidence on housing and employment needs and the Council's themselves have prepared some elements of new evidence to support their emerging Local Plans. The Council has also produced new evidence and the City Deal has been agreed. All of this needs to be reviewed and addressed.
- 1.3 The HETA Update, therefore, builds upon the previous HETA, but presents a fully up-to-date position on the strategic housing and employment needs in both Cambridge City and South Cambridgeshire combined with an assessment of the deliverability of those in the context of the emerging Local Plans.

Report Structure

- 1.4 The updated HETA report is structured into three parts, each dealing with a different aspect of the housing and employment requirements in Cambridge City and South Cambridgeshire. The examination into the Cambridge City and South Cambridgeshire Local Plans has been split into separate hearing sessions, with those starting in November 2014 dealing primarily with the spatial strategy and needs, and later sessions, scheduled for January 2015 dealing with delivery. Therefore, similarly, this updated HETA report has been split into two to ensure it remains up-to-date and relevant to the matters at hand. Part D of the HETA will be issued with relevant Matters Statements.
- 1.5 The updated HETA report is set out under the following headings:

Updated HETA Report – PARTS A, B & C (September 2014)

- **PART A – Potential**

Part A assesses the latest evidence on Cambridge's economic role, the potential for economic and employment growth and the likely implications of this. It is set out within the following section:

- Cambridge's Economic Potential (Section 2.0)

- **PART B – Objectively Assessed Needs**

Part B provides an up-to-date, NPPF and PPG compliant, objective assessment of housing needs for Cambridge and South Cambridgeshire. It is set out within the following sections:

- Updated Review and Critique of the Evidence (Section 3.0)
- Approach to Assessing Housing Needs (Section 4.0)
- Updated Objective Assessment of Development Needs (Section 5.0)
- Duty-to-Cooperate and Unmet Needs (Section 6.0)
- Conclusion on Full Objectively Assessed Need (Section 7.0)

- **PART C – Spatial Delivery**

Part C considers the extent to which the spatial strategy set out within the Plans is deliverable and consistent with meeting identified needs over the plan period. It is set out within the following sections:

- Infrastructure Delivery and supporting the New Settlements (Section 8.0)
- Conclusion on Spatial Delivery (Section 9.0)

Updated HETA Report – PART D (TBC)

- **Part D – Deliverability and Trajectory**

Part D will be prepared for the second tranche of hearings. It will consider the delivery trajectories for the two authorities, providing a review of the deliverable land supply across the plan period and whether it is sufficient to meet identified need.

- Deliverability of Housing Sites (Section 10.0)
- Realistic Trajectories for Housing Delivery (Section 11.0)
- Conclusion on Deliverability and Trajectory (Section 12.0)

1.6 The appendices contain the data, assumptions and technical information that underpins NLP's conclusions in respect of the above.

Part A – Potential

2.0 Cambridge’s Economic Potential

2.1 This section considers the scale and type of future job growth that Cambridge City is forecast to experience over the Local Plan period. Within this context, it identifies committed jobs that are in the pipeline and the contribution these can make towards the meeting the Council’s proposed level of job growth. It also considers the implications that barriers to accessing housing have on achieving employment growth in Cambridge and the impact this could have on the future Cambridge economy.

Future Job Growth

2.2 The Cambridge Draft Local Plan draws on the 2012 East of England Forecasting Model (EEFM) to provide estimates for the future growth of the City economy to 2031. This projects that 22,100 jobs will be created in the City over the 2011-2031 Plan period, of which approximately 8,800 will be within B-class sectors (i.e. offices, industrial and warehousing). The equivalent figure included in the South Cambridgeshire Local Plan, Proposed Submission version equates to 22,000 jobs. Combined, forecast job growth for Cambridge and South Cambridgeshire amounts to circa 44,100 jobs.

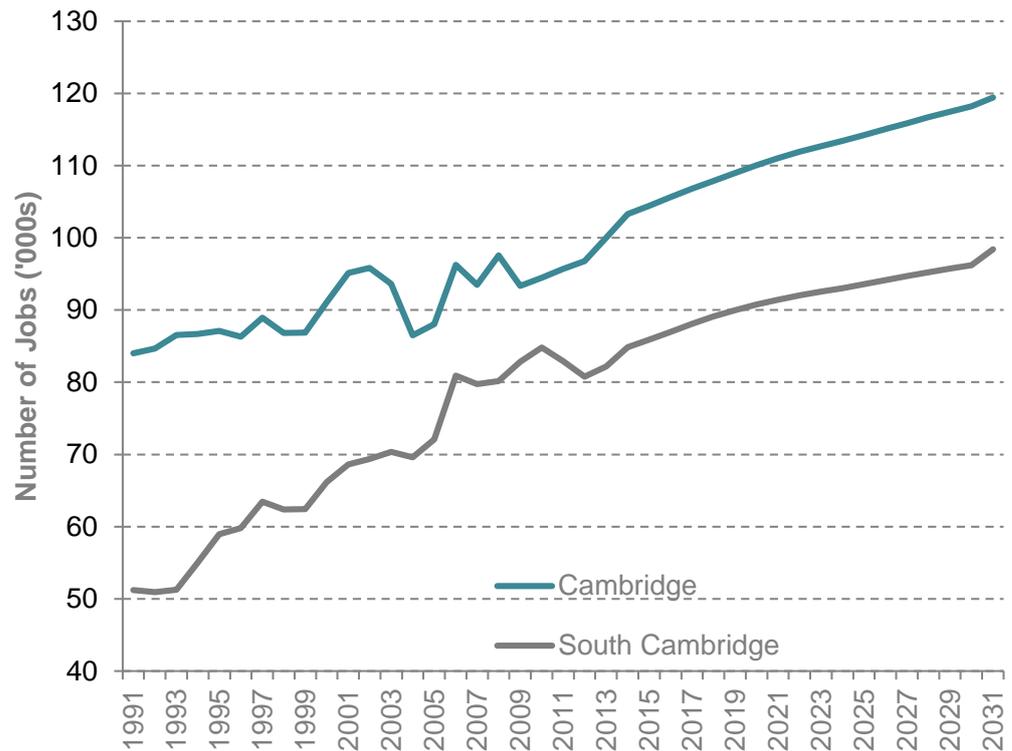
2.3 For the purposes of this study, Oxford Economics (OE) 2014 forecasts for Cambridge City and South Cambridgeshire have been analysed as more up-to-date forecasts of future job growth. This dataset has been selected as the EEFM 2014 update has yet to be released; however, OE forecasts use macro-economic assumptions that broadly align with those that are used for EEFM forecasting. On this basis OE forecasts are deemed to be generally consistent with the Council’s evidence base.

2.4 Figure 2.1 plots the level of total employment in Cambridge showing both the historic time series since 1991 and projections to 2031¹. This illustrates that the City’s rate of job creation is forecast to increase significantly when compared to past trends. Over the 20-year period between 1991 and 2011, Cambridge generated an average of 585 jobs per annum, equivalent to an overall increase of almost 14% across the period. The OE projections indicate average growth rising to some 1,190 jobs per annum between 2011 and 2031, equivalent to total growth of 25%. This indicates that the scale of future growth of the City’s economy could be nearly twice the rate experienced in Cambridge during the past two decades.

2.5 The rate of job growth in South Cambridgeshire increased at a faster rate than experienced in Cambridge between 1991 and 2011. It is estimated that future growth trends to 2031 across both authority areas are likely to be more closely aligned (as shown in Figure 2.1), however, greater percentage increases are expected in Cambridge compared to South Cambridgeshire (25% compared with 19%).

¹ OE Forecasts provide estimates to 2030, NLP analysis has been used to forecast job growth to 2031

Figure 2.1 Total Employment in Cambridge and South Cambridgeshire, 1991-2031



Source: Oxford Economics, 2014/ NLP analysis

- 2.6 There is potential for the forecasts to represent an underestimate if committed employment schemes are taken into account, as discussed in further detail below.
- 2.7 Historic and future job growth within Cambridge centres around higher value knowledge-based sectors including high tech and research-intensive sectors (defined as chemicals, pharmaceuticals, electronics, publishing and media, telecoms, computing and R&D), health and care (recognising Cambridge’s role as a leading centre for health and bioscience) and the financial and business services sectors that provide the support network for high tech businesses. This highlights the continued economic importance of specialist technology sectors (and those sectors that support them) to the Cambridge economy and the sustenance of the Cambridge cluster in the long-term.

Employment Trajectory

- 2.8 Table 2.1 identifies major developments with committed occupiers that are currently in the pipeline in the Cambridge City Urban Area. A number of these schemes have already acquired planning permission and are likely to come forward in the short to medium term, including: Cambridge Biomedical Campus, Cambridge Science Park and CB1. Job numbers have been estimated by applying average employment densities to the assumed floorspace areas, where job numbers are known, these have been included. Based on this high level assessment, it is estimated that over 17,690 jobs

could be accommodated in the Cambridge Urban Area in the early stages of the local plan period.

Table 2.1 Job Capacity of Development Proposals in Cambridge Urban Area

Development Proposal	Committed Occupier	Floorspace (sqm)	Number of Jobs ²
Cambridge Biomedical Campus	AstraZeneca	Unknown	2,000
Cambridge Biomedical Campus – Papworth Hospital	Papworth Hosital R&D	130,000	5,200
CB1 Station Area	Multiple occupier	53,560	4,300
North West Cambridge – Cambridge University	Cambridge University	40,000	1,600
Shaftesbury Road	Cambridge Assessment	42,000	3,000
Peterhouse Technology Park	ARM	19,500	1,300
Cambridge Business Park	CSR	9,300	290
Total Jobs			17,690

Source: NLP analysis

- 2.9 The 17,690 jobs already identified account for over 40% of the 44,100 jobs target, showing that:
- a if this job growth trajectory were to continue over the entire plan period 2011-2031, it is likely Cambridge and South Cambridge could exceed their respective targets significantly.
 - b job growth is already running significantly ahead of housing delivery, front loading the development need pressures into the first five and ten years of the Plans. This shows why there is such acute pressure on the housing market in Cambridge, and why reliance on new settlements coming forward at the back end of the plan period does not provide a mechanism for addressing these front-loaded needs.
 - c the focus of growth is almost overwhelmingly concentrated on the Cambridge urban area, reflecting the focus of knowledge-based activity within the Cambridge identified in CEG's original representations and reflected in the *Cambridge Cluster at 50* study.
- 2.10 This job growth figure is likely to increase further as confidence in the economy continues to grow. In 2013 there was a record number of company registrations in Cambridge with a total of 1,875 new companies formed. Cambridge is also a competitive location on a national scale and ranks eighth in a list of leading UK cities attracting foreign direct investment (FDI), according to a UK attractiveness survey by Ernst & Young (EY). It was the best performing location in East Anglia, attracting eight investment projects to the city in 2013 alone.
- 2.11 At the other end of the scale, small and medium enterprises (SMEs) form a large and important part of the local Cambridge economy. Recent research by

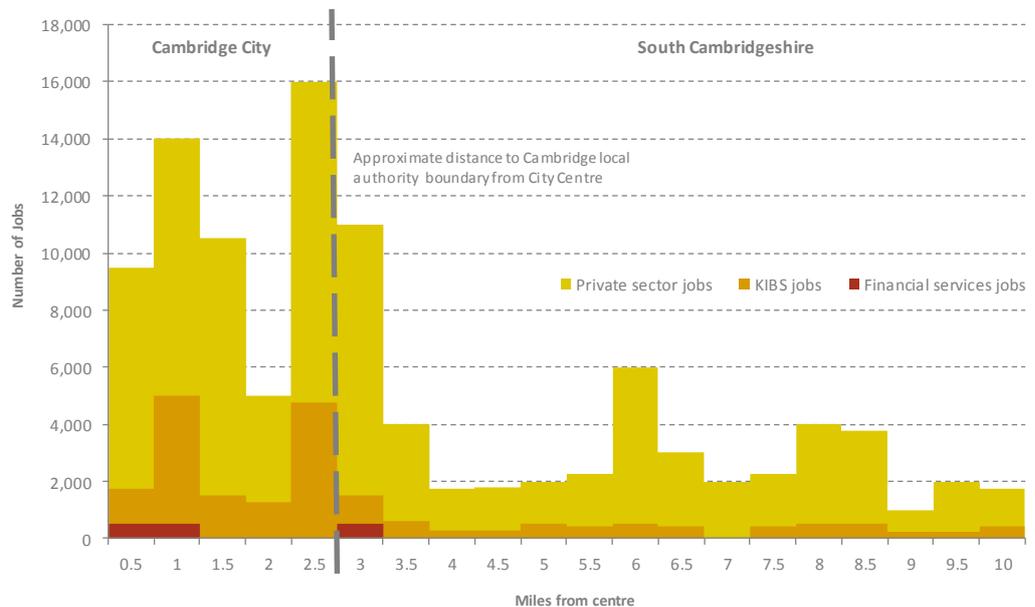
² Total figures rounded

Centre for Cities³ indicates that a higher proportion of Cambridge’s SME are adopting a high growth strategy, than any other city nationally. This would suggest that employment generated by SMEs is likely to increase overall job growth in the Cambridge Urban Area.

Latest Evidence on Spatial Concentration and Distribution of Growth

- 2.12 Analysis of the location of jobs within Cambridge and South Cambridgeshire indicates the significant concentration of jobs within, or immediately adjoining, the Cambridge City boundary (Figure 2.2). By comparison, job levels diminish considerably with increasing distance away from Cambridge across the wider South Cambridgeshire area.
- 2.13 The pattern of jobs within Cambridge City itself is relatively decentralised, reflecting the geography of a constrained historic city centre and the development of various business parks and single-occupier sites around the edge of the City (Figure 2.3). This indicates that sites on the edge of Cambridge perform a key role in accommodating the City’s growth over and beyond what can realistically be located within the historic core.

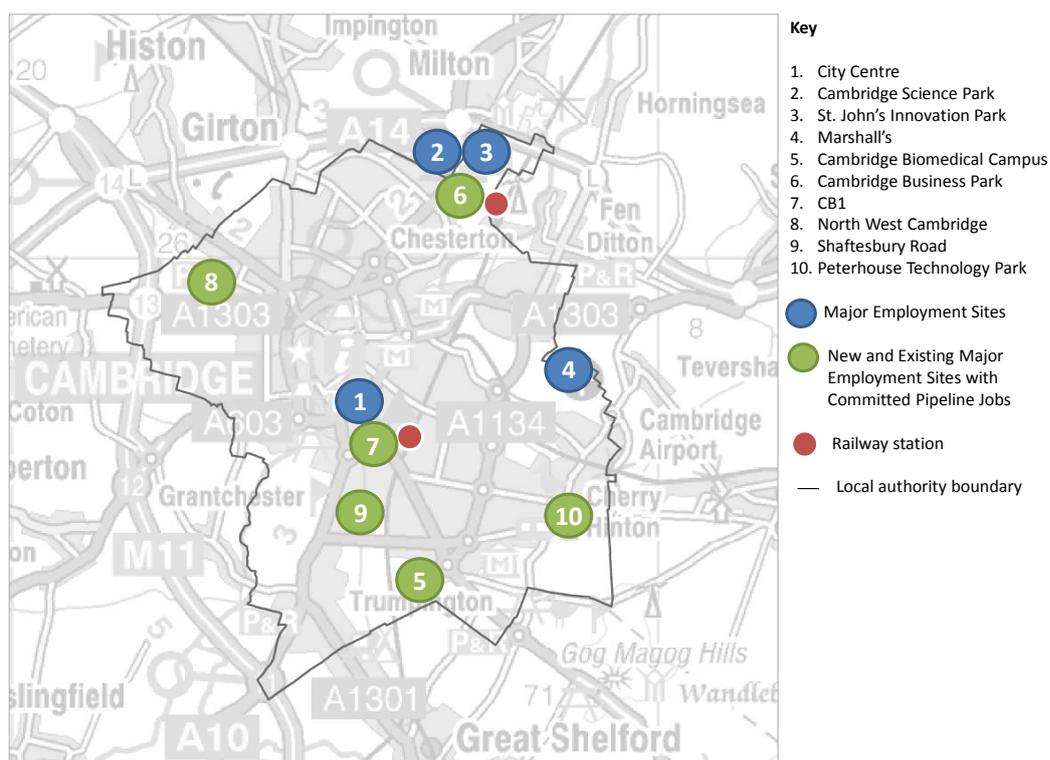
Figure 2.2 Location of Jobs within 10 Miles of Cambridge City Centre



Source: Centre for Cities/ NLP analysis

³ Small Businesses Outlook 2014

Figure 2.3 Location of Major Business Park and Employment Sites in Cambridge Urban Area



Source: NLP analysis Note: excludes industrial estates

Implications for Businesses in Cambridge

- 2.14 This decentralised pattern of business development has implications for businesses in Cambridge. The global success of the Cambridge economy is built on a spatial concentration of activity in the centre and fringe of Cambridge City itself: a pattern typical of clusters of high value, knowledge-based activities. The Councils' proposed spatial strategy does not effectively reflect the characteristics of the local economy. It therefore poses significant risks to the ability of Cambridge to deliver future growth and innovation and thereby fails to meet the requirements of Paragraph 21 of the NPPF, which requires local planning authorities to:

'plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high technology industries'.

- 2.15 Recent evidence points to significant shifts in the geography of high-tech start-ups and venture capital (which as stated previously comprise a large part of Cambridge's local economy). They appear to be gradually shifting from their traditional locations in suburban business parks toward denser urban locations⁴. This is a trend that is also evident in Cambridge; for example Microsoft chose to relocate from a prime site in West Cambridge to a central location at CB1.

⁴ High-Tech Challengers to Silicon Valley, The Atlantic Cities, July 2013

- 2.16 It is widely recognised that the supply of suitable premises in Cambridge are limited; the Council’s ELR Update suggests that:
‘the market signals are very clear... more has to be done to increase supply in those locations where firms want to be’.
- 2.17 Therefore, in order to plan positively, facilitate the ‘promotion and expansion’ of the Cambridge cluster and provide employment land ‘where firms want to be’, proposed new employment allocations should be maximised and the spatial distribution of these allocations should ensure the economic competitiveness of Cambridge is maintained and the economy achieves its potential.

Immediate Housing Barriers to Employment Growth

- 2.18 The local presence of a skilled and educated workforce is widely seen as being of key significance for local economic growth and competitive advantage. An educated workforce is likely to be more innovative, more creative and more flexible⁵.
- 2.19 Cambridge has a better qualified workforce than either the Eastern region or the UK as a whole⁶. Some 65.6% of the working age population is qualified NVQ4 level or above (HND, Degree, or Higher Degree). This is almost double the proportion found in the Eastern region more generally and the UK as a whole. This reflects the concentration of graduates, scientists and technicians in Cambridge’s labour market, and the high number of high-tech jobs in the City. Conversely, a particularly low proportion of the City’s working-age population has no qualifications; around half the proportion found nationally.
- 2.20 This highlights that Cambridge has a clear competitive advantage in terms of its workforce, a factor that contributes significantly to its economic performance. However, this does rely upon attracting and retaining an increasingly global talent pool of highly skilled individuals as earlier studies have highlighted:
*“Cambridge needs to be a place where globally mobile and wealthy workers can and will choose to live, and the housing offer needs to reflect this”.*⁷
- 2.21 A persistent problem in Cambridge, partially owing to spatial constraints, is the failure of housing growth to keep in line with the growth in demand for labour. Therefore, in order for the City to maintain its competitiveness and its relative competitive advantage on an international and national scale, it must increase its supply of housing in the short term.
- 2.22 Recent analysis of labour market geography in Cambridge indicates that younger, professionals known as ‘the bicycle economy’ tend to live in the City Centre and want to work there too⁸.

⁵ The Cambridge economy: retrospect and prospect, SQW, 2011

⁶ ONS Annual Population Survey 2013

⁷ SQW Cambridge Cluster at 50, The Cambridge economy: retrospect and prospect

⁸ SQW Cambridge Cluster at 50, The Cambridge economy: retrospect and prospect

- 2.23 Market signals including; house prices, rents, affordability and overcrowding (which will be considered in further detail in Part B) show that the Cambridge housing market area faces some significant challenges. Under each of the indicators Cambridge and South Cambridge record averages that exceed national levels. The market signals point towards a housing market which is failing to match demand with supply, which is causing problems of affordability, pushing up prices and generating adverse outcomes for people who still need to access the housing market (e.g. through increased overcrowding within the existing stock).
- 2.24 The market signals provide a strong indication of demand and suggest that there needs to be a relatively large improvement in affordability within Cambridge and South Cambridgeshire.

Conclusion on Cambridge's Economic Potential

- 2.25 Cambridge is a leading high-technology cluster and competes internationally for investment, jobs and skilled labour. The City is therefore of national and international economic significance.
- 2.26 The most recent OE projections indicate that the City's future rate of job creation over the next two decades (i.e. over the Plan period to 2031) will significantly exceed past rates of growth, with job creation expected to almost double between 2011 and 2031. These projections may represent an underestimate given that pipeline developments and investment decisions are likely to yield in the region of 17,690 jobs. This underlines the continued economic importance of specialist sectors (and those sectors that support them) to the Cambridge economy in the long-term, and the efficacy of a jobs-led approach to the City's future planning strategy.
- 2.27 In spatial terms, the pattern of jobs within Cambridge City itself is relatively decentralised, reflecting the geography of a constrained historic city centre and the development of various business parks and single-occupier sites around the edge of the City. However, concurrently the demand for employment land and premises is highly concentrated within Cambridge and the immediate boundary with South Cambridgeshire as there is an increasing desire for firms to locate within or close to the city centre.
- 2.28 It is widely acknowledged that Cambridge performs poorly in terms of market signals relating to accessibility to housing. House prices and rents are high, housing is relatively expensive when compared to wage levels (despite relatively high wage levels) and overcrowding is acute. The market signals point towards a housing market which is failing to match demand with supply, which is causing problems of affordability, pushing up prices and generating adverse outcomes for people who still need to access the housing market. If Cambridge is to continue to attract the best labour and thereby maintain its competitiveness at a global level it must ensure that housing growth maintains pace with labour growth to meet the needs of these groups.

Part B – Objectively Assessed Needs

3.0 Updated Review and Critique of the Evidence

3.1 The substantive evidence on objectively assessed needs for housing and economic development for Cambridge and South Cambridgeshire continues to be primarily contained within two key documents:

- Cambridge County Council Population, Housing and Employment Forecasts Technical Report (April 2013) (Examination Ref: RD/Strat/080); and
- Cambridge Sub-Region Strategic Housing Market Assessment (SHMA) (Examination Ref: RD/Strat/090) and particularly Chapter 12 (updated May 2013).

3.2 Fundamentally the approach adopted by the Councils has not changed since NLP's HETA in September 2013, with the strategies still reliant on the objectively assessed needs set out in the SHMA. As such the criticisms previously made of that as an evidence base continue to be applicable. However, the approach to objectively assessing the need for jobs and homes, and how this has subsequently informed the strategy contained within the emerging Local Plans, has sought to have been clarified by the Council's in several further documents. We summarise the continued flaws in the evidence base before we review the new papers produced by the Councils as follows.

Summary of HETA Critique

3.3 A full critique of the objectively assessed needs evidence base was contained in NLP's September 2013 HETA (Section 2.0) and continues to be applicable. This concluded that the evidence and approach to defining objectively assessed needs within the Cambridge and South Cambridgeshire Local Plans lacks coherency and transparency. In particular it concluded that there are a number of significant issues with the approach that has been adopted through the CCC Technical Report and the Cambridge Sub-Region SHMA, with the main flaws in the methodology summarised as follows:

- a Little reasoned justification is provided for the population projections adopted. In particular the SHMA does not adequately justify its selection of the indicative 'mid-point' population projection as the basis for its concluded need for each district, particularly as a 'mid-point' for one authority area may be inconsistent in its underlying assumptions with a 'mid-point' for another;
- b No account is taken of age specific dynamics within the population projections, with only overall population change considered. The implication of this is that the impacts of factors such as an ageing population are not assessed;
- c The use of occupancy ratios (a measure of total population per dwelling) to translate population to dwellings takes no account of age and

household structures in the population. It crudely applies a regional assumption on projected change in the occupancy ratio to Cambridge and South Cambridgeshire, without considering how the population in those areas will actually change over time and organise itself into households;

- d The assumed relationship between population and jobs is wholly unclear and unsubstantiated, with fundamental flaws in the way they are linked, meaning there is no alignment between economic needs and housing needs within the strategy; and
- e No account appears to have been taken of affordable housing needs; economic demands; and housing market signals in conclusions on full objectively assessed housing needs.

3.4 These issues lead to the conclusion that the evidence and approach to defining an objective assessment of development needs are deficient. The Councils' proposed targets are, therefore, not sound because they are not justified, effective nor positively prepared in the context of meeting needs.

New Evidence and Background Reports

3.5 Since the HETA in September 2013, the Councils (Cambridge City, South Cambridgeshire and Cambridgeshire County) have published a number of new documents which seek to explain and justify their approach to objectively assessing development needs. These include:

- Topic paper on joint working and development (March 2014, Ref: RD/Top/010);
- Approach to Establishing Objectively Assessed Need for Additional Housing (March 2014, Ref: RD/Strat/280); and
- Assessing the Cambridge Strategic Housing Market Assessment against the final National Planning Practice Guidance (March 2014, Ref: RD/Strat/290).

3.6 Whilst none of these alter the evidence on objectively assessed needs set out in the earlier CCC Technical Report and SHMA they do seek to explain and rebut some of the criticisms outlined above. We have reviewed each of these as follows.

Topic Paper on Joint Working and Development (March 2014)

3.7 This Topic Paper briefly sets out the policy background and chronology for the objective assessment of needs for jobs and homes (see Section 3 of the Topic Paper). It simply confirms that the objective assessment of need, and the subsequent housing requirement, was informed primarily through the CCC Technical Report and the subsequent SHMA. The Topic Paper sets out that the assessment was undertaken in light of the NPPF, albeit pre-dating any guidance, and focussed on establishing (para 3.4) *“the anticipated increase in population across the housing market area”*. The Topic Paper presents a brief

summary of the methodology, which remains as previously reviewed, but points to the paper ‘Approach to Establishing Objectively Assessed Need for Additional Housing’ as a more detailed description of the approach taken.

Approach to Establishing Objectively Assessed Need for Additional Housing (March 2014)

3.8 This paper describes the approach taken to objectively assessing development needs within the Cambridge Sub-Region SHMA. Although only a short note it seeks to elaborate on why particular assumptions and approaches were adopted within the SHMA and justify why it remains a robust basis for the assessment of need. The paper particularly appears to attempt to address some of the criticisms within a-e above, which were made by NLP and others to the September 2013 submission consultation.

3.9 We critically review these as follows, set out under the same headings as within the paper (as relevant).

Identifying a 2031 population total

3.10 The paper sets out that a range of relevant demographic and economic-led population projections were brought together, rebased to the Census 2011 population and then compared to identify outliers and broad convergences. In respect of how the chosen ‘mid-point’ population projection was arrived at for each District, the paper states:

“By considering all of the forecasts together, an indicative population figure for each district was determined which encapsulates, within a single figure, the overall outlook for the district’s population in 2031, on the balance of the available forecasts.”

3.11 This explanation, however, doesn’t appear to pin down exactly how a mid-point population projection for each local authority area was actually concluded upon. It also doesn’t explain how a ‘single figure’ based upon the ‘balance of available forecasts’ for each district would represent a consistent set of underlying assumptions (e.g. around migration, job growth or commuting) for each district. A forecast which may be an outlier for one District may be within the broad convergence of all forecasts for another District, despite being based upon complementary assumptions. This appears to confirm the approach to defining a population projection in the SHMA has been somewhat arbitrary.

Identifying employment growth

3.12 The paper confirms that employment growth was determined using the outputs of the East of England Forecasting Model (EEFM). The appendix to the paper provides a brief and high level overview of how the EEFM works, with the key principles being that it starts with ‘a professional assessment of the national economic outlook’ across numerous industry sectors but then distributes this down to local levels reflecting the existing sector mix in the area and the outlook for those sector. It then outlines that:

3.13 *“Population forecasts are an output of the model. The EEFM forecasts population growth in line with employment growth, and uses the level of net commuting to maintain the geographic relationship between jobs and employed residents, providing a forecast for the total population, of all ages, which is consistent with the level of employment growth.”*

3.14 Whilst this reflects the CCC Technical Report description of what the EEFM does, it remains the case that the population forecasts are an output derived from a large number of assumptions embedded within the model that are not made explicit. The reasonableness of variables such as economic activity, unemployment, economic migration factors and how the population fill employment positions directly affect how robust a population output from the model is. Furthermore, as set out within NLP’s 2013 HETA, the ratio between population and jobs within the EEFM is projected to increase, which would be at odds with trends towards an increasing ageing population (whereby there will be fewer jobs per person rather than more). It is unclear whether the EEFM reflects how housing markets actually operate, with many people moving within housing markets for reasons outside of employment (e.g. retirees).

Why population was used as a starting point

3.15 The paper sets out that population, rather than households, is used as the starting point in line with the way the government’s own household projections are produced. This is considered reasonable. The paper goes on to state (para 5.2):

“However, the Technical Report shows that ONS SNPP population projections for Cambridge are implausibly low, due to the migration methodology. While for other areas in the Cambridge HMA ONS population projections look more reasonable, the fact that the same methodology produces such unrealistic projections for one district caused concern about the consistency of data and approach across the HMA.”

3.16 For reasons previously set out within NLP’s 2013 HETA, NLP agree that for Cambridge City the SNPP methodology yields results that are neither credible nor robust and would therefore not represent an appropriate starting point for considering housing needs. The paper goes on to state:

“In order to identify consistent housing demand figures across the HMA, including Cambridge, it is important to follow the same methodology for all districts, using the same evidence sources.” (NLP Emphasis)

3.17 It is agreed that it is important to follow the same methodology and same evidence for assessing housing needs, albeit such a methodology must have the flexibility to account for specific local circumstances as set out within the PPG. This does, however, appear to contradict the approach taken within the SHMA which mixes different scenarios to arrive a ‘mid-point’ projection, meaning the concluded single projection for each district is not necessarily based upon the same evidence and assumptions (as explained above).

Addressing historic under-supply and ensuring constraints are not applied to assessing housing need

- 3.18 The PPG sets out that household formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The paper acknowledges this and concludes (para 6.1) that the SHMA by “*using a Census-based assessment of total expected population provides a basis for determining a housing demand figure that is free from such constraints.*” This assertion is baseless and incorrect. The Census 2011 data itself would have been affected by past under-supply and worsening affordability; a household cannot form unless it has a house to form into. Simply basing a population projection on Census data does not mean it is free from the constraints and implications placed on demographics through past under-supply and affordability.
- 3.19 The paper also states:
“The indicative 2011-31 population and employment growth figures are based on jobs-led population forecasts rather than solely on demographic-led forecasts. Therefore, the identified population total reflects market and economic signals.”
- 3.20 This is significant, as it is an approach incompatible with the guidance contained within the PPG. The PPG is clear that demographic-led (household) projections should form the starting point for assessing needs. These should then be adjusted to reflect market signals (through an uplift where such signals suggest an imbalance between supply and demand), economic and employment trends and affordable housing needs. Such factors may indicate more housing needs to be planned for than just that based on demographic-led needs, in order to meet full objectively assessed needs.
- 3.21 Arriving at the “*identified total population*” (i.e. a projection to 2031) through a triangulation exercise, does not mean that such a projection reflects the specific factors associated with housing markets, including the implications of changing age structures and how this will affect local labour supply. The single ‘indicative population’ projection utilised in the SHMA is not commensurate and aligned to a level of growth which would adequately support jobs-led population forecasts (the majority of which are identified as involving greater population growth than the indicative population scenario). Therefore, such a population does not reflect economic signals in the way the paper suggests it does.
- 3.22 The Councils’ have stated in respect of addressing historic under supply (Statement of Common Ground – Matter 3b document):
“In assessing future housing need, there is no requirement to add any ‘backlog’ where past housing development under-delivered against previous plan targets, in accordance with the High Court judgement Zurich Assurance Ltd vs. Winchester City Council and South Downs National Park Authority...”

- 3.23 This statement is misleading. Firstly, the hearing for *'Zurich Assurance Ltd v Winchester City Council & Anor [2014] EWHC 758 (Admin)'* pre-dates (11th/12th February 2014) the publication of the Planning Practice Guidance (6th March 2014) which sets out clear guidance on how backlog should be taken into account. Secondly, "Zurich" does not in fact advocate that 'backlog' should not be taken into account in assessing future need. It merely takes issue with the methodological approach advanced by one party that you should add the 'backlog' figure onto any modelled estimate of future need (para 95). It does not say that you should entirely disregard backlog in arriving at a full objective assessment of need; indeed the judgment concludes that in the case of Winchester the Inspector did properly take this into account (para 97).
- 3.24 In this context, the issue of past-undersupply, or 'backlog', is specifically covered within the PPG as a market signal. The 'rate of development' market signal states (ID:2a-019):
- "Supply indicators may include the flow of new permissions expressed as a number of units per year relative to the planned number and the flow of actual completions per year relative to the planned number. A meaningful period should be used to measure supply. If the historic rate of development shows that actual supply falls below planned supply, future supply should be increased to reflect the likelihood of under-delivery of a plan." (NLP emphasis)*
- 3.25 The PPG goes on to identify (ID: 2a-020) that the appropriate response to market signals is an upward adjustment to planned housing numbers compared to ones based solely on household projections, with that adjustment of a level that is reasonable. Whilst backlog might not need to be added to future need (e.g. as identified by household projections), as a market signal, it is clear that backlog, and the scale of that backlog, must be fully reflected in any full objective assessment of need. In this respect, the Councils' approach has wholly failed to account for backlog as a market signal, which would support upwards adjustment. Any upwards adjustment would need to be viewed in the context of other market signals, and alongside other indicators as to full objectively assessed needs, such as affordable housing need or economic-led needs. In such circumstances, the scale of backlog may help to quantify, or at least provide an indication supporting other judgements, as to what a reasonable uplift would be.

Translating 2031 population to housing demand: occupancy ratios

- 3.26 The paper confirms that the approach taken to translating the 2031 population to housing was to utilise changes in occupancy ratios based upon a regional assumption drawn from past changes to the ratio seen in 1996 to 2007. The Councils indicate that the regional geography is appropriate for this assumption because (para 7.2) it: *"reflects the national trend of an ageing population, but does not reflect issues of suppressed household formation... and is based on observed data at a regional, rather than national, level."*
- 3.27 The paper does not indicate why such an approach is more appropriate than a local geography for considering future changes in household formation.

Indeed, it appears to be formed on the assumption that trends in ageing population are uniform across the country and region; which they are not, with the changing age profile dynamics different across many areas. Such a simplistic approach wholly fails to reflect how the age structure (and associated household formation characteristics) have previously changed at a local level and will continue to do so in the future. We consider that this is not an appropriate nor robust approach to translating population to households and housing demand.

Why an approach based on occupancy ratios was used rather than relying on national household projections

- 3.28 The Councils' indicate that they have disregarded the household formation rates that underpinned the CLG household projections because the 2011-based ones perpetuate a suppressed household formation rate, whereas the 2008-based ones do not account for the effect of the much larger proportion of recent immigrants in the population, citing the 'Holmans' paper.
- 3.29 Whilst the above is not incorrect, it doesn't follow that the appropriate recourse is to adopt assumptions based upon regional occupancy ratios which fail to take into account local dynamics in household formation, including age structure changes. The PPG sets out that the government projections should form the starting point and there are numerous approaches to overcome the shortcomings of both the 2011 and 2008 projected household formation rates, whilst still reflecting specific local demographic circumstances, as adopted by NLP.

How this approach differs from using headship rates to understand household formation and occupancy levels

- 3.30 The paper asserts that the occupancy ratio summarises all age structure and household components to provide an overall measure. It elaborates that the 2011 occupancy ratios used in the methodology reflect differences in the characteristics of the different areas, including household age structures. Whilst this is true of the 2011 occupancy ratio starting point (drawn from the Census), by adopting such an 'overall measure' as occupancy ratios as an assumption, it implicitly assumes that the household structure of the population will always change in the same way, irrespective of the underlying population dynamics.
- 3.31 Occupancy ratios are blunt instrument that fail to reflect the dynamics of population change. By way of quantifying the impact that their use has in comparison to more widely used methods of assessing household formation, Table 3.1 compares the Councils' approach using occupancy ratios with two sets of comparable household representative rates drawn from CLG household projections (see Section 6 for a description). Applying this to the same scenario of population growth, this highlights that an approach using occupancy ratios arrives at household growth between 7.9% and 14.0% lower than an approach using suitable household representative rates.

Table 3.1 Occupancy Ratios vs. Household Representative Rate on Indicative Population Scenario (Scenario B) for South Cambridgeshire

	2011	2031	Change
Approach: Occupancy Ratio			
Population	149,842	187,842	+38,000
Occupancy Rate	2.42	2.31	~
Households	61,918	81,317	+19,399
Approach: CLG Age Specific Household Representative Rates (with allowance for population not in households) - 2011-based then Indexed to 2008-based			
Population	149,842	187,842	+38,000
Households	60,394	81,459	+21,064
Difference (% Occupancy different to HRR):			-1,666 (-7.9%)
Approach: CLG Age Specific Household Representative Rates (with allowance for population not in households) - 2011-based then Catching-up to 2008-based			
Population	149,842	187,842	+38,000
Households	60,394	82,950	+22,556
Difference (% Occupancy different to HRR):			-3,157 (-14.0%)

Source: NLP HETA - Update

How the age structure of the population is addressed

- 3.32 There is no explicit projection of how the age structure of the population will change under the 'indicative total population' scenario. However, the Councils indicate that as this has been derived from forecasts which do have an identified age structure, a population figure in the range of these forecasts must have a "reasonable age structure" (para 10.1).
- 3.33 Whether the scale of population growth would result in a reasonable age structure is not at issue. The issue is how the Councils can sufficiently plan for services, infrastructure and housing, when the age structure of the population has not been taken into account when trying to estimate need and demand for such factors. For example, it is unclear how, without an age structure from the indicative population scenario, the Councils can evidence and plan for:
- a Sufficient labour force (and working age people) to support economic growth, given likely changes in the labour market (including economic activity rates across different age cohorts);
 - b Infrastructure provision such as school places, without knowing how many pupils/school age persons there might be, and health and care facilities, with elderly people particularly affecting such services, among others; and
 - c Housing and accommodation needs, with increases in student populations, elderly populations, young adults and family populations all having acutely different housing and accommodation needs, which may not be captured without considering age specific (and household formation) factors.

- 3.34 A full and integrated approach to assessing development needs, flowing from the same demographic evidence to ensure alignment, should have been carried out as advocated in the PPG and without consideration of the age structure of the population, this will not have been robust.

Approach taken to commuting

- 3.35 The paper sets out that the approach to commuting is based upon a continuation of commuting patterns as set out in the Census 2001. No adjustment to such patterns is made as it would constitute a policy/strategy choice and would not necessarily be commensurate with objectively assessed needs. We concur it is important that housing demand and the prospects for local economic growth in an area reflect the commuting relationship. Notwithstanding, it is important that this is based upon up to date data, and the Councils should verify this position in respect of the Census 2011 commuting data now available.

Assessing the Cambridge Strategic Housing Market Assessment against the final National Planning Practice Guidance (March 2014)

- 3.36 This document produced by the Councils sets out, in a table format, the requirements of the Planning Practice Guidance (PPG) and where the relevant assessment can be found within the SHMA. It does not, however, present any assessment of whether the approach taken in the SHMA matches the approach advocated in the PPG. It therefore presents a 'tick-box' exercise on whether the SHMA presents data or analysis that is similar to the discrete outputs and analysis required by the PPG. It is not an analysis of whether the approach to objectively assessing development needs within the Cambridge SHMA matches that advocated by the PPG.
- 3.37 By way of highlighting this we take market signals as an example. The PPG states in respect of market signals that (ID: 2a-019-20140306): *"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."* (our emphasis)
- 3.38 The document references this requirement in the PPG to the forecasts contained within the SHMA (para 12.2.5) and the Technical Report (Section 5 and 6.1). When going to this reference it presents the forecasts including the 'indicative population total' scenario, which is a demographic-led scenario representing the household projections. Although reference to the various market signals is made throughout the SHMA, it is not clear that the housing need number suggested by household projections has been adjusted to reflect market signals. The PPG does not advocate that it is simply enough to assess market signals; there must be a corresponding adjustment or action associated with those market signals. The SHMA does not appear to do this. The Councils' assessment of the SHMA against the PPG wholly fails to recognise

the actual approach required and therefore has failed to pick up those areas where the SHMA is deficient.

Conclusions on the Councils' Approach

- 3.39 Since NLP's September 2013 HETA, the Councils' have sought to clarify their approach to objectively assessing full development needs across the relevant market area. However, whilst the various documents above seek to retrospectively justify the approach in light of the NPPF and PPG requirements, we do not consider that any of the justifications provided fundamentally address the concerns previously set out. The approach within the SHMA and the Technical Report remain subject to the same criticisms set out at para 3.3. above, with the Councils' clarifications failing to address why they have sought to deviate from the methodology required by the NPPF and PPG.
- 3.40 On this basis, we continue to conclude that the CCC Technical Report and the Cambridgeshire SHMA are significantly flawed. They do not form a sound and robust basis for deriving full objectively assessed development needs in Cambridge City and South Cambridgeshire and therefore the housing requirements identified within the respective plans are not justified.

4.0 Approach to Assessing Housing Needs

Changes to Policy and Data Sources

4.1 There have been a number of data releases since the production of NLP's September 2013 HETA as well as the introduction of the PPG. These changes are summarised below along with an explanation of their relevance to the HETA Update.

National Planning Practice Guidance

4.2 The PPG was formally introduced in March 2014. It clarifies the position on how the NPPF should be interpreted and applied, including with regards to assessing housing need. It confirms that an assessment of need must fulfil the following criteria and be based upon:

- a Relevant market area;
- b Facts and unbiased evidence. Plan makers should not apply constraints to the overall assessment of need;
- c Up-to-date household projections published by the Department for Communities and Local Government should provide the starting point estimate of overall housing need; and that
- d The housing need number suggested by household projections (the starting point) should be adjusted to reflect local demographic factors, employment trends as well as appropriate market signals including market indicators of the balance between the demand for and supply of dwellings.

4.3 This clarifies the steps to an objective assessment of need which have informed the conclusions to this HETA Update.

2012 Sub National Population Projections

4.4 The 2012 Sub National Population Projections (SNPP) were released by ONS on the 29th of May 2014. These are the first full set of population projections to be released since the 2011 Census and form the most up to date and robust projections on population in the last three releases. At a national level these projections have shown a reduced rate of increase in the projected population of the country in comparison to both the 2010 and 2011 based SNPP. At a Local Authority level the consistency of these new projections with past population projections vary. A new 2012 SNPP scenario has been run to utilise these projections. The profile of population based on this population projection is also implicit within all of the other modelled scenarios.

2011 Census Travel to Work Data

4.5 Origin destination data was released on the 25th July 2014 and included information on commuting from the 2011 Census. This updates the commuting

data used previously in the September 2013 HETA which dated back to the 2001 Census. This has informed an update to the local area matrix undertaken previously to establish the Cambridge HMA.

Defining the Housing Market Area

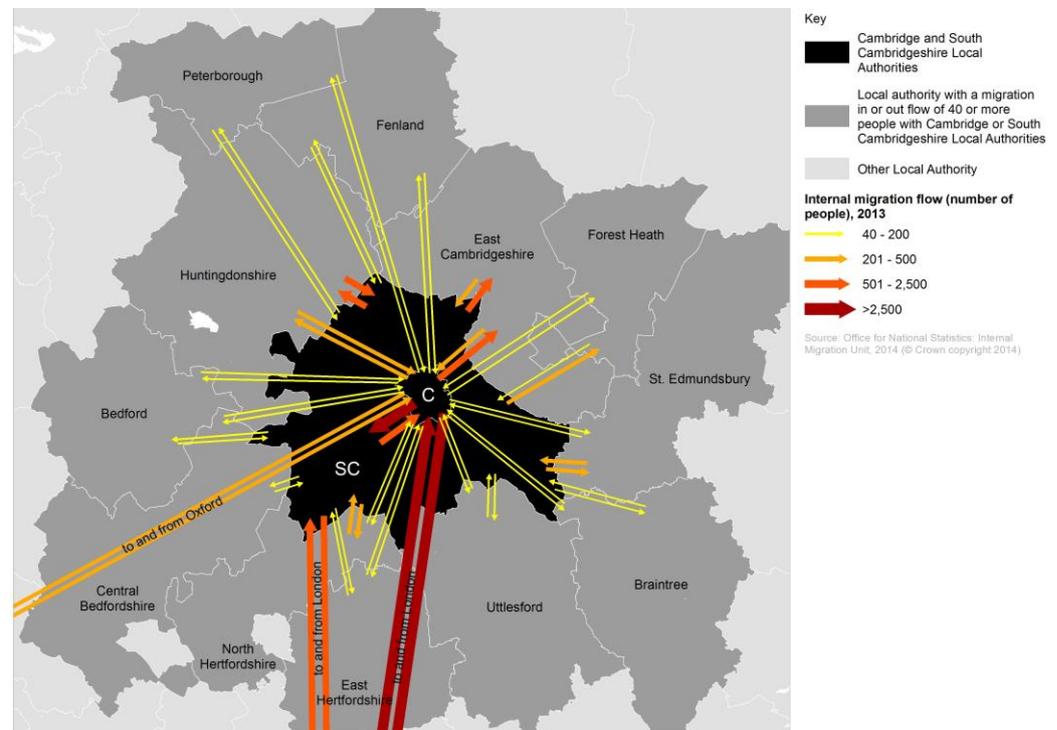
4.6 With the availability of new data since the production of the HETA report (2013) it is necessary to re-asses the housing market area of Cambridge and South Cambridgeshire. This is compliant with the NPPF which sets out (para 47) that local planning authorities should:

“...ensure their Local Plan meets the full objectively assessed needs for market and affordable housing in the housing market area...” (NLP emphasis)

4.7 Patterns of migration are a function of a range of housing market factors combined with household circumstances. Key factors which influence migration patterns and the geography of housing markets include affordability, which itself is influenced by a range of factors, and accessibility, particularly related to place of work and ease of commuting.

4.8 Figure 4.1 illustrates the migratory relationships Cambridge and South Cambridgeshire have with the wider area, showing how Cambridge City interacts in housing market terms with surrounding districts.

Figure 4.1 Migration patterns for Cambridge and South Cambridgeshire 2013



Source: ONS Migration Statistics Unit

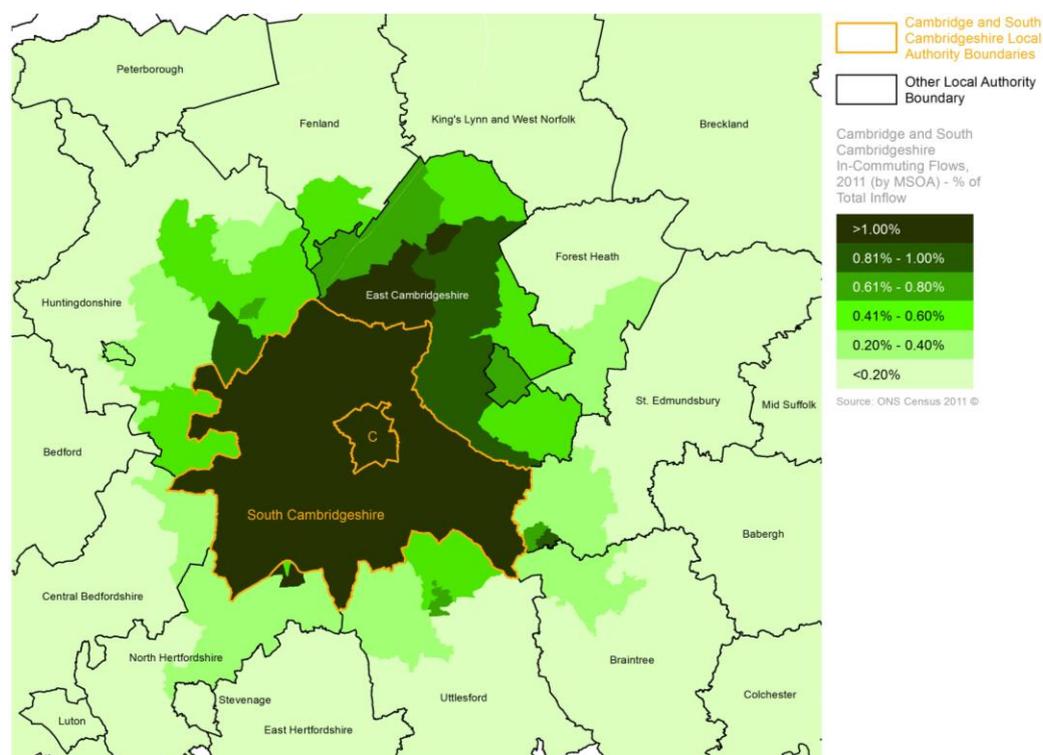
4.9 As with the 2011 migration map in the September 2013 HETA, the migration map shows a very high level of interdependency between Cambridge City and South Cambridgeshire, which is significantly greater than the surrounding

authorities. Both Cambridge City and South Cambridgeshire also have a high level of interdependency with London and to a slightly lesser extent Oxford. Potentially this reflects the economic linkages Cambridge has beyond its sub-region.

4.10

A further way to consider housing market linkages is commuting flows and travel to work areas. Figure 4.2 illustrates in proportional terms where workers in Cambridge and South Cambridgeshire live (i.e. the commuting inflows to the two Districts from different wards of residence). This shows that the highest proportions of workers in Cambridge and South Cambridgeshire also live in these two authorities.

Figure 4.2 Place of residence for commuters working in Cambridge and South Cambridgeshire 2011



Source: Census 2011

4.11

These linkages evidenced in both migration flows and commuting flows clearly demonstrate the degree of housing market interdependency between Cambridge and South Cambridgeshire. The high levels of moves between the two and the commuting dynamic observed illustrates how the housing and economic balance in the area is inter-dependent. Whilst these two authority areas experience the greatest level of housing market inter-dependency, which is unsurprising given the proximity and geographic ties between the two, there is also some inter-dependency with other districts in the sub-region. These wider linkages therefore provide a basis for considering the extent of the HMA surrounding Cambridge City.

Latest Sub Regional Migration Patterns

4.12

The September 2013 HETA report produced a local area matrix of origin and destination across the sub-region; this was based on data on people's movements over the last year from data in the 2001 Census. This same analysis has been undertaken using the updated 2011 Census results and is displayed below in Table 4.1. The analysis indicates that the level of self-containment of migratory movements in Cambridge and South Cambridgeshire is particularly high with supply side self-containment totalling 83.2% of all those moving out of a dwelling moving within Cambridge or South Cambridgeshire and demand side self-containment totalling 86% of all those moving into a dwelling in Cambridge or South Cambridge moving from those same areas. These are both significantly higher than the 70% self-containment rate set out in the CLG guidance. It would appear that Cambridge has a greater degree of housing market interdependence with Greater London and Oxford than with a number of the other districts defined as being within the Cambridge sub-region.

Table 4.1 Local area matrix of migratory origin and destination across the Sub-Region in 2011

		Destination												% Containment Across Sub-regional HMA	Cambs & S. Cambs		
		Bedford	Cambridge	Central Bedfordshire	East Cambridgeshire	Fenland	Forest Heath	Huntingdonshire	North Hertfordshire	Peterborough	South Cambridgeshire	St Edmundsbury	Uttlesford		Grand Total	Destination Cambridge & S. Cambs	% Containment across Sub-regional HMA
Origin	Bedford	10,564	51	698	10	18	7	272	63	57	27	14	7	11,788	89.6%	78	0.3%
	Cambridge	55	11,159	44	498	56	195	294	96	113	2,593	193	91	15,387	72.5%	13,752	55.6%
	Central Bedfordshire	1,044	63	11,624	23	28	21	288	635	39	160	13	10	13,948	83.3%	223	0.9%
	East Cambridgeshire	17	341	31	4,136	178	630	142	43	61	369	114	24	6,086	68.0%	710	2.9%
	Fenland	31	73	20	143	5,869	29	322	11	457	98	16	7	7,076	82.9%	171	0.7%
	Forest Heath	10	132	5	492	18	3,546	54	14	14	91	373	10	4,759	74.5%	223	0.9%
	Huntingdonshire	250	246	171	149	334	45	9,850	44	656	471	52	23	12,291	80.1%	717	2.9%
	North Hertfordshire	79	88	935	22	18	13	124	5,903	21	354	38	35	7,630	77.4%	442	1.8%
	Peterborough	71	135	64	75	415	29	665	17	15,072	76	35	4	16,658	90.5%	211	0.9%
	South Cambridgeshire	57	1,616	162	682	70	242	692	266	68	5,910	215	210	10,190	58.0%	7,526	30.4%
	St Edmundsbury	17	150	12	117	25	430	47	20	46	165	6,168	34	7,231	85.3%	315	1.3%
	Uttlesford	12	144	21	52	6	47	24	19	11	217	92	3,347	3,992	83.8%	361	1.5%
	Grand Total	12,207	14,198	13,787	6,399	7,035	5,234	12,774	7,131	16,615	10,531	7,323	3,802	117,036		24,729	100.0%
Containment across Sub-Regional HMA		86.5%	78.6%	84.3%	64.6%	83.4%	67.7%	77.1%	82.8%	90.7%	56.1%	84.2%	88.0%				
Cambs & S. Cambs	Origin Cambridge & S. Cambs	112	12,775	206	1,180	126	437	986	362	181	8,503	408	301	25,577			86.0%
	% Containment across Sub-region HMA	0.4%	49.9%	0.8%	4.6%	0.5%	1.7%	3.9%	1.4%	0.7%	33.2%	1.6%	1.2%	100.0%		83.2%	

Source: Census 2011

- 4.13 Based on this analysis, it is clear that the Cambridge City and South Cambridgeshire District housing and labour markets are integrally linked and effectively function as one and the same. This is a function of their geographies, with South Cambridgeshire enveloping Cambridge City. The linkages with Cambridge's tightly drawn boundaries lead to any growth on the edge of, or close to, Cambridge but not within the City, rather falling within South Cambridgeshire. Focussing on these two local planning authority areas, the analysis of the two LPAs linkages indicate they actually form a relatively self-contained area in terms of household movements.
- 4.14 Based on the evidence, it is concluded that the appropriate housing market area against which to consider the housing needs of Cambridge as a settlement comprises Cambridge City and South Cambridgeshire. Housing needs from Cambridge would not be able to be substantially met in Districts beyond this area. The two authorities form a single HMA, and within the context of the NPPF, form the appropriate geography for objectively assessing housing needs.

5.0 Updated Objective Assessment of Development Needs

Demographic-led Needs

- 5.1 Before considering wider factors such as job growth and housing costs, it is necessary to identify the baseline demographic need of housing within a population. This considers projections in fertility, mortality and migration to project a population, then, given household formation rates, arrive at a required number of dwellings to accommodate growth. NLP has used specialist demographic modelling tool POPGROUP to project future population growth which is an industry standard software package used by Government Agencies, County Councils and Local Authorities. In addition to the number of houses, POPGROUP also produces projections for the number of jobs supported by a population (or population required to support a given number of jobs). This is explored later.
- 5.2 The models are calculated over the period 2011-2031 and assumptions applied in the modelling are set out in Appendix 1. Full model output sheets are found in Appendix 2.
- 5.3 NLP has assessed three different demographic scenarios. These are:
- **Scenario A: 2012-based Sub National Population Projections (SNPP)** – based on the updated 2012 SNPP which takes into consideration the 2011 census;
 - **Scenario B: CCC Technical Report Demographic** - a demographic-led scenario which constrains the population increase between 2011 and 2031 as forecast in the CCC Technical Report, an increase of 65,000 people for Cambridge City and South Cambridgeshire; and
 - **Scenario C: Long Term Migration Trend** - a demographic-led scenario which constrains the migration figures to those observed in the Mid-Year Estimates Series 2003 to 2013.
- 5.4 The sources of the data used for each input are listed below and full explanations of the assumptions around each input are included in Appendix 1.
- a Fertility rates – ONS 2012-based Sub National Population Projections (SNPP).
 - b Mortality rates – ONS 2012-based SNPP.
 - c Migration – ONS 2012-based SNPP (for past migration scenarios these are taken from the ONS Mid-Year Estimates 2004-2013).
 - d Vacant and second homes – CLG Council Tax Base data 2010 to 2013.
 - e Population not in households – CLG 2011-based Interim Household Projections.

CLG 2011-based Interim Household Projections and Household Formation

- 5.5 As identified in the September 2013 HETA the CLG 2011-based interim household projections were published in April 2013 by CLG and provide up to date projections for household formation rates for Cambridge and South Cambridgeshire. These projections of headship rates (the proportion of population that will form a head of household) are applied to different scenarios of population growth.
- 5.6 As discussed in the September 2013 HETA the rates of household formation projected for South Cambridgeshire over the next ten years (to 2021) are only showing marginal increases in household formation, at a much slower rate than experienced in the 1990's. In Cambridge a different trend is projected with household formation falling until 2018 before then increasing again, despite having hit its lowest level for three decades.

Appropriate rates of long term household formation to adopt

- 5.7 For the purposes of an objective assessment of needs in line with the NPPF, it is not appropriate to simply trend forward the interim projections beyond 2021 given the period and circumstances upon which they are based. Instead, it is reasonable to assume that beyond 2021 rates of household formation (and therefore trends in average household size) will reflect a change in line with long term trends. This is likely to occur in particular as the wider economy returns to growth and peoples' circumstances improve, with more confidence and ability to form a new household. Therefore, as a baseline projection of household formation, beyond 2021, NLP has applied the rate of annual change in household formation from the 2008-based household projections, to reflect such long term trends and in the absence of other long-term projections of household formation, an 'indexed' projection. Such an approach has been explicitly supported by Planning Inspectors previously, including at the South Worcestershire Development Plan examination⁹.
- 5.8 Even then, this may be considered a conservative estimate as the Cambridge Centre for Housing & Planning Research (CCHPR – the academics and demographic experts behind the collaborative "What homes Where" toolkit) have expressed the view that formation rates would be expected to rise as a result of economic growth in the short term, and that therefore there is merit in not following the CLG projections all the way to 2021. Instead, they consider that economic growth before 2021 would result in pent-up demand being realised and new household formation occurring and on this basis suggest that, for the purposes of assessing housing needs, CLG 2011-based interim headship rates should only be followed to 2015 but then should deviate to an accelerated rate for a 10 year 'catch up' period, before rates settle down to a level that follows historic patterns.

⁹ Inspector's Interim Conclusions on Stage 1 (23 October 2013)
<http://www.swdevelopmentplan.org/wp-content/uploads/2013/02/EX-401.pdf> (Paras 26-34)

- 5.9 Furthermore, the Town and Country Planning Association (TCPA) Tomorrow Series Paper 16 entitled New Estimates of Housing Demand and Need in England 2011 to 2031 by Alan Holmans' states the following with regards to projecting forward household formation rates post 2021 (page 5).
- “The central question for the household projection is whether what happened in 2001-11 was a structural break from a 40-year trend; or whether household formation was forced downwards by economic and housing market pressures that are likely to ease with time. At the time of the 2011 Census, the British economy was still in recession and the housing market was depressed. The working assumption in this study is that a considerable part but not all of the 375,000 shortfall of households relative to trend was due to the state of the economy and the housing market. 200,000 is attributed to over-projection of households due to the much larger proportion of recent immigrants in the population, whose household formation rates are lower than for the population as a whole. This effect will not be reversed. The other 175,000 is attributed to the economy and the state of the housing market and is assumed to gradually reverse.”*
- 5.10 This report identifies that half of the suppression seen in household formation rates between 2001 and 2011 is attributable to the economic downturn with the other half attributed to the culture of recent immigrants forming larger households than seen historically in England.
- 5.11 Furthermore, research by the NHPAU found that cohorts who are less able to access home ownership earlier in their housing career due to 'boom' or 'recession' factors impacting on affordability are nevertheless able to 'catch-up' 80% of the gap at the age of 30 and are fully 'caught-up' by the age of 40. There is every reason to believe this finding is broadly analogous to household formation, and supports the resumption of long term trends. To plan towards an alternative hypothesis would not be consistent with the spirit of 'positive planning' so clearly articulated in the NPPF.
- 5.12 Drawing upon the above evidence, beyond 2021, NLP have applied a further sensitivity in the modelling in the form of a 'catch up' household projection. As it is indisputable that both Cambridge and South Cambridgeshire were impacted by the economic downturn, like the rest of the country, it is clear that at least some of the suppression seen in household formation rates between 2001 and 2011 (compared to the 2008 household projections) was as a result of these recessionary impacts. As such, as these authorities grow out of recession it is plausible that household formation will be made up post 2021, in accordance with the aforementioned research by the NHPAU.
- 5.13 With regards to the remaining half of suppressed household formation over the period 2001 to 2011 (compared to the 2008 household projections) the Alan Holmans' paper for the TCPA, acknowledges that at the national level half the difference is a result of the culture of recent immigrants forming larger households than seen historically in England, and not the recession. However, data obtained from the Census 2011 clearly identifies that this has not been a driving factor in Cambridge and South Cambridgeshire.

- 5.14 The Institute of Race Relations defines Black and Minority Ethnic (BME) populations as follows:

“Black and Minority Ethnic or Black, Asian and Minority Ethnic is the terminology normally used in the UK to describe people of non-white descent”.

- 5.15 The Census shows that there has been an increase in the BME population in the Cambridge and South Cambridgeshire HMA (those of non-white decent) but not so significant an increase as seen nationally. This is set out below in Table 5.1.

Table 5.1 BME population change

Location	BME population 2001	BME population 2011	Change	Total population change	BME % of population change
HMA	15,315	31,630	16,315	33,648	48.49%
England	4,459,470	7,731,314	3,271,844	3,873,625	84.46%

Source: Census 2001, Census 2011 and NLP analysis

- 5.16 It is clear from the analysis above that the proportionate increase of the BME population has not been as significant in Cambridge and South Cambridgeshire as it has in England between 2001 and 2011, in fact it is nearly half that seen nationally. As such, Alan Holmans’ assumption that half of the difference between the 2008-based household projections and 2011 counterparts is due to immigrant families forming larger households has not been the case in Cambridge and South Cambridgeshire. This justifies the use of full catch up headship rates for this HMA as suppressed household formation has been as a result of recessionary impacts. Importantly, this avoids rolling forward the impact of recessionary (and constrained housing supply) factors upon household formation into the future, thereby avoiding an assessment of housing need that would be commensurate with a policy that plans towards such adverse household and housing outcomes continuing (contrary to the NPPF).
- 5.17 Furthermore, in the market signals section of this report, an assessment of the past backlog of housing delivery in Cambridge and South Cambridgeshire is set out. Neither authority has met their target since 1999/00. As such even the 2008 based household projections are likely to be based on suppressed household formation because the level of housing identified to be delivered up until the commencement of the 2008 projections had not been met. Therefore, by catching up to the 2008 based projections, this is still not a mechanism for meeting the total backlog of housing need and addressing the negative market signals associated with that acute and persistent under-delivery. In simple terms, adjusting the household formation rates addresses the recent recessionary impacts that have suppressed household formation, it still continues to exclude any adjustment necessary to address those market signals associated with the long term under-delivery of housing.

Demographic Scenario Outputs

- 5.18 As previously set out in Section 3 of this report, in CCC's modelling no account has been taken of age specific dynamics within the population projections, with only overall population change considered. The implication of this is that the impacts of factors such as an ageing population are not assessed. In NLP's modelling the 2012 SNPP components of change and 2013 Mid-Year Estimates Population data have altered the profile of the population in accordance with these new data releases. As such, under the same scenarios modelled in the September 2013 HETA report, notably Scenario B, there will be different population, housing and employment outcomes resulting from this updated profile of population.

Scenario A. 2012 Sub National Population Projections

- 5.19 The Cambridgeshire County Council report 'Population housing and employment forecasts Technical Report' set out the following concern for the use of the Sub National Population Projections:
- "For Cambridge are implausibly low, due to the migration methodology. While for other areas in the Cambridge HMA ONS population projections look more reasonable, the fact that the same methodology produces such unrealistic projections for one district caused concern about the consistency of data and approach across the HMA". Paragraph 5.2*
- 5.20 The report considers that the low population change for Cambridge under SNPP projections results from unsound migration methodology. As such CCC do not consider these projections to be realistic for Cambridge, and this draws into question how realistic the projections are for the whole HMA.
- 5.21 None-the-less, the 2012 SNPP have been modelled as their own scenario for Cambridge and South Cambridgeshire because they are the most up to date population projections available. The NPPF and PPG state that assessments of housing demand should start with household projections; these projections rely upon SNPPs.
- 5.22 Using the data for fertility, mortality and migration from the 2012 SNPP for the Cambridge and South Cambridgeshire Housing Market Area, over the period 2011-2031 there is projected to be population growth of 43,461. The use of indexed projections for household formation post 2021 equates to a need for 24,824 additional houses in total. Using the full catch up headship rates equates to a need for 27,203 additional dwellings in the HMA.

Table 5.2 Outcomes of Scenario A.

	Population	Jobs	i. Dwellings (under indexed headship projections)	ii. Dwellings (under catch-up headship projections)
Cambridge	10,366	5,884	7,027	8,064
South Cambridgeshire	33,095	10,874	17,797	19,139
Cambridge & S. Cams	43,461	16,758	24,824	27,203

Source: NLP Analysis

Scenario B. CCC Technical Report Demographic

- 5.23 This scenario constrains the population increase between 2011 and 2031 as forecast in the CCC Technical Report, an increase of 65,000 people for Cambridge City and South Cambridgeshire. The CCC report's methodology has its limitations, as set out in the critique section. However it is a more robust basis for a demographic projection than the 2012 SNPP.
- 5.24 NLP's modelling outputs for jobs differ from the outcomes of the CCC Technical Report. Under NLP's demographically modelled scenario the forecast increase in jobs is 36,168 as opposed to CCC's forecast of 44,000. The reason for this disparity is not clear. The methodology used in the EEFM model to calculate this jobs figure has not been made explicit.
- 5.25 The dwelling requirement under this scenario equates to 35,889 additional dwellings required in the HMA when utilising indexed headship rates. Using full catch up headship rates the number of additional dwellings increases to 38,714.

Table 5.3 Outcomes of Scenario B.

	Population	Jobs	i. Dwellings (under indexed headship projections)	ii. Dwellings (under catch-up headship projections)
Cambridge	27,000	19,231	14,160	15,446
South Cambridgeshire	38,000	16,938	21,729	23,268
Cambridge & S. Cams	65,000	36,168	35,889	38,714

Source: NLP Analysis

Scenario C. Long Term Migration Trend

- 5.26 This scenario models the migration trend from the ONS revised Mid-Year Estimates series seen in Cambridge and South Cambridgeshire over the past ten years (2003/04 to 2012/13). As set out in the September 2013 HETA report, the migration figure is adjusted to include 50% of unattributed population growth to international migration, 25% for gross international in migration and 25% for gross international out migration.

- 5.27 The dwelling requirement under this scenario equates to 31,825 additional dwellings required in the HMA when utilising indexed headship rates. Using full catch up headship rates the number of additional dwellings increases to 34,513.

Table 5.4 Outcomes of Scenario C.

	Population	Jobs	i. Dwellings (under indexed headship projections)	ii. Dwellings (under catch-up headship projections)
Cambridge	23,769	16,143	11,980	13,193
South Cambridgeshire	36,222	14,548	19,845	21,320
Cambridge & S. Cambs	59,991	30,691	31,825	34,513

Source: NLP Analysis

Market Signals

- 5.28 The PPG indicates (ID: 2a-019-20140306) that once an assessment of need based upon household projections is established, this should be adjusted to reflect appropriate market signals and indicators of the balance between the demand for and supply of housing. The guidance explicitly sets out six market signals:

- a land prices;
- b house prices;
- c rents;
- d affordability;
- e rate of development; and
- f overcrowding.

- 5.29 It goes on to indicate that appropriate comparison of these should be made with upward adjustment made where such market signals indicate an imbalance in supply and demand and need to increase housing supply to meet demand and tackle affordability issues (ID 2a-020-20140306):

“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. Volatility in some indicators requires care to be taken: in these cases rolling average comparisons may be helpful to identify persistent changes and trends.”

In areas where an upward adjustment is required, plan makers should set this adjustment at a level that is reasonable. The more significant the affordability constraints (as reflected in rising prices and rents, and worsening affordability ratio) and the stronger other indicators of high demand (e.g. the differential between land prices), the larger the improvement in affordability needed and, therefore, the larger the additional supply response should be.” (NLP emphasis)

- 5.30 The guidance sets out a clear and logical ‘test’ for the circumstances in which objectively assessed needs (including meeting housing demand) will be in excess of demographic-led projections.

Housing Market Indicators

- 5.31 In the context of the NPPF and the PPG, each of the housing market signals have been reviewed and updated to assess the extent to which they indicate a supply and demand imbalance in Cambridge and therefore indicate that upwards adjustment should be made over the demographic-led baseline already identified.

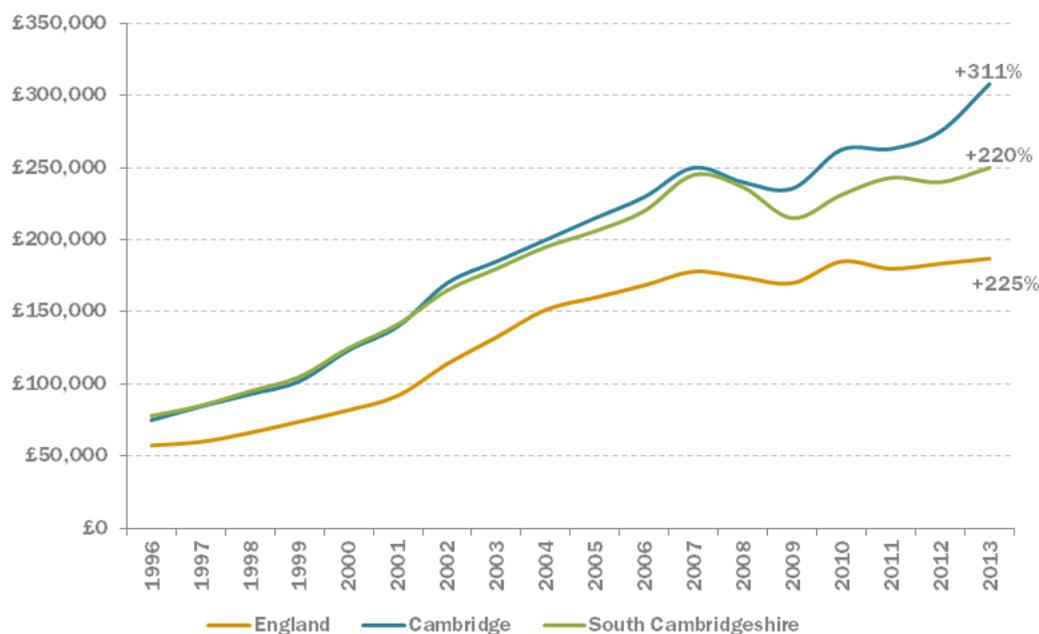
Land Prices

- 5.32 There is no more up to date data on land prices than was previously set out in the HETA (2013). As such it is still the case that the significant land price premium in Cambridge is an indicator of exceptionally high demand for residential building land and is illustrative of a shortage of land for such use.

House Prices

- 5.33 The PPG identifies that longer term changes in house prices may indicate an imbalance between the demand for and supply of housing (ID: 2a-019-20140306). Although it suggests using mix-adjusted prices and/or House Price Indices, these are not available at local authority level on a consistent basis, and therefore for considering market signals in the Cambridge housing market area, price paid data is the most reasonable indicator.
- 5.34 Since the HETA (2013) data on house prices from 2013 have been released. Figure 5.1 shows how median house prices in Cambridge, South Cambridge and England have changed between 1996 and 2013. Median house prices in both Cambridge and South Cambridgeshire have been consistently higher than the national average. In addition, median prices in Cambridge have increased at a faster rate than nationally, rising 311% from £75,000 in 1996 to £308,000 in 2013 compared to a rise of 225% seen nationally. This means that in 2013, the median house price in Cambridge was 64% higher than in England overall.
- 5.35 South Cambridgeshire has seen a rate of increase lower than in Cambridge of 220%, closer to the national average. However, house prices were still 34% higher than the national average at £249,950 in 2013.

Figure 5.1 Median House Prices



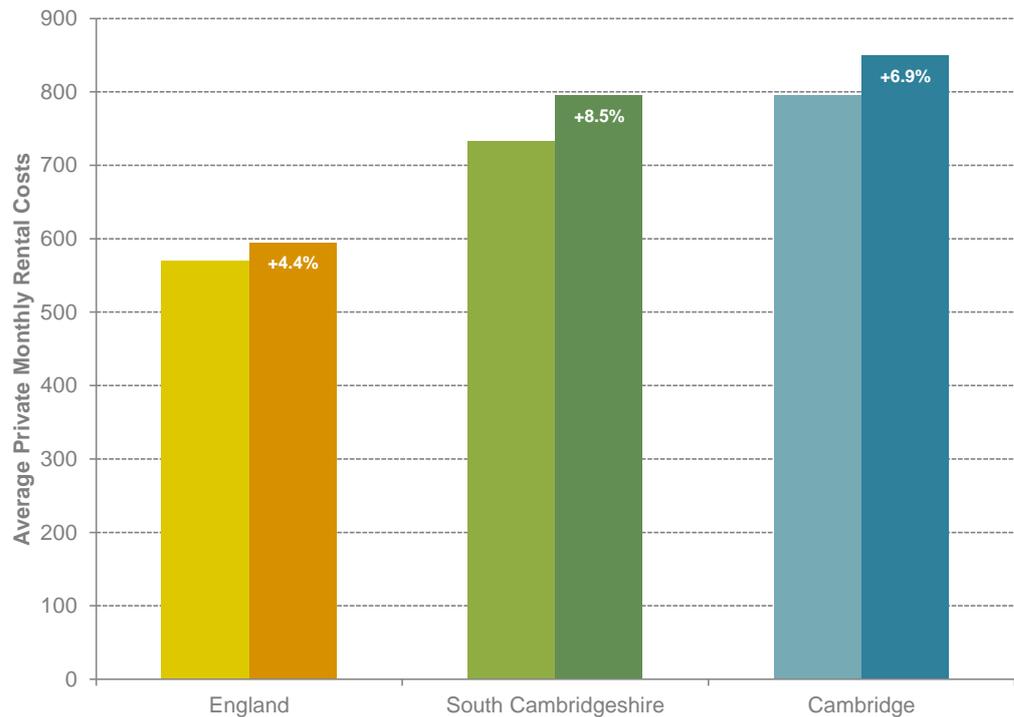
Source: CLG Live Table 586, Land Registry Data

- 5.36 With a median house price of £308,000 Cambridge is ranked the 32nd most expensive Local Authority in England in terms of house prices. With a median house price of £249,950 South Cambridgeshire is ranked 70th in terms of house prices; this means that both Cambridge and South Cambridge are within the top 25% most expensive Districts in England in terms of house prices. In addition, Cambridge has also increased at one of the fastest rates, ranking 17th out of 326 in terms of per cent change from 1996 to 2013.

Rents

- 5.37 On a similar basis, high and increasing rents in an area are a further market signal of stress in the housing market. Although data for median monthly rent by District are only available for recent years, patterns are still apparent. Similarly to house prices, median monthly rents in both Cambridge and South Cambridge have been higher than those seen nationally. In the 12 months to Q1 2014 median monthly rent in Cambridge was £850 and South Cambridgeshire £795. This is compared to £595 nationally. This means Cambridge and South Cambridgeshire are, in terms of median monthly rent, in the top 25% most expensive Local Authorities in England.
- 5.38 Furthermore, rents over the three year period have increased at a rate significantly higher than in England, with Cambridge increasing by 6.9% and South Cambridgeshire by 8.5%. Over the same period increases in median monthly rents nationally were 4.4%. This is shown in Figure 5.2. This highlights that affordability within the private market rental sector has, in the last couple of years, substantially worsened in Cambridge and South Cambridgeshire, indicating there has been much greater demand for housing in this tenure than there has been supply during this period.

Figure 5.2 Median Rent and Change (Q2 2011 to Q1 2014)

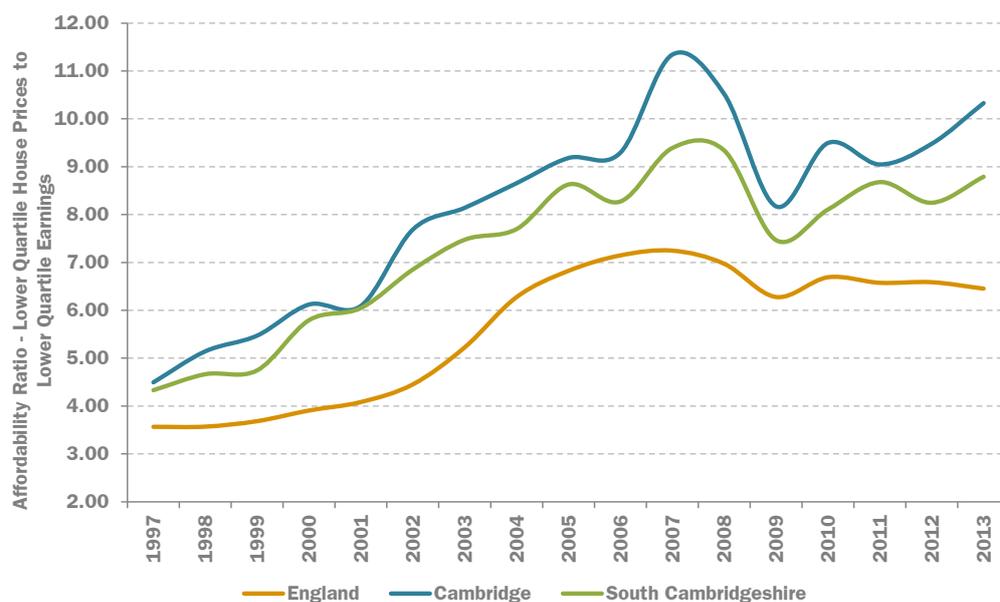


Source: VOA Rental Market Statistics

Affordability

- 5.39 As with house prices, since the HETA (2013) data on house prices from 2013 have been released. The PPG identifies that assessing affordability involves comparisons between the cost of housing and ability to pay. The indicators for this are lower quartile house prices to lower quartile earnings, which together form an affordability ratio which can be tracked over time. The affordability ratio is indicative of housing supply not keeping pace with demand. This forces prices up, and in the absence of wage growth which keeps pace with house prices, affordability ratios worsen.
- 5.40 As with other market signals, the affordability ratio in Cambridge and South Cambridgeshire has been consistently worse than in England. Even including the dip seen immediately after the start of recession when house prices nationally fell, Cambridge still saw an increase in the lower quartile affordability ratio from 4.49 to 10.33, an increase of 130%. South Cambridgeshire also saw a high level of increase of 103%, to 8.79 in 2013. Nationally, the affordability ratio in 2013 was 6.45 representing an 81% increase since 1997. This is shown in Figure 5.3 which illustrates that housing affordability in Cambridge and South Cambridgeshire is clearly an issue for the Local Authorities.

Figure 5.3 Affordability Ratio



Source: CLG Live Table 576

- 5.41 The affordability ratio highlights a significant constraint on people being able to access housing in Cambridge and is indicative of housing market stress, with house price increases far outstripping earnings increases. This is a function of housing demand outstripping housing supply in Cambridge; a market signal that housing delivery in the Cambridge housing market area (and particularly in Cambridge where affordability problems are much more acute) should be increased.

Rate of Development

- 5.42 The rate of development is intended to be a supply-side indicator of previous under-delivery. The PPG sets out that (ID: 2a-019-20140306):
- “if the historic rate of development shows that actual supply falls below planned supply, future supply should be increased to reflect the likelihood of under-delivery of a plan”*
- 5.43 The rate of development is therefore a market signal relating to the quantity of past under-supply, which will need to be made up. Against this there are two relevant ‘planned supply’ figures which could be considered: the target within the Cambridge & Peterborough Structure Plan; and the target within the East of England Plan Regional Strategy.
- 5.44 The Cambridgeshire Structure Plan (2003) planned for 32,500 dwellings between 1999 and 2016 (1,911 per annum) in Cambridge and South Cambridgeshire. The East of England Plan (2008) set out a target totalling 36,680 dwellings between 2006 and 2021 (c.2,440 per annum) in Cambridge and South Cambridgeshire.

5.45

The performance of Cambridge and South Cambridgeshire against these relevant housing targets is set out below in Table 5.5.

Table 5.5 Completions against relevant housing target in Cambridge and South Cambridgeshire 1999/00 to 2010/11

		1999/00+ 2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Cambridge	Relevant target	1,470	735	735	735	735	735	1,110	1,110	1,110	1,110	1,110	798	798	798
	Completions	325	159	287	505	601	731	629	521	588	288	390	331	482	1208
	Shortfall/ surplus	-1,145	-576	-448	-230	-134	-4	-481	-589	-522	-822	-720	-467	-316	410
	Cumulative shortfall/ surplus		-1,721	-2,169	-2,399	-2,533	-2,537	-3,018	-3,607	-4,129	-4,951	-5,671	-6,138	-6,454	-6,044
South Cambridgeshire	Relevant target	2,352	1,176	1,176	1,176	1,176	1,176	1,330	1,330	1,330	1,330	1,330	1,341	1,341	1,341
	Completions	1,602	525	653	979	571	877	924	1,274	610	611	656	671	587	565
	Shortfall/ surplus	-750	-651	-523	-197	-605	-299	-406	-56	-720	-719	-674	-670	-754	-776
	Cumulative shortfall/ surplus		-1,401	-1,924	-2,121	-2,726	-3,025	-3,431	-3,487	-4,207	-4,926	-5,600	-6,270	-7,024	-7,800
HMA	Relevant target	3,822	1,911	1,911	1,911	1,911	1,911	2,440	2,440	2,440	2,440	2,440	2,139	2,139	2,139
	Completions	1,927	684	940	1,484	1,172	1,608	1,553	1,795	1,198	899	1,046	1,002	1,069	1,773
	Shortfall/ surplus	-1,895	-1,227	-971	-427	-739	-303	-887	-645	-1,242	-1,541	-1,394	-1,137	-1,070	-366
	Cumulative shortfall/ surplus		-3,122	-4,093	-4,520	-5,259	-5,562	-6,449	-7,094	-8,336	-9,877	-11,271	-12,408	-13,478	-13,844

Source: Various AMR's and NLP analysis

- 5.46 The clear implication of this is that the rate of delivery in the Cambridge housing market area has fallen significantly short of planned supply, by some 13,844 units since 1999/00. This has fundamentally contributed towards the other housing market signals which indicate that there has been increasing stress in the housing market as a product of demand not being met. It is reasonable to assume that the scale of previous under-supply should be added on to future supply in order to reverse trends in the housing market.

Overcrowding

- 5.47 Indicators on overcrowding, sharing households and homelessness remain unchanged since the previous HETA (2013). As previously identified overcrowding against the occupancy rating in Cambridge is acute, with 14.1% of households living in a dwelling that is too small for their household size and composition. This compares to 8.7% nationally and is an increase on the 12.1% recorded in Cambridge a decade earlier in 2001. Data on homelessness (rates per 1,000 households) show that Cambridge performs worse than nationally in terms of the rate of households in priority need.
- 5.48 Such levels of overcrowding are likely to be implications associated with the scale of affordability problems in Cambridge. Such is the scale of demand for housing within the City, people are either willing to accept sub-optimal living conditions (e.g. living in smaller houses to manage costs) or are forced into accepting such housing outcomes (e.g. are priced out and have to share with friends/family, such as couch-surfing etc.).

Synthesis of Market Signals

- 5.49 Drawing together the individual market signals above begins to build a picture of the current housing market in and around Cambridge, the extent to which demand for housing is not being met and the adverse outcomes that are occurring because of this.

The Cambridge Housing Market

- 5.50 It is clear from this analysis that the Cambridge housing market area faces some significant challenges. The market signals point towards a housing market which is failing to match demand with supply, which is causing problems of affordability, pushing up prices and generating adverse outcomes for people who still need to access the housing market (e.g. through increase overcrowding within the existing stock).
- 5.51 The market signals provide a strong indication of demand and suggest that there needs to be a relatively large improvement in affordability within Cambridge and South Cambridgeshire. The PPG suggests that in such circumstances, there would need to be a larger additional supply over and above demographic-led projections in order to respond to this.

Comparisons with Similar Centres

- 5.52 To update the HETA (2013) the comparison of similar centres research has been updated to take account of updated data on market signals as set out in this chapter. It uses the same comparator locations.
- 5.53 Table 5.6 sets out a comparison across the range of market signals, with the data underpinning this analysis set out in Appendix 3.

Table 5.6 Comparison of Cambridge Market Signals

	Land Prices	House Prices		Rents		Affordability Ratio		Rate of Development	Overcrowding	
Rank	£ per ha Bulk Residential Land 2010	Median (2013)	Change % (1996-2013)	Median Monthly Rent Q1 2014	Change % (Q2 2011-Q1 2014)	Ratio 2013	Change (1998-2012)	Shortfall of Supply	% of Housing Over-Occupied	Change 2001-2011 (% points)
1	Cambridge	Cambridge	Cambridge	Oxford	Crawley	Cambridge	Southend	Harlow	Cambridge	Peterborough
2	Oxford	Oxford	Southend	Cambridge	Reading	Oxford	Chelmsford	Ashford	Oxford	Reading
3	Chelmsford	Chelmsford	Norwich	Crawley	Milton Keynes	Chelmsford	Norwich	Chelmsford	Reading	Ipswich
4	Norwich	Basingstoke	Chelmsford	Reading	Norwich	Ashford	Peterborough	Cambridge	Harlow	Crawley
5	Ipswich	Reading	Milton Keynes	Basingstoke	Stevenage	Basingstoke	Cambridge	Peterborough	Crawley	Oxford
6	Stevenage	Crawley	Oxford	Milton Keynes	Ashford	Reading	Milton Keynes	Stevenage	Southend	Cambridge
7	Basingstoke	Ashford	England	Chelmsford	Cambridge	Harlow	Harlow	England	Milton Keynes	Milton Keynes
8	England	England	Peterborough	Harlow	Ipswich	Crawley	Stevenage	Oxford	England	Southend
9	Peterborough	Southend	Ipswich	Stevenage	Southend	Southend	Ashford	Milton Keynes	Ipswich	Harlow
10	~	Milton Keynes	Reading	Ashford	Peterborough	Stevenage	Reading	Norwich	Peterborough	England
11	~	Harlow	Stevenage	Southend	Oxford	Milton Keynes	England	Southend	Stevenage	Stevenage
12	~	Stevenage	Ashford	England	England	England	Ipswich	Ipswich	Norwich	Chelmsford
13	~	Norwich	Crawley	Norwich	Harlow	Norwich	Crawley	Reading	Chelmsford	Basingstoke
14	~	Ipswich	Basingstoke	Peterborough	Basingstoke and Deane	Ipswich	Basingstoke	Basingstoke	Basingstoke	Norwich
15	~	Peterborough	Harlow	Ipswich	Chelmsford	Peterborough	Oxford	Crawley	Ashford	Ashford
Source:	VOA Property Market Report (Note some areas not covered)	CLG Live Table 586		VOA Private Market Rental Statistics		CLG live Table 576		CLG Live Table 122 / Regional Strategy Target for 2006-2012	Census 2001/2011	

- 5.54 The comparative assessment of market signals highlights the scale of housing market stress within Cambridge and the Cambridge housing market area. Across the ten indicators presented in Table 5.6, Cambridge is performing worse than the national average on all of them. This provides a strong justification for increasing the baseline demographic assessment of need within Cambridge in order to address consistently poorly performing market signals.
- 5.55 Overall, Cambridge performs worst of all comparator centres within five of the ten indicators, and second worst on another (only behind Oxford). Fundamentally the market signals taken together indicate a significant affordability constraint in Cambridge and much greater demand than previous and current supply. The PPG, as well as general economic principles, point towards such factors meaning additional supply, over and above that solely needed by demographic change, should be delivered in order to address affordability and reverse such adverse housing market trends in the housing market area.
- 5.56 The amount that supply should be increased by is not definitive. The PPG indicates that it should be *“an amount that, on reasonable assumptions and consistent with the principles of sustainable development, could be expected to improve affordability”* (ID: 2a-020-20140306).

Affordable Housing Needs

- 5.57 This scenario remains unchanged from the HETA (2013) report. Based purely on the need for affordable housing in Cambridge and South Cambridgeshire, the 2013 SHMA indicates that Cambridge alone has an affordable housing need of 17,131 dwellings between 2011 and 2031 with South Cambridgeshire requiring 11,383 over the same period. This totals a need for 28,514 affordable dwellings in the two authorities between 2011 and 2031. If we use the generous assumption that affordable housing is delivered at 40% of total housing completions, this equates to need to deliver 3,565 dwellings per annum in total, or 71,300 over the plan period 2011 to 2031.

Economic-led Needs

- 5.58 A further component of the HEaDROOM framework is based upon an understanding of the relationship between housing and employment. Although there are a complex set of issues involved in matching labour markets and housing markets (with different occupational groups having a greater or lesser propensity to travel to work), there are some simple metrics that can explore the basic alignment of employment, demographic and housing change, notably the amount of housing needed to sustain a given labour force assuming certain characteristics of commuting and employment levels.
- 5.59 Ensuring a sufficient supply of homes within easy access of employment opportunities represents a central facet of an efficiently functioning economy and can help to minimise housing market pressures and unsustainable levels of commuting (and therefore congestion and carbon emissions). If the objective

of employment growth is to be realised, then it will generally need to be supported by an adequate supply of suitable housing. The challenge of meeting employment needs is clearly given a heightened importance as a result of the need to secure economic growth out of recession, and the NPPF highlights this by stating that planning should "do everything it can" to support economic growth.

- 5.60 The economical led (job growth) scenarios are based around a given jobs target which is constrained in the POPGROUP modelling. Migration is adjusted so that the labour force is sufficient to support the required level of job growth, taking into account changes in age-specific economic activity rates associated with the increase in pension age and assuming current levels of commuting remain constant. Unemployment rates are also accounted for. This population is translated into households to arrive at a total dwelling requirement under the given job scenario. The level of housing produced from the scenarios is therefore the number required to sustain the job/economic growth.

Economically Led Scenarios

- 5.61 In this report the following two jobs-led scenarios are modelled:
- **Scenario D: CCC Technical Report Jobs** – based on the delivery of 44,000 jobs in Cambridge and South Cambridgeshire between 2011 and 2031 as identified in the CCC Technical Report; and
 - **Scenario E: Oxford Economics** – taken from an Oxford Economic Job forecast for each District from 2011-2031 (annualised job growth).

Scenario D. CCC Technical Report Jobs

- 5.62 This scenario is an update to the previously modelled Scenario C in the HETA (2013) report. The scenario constrains the jobs figure over the period 2011 to 2031 to the job forecast in the CCC Technical Report (44,000 jobs in the HMA). The outputs of the modelling indicate that a level of job growth akin to 44,000 would require a significantly greater population increase and as such a greater quantity of additional housing. In NLP's modelling, to underpin this level of job growth in the HMA there would need to be an increase in population of 79,750 people between 2011 and 2031, compared to CCC's projected 65,000 increase. As described in the previous HETA (2013) report, it is assumed that different methodologies have been used in relation to the calculation between population and jobs.
- 5.63 The dwelling requirement under this scenario equates to 39,739 additional dwellings required in the HMA when utilising indexed headship rates. Using full catch up headship rates the number of additional dwellings increases to 42,783.

Table 5.7 Outcomes of Scenario D.

	Population	Jobs	i. Dwellings (under indexed headship projections)	ii. Dwellings (under catch-up headship projections)
Cambridge	30,694	22,005	14,616	15,969
South Cambridgeshire	49,056	21,997	25,123	26,814
Cambridge & S. Cambs	79,750	44,003	39,739	42,783

Source: NLP Analysis

Scenario E. Oxford Economics

- 5.64 The September 2013 HETA modelled an EEFM (2013) economic forecast. As a new iteration of the EEFM forecast are yet to be published, and Oxford Economics Forecast has been used as an update to this scenario. Oxford Economics has been selected in the absence of an EEFM 2014 update because the forecasts use macro-economic assumptions that broadly align with those that are used for EEFM forecasting.
- 5.65 Similarly to Scenario D above, this scenario uses a figure for additional jobs as the starting point; the Oxford Economics assumes average job growth between 2014 and 2031 of 1,899 across the HMA. Data on the level of job growth in 2012 and 2013 has already been ascertained. This forecast represents an unconstrained estimate of how the HMA could perform in the future based on Oxford Economics projections.
- 5.66 The population required under the NLP modelling to support this level of job growth surpasses that which the CCC Technical Report deemed necessary to support 44,000 jobs by circa 5,500 people, despite representing a more conservative job growth scenario. This highlights the flaws in the CCC Technical Report's assumptions on translating jobs to population to housing.

Table 5.8 Outcomes of Scenario E.

	Population	Jobs	i. Dwellings (under indexed headship projections)	ii. Dwellings (under catch-up headship projections)
Cambridge	33,233	24,273	15,629	17,041
South Cambridgeshire	35,214	13,645	19,714	21,200
Cambridge & S. Cams	68,447	37,919	35,344	38,241

Source: NLP Analysis

Full Objectively Assessed Housing Needs in the Cambridge and South Cambridgeshire HMA

5.67

The scenarios outlined above present a range of different housing outcomes based on their principal drivers. The outputs are summarised in Table 5.9. These can be considered together, alongside the analysis of market signals, in order to arrive at a conclusion of demographic-led needs and a further conclusion on full objectively assessed needs.

Table 5.9 Cambridge and South Cambridgeshire modelling outputs 2011-2031

Scenario:	Demographic Led						Economic Led			
	A. 2012 SNPP		B. CCC Report		C. Long Term Migration Trend		D. 44,000 Jobs		E. Oxford Economics	
Headship Rate:	'Index'	'Catch-up'	'Index'	'Catch-up'	'Index'	'Catch-up'	'Index'	'Catch-up'	'Index'	'Catch-up'
Pop. Change	+43,461		+65,000		+59,991		+79,750		+68,447	
of which Natural Change	+24,174		+24,174		+27,384		+30,121		+28,280	
of which Net Migration	+19,287		+40,826		+32,607		+49,629		+40,167	
Household Change	+23,940	+26,227	+34,539	+37,255	+30,638	+33,222	+38,262	+41,189	+33,984	+36,767
Dwelling Change	+24,824	+27,203	+35,889	+38,714	+31,825	+34,513	+39,739	+42,783	+35,344	+38,241
<i>Dwellings p.a.</i>	+1,241	+1,360	+1,794	+1,936	+1,591	+1,726	+1,987	+2,139	+1,767	+1,912
Labour Force	+14,003		+28,716		+24,318		+35,602		+28,650	
Jobs	+16,758		+36,168		+30,691		+44,003		+37,919	
<i>Jobs p.a.</i>	+838		+1,808		+1,535		+2,200		+1,896	

Source: NLP Analysis using POPGROUP

5.68

Drawing upon the above scenarios and analysis of market signals, we can arrive at a conclusion on full objectively assessed needs for The Cambridge and South Cambridgeshire HMA. In line with the PPG we consider the various steps as follows:

- a **The Starting Point: Demographic Needs** - The CLG 2011-based household projections indicate household growth of 972 per annum in South Cambridgeshire but a decline of 145 dwellings per annum in Cambridge. It is clearly not realistic to assume households declining at such a rate in Cambridge. As such we have updated this to take account of more recent data, including the 2012-based SNPP. The outputs produced by NLP indicate that the baseline demographic needs for the HMA point towards a 1,241 dwellings per annum under the indexed approach and 1,360 under the full catch up projections. However, CCC's own research questions the reliability of these projections for the HMA. It is clear that the 2012 SNPP projects that migration will be lower in the HMA than has been seen in the last ten years, so planning towards this figure should be assessed with caution. As such, due to the more realistic local demographic factors underpinning the CCC Report scenario, this scenario is considered to represent a more realistic baseline demographic need. This requires the delivery of 1,794 dwellings per annum under the indexed approach to sustain the modelled level of demographic growth.
- b **Economic needs and Alignment** - The NPPF highlights the importance of supporting economic growth by stating that planning *should "do everything it can"* to support growth. It is considered that Scenario D (drawn from the CCC Technical Report Jobs figure and as targeted within the emerging Plans) represents a realistic assessment of the economic potential of the HMA. Under this scenario there is an annual need of 1,987 to 2,139 dwellings, suggesting an uplift on the housing needs indicated by just demographic-led projections.
- c **Affordable Housing Needs** – Affordable housing need is far in excess of purely demographic-led needs and is indicative of the scale of backlog and affordability pressures faced by the HMA. The affordable housing scenario indicates 1,426 affordable dwellings per annum would need to be provided. The total level of housing needed to deliver sufficient housing for all housing needs, if we assume delivery of affordable housing at a generous 40%, would be 3,565 per annum.
- d **Market Signals** - The market, economic and affordable housing 'signals' all indicate that to meet full housing need and demand in the HMA a level of delivery in excess of purely demographic-led needs is required. On this basis it is considered an upward adjustment above demographic-led needs is appropriate in identifying a full objective assessment of need. A reasonable uplift factor on purely demographic needs (1,794) is considered to be outputs of the CCC Technical Report Jobs figure scenario. This equates to between 1,987 and 2,139 dwellings per annum. The level of housing required to support forecast job growth in this area

would suggest that target figures should be aimed towards the top of this range. Modelling a full catch up rate implicitly assumes that all households which have been unable to form in recent years will be caught up. As such, NLP concludes that the full objective assessment of housing need for the HMA over the period 2011-2031 is considered to be 2,139 dwellings per annum. This would also help contribute to the requirement of affordable housing within the HMA.

5.69

The market, economic and affordable housing 'signals' all indicate that to meet full housing need and demand in the Cambridge and South Cambridgeshire HMA a level of delivery in excess of purely demographic-led needs will be necessary. On this basis it is considered an upward adjustment above demographic-led needs is appropriate in identifying a full objective assessment of need. A reasonable uplift factor is considered to be to the CCC Technical Report Jobs figure scenario. The level of housing required to support forecast job growth in this area would suggest that target figures should be aimed towards the top of this range and as such the full objective assessment of housing need for the HMA over the period 2011-2031, is considered to be 2,139 dwellings per annum. This would also help contribute to the requirement of affordable housing within the HMA. By way of comparison, if the backlog of housing need at the start of the modelling (11,271 dwellings) was combined with the purely demographic led needs (1,794 dwellings per annum), this would equate to a need for 2,358 dwellings per annum, a figure which is not too far removed from NLP's concluded objective assessment of housing need for the HMA.

6.0 Duty to Co-Operate and Unmet Need

Unmet needs in Cambridgeshire

6.1 The adequacy of the Cambridge sub-region SHMA (May 2013) has been examined as part of the East Cambridgeshire Local Plan examination. The Interim Conclusions of the Inspector (July 2014) set out at paragraph 16, 17 and 18 set out that it was acceptable for East Cambridgeshire to not be planning to meet its objectively assessed housing needs because of the following intention of the SHMA:

“In summary, the intended approach seeks to secure sustainable development by locating new homes in and close to Cambridge and Peterborough and other main centres of employment, while avoiding dispersed development that could increase unsustainable travel patterns and restrict access to key services and facilities. Implementation of the strategy is already underway, with new urban extensions being delivered in Cambridge and Peterborough.

In practical terms, the MoC includes an agreement that two of the authorities concerned (East Cambridgeshire and Fenland District Councils) should not provide for the full need identified in the SHMA. In the case of East Cambridgeshire, this represents a reduction of 1,500 dwellings from the 13,000 dwelling total (2011-2031): the corresponding figure for Fenland is 1,000. The MoC states that an equivalent figure of 2,500 dwellings has already been provided for outside the Cambridge HMA in Peterborough’s Local Plan.”(NLP emphasis)

6.2 Peterborough City Council confirmed as part of the examination that they were ‘willing to accommodate a proportion of the need arising in the Cambridge HMA – namely 2,500 dwellings’.

6.3 It is clear from the above that Peterborough City Council is planning to deliver more than its own objectively assessed housing needs and as such is stating it will meet some of the unmet housing needs of East Cambridgeshire and Fenland. There is no indication that the city is planning to accommodate the needs of any other location within the Cambridge sub-region.

6.4 In addition to the fact that Peterborough are not explicitly planning to meet any of Cambridge and South Cambridgeshire’s housing needs, it would also not be plausible for them to do so. This is because the economic led needs of Cambridge should only be met within the Cambridge HMA, including Cambridge and South Cambridgeshire. However, this is not to say that the Cambridge and South Cambridgeshire HMA is not impacted by other HMAs, including London.

London Unmet Housing Needs

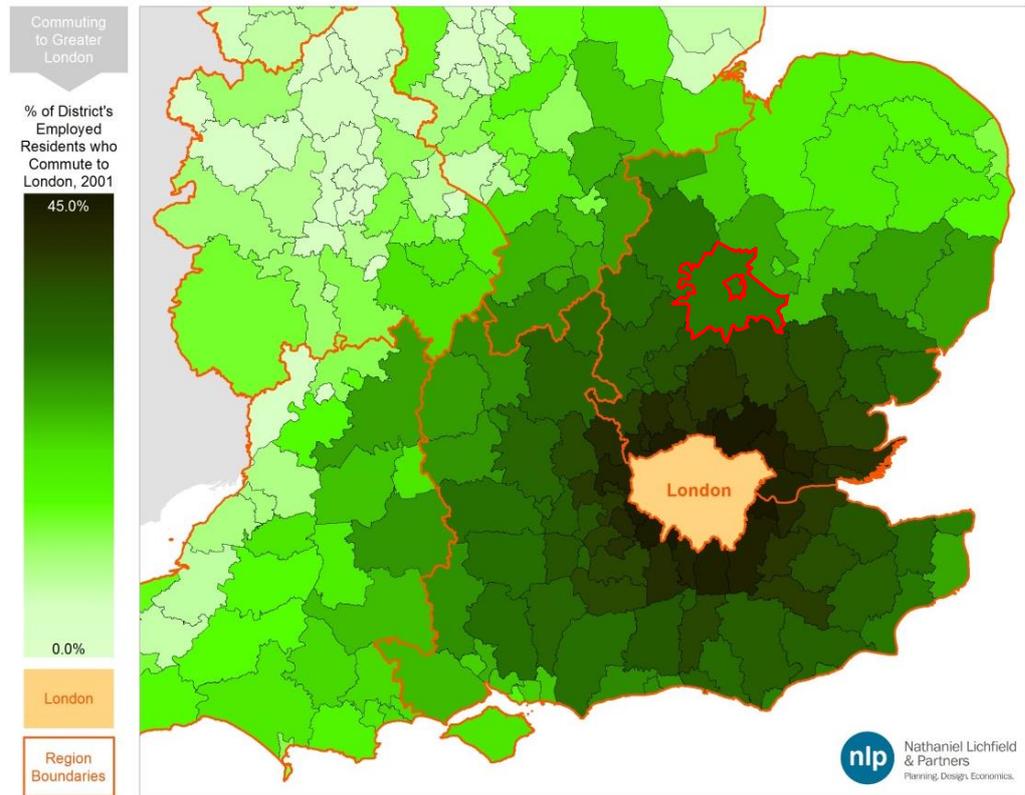
6.5 The draft Further Alterations to the London Plan (FALP) sets out a planned provision of 42,000 dwellings per annum within London. But this falls short of

the 49,000 to 62,000 dwellings per annum needs identified within the 2013 London Strategic Housing Market Assessment (SHMA) as required to meet future needs and address the backlog of housing needs. The draft FALP is therefore planning for an unmet need of between 9,000 and 20,000 homes per annum. This unmet need may manifest itself in Local Authority areas near to London as households unable to meet their needs in London itself seek to move elsewhere in the housing market area which London influences. Recognising this, the NPPF requires such needs to be met in accordance with the duty to cooperate, with areas surrounding London having to meet London's unmet needs.

Defining London's Housing Market Area

- 6.6 In defining London's housing market area, consideration has been given to functional linkages between places where people live and work. These commuting and migration linkages have been quantified to establish the different degree of relationship that local authorities have with London. The analysis undertaken for commuting and migration patterns has been quantified to establish individual local authority links with London and defines a 'base share' of London's modelled unmet needs as a result.
- 6.7 In total over 720,000 of London's 3.8 million jobs at the time of the Census 2001 were filled by in-commuters (19%). Through this dynamic, London's continued growth and economic vitality is placing pressures on local housing markets in areas where there is good commuter access. The areas highlighted in Figure 6.1 below broadly show the extent of London's reach, showing the proportion of a Local Authority's population that commutes to London for work. It is clear from the map below and NLP's above housing market area analysis, that Cambridge and South Cambridgeshire's commuting relationship with London is significant.

Figure 6.1 Proportion of District's employed residents commuting to London

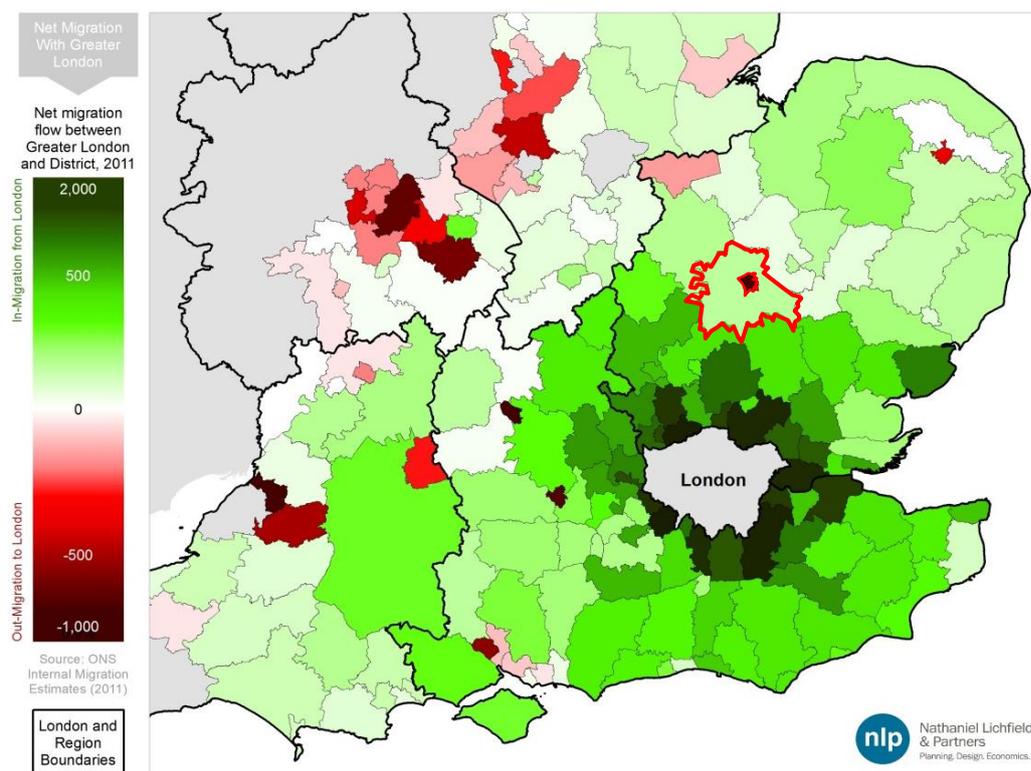


Source: Census 2001

6.8

London and the wider South East have a distinct pattern of migration. Whilst inner London attracts in-migration from far and wide (including internationally) thereafter there is a radial shift outwards from inner London as people move to outer London, the traditional 'home counties' and then beyond reflecting different stages of life and living preferences. Net migratory patterns with London are shown in Figure 6.2. Broadly, net outwards shifts in migration from London are experienced to a boundary which includes Cambridge and South Cambridgeshire. This net migratory pattern provides an indicator of the extent of London's HMA and the spatial extent of the geography which London's unmet housing needs might impact upon.

Figure 6.2 Net Migration Flows with London



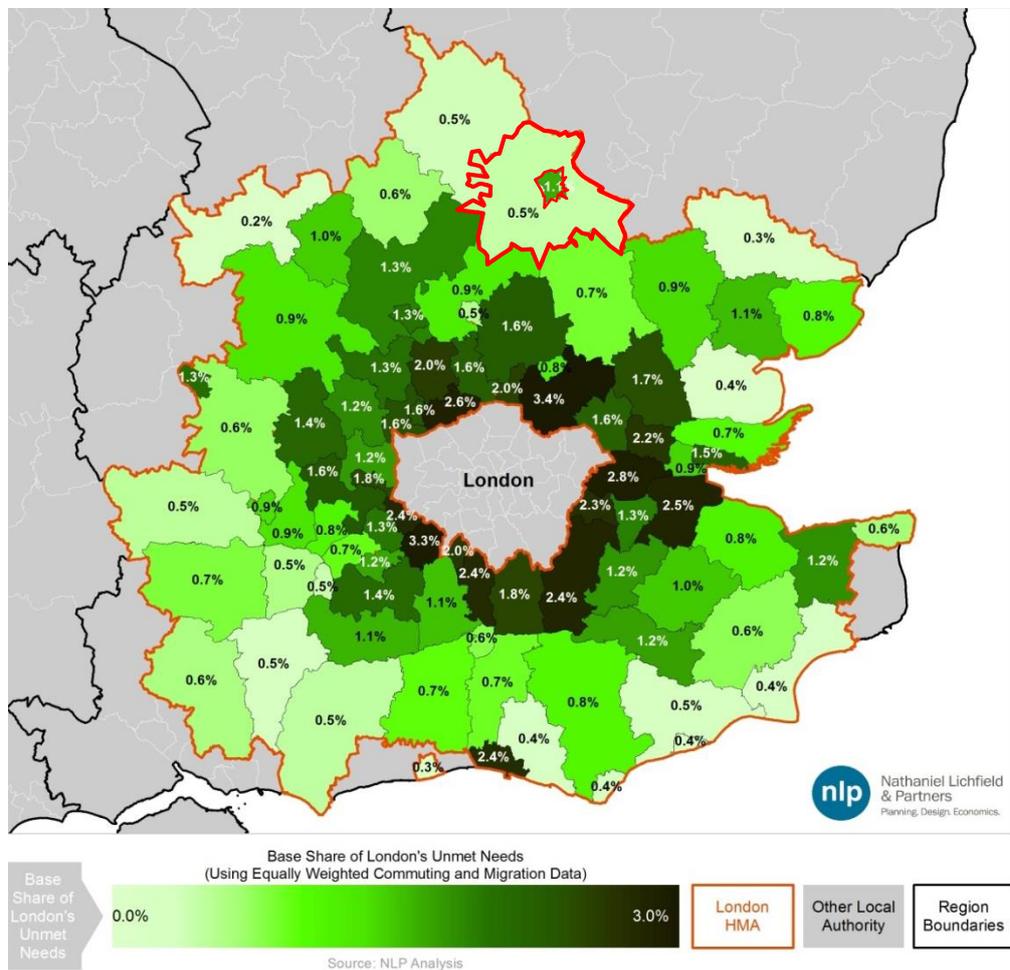
Source: ONS

Quantifying the degree of housing market interdependence between Cambridge, South Cambridgeshire and London

- 6.9 In simple terms, unmet housing needs from within London will place additional pressures on those areas that are linked in housing market terms to London. This is because an undersupply of housing within a London Borough will mean, compared to past trends, either more migration out of the London Boroughs (as people move to seek a home) or less migration to the London Boroughs (as people cannot find a home in London to move to, and therefore choose a different location but commute to a place of work). Areas that are heavily related to London will face greater pressures from London's unmet needs. Identifying how interdependent a location is with the housing market within London is a function of movement, both to live (migration) and to work (commuting). As shown above all three authorities have strong linkages in both respects.
- 6.10 These functions of movement have been converted into a simple percentage of what proportion of the migration flow into the HMA from London or commuting flow out of the HMA to London is with that District. Averaging these gives a percentage for each District in the wider London HMA, adding up to 100% for the whole HMA. This percentage represents the baseline degree of housing market linkage an area has with London, and therefore is representative of its 'starting share' of London's unmet needs which will need to be met in the London HMA. This is illustrated in Figure 6.3. Based on the above migration

and commuting analysis Cambridge should proportionately be taking 1.1% of London’s unmet housing needs and South Cambridgeshire 0.5%. With London’s unmet need noted in the draft FALP to be anywhere between 9,000 and 20,000 per annum, this would put pressure on Cambridge to supply an additional 990 (99 p.a.) to 2,200 (220 p.a.) dwellings each and South Cambridgeshire to supply an additional 450 (45 p.a.) to 1,000 (100 p.a.) dwellings; based on accommodating their respective share over the 10 year plan period of the FALP (2015-2025). This would be in addition to the authorities own objectively assessed housing needs, which themselves already account for ambient migration flows from London, which would increase if London cannot meet its own needs.

Figure 6.3 Baseline degree of housing market linkage - ‘base share’



Source: NLP analysis

6.11

The above figures of unmet needs from London are in fact likely to be an underestimate. The London SHMA’s adoption of the Central Variant, represents a reduction on the equivalent migration assumptions underpinning the SNPP, this essentially means that London’s objectively assessed needs are founded on a different basis to those elsewhere. The key to this is that adopting lower migration trends for London will commensurately inflate migration trends in those locations beyond London with a migratory

relationship to the Capital. This is recognised in the PPG which states (ID: 2a-018-20140306):

“Any cross-boundary migration assumptions, particularly where one area decides to assume a lower internal migration figure than the housing market area figures suggest, 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.”

- 6.12 The SHMA does not appear to assess the implications of this, and it brings into question the consistency of the SHMA as an evidence base to be considered alongside SHMAs produced for localities on the fringes of London. The outcome is that:
- a London is reducing its migration trend;
 - b Other areas are not commensurately increasing their migration trends;
and
 - c Therefore population (and thus housing needs) get ‘lost’ between the gaps in the respective methodologies adopted.

Implications of Wider Factors

- 6.13 This clearly demonstrates that the level of housing need which Cambridge and South Cambridgeshire could need to plan for may be influenced significantly by wider factors and relationships with areas beyond its own administrative boundaries, notably that with London.

7.0 Conclusion on Full Objectively Assessed Need

- 7.1 A variety of scenarios have been presented to assess the objective need for housing within both Cambridge and South Cambridgeshire. The 2012 SNPP scenario indicates lower housing requirements as estimates of migration are significantly lower than was seen across the HMA over the previous 10 years (evidenced by Scenario C). Therefore adoption of this as the demographic-led need for Cambridge and South Cambridgeshire should be considered with caution. Finally, the market signals would suggest further upward adjustment on the purely demographic based housing need figure. This adds further justification to the conclusion of an objective assessment of housing need figure for the HMA comparable with the 44,000 jobs figure.
- 7.2 As the PPG states that development should do ‘everything it can’ to support economic growth, and given the CCC Technical Report Jobs Forecast projects 44,000 jobs growth across the HMA (a figure which a realistic assessment of the economic potential for the HMA), the housing requirement should be akin to the outputs of this scenario. This would also go some way to meeting the affordable housing needs across the Districts.
- 7.3 This would meet demographic need, support economic growth, help meet affordable housing need, and help improve market signals, dealing with the significant backlog of housing needs that has been identified. On this basis it is considered full objectively assessed for the District are 2,139 dwellings per annum over the period to 2031.
- 7.4 The outputs of the 44,000 jobs scenario indicates that under the indexed projection there is a need for circa 2,000 dwellings per annum to sustain this level of job growth (between the indexed and partial catch up headship rates which are fairly similar). Using full catch up headship rates the requirement increases to 2,139 dwellings per annum. Modelling a full catch up rate allows all of the previously suppressed household (between the 2008 and 2011 based household projections) to be made up. this does not implicitly include all backlog identified in this report because the 2008 based household projections were themselves based on a period of undersupply and therefore suppressed household formation. **As such NLP conclude that the objective assessment of housing need for Cambridge and South Cambridgeshire is 2,139 dwellings per annum.**
- 7.5 In addition, NLP would advocate a stepped trajectory which, overall, averaged delivery of 2,139 dwellings per annum over the 20 year period between 2011 and 2031 but front loaded delivery. Although our objective assessment of housing need figure implicitly includes backlog of housing need, as required by the PPG, this must be met in the first five years of the plan period. As such the first five years of the plan period should have a target which is commensurately greater than the remaining 15 years to take account of both the backlog of

housing need as well as to support the immediate economic potential of the area with a front-loading of job creation across the period apparent (see Part A).

Part C – Delivery of the Spatial Strategy

8.0 Infrastructure Delivery and Supporting the New Settlements

8.1 The NPPF sets out that LPAs should identify land supply in order to meet their objectively assessed need and that this should be based upon (para 159) realistic assumptions about the availability, suitability and economic viability of land over the plan period. The NPPF is clear that plans should be deliverable (para 173), and national policy states that in plan-making it is *'important to ensure that there is a reasonable prospect that planning infrastructure is deliverable in a timely fashion.'* (para 177). Critically the overall soundness of the spatial strategy set out for Cambridge and South Cambridgeshire is directly related to its ability to deliver the growth necessary to meet needs in a timely and sustainable manner.

8.2 Over 1/3 of the 33,000 dwellings for the Cambridge HMA are planned to be provided within new settlements. These encompass planned delivery at:

- Northstowe – 9,500 dwellings of which 3,535 dwellings to be provided within the Plan Period to 2031, with first start in 2014/15;
- Cambourne – 2,193 dwellings to be provided within the Plan Period across the original permission, the permission of 950 additional dwellings (first start in 2012/13) and a 1,200 dwelling strategic site on land West of Cambourne (first start in 2016/17);
- Waterbeach – 8,000 dwellings of which 1,400 dwellings to be provided within the Plan Period to 2031, with first start in 2026/28; and
- Bourn Airfield – 3,500 dwellings of which 1,700 dwellings to be provided within the Plan Period to 2031, with first start in 2022/23.

8.3 However, new settlements in particular face a range of deliverability challenges, including long lead-in times, reliance on 'big-ticket' up front infrastructure items and limits to build-out rates. These are considered as follows.

Lead Times and Build out Rates

8.4 The key issues of lead-in times and build out rates were explored within the original HETA (September 2013), but remain highly pertinent to the deliverability of the spatial strategy, which places a great reliance on being able to deliver new settlements quickly and at sustained levels of high delivery.

8.5 New settlements typically experience long lead-in times, with long periods between initial identification/promotion, allocation and then development getting off the ground, with houses being completed on site. They are not a short-term or quick solution to housing land supply. This is usually as a result of the new or major upgrades required to the surrounding infrastructure. By way of example both Northstowe and Cambourne faced lead-in times of between 10 and 12 years between identification and delivery. The implication

for the Plans is that it is unlikely they will be able to expedite delivery of the new settlements, albeit their ultimate delivery will be linked to key infrastructure triggers, discussed below.

- 8.6 The rate at which a scheme is built out is dependent on a number of factors, including the type/mix of the scheme, how many developers are active on the site and the market capacity of an area (i.e. how quickly the housebuilder can sell the homes built). Assumptions about future rates of delivery therefore need to be realistic in the context these factors. It was concluded in the HETA (September 2013) as part of CEG’s original representations that there was no evidence that build-rates substantially in excess of 250 dwellings per annum would be achievable within any single site or location within the Local Plan period (a rate comparable to what has been achieved historically in Cambourne). This remains the case and is imperative as the most recent trajectories for South Cambridgeshire’s housing delivery continue to assume build-out rates for the new settlements substantially in excess of this (at up to 400 per annum).

Infrastructure Delivery and Trigger Points

- 8.7 The Cambridge and South Cambridgeshire Infrastructure Delivery Study (IDS) Update (Final Report – Amended), August 2013 identifies a significant number of high cost transport and access infrastructure schemes that are ‘critical’ to the delivery of the proposed development strategies with the Cambridge and South Cambridgeshire plans. However, whilst the IDS identifies these items are needed, there is no correlating technical evidence in the emerging Transport Strategies for Cambridgeshire that demonstrates that these schemes deliver the necessary sustainable transport outcomes or indeed that they can be delivered in the timescales needed. By way of illustrating this, evidence in Figure 9.1 below prepared by Bryan G Hall, sets out the proposed delivery trajectory for the four new settlement proposals contained within the submission South Cambridgeshire Local Plan (SCLP Figure 3, p39), updated by reference to the SCDC Annual Monitoring Report 2012-2013 (February 2014, Figure 4.7, p31).
- 8.8 Against that it plots the key items of infrastructure and their phasing. This is drawn from the Councils’ own existing evidence contained within the Cambridge and South Cambridgeshire Infrastructure Delivery Study (IDS) Update (August 2013). This, however, assumes that the A14 Cambridge to Huntingdon improvement scheme is to be delivered by 2019, however due to the complexity of the scheme, it is considered that a more realistic delivery timescale for the project is 2022/2023.
- 8.9 The main trigger point for that infrastructure within each of the new settlement developments illustrated by the dashed line. In essence, an infrastructure item to the left of the line will be provided in time for the trigger point, however, an infrastructure item to the right of the line will not be provided in time to support the delivery of the development trajectory.

Figure 8.1 Infrastructure Delivery - Tipping Points and Development Trajectory

Housing Completion Projectory (Ref: SCLP Housing Trajectory (SCLP Figure 3, p39), updated by reference to the SCDC Annual Monitoring Report 2012-2013 (February 2014, Figure 4.7, p31)

Strategic New Settlement Sites		14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	Total
Northstowe		0	64	230	254	333	400	400	400	400	400	400	400	400	400	400	400	400	5681
Waterbeach New Town		0	0	0	0	0	0	0	0	0	0	0	0	100	200	300	400	400	1400
Bourn Airfield New Village		0	0	0	0	0	0	0	0	60	100	220	220	220	220	220	220	220	1700
Cambourne West		0	0	30	70	100	150	150	150	150	150	150	100	0	0	0	0	0	1200
Projected Completions Total		0	64	260	324	433	550	550	550	610	650	770	720	720	820	920	1020	1020	9981
Cumulative total		223	287	547	871	1304	1854	2404	2954	3564	4214	4984	5704	6424	7244	8164	9184	10204	

IDS Appendix C Reference

Critical Transport and Access Infrastructure

Scheme	Infrastructure Costs	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
A14 Ellington to Milton Improvements ¹	£1,500,000,000																	
Oakington Bypass (Northstowe) ²	£15,000,000																	
Northstowe Access Works ²	£6,000,000																	
Busway Extension to Northstowe ²	£10,000,000																	
1,000 space P&R at Waterbeach ³	£12,000,000																	
Milton Road bus lane ³	£29,000,000																	
A14/A10 Milton Interchange works, including free flow slips between A10 north and A14 west ³	£86,000,000																	
A 2 platform 12 carriage railway station to serve Waterbeach village and the new town at Waterbeach Barracks ³	£42,000,000																	
Dual carriageway, Waterbeach Barracks (Cambridge Research Park) to A14 Milton Interchange ³	£79,000,000																	
8-10 km segregated busway - from new station to town centre and on to north Cambridge, with spur to Park and Ride Site ³	£125,000,000																	
High quality pedestrian and cycle links to Cambridge and surrounding villages ³	£16,000,000																	
Relocated railway station ³	£20,000,000																	
A1303 inbound bus priority, A428 to M11 in Cambourne West, Cambourne and Bourn Airfield ³	£14,000,000																	
A1303 Madingley Road inbound bus priority, M11 to Queens Road in Cambourne and Bourn Airfield ³	£31,000,000																	
1000 space Park & Ride site, Bourn Airfield/Cambourne area ³	£12,000,000																	
Busway/bus priority links from the A428/A1198 Caxton Gibbet junction through West Cambourne, Cambourne and Bourn Airfield, linking to the A1303 at its junction with the A428 ³	£30,000,000																	
High quality pedestrian and cycle links to Cambridge and surrounding villages (Cambourne West, Cambourne and Bourn Airfield) ³	£10,000,000																	
Total (Excluding A14 scheme)	£537,000,000																	

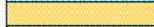
¹ Infrastructure Costs taken from Highways Agency Website - A14 Cambridge to Huntingdon Improvement Scheme

² Infrastructure Costs taken from Table 6 Traffic Management and Infrastructure Assessment Note prepared by Bryan G Hall at Appendix F of Cambridge South East, Transport Evidence Base Appendices dated September 2013

³ Infrastructure Costs taken from Cambridge and South Cambridgeshire Infrastructure Delivery Study Update (Final Report - Amended) dated August 2013 prepared by PBA

Key

Estimated Earliest Opening dates of Transport and Access Infrastructure taken from Cambridge and South Cambridgeshire Infrastructure Delivery Study Update (Final Report - Amended)

	Schemes required to support major development allocations at Northstowe that come forward <u>before</u> the trigger point
	Schemes required to support major development allocations at Waterbeach that come forward <u>before</u> the trigger point
	Schemes required to support major development allocations at Cambourne West and Bourn Airfield that come forward <u>before</u> the trigger point
	Schemes required to support major development allocations at Northstowe that come forward <u>after</u> the trigger point
	Schemes required to support major development allocations at Waterbeach that come forward <u>after</u> the trigger point
	Schemes required to support major development allocations at Cambourne West and Bourn Airfield that come forward <u>after</u> the trigger point

Estimated Housing Completion Trigger Points for supporting Transport and Access Infrastructure based upon development requiring planning permission adding greater than 30 two-way vehicle trips per hour to the network with severe capacity constraints ⁴
 30 two way trips is the threshold above which it is recommended a Transport Assessment is carried out (Ref: Department for Transport - Guidance on Transport Assessment)

⁴ Pg 42 Of Appendix 3



* Further explanatory text to this table is provided in paras 2.6 to 2.12 of Matter 5 Statement

Source: Bryan G Hall

- 8.10 What the above shows is that across all the new settlements, there is infrastructure which the Councils deem 'critical' to the delivery of these new settlements (as evidenced in the IDS) which will not be delivered until after the relevant trigger point within the currently assumed delivery trajectory of the schemes. The outcome is that either:
- The spatial strategy will lead to unsustainable patterns of development, overloading the existing infrastructure at critical 'pinch-points'; or
 - The delivery of new settlements will be delayed in order that the 'critical' infrastructure is delivered in a timely fashion, which will mean that the spatial strategy will fail to meet the overall developments needs of the Plans.
- 8.11 Thus it appears to demonstrate an inherent contradiction between the Councils' own evidence on the deliverability of critical infrastructure and the timescales for delivering the new settlements which the spatial strategy is reliant upon.

Uncertainty on Funding and Delivery

- 8.12 The above analysis is predicated on the assumptions that all of the identified infrastructure schemes face no problems with funding. It essentially assumes a best case scenario that all schemes will be ultimately delivered. Notwithstanding, there remain significant uncertainty of the availability of funding to deliver these 'critical' infrastructure items.
- 8.13 The Cambridgeshire County Council Long Term Transport Strategy Consultation Draft (LTTTS) (April 2014) acknowledges that securing funding to deliver the Transport Infrastructure Strategy may be difficult and will be challenging (Page 5-1). An important element of this funding strategy is the City Deal funding that could be delivered in three tranches with £100 million available in the period 2015-2020, up to £200 million available 2020-2025 and up to £200 million available post 2025. (Ref p 3-5, Transport Strategy, Pg 5-2 LTTTS). The Greater Cambridge City Deal aims to create an infrastructure investment fund to accelerate delivery of planned houses and create new jobs by providing borrowing powers for the local authorities to invest in transport infrastructure and housing which is to be repaid through local retention of a share of additional tax revenue generated.
- 8.14 The various tranches of funding will be dependent upon meeting targets and there is no guarantee that funding will be granted for Tranches 2 and 3. The published City Deal documents are vague and there is a lack of transparency and detail on the triggers for obtaining funding. An example of this was recently presented by Graham Hughes of Cambridgeshire County Council at the Chartered Institute of Highways and Transportation (CIHT) 'Growth for Recession' conference held on 11 September 2014.¹⁰

¹⁰ <http://www.ciht.org.uk/en/document-summary/index.cfm/docid/CBADDC296-F7E0-4D96-85C704EEEC18CF2E>

- 8.15 The key points on City Deal funding delivery risks are:
- 1 The methodology for establishing the targets to be met to secure funding Tranches 2 and 3 is yet to be determined and agreed between Cambridge City, South Cambridgeshire, Cambridge County Council and Central Government. Meeting trigger points to secure tranches 2 and 3 funding will be challenging as it will be necessary to demonstrate, through economic assessment evidence, that the City Deal has delivered economic growth that would not have occurred in the absence of the City Deal. This methodology is likely to be complex and increases the uncertainty over the chances of Tranches 2 and 3 funding being secured.
 - 2 The Tranche 1 funding of £100m (i.e. £20m per year in the period 2015-2020) is still to be allocated to specific schemes. The 5 year period is a relatively short timescale for the delivery of major complex infrastructure schemes that will require a significant amount of resources, further feasibility work, demonstrating scheme value for money, planning permission, acquisition of land and construction programmes. For these reasons there is a high degree of risk and uncertainty that it will not be feasible to deliver infrastructure funded by Tranche 1 yet alone the housing that is dependent upon this infrastructure in the five year period. Hence achieving the challenging Tranche 1 funding deliverables substantially increases the uncertainty of achieving tranche 2 & 3 funding.
 - 3 The three Authorities party to the City Deal are Cambridge City, South Cambridgeshire and Cambridgeshire County Council and therefore joint decision making is needed on issues such as strategic planning and transport. It is understood that the proposal is to form a Combined Authority for City Deal decision making and this requires legislative changes.
- 8.16 Page 5-3 of the LTTS acknowledges that future funding through the Local Growth Fund (LGF) will be subject to competing against other schemes at a national level and demonstrating a case of value for money, delivery and risk. The LGF is a much higher risk funding strategy than the City Deal and this alignment with the higher risk schemes associated with development outside of Cambridge, such as Waterbeach Barracks does not provide a sound evidence base to demonstrate how transport infrastructure will be funded and delivered in a co-ordinated manner.
- 8.17 The City Deal funding still includes a number of uncertainties over targets, trigger points and governance that will significantly increase the risk that this funding mechanism will not be effective in delivering ‘critical’ infrastructure in time to deliver the necessary housing and job trajectories that will deliver economic growth and hence increased tax revenues to offset against the borrowing for funding infrastructure. Furthermore the vagueness and lack of detail will not lead to an acceleration in the delivery of new houses under the current spatial strategy that is dependent upon highly complex ‘critical’ transport infrastructure.

Implications for the Spatial Strategy

- 8.18 The spatial strategy for Cambridge and South Cambridgeshire is predicated on the delivery of several new-settlement options which are wholly reliant on some 'big-ticket' infrastructure items in order to deliver them. Over the Plan periods, these new settlements are planned to deliver more than 1/3 of the total development needs of the area and therefore they are fundamental to the spatial strategy.
- 8.19 However, there remain significant uncertainties over their deliverability, which goes to the heart of whether the spatial strategy will effectively deliver the development needed. The main issues can be summarised as being twofold:
- a The identified necessary 'critical' infrastructure works for the new settlements will, based on the Councils' own evidence, not be delivered in a timely manner in order to meet crucial infrastructure tipping points and ensure that the new settlements can be delivered at the phasing necessary to meet the development needs; and
 - b In any case, there is in fact no certainty over the funding for the necessary 'critical' infrastructure. Funding through the City Deal and Local Growth Fund is unallocated and/or not committed and as such there are no defined delivery mechanisms for the infrastructure necessary to support the new settlements (which are not self-funding in terms of infrastructure).
- 8.20 The implication of this for the spatial strategy is that it is unclear that it is wholly deliverable within the timescales of the respective Plans. The spatial strategy places over-reliance on new settlements as a source of supply over other forms of development which have lower infrastructure thresholds and greater certainty over delivery.

9.0 Conclusions on Delivering the Spatial Strategy

9.1 The Plans reliance upon a spatial strategy which has exceptionally high hurdles for ensuring delivery poses significant questions over whether it is an effective means to meet development needs. The evidence above, combined with that in the original NLP HETA (September 2013), indicates that an alternative strategy involving a greater level of land supply on the edge of Cambridge would represent a more sustainable and deliverable approach to the spatial strategy. This is because:

- 1 Evidence on the housing market indicates that there are substantial demand pressures upon Cambridge City, with this stemming from the employment growth in the City and peoples desires to live close to where they work and their lifestyle preferences;
- 2 Urban extension sites provide far better sustainability benefits over new settlements or a dispersal strategy, with development on the fringe of Cambridge minimising travel distances for employment and higher order services and also reduces car borne trips;
- 3 There is an acute need for affordable housing which can only be achieved by the early delivery of market and affordable housing from sites which do not require significant up front infrastructure; and
- 4 There are particular deliverability questions over the new settlements as:
 - i They face long lead-in times and the current assumptions over the pace of delivery and build-out rates assumed in the Councils' trajectories are overly optimistic, surpassing the rate of delivery achieved in such locations previously;
 - ii They require a range of 'critical' infrastructure to be delivered up front or early on, albeit these infrastructure items are scheduled to be delivered after key tipping points; and
 - iii Even then, there is currently no certainty over funding for the critical infrastructure items.

9.2 Overall, it is not considered that the spatial strategy set out within the Plans will be effective in delivering the necessary development in a timely manner to meet needs. Additional allocations on the edge of Cambridge would be able to contribute to supply in the short and medium term and would not face the same reliance on critical infrastructure that the new settlements do.

Appendix 1 Model Inputs and Assumptions

Component	Scenario A: Demographic-led (2012- based SNPP)	Scenario B: Demographic-led (CCC Technical Report Population Growth)	Scenario C: Demographic-led (10 year Migration trend)	Scenarios D: Economic-led (CCC Technical Report Job Growth)	Scenario G: Economic-led (Oxford Economics Forecast)
Population					
Baseline Population	A 2012 baseline population is taken from the Sub-National Population Projections. This population is split by single year of age and gender.	A 2012 baseline population is taken from the Sub-National Population Projections. This population is split by single year of age and gender. The total population over the projection period is constrained to the total number of people as in the CCC Technical Report.	A 2012 baseline population is taken from the Sub-National Population Projections. This population is split by single year of age and gender.		
Births	The number of projected births in Horsham from the ONS 2012-based SNPP for 2012 to 2031 is used.	Fertility Rates are applied to the population forecast using projected Fertility Rates for Horsham from the ONS 2012-based Sub-National Population Projections (SNPP).			
Deaths	The number of projected deaths in Horsham from the ONS 2012-based SNPP for 2012 to 2031 is used.	A mortality rate is applied to the population forecast using projected Mortality Rates for Horsham from the ONS 2012-based Sub-National Population Projections (SNPP).			
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration in Cambridge and South Cambridgeshire from the ONS 2012-based SNPP for 2012 to 2031.	Forecast migration from the ONS 2012-based SNPP for 2012 to 2031, albeit this is adjusted to take into account the constraints.	Gross domestic in and out migration flows are adopted based on average gross past trends over the ten year period 2003-2013.	Internal in-migration and out-migration are flexed (inflated or deflated) to achieve the necessary number of economically active people to maintain the level of job growth.	
International Migration	As above but for international flows	As above but for international flows	As above but for international flows	As above but for international flows	

Component	Scenario A: Demographic-led (2012- based SNPP)	Scenario B: Demographic-led (CCC Technical Report Population Growth)	Scenario C: Demographic-led (10 year Migration trend)	Scenarios D: Economic-led (CCC Technical Report Job Growth)	Scenario G: Economic-led (Oxford Economics Forecast)
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMiGR) for both in and out domestic migration are based upon the age profile of migrants to and from Cambridge/South Cambridgeshire in the 2012-based SNPP. These identify a migration rate for each age cohort (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of Horsham (but not the total numbers of migrants).				
Housing					
Headship Rates	Headship rates that are specific to Cambridge and South Cambridgeshire which are forecast over the period to 2021 are taken from the government data which was used to underpin the 2011-based CLG household forecasts and applied to the demographic forecasts for each year as output by the PopGroup model. These headship rates are split by age cohort and by household typology. These are the most up-to-date headship rates available at the time of writing. Beyond 2021 this is assumed to resume the long term trends identified within the 2008-based household projections with full catch-up from the 2008-based projections applied to the 2021 end point of the 2011-based household projections.				
Population Not in Households	The number of population not in households (e.g. those in institutional care) is similarly taken from the assumptions used to underpin the 2011-based CLG household forecasts. No change is assumed in the rate of this from the CLG identified rate.				
Vacancy / 2 nd Home Rate	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market and mean that more dwellings than households are required to meet needs. The total vacancy and second home rate in Cambridge totals 4.84% and for South Cambridgeshire 3.06% - this is estimated using Council Tax Base (CTB) Data over the previous 4 years 2010-2013. Vacancy data totals from lines 12, 14 and A to L for years 2010, 2011 and 2012, in 2013 this changes to include line 16, B and D to L. The second home rate is taken from Line 11.				
Economic					
Economic Activity Rate	Age and gender specific economic activity rates are used. The basis for this is the ONS 2006-based National Labour Force Projections. At 2011 these have been rebased to the Census 2011 economic activity rates by age cohorts to meet current total economic activity in Cambridge and South Cambridgeshire. These are assumed to remain the same as the projection with the exception of an adjustment to take account of changing pension ages beyond that already taken into account in the ONS 2006-based projections (i.e. to account for pension age increases for both men and women above age 65).				
Commuting Rate	A standard commuting ratio (calculated by 'number of employed workers in area / number of jobs in area') is calculated for Cambridge and South Cambridgeshire based on Oxford Economics Employment Estimates for 2011, 2012 and 2013 and the employed people in each of the areas in 2011, 2012 and 2013. From 2014 onwards an average of these is taken and trended forward; this means a commuting ratio of 0.61 for Cambridge and 0.98 for South Cambridgeshire.				

Unemployment

The unemployment rate uses an ILO base definition using data from the ONS Annual Population Survey estimate of economically active people not in employment. This is estimated at 5.4% in Cambridge and 3.6% in South Cambridgeshire in 2012. A reduction in unemployment to the past average model based unemployment (APS) is assumed on the basis that as the economy grows out of recession unemployment will fall back to a similar rate as seen during the pre-recession period.

Appendix 2 Model Outputs

Scenario A: 2012 SNPP, Cambridge

Population Estimates and Forecasts											Nathaniel Lichfield and Partners												
Components of Population Change											Cambridge												
Year beginning July 1st																							
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	
Births																							
Male	782	789	778	758	739	735	723	711	700	690	683	676	671	666	661	658	655	652	650	648	646	645	
Female	745	752	741	722	704	700	689	677	666	657	651	644	639	634	630	627	624	621	619	617	616	615	
All Births	1,527	1,541	1,518	1,479	1,443	1,434	1,412	1,389	1,366	1,347	1,334	1,321	1,309	1,299	1,291	1,285	1,279	1,274	1,269	1,265	1,262	1,260	
TFR	1.31	1.34	1.36	1.35	1.35	1.36	1.36	1.35	1.35	1.35	1.35	1.35	1.35	1.34	1.33	1.33	1.32	1.31	1.30	1.29	1.28	1.28	
Births input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Deaths																							
Male	391	416	389	387	389	388	389	388	388	390	392	395	399	403	407	412	418	425	431	439	447	455	
Female	448	449	415	412	405	410	402	401	399	398	398	399	400	402	404	407	412	416	422	430	435	443	
All deaths	839	865	804	799	794	798	791	789	786	789	790	794	798	805	812	819	830	841	853	869	883	898	
SMR: male	99.2	102.0	93.8	91.3	89.6	87.2	85.4	83.1	80.8	79.3	77.4	75.9	74.4	72.9	71.6	70.3	69.2	68.2	67.2	66.4	65.6	64.7	
SMR: femal	99.2	99.8	91.7	89.9	87.3	87.0	84.2	82.6	80.7	79.2	77.7	76.2	74.7	73.3	72.0	70.6	69.6	68.3	67.4	66.7	65.8	65.0	
SMR: persc	99.2	100.8	92.7	90.6	88.4	87.1	84.8	82.8	80.8	79.2	77.5	76.1	74.5	73.1	71.8	70.4	69.4	68.2	67.3	66.6	65.7	64.9	
Expectation	79.7	79.2	80.3	80.6	80.8	81.1	81.4	81.7	82.0	82.3	82.6	82.8	83.1	83.3	83.5	83.7	83.9	84.1	84.3	84.4	84.6	84.8	
Expectation	83.5	84.4	84.6	85.0	85.0	85.3	85.5	85.8	86.0	86.2	86.4	86.7	86.9	87.1	87.3	87.4	87.6	87.7	87.9	88.0	88.2	88.2	
Expectation	81.8	81.5	82.4	82.7	83.0	83.2	83.5	83.7	84.0	84.2	84.5	84.7	84.9	85.1	85.4	85.6	85.7	85.9	86.1	86.2	86.3	86.5	
Deaths inp	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
In-migration from the UK																							
Male	7,082	6,759	6,757	6,785	6,815	6,812	6,808	6,782	6,751	6,731	6,772	6,822	6,867	6,950	7,033	7,122	7,163	7,237	7,326	7,394	7,414	7,462	
Female	6,563	6,578	6,546	6,546	6,564	6,541	6,526	6,484	6,451	6,417	6,438	6,482	6,515	6,587	6,656	6,750	6,789	6,865	6,938	7,006	7,031	7,075	
All	13,645	13,336	13,303	13,331	13,379	13,353	13,333	13,266	13,202	13,149	13,211	13,304	13,382	13,536	13,688	13,872	13,953	14,103	14,264	14,400	14,445	14,537	
SMgr: ma	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
SMgr: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Migrants in	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Out-migration to the UK																							
Male	6,962	7,463	7,259	7,202	7,242	7,261	7,250	7,230	7,205	7,175	7,145	7,111	7,097	7,109	7,156	7,218	7,287	7,368	7,447	7,499	7,546	7,594	
Female	6,909	7,437	7,126	7,053	7,044	6,973	6,927	6,880	6,844	6,797	6,749	6,694	6,655	6,675	6,729	6,792	6,873	6,961	7,031	7,085	7,132	7,181	
All	13,871	14,900	14,386	14,255	14,286	14,234	14,177	14,110	14,049	13,972	13,894	13,805	13,752	13,785	13,884	14,010	14,159	14,329	14,478	14,584	14,678	14,776	
SMgr: ma	76.6	80.4	78.9	78.5	79.0	79.1	79.2	79.1	79.1	79.1	79.1	78.9	78.6	78.5	78.6	78.6	78.7	79.0	79.2	79.2	79.2	79.2	
SMgr: fem	80.8	86.0	84.0	83.8	84.3	83.9	83.7	83.5	83.7	83.8	83.8	83.3	82.7	82.5	82.4	82.4	82.5	82.9	83.1	83.2	83.1	83.3	
Migrants in	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
In-migration from Overseas																							
Male	2,601	2,268	2,274	2,268	2,375	2,303	2,319	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	
Female	2,148	1,757	1,760	1,757	1,821	1,778	1,787	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	
All	4,749	4,025	4,034	4,025	4,196	4,081	4,107	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	
SMgr: ma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMgr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants in	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Out-migration to Overseas																							
Male	1,606	1,970	1,972	1,974	1,972	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	
Female	1,175	1,579	1,580	1,582	1,580	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	
All	2,781	3,548	3,552	3,556	3,552	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	
SMgr: ma	286.4	344.4	349.7	352.3	353.3	354.1	355.4	356.3	357.8	359.6	361.4	362.8	363.1	362.8	361.5	359.6	357.1	354.7	352.4	350.0	347.5	345.2	
SMgr: fem	286.4	382.0	393.5	399.8	404.8	410.0	413.8	416.9	420.4	424.4	428.5	431.7	433.1	432.5	430.8	428.7	425.4	422.4	419.7	417.0	413.9	411.3	
Migrants in	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Migration - Net Flows																							
UK	-226	-1,563	-1,082	-924	-907	-881	-844	-844	-847	-824	-684	-501	-370	-248	-196	-138	-207	-226	-215	-184	-233	-238	
Overseas	+1,968	+477	+482	+469	+644	+525	+551	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	
Summary of population change																							
Natural cha	+688	+676	+715	+681	+649	+636	+621	+600	+580	+559	+544	+527	+511	+495	+480	+466	+449	+433	+415	+395	+379	+362	
Net migrati	+1,742	-1,087	-600	-455	-263	-355	-293	-379	-382	-359	-219	-37	+95	+217	+269	+327	+258	+239	+250	+281	+232	+227	
Net change	+2,430	-411	+115	+226	+386	+281	+328	+221	+198	+200	+325	+490	+606	+711	+749	+793	+707	+672	+666	+676	+612	+658	
Crude Birth	12.32	12.34	12.17	11.84	11.52	11.42	11.21	11.00	10.81	10.64	10.51	10.38	10.24	10.11	9.99	9.88	9.78	9.69	9.61	9.53	9.46	9.40	
Crude Deal	6.77	6.93	6.44	6.39	6.34	6.35	6.28	6.25	6.23	6.23	6.24	6.24	6.25	6.26	6.28	6.30	6.35	6.40	6.46	6.55	6.62	6.70	
Crude Net I	14.06	-8.70	-4.81	-3.64	-2.10	-2.83	-2.33	-3.00	-3.02	-2.83	-1.72	-0.29	0.74	1.69	2.08	2.52	1.97	1.82	1.89	2.11	1.74	1.69	
Summary of Population estimates/forecasts																							
Population at mid-year																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	6,622	6,962	6,967	6,902	6,839	6,766	6,645	6,585	6,471	6,387	6,315	6,243	6,178	6,122	6,073	6,032	5,995	5,963	5,935	5,911	5,890	5,873	5,859
5-10	6,040	6,483	6,741	7,075	7,251	7,447	7,615	7,646	7,663	7,612	7,568	7,510	7,416	7,349	7,277	7,213	7,159	7,102	7,050	7,003	6,962	6,926	6,894
11-15	5,073	5,136	5,189	5,082	5,166	5,218	5,357	5,506	5,659	5,803	6,215	6,340	6,414	6,443	6,428	6,413	6,381	6,316	6,278	6,232	6,191	6,154	6,114
16-17	2,424	2,287	2,214</																				

Scenario A: 2012 SNPP, South Cambridgeshire

Population Estimates and Forecasts		Nathaniel Lichfield and Partners																						
Components of Population Change		South Cambridgeshire																						
Year beginning July 1st																								
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	
Births																								
Male		915	920	937	937	942	948	954	954	953	952	951	950	947	943	940	936	932	928	925	923	921	921	
Female		871	876	893	892	897	902	909	908	907	906	906	904	902	898	895	891	888	884	881	879	877	877	
All Births		1,786	1,796	1,830	1,830	1,839	1,850	1,863	1,862	1,860	1,858	1,856	1,854	1,848	1,841	1,834	1,827	1,819	1,812	1,806	1,801	1,798	1,797	
TFR		2.02	2.03	2.05	2.04	2.04	2.05	2.06	2.06	2.05	2.06	2.06	2.06	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.05	2.05	2.04	
Births input		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Deaths																								
Male		494	539	537	533	541	541	556	567	570	581	591	602	614	628	641	652	665	680	695	709	725	742	
Female		485	579	540	544	538	546	557	561	565	570	578	587	592	601	610	621	633	645	658	670	686	702	
All deaths		979	1,119	1,077	1,077	1,079	1,087	1,113	1,127	1,136	1,151	1,170	1,189	1,206	1,229	1,251	1,273	1,297	1,328	1,353	1,379	1,411	1,443	
SMR: male		78.0	82.5	79.1	75.7	73.8	71.2	70.4	69.1	67.0	65.8	64.5	63.3	62.3	61.4	60.5	59.4	58.4	57.8	57.0	56.3	55.8	55.3	
SMR: female		78.0	89.3	81.2	79.4	76.2	75.0	74.1	72.5	70.9	69.3	68.1	67.0	65.5	64.4	63.3	62.3	61.4	60.6	59.7	58.9	58.5	58.0	
SMR: persc		78.0	85.9	80.1	77.5	75.0	73.1	72.2	70.8	69.9	67.5	66.2	65.1	63.8	62.8	61.8	60.8	59.8	59.1	58.3	57.5	57.1	56.6	
Expectation		82.7	81.7	82.2	82.8	83.0	83.4	83.6	83.9	84.2	84.4	84.7	84.9	85.2	85.4	85.6	85.8	86.0	86.1	86.3	86.5	86.5	86.7	
Expectation		86.3	84.8	85.7	86.0	86.3	86.5	86.7	86.9	87.1	87.3	87.5	87.7	87.9	88.1	88.4	88.5	88.6	88.8	89.0	89.1	89.2	89.4	
Expectation		84.6	83.3	84.1	84.4	84.8	85.1	85.2	85.4	85.7	86.0	86.2	86.4	86.6	86.8	87.0	87.2	87.3	87.5	87.7	87.8	87.9	88.1	
Deaths input		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
In-migration from the UK																								
Male		4,865	4,843	4,573	4,593	4,616	4,636	4,653	4,673	4,686	4,698	4,708	4,718	4,730	4,747	4,767	4,791	4,815	4,843	4,871	4,897	4,921	4,949	
Female		4,882	5,202	4,909	4,913	4,916	4,919	4,920	4,923	4,921	4,918	4,916	4,915	4,917	4,926	4,943	4,966	4,990	5,019	5,047	5,074	5,100	5,130	
All		9,747	10,044	9,482	9,506	9,532	9,555	9,573	9,596	9,607	9,616	9,624	9,633	9,647	9,673	9,710	9,757	9,805	9,862	9,918	9,971	10,021	10,078	
SMGr: ma		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMGr: fem		0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants in		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Out-migration to the UK																								
Male		4,856	4,214	3,983	4,027	4,072	4,108	4,131	4,144	4,181	4,221	4,250	4,275	4,311	4,344	4,386	4,434	4,468	4,495	4,533	4,564	4,595	4,628	
Female		4,766	4,623	4,395	4,416	4,421	4,439	4,453	4,458	4,484	4,489	4,515	4,546	4,581	4,611	4,650	4,686	4,735	4,756	4,793	4,835	4,871	4,903	
All		9,622	8,837	8,378	8,443	8,493	8,546	8,584	8,603	8,665	8,710	8,765	8,820	8,892	8,955	9,035	9,120	9,202	9,251	9,326	9,399	9,466	9,531	
SMGr: ma		64.5	56.1	52.4	52.4	52.4	52.4	52.3	52.4	52.2	52.3	52.4	52.4	52.6	52.7	52.9	53.0	53.0	53.1	53.1	53.1	53.1	53.2	
SMGr: fem		65.3	63.5	59.8	59.7	59.4	59.3	59.2	59.0	59.0	58.8	58.8	58.9	59.0	59.1	59.2	59.3	59.5	59.4	59.5	59.6	59.6	59.7	
Migrants in		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
In-migration from Overseas																								
Male		454	459	460	459	482	466	470	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	
Female		375	404	405	404	420	409	412	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	
All		829	862	864	862	902	875	881	861	861	861	861	861	861	861	861	861	861	861	861	861	861	861	
SMGr: ma		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMGr: fem		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants in		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Out-migration to Overseas																								
Male		305	375	375	376	375	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	
Female		230	303	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	
All		535	678	679	680	679	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	
SMGr: ma		72.7	89.7	88.8	88.2	87.4	86.9	86.4	86.0	85.6	85.2	84.9	84.6	84.4	84.1	83.8	83.5	83.1	82.7	82.2	81.8	81.3	80.9	
SMGr: fem		72.7	96.2	95.6	95.2	94.6	94.3	94.2	94.1	94.1	94.0	94.1	94.0	94.0	94.0	94.0	93.9	93.7	93.5	93.2	92.7	92.3	91.8	
Migrants in		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Migration - Net Flows																								
UK		+125	+1,207	+1,105	+1,063	+1,039	+1,009	+989	+992	+942	+906	+859	+812	+755	+718	+675	+637	+603	+611	+593	+572	+555	+547	
Overseas		+294	+184	+185	+183	+223	+195	+201	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	
Summary of population change																								
Natural chā		+807	+677	+752	+752	+760	+763	+751	+735	+724	+707	+687	+665	+642	+612	+583	+554	+522	+486	+453	+422	+387	+354	
Net migrati		+419	+1,391	+1,290	+1,245	+1,262	+1,204	+1,191	+1,174	+1,124	+1,087	+1,041	+994	+936	+899	+856	+819	+785	+793	+774	+754	+737	+729	
Net change		+1,226	+2,068	+2,042	+1,998	+2,022	+1,967	+1,942	+1,909	+1,848	+1,795	+1,727	+1,659	+1,579	+1,512	+1,439	+1,372	+1,307	+1,279	+1,227	+1,176	+1,124	+1,083	
Crude Birth		11.87	11.81	11.87	11.71	11.62	11.55	11.49	11.35	11.21	11.08	10.95	10.83	10.69	10.56	10.43	10.31	10.19	10.07	9.97	9.88	9.80	9.74	
Crude Deat		6.51	7.36	6.99	6.90	6.82	6.79	6.86	6.87	6.84	6.86	6.90	6.94	6.98	7.05	7.12	7.18	7.26	7.37	7.47	7.56	7.69	7.82	
Crude Net I		2.78	9.15	8.37	7.97	7.98	7.52	7.34	7.16	6.77	6.48	6.14	5.81	5.42	5.16	4.87	4.62	4.39	4.41	4.27	4.13	4.02	3.95	
Summary of Population estimates/forecasts																								
Population at mid-year																								
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4		9,423	9,429	9,560	9,647	9,803	9,891	9,987	10,040	10,057	10,071	10,076	10,069	10,051	10,029	10,004	9,974	9,941	9,904	9,866	9,831	9,798	9,771	9,751
5-10		10,945	11,216	11,536	11,884	12,161	12,416	12,635	12,831	12,969	13,037	13,166	13,233	13,301	13,335	13,337	13,336	13,329	13,310	13,278	13,242	13,204	13,164	13,120
11-15		9,179	9,096	9,081	9,119	9,180	9,434	9,608	9,864	10,160	10,509	10,705	10,933	11,087	11,191	11,260	11,374	11,426	11,475	11,510	11,515	11,517	11,5	

Scenario D: CCC Technical Report Population Growth, All Areas

Population Estimates and Forecasts		Nathaniel Lichfield and Partners																					
Components of Population Change		All Areas																					
Year beginning July 1st																							
2011-12		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	
Births																							
Male	1,697	1,709	1,715	1,695	1,681	1,682	1,677	1,665	1,652	1,642	1,634	1,626	1,617	1,609	1,601	1,594	1,587	1,581	1,575	1,570	1,567	1,566	
Female	1,616	1,628	1,633	1,614	1,601	1,602	1,597	1,586	1,574	1,564	1,556	1,549	1,540	1,532	1,525	1,518	1,511	1,505	1,500	1,496	1,493	1,491	
All Births	3,313	3,338	3,348	3,309	3,282	3,284	3,275	3,251	3,226	3,206	3,190	3,175	3,158	3,141	3,126	3,112	3,098	3,086	3,075	3,066	3,060	3,057	
TFR	1.65	1.67	1.68	1.66	1.64	1.64	1.63	1.62	1.60	1.59	1.58	1.57	1.55	1.54	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.46	
Deaths																							
Male	885	956	926	920	929	929	945	955	958	971	983	997	1,013	1,030	1,049	1,064	1,082	1,105	1,126	1,149	1,172	1,196	
Female	933	1,029	955	955	943	956	959	961	964	968	977	986	992	1,003	1,015	1,028	1,045	1,062	1,081	1,100	1,121	1,145	
SMR: male	86.2	89.5	84.6	81.7	80.0	77.7	76.6	75.0	72.9	71.5	69.9	68.6	67.3	66.1	64.9	63.6	62.4	61.5	60.4	59.5	58.7	58.0	
SMR: female	86.9	92.8	84.8	83.1	80.2	79.4	77.8	76.2	74.4	72.7	71.2	69.9	68.2	66.9	65.6	64.2	63.1	62.0	60.9	60.0	59.2	58.5	
SMR: persc	86.5	91.2	84.7	82.4	80.1	78.6	77.2	75.6	73.6	72.1	70.6	69.2	67.8	66.5	65.2	63.9	62.8	61.7	60.7	59.7	58.9	58.2	
Expectation	81.4	80.8	81.5	81.9	82.1	82.4	82.6	82.8	83.1	83.4	83.7	83.9	84.1	84.3	84.6	84.8	85.0	85.2	85.4	85.7	85.8	86.0	
Expectation	85.0	84.4	85.3	85.5	85.9	86.0	86.2	86.4	86.7	86.9	87.1	87.3	87.6	87.8	88.0	88.2	88.4	88.6	88.8	89.0	89.1	89.3	
Expectation	83.3	82.7	83.5	83.8	84.1	84.3	84.5	84.7	85.0	85.3	85.5	85.7	86.0	86.2	86.4	86.6	86.8	87.0	87.2	87.4	87.5	87.8	
In-migration from the UK																							
Male	11,183	11,763	11,370	11,405	11,414	11,484	11,494	11,528	11,534	11,541	11,568	11,598	11,643	11,723	11,832	11,946	12,050	12,163	12,293	12,395	12,500	12,170	
Female	11,363	11,989	11,544	11,538	11,514	11,544	11,526	11,528	11,512	11,485	11,486	11,502	11,527	11,596	11,690	11,808	11,914	12,028	12,145	12,249	11,956	12,025	
All	22,546	23,752	22,913	22,943	22,928	23,028	23,020	23,052	23,046	23,026	23,054	23,101	23,169	23,319	23,522	23,753	23,965	24,192	24,438	24,644	24,057	24,194	
SMGR: mal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
SMGR: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Out-migration to the UK																							
Male	11,807	11,015	10,711	10,720	10,853	10,877	10,899	10,862	10,855	10,854	10,899	10,872	10,901	10,951	11,026	11,127	11,194	11,282	11,383	11,455	11,870	11,954	
Female	11,246	11,501	11,088	11,057	11,100	11,021	10,996	10,925	10,891	10,834	10,821	10,817	10,817	10,872	10,955	11,042	11,138	11,225	11,319	11,402	11,831	11,913	
All	23,053	22,516	21,798	21,778	21,953	21,898	21,894	21,787	21,747	21,688	21,690	21,689	21,719	21,823	21,981	22,169	22,332	22,507	22,702	22,858	23,701	23,867	
SMGR: mal	71.1	67.0	64.8	64.3	63.9	63.2	62.6	62.2	61.8	61.4	61.1	60.9	60.7	60.2	60.0	59.8	59.2	58.8	58.4	58.1	61.3	61.6	
SMGR: fem	70.9	73.0	70.3	69.9	69.8	69.0	68.4	67.6	67.1	66.5	66.1	65.7	65.2	64.9	64.8	64.6	64.5	64.3	64.2	64.0	65.7	66.1	
In-migration from Overseas																							
Male	3,055	2,727	2,734	2,727	2,856	2,769	2,789	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	
Female	2,523	2,160	2,165	2,160	2,241	2,187	2,199	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	
All	5,578	4,887	4,898	4,887	5,097	4,956	4,988	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	
SMGR: mal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMGR: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Out-migration to Overseas																							
Male	1,911	2,345	2,347	2,349	2,347	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	
Female	1,405	1,882	1,884	1,886	1,884	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	
All	3,316	4,227	4,231	4,235	4,231	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	
SMGR: mal	194.9	241.0	241.6	241.7	240.4	239.3	237.8	236.1	234.5	232.9	231.5	230.1	228.6	227.1	225.3	223.4	221.2	218.9	216.6	214.2	211.7	210.8	
SMGR: fem	193.3	259.0	261.5	262.9	262.9	263.0	262.4	261.5	260.6	259.9	259.2	258.5	257.5	256.2	254.7	253.0	250.9	248.6	246.3	243.8	241.2	240.9	
Migration - Net Flows																							
UK	-507	+1,236	+1,115	+1,165	+974	+1,130	+1,126	+1,269	+1,300	+1,337	+1,373	+1,412	+1,451	+1,497	+1,541	+1,584	+1,632	+1,684	+1,735	+1,786	+356	+327	
Overseas	+2,262	+661	+668	+652	+867	+721	+753	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	
Summary of population change																							
Natural cha	+1,495	+1,353	+1,467	+1,433	+1,409	+1,399	+1,371	+1,335	+1,304	+1,266	+1,230	+1,192	+1,153	+1,107	+1,063	+1,019	+971	+919	+868	+817	+767	+716	
Net migrati	+1,755	+1,897	+1,783	+1,817	+1,841	+1,851	+1,879	+1,915	+1,946	+1,984	+2,020	+2,058	+2,097	+2,143	+2,187	+2,231	+2,279	+2,331	+2,382	+2,433	+1,002	+974	
Net change	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+3,250	+1,769	+1,690	
Crude Birth	12.08	12.03	11.93	11.65	11.43	11.31	11.15	10.95	10.75	10.56	10.40	10.24	10.08	9.92	9.78	9.63	9.50	9.37	9.24	9.13	9.04	8.99	
Crude Deat	6.63	7.15	6.70	6.61	6.52	6.49	6.48	6.45	6.40	6.39	6.40	6.40	6.40	6.43	6.45	6.48	6.52	6.58	6.63	6.69	6.78	6.88	
Crude Net I	6.40	6.84	6.35	6.40	6.41	6.37	6.40	6.45	6.48	6.54	6.59	6.64	6.70	6.77	6.84	6.91	6.99	7.07	7.16	7.24	2.96	2.86	
Summary of Population estimates/forecasts																							
Population at mid-year																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	16,045	16,625	16,745	16,795	16,828	16,806	16,734	16,688	16,594	16,510	16,431	16,340	16,243	16,153	16,070	15,993	15,917	15,845	15,777	15,715	15,659	15,593	15,541
5-10	16,985	17,666	18,321	18,009	19,553	20,067	20,518	20,776	20,915	20,970	21,010	20,987	20,916	20,867	20,778	20,697	20,620	20,535	20,443	20,355	20,274	20,131	19,994
11-15	14,252	14,353	14,619	14,723	14,650	14,923	15,252	15,783	16,407	16,959	17,415	17,831	18,133	18,251	18,357	18,435	18,434	18,378	18,380	18,338	18,298	18,200	18,099
16-17	6,242	6,164	6,721	7,267	7,493	7,343	7,306	7,270	7,277	7,465	7,705	7,926	8,226	8,534	8,738	8,802	8,920	9,037	9,064	9,030	8,992	9,002	8,963
18-59Fem	171,946	172,065	172,529	173,275	174,424	175,615	177,215	178,562	179,921	181,152	182,328	183,564	184,794	186,099	187,537	189,094	190,569	192,142	193,689	195,346	196,907	197,408	197,943

Scenario D: CCC Technical Report Population Growth, Cambridge

Population Estimates and Forecasts													Nathaniel Lichfield and Partners												
Components of Population Change													Cambridge												
Year beginning July 1st																									
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33			
Births																									
Male	782	789	778	758	739	735	723	711	700	690	683	676	671	666	661	658	655	652	650	648	646	645			
Female	745	752	741	722	704	700	689	677	666	657	651	644	639	634	630	627	624	621	619	617	616	615			
All Births	1,527	1,541	1,518	1,479	1,443	1,434	1,412	1,389	1,366	1,347	1,334	1,321	1,309	1,299	1,291	1,285	1,279	1,274	1,269	1,265	1,262	1,260			
TFR	1.31	1.36	1.36	1.35	1.34	1.34	1.33	1.31	1.29	1.27	1.26	1.25	1.23	1.22	1.20	1.19	1.18	1.16	1.15	1.13	1.12	1.11			
Births input																									
Deaths																									
Male	391	416	389	387	389	388	389	388	388	390	392	395	399	403	407	412	418	425	431	439	447	455			
Female	448	449	415	412	405	410	402	401	399	398	398	399	400	402	404	407	412	416	422	430	435	443			
All deaths	839	865	804	799	794	798	791	789	786	789	790	794	798	805	812	819	830	841	853	869	883	898			
SMR: male	99.2	101.8	93.9	91.6	90.2	88.1	86.5	84.3	82.1	80.5	78.5	76.9	75.3	73.7	72.2	70.7	69.4	68.1	66.8	65.8	64.7	63.6			
SMR: female	99.2	97.3	89.5	87.7	85.2	84.9	82.1	80.4	78.5	76.8	75.1	73.5	71.8	70.3	68.8	67.2	66.0	64.6	63.6	62.8	61.6	60.8			
SMR: persc	99.2	99.4	91.5	89.6	87.6	86.5	84.2	82.3	80.2	78.6	76.8	75.2	73.5	72.0	70.5	68.9	67.7	66.3	65.2	64.2	63.1	62.2			
Expectation	79.7	79.3	80.3	80.5	80.7	81.0	81.2	81.0	81.7	82.0	82.3	82.5	82.7	83.0	83.2	83.4	83.7	83.9	84.1	84.3	84.5	84.8			
Expectation	83.6	83.8	84.7	84.9	85.2	85.3	85.6	85.8	86.1	86.3	86.6	86.8	87.1	87.3	87.6	87.8	88.0	88.2	88.4	88.6	88.7	88.9			
Expectation	81.8	81.7	82.6	82.9	83.1	83.3	83.6	83.8	84.1	84.3	84.6	84.8	85.1	85.3	85.6	85.8	86.0	86.2	86.5	86.6	86.8	87.0			
Deaths input																									
In-migration from the UK																									
Male	6,181	6,967	6,837	6,841	6,833	6,869	6,855	6,861	6,839	6,821	6,820	6,824	6,836	6,884	6,954	7,028	7,092	7,171	7,259	7,323	7,225	7,267			
Female	6,281	6,829	6,669	6,648	6,626	6,640	6,615	6,606	6,576	6,538	6,524	6,525	6,527	6,570	6,629	6,706	6,772	6,850	6,925	6,989	6,900	6,939			
All	12,462	13,796	13,506	13,489	13,459	13,509	13,470	13,467	13,415	13,359	13,344	13,349	13,363	13,454	13,583	13,734	13,864	14,021	14,184	14,312	14,126	14,207			
SMiGR: mal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
SMiGR: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
Migrants in																									
Out-migration to the UK																									
Male	7,091	6,762	6,694	6,670	6,752	6,753	6,757	6,715	6,686	6,658	6,651	6,656	6,668	6,700	6,752	6,821	6,871	6,938	7,013	7,067	7,233	7,283			
Female	6,677	6,837	6,659	6,619	6,651	6,567	6,534	6,467	6,423	6,374	6,352	6,335	6,321	6,363	6,426	6,493	6,557	6,631	6,701	6,755	6,915	6,966			
All	13,768	13,599	13,353	13,289	13,402	13,320	13,292	13,181	13,109	13,032	13,003	12,990	12,988	13,063	13,177	13,315	13,428	13,569	13,714	13,823	14,148	14,249			
SMiGR: mal	78.1	77.3	76.8	76.3	76.7	75.8	75.1	73.8	72.8	71.9	71.2	70.7	70.2	69.8	69.6	69.5	69.2	69.0	68.9	68.5	69.3	69.3			
SMiGR: fem	78.1	83.2	81.9	81.4	81.5	79.9	78.9	77.5	76.5	75.5	74.9	74.1	73.3	73.0	72.9	72.8	72.6	72.5	72.4	72.2	73.1	73.5			
Migrants in																									
In-migration from Overseas																									
Male	2,601	2,268	2,274	2,268	2,375	2,303	2,319	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265			
Female	2,148	1,757	1,760	1,757	1,821	1,778	1,787	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755			
All	4,749	4,025	4,034	4,025	4,196	4,081	4,107	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020			
SMiGR: mal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
SMiGR: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Migrants in																									
Out-migration to Overseas																									
Male	1,606	1,970	1,972	1,974	1,972	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974			
Female	1,175	1,579	1,580	1,582	1,580	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582			
All	2,781	3,548	3,552	3,556	3,552	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555			
SMiGR: mal	286.4	361.3	367.1	370.9	371.0	370.2	368.1	365.2	362.1	359.1	356.2	353.5	350.6	347.6	344.3	340.7	336.7	332.4	328.1	323.7	319.2	316.6			
SMiGR: fem	286.4	394.1	406.6	414.2	417.5	420.1	420.1	418.7	416.8	415.0	413.1	411.2	408.7	405.3	401.8	398.2	394.0	389.5	385.1	380.5	375.8	373.9			
Migrants in																									
Migration - Net Flows																									
UK	-1,306	+197	+153	+200	+57	+189	+178	+285	+305	+326	+342	+358	+374	+391	+406	+420	+436	+452	+470	+490	-22	-42			
Overseas	+1,968	+477	+482	+469	+644	+525	+551	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465			
Summary of population change																									
Natural cha	+688	+676	+715	+681	+649	+636	+621	+600	+580	+559	+544	+527	+511	+495	+480	+466	+449	+433	+415	+395	+379	+362			
Net migrati	+662	+674	+635	+669	+701	+714	+729	+750	+770	+791	+806	+823	+839	+855	+870	+884	+901	+917	+935	+955	+975	+995			
Net change	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350	+1,350			
Crude Birth	12.37	12.36	12.04	11.61	11.20	11.02	10.73	10.45	10.18	9.94	9.74	9.55	9.38	9.22	9.08	8.94	8.82	8.70	8.59	8.49	8.41	8.35			
Crude Deat	6.80	6.94	6.37	6.27	6.17	6.13	6.01	5.94	5.86	5.82	5.77	5.74	5.72	5.71	5.71	5.70	5.72	5.75	5.78	5.83	5.88	5.95			
Crude Net I	5.36	5.40	5.04	5.25	5.44	5.49	5.55	5.65	5.74	5.84	5.89	5.95	6.01	6.07	6.12	6.16	6.21	6.27	6.33	6.40	2.95	2.80			
Summary of Population estimates/forecasts																									
Population at mid-year																									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
0-4	6,622	7,282	7,473	7,567	7,565	7,520	7,389	7,276	7,151	7,041	6,944	6,847	6,757	6,679	6,613	6,557	6,508	6,467	6,433	6,403	6,378	6,352	6,332		
5-10	6,040	6,696	7,030	7,414	7,728	8,071	8,386	8,609	8,774	8,850	8,846	8,798	8,671	8,554	8,426	8,309	8,205	8,104	8,014	7,935	7,868	7,800	7,740		
11-15	5,073	5,260	5,620	5,544	5,640	5,714	5,906	6,201	6,511	6,769	7,064	7,320	7,581	7,723	7,834	7,873	7,851	7,752	7,681	7,593	7,511	7,417	7,331		
16-17																									

Scenario B: CCC Technical Report Population Growth, South Cambridgeshire

Population Estimates and Forecasts		Nathaniel Lichfield and Partners																					
Components of Population Change		South Cambridgeshire																					
Year beginning July 1st		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Births																							
Male	915	920	937	937	942	948	954	954	953	952	951	950	947	943	940	936	932	928	925	923	921	921	
Female	871	876	893	892	897	902	909	908	907	906	906	904	902	898	895	891	888	884	881	879	877	877	
All Births	1,786	1,796	1,830	1,830	1,839	1,850	1,863	1,862	1,860	1,858	1,856	1,854	1,848	1,841	1,834	1,827	1,819	1,812	1,806	1,801	1,798	1,797	
TFR	2.02	1.99	1.99	1.96	1.95	1.94	1.94	1.93	1.92	1.91	1.90	1.89	1.88	1.87	1.86	1.85	1.84	1.83	1.82	1.82	1.81	1.81	
Births input																							
Deaths																							
Male	494	539	537	533	541	541	556	567	570	581	591	602	614	628	641	652	665	680	695	709	725	742	
Female	485	579	540	544	538	546	557	561	565	570	578	587	592	601	610	621	633	645	658	670	686	702	
All deaths	979	1,119	1,077	1,077	1,079	1,087	1,113	1,127	1,136	1,151	1,170	1,189	1,206	1,229	1,251	1,273	1,297	1,326	1,353	1,379	1,411	1,443	
SMR: male	78.0	82.0	78.9	75.7	74.0	71.6	70.9	69.7	67.7	66.5	65.2	64.0	62.0	61.0	59.8	58.7	57.9	57.0	56.2	55.5	55.0	55.0	
SMR: female	78.0	89.6	81.6	79.9	76.8	75.7	74.9	73.4	71.7	70.0	68.8	67.6	66.0	64.8	63.6	62.4	61.4	60.4	59.4	58.3	57.7	57.1	
SMR: pers c	78.0	89.7	80.2	77.8	75.4	73.6	72.9	71.5	69.6	68.2	66.9	65.7	64.4	63.4	62.2	61.0	60.0	59.1	58.2	57.2	56.6	56.0	
Expectation	82.7	81.9	82.3	82.8	83.0	83.4	83.5	83.7	84.0	84.3	84.5	84.7	85.0	85.2	85.4	85.6	85.8	86.0	86.2	86.4	86.5	86.8	
Expectation	86.3	84.8	85.7	85.9	86.2	86.4	86.5	86.8	87.0	87.2	87.4	87.6	87.8	88.1	88.3	88.5	88.6	88.8	89.0	89.3	89.3	89.5	
Expectation	84.6	83.4	84.1	84.4	84.7	85.0	85.1	85.3	85.6	85.8	86.0	86.2	86.5	86.7	86.9	87.1	87.3	87.5	87.7	87.9	88.0	88.2	
Deaths inp																							
In-migration from the UK																							
Male	5,002	4,795	4,533	4,564	4,581	4,616	4,639	4,667	4,695	4,720	4,747	4,774	4,807	4,839	4,877	4,918	4,958	4,992	5,034	5,072	4,875	4,902	
Female	5,082	5,160	4,875	4,890	4,887	4,903	4,911	4,922	4,936	4,947	4,962	4,978	5,000	5,026	5,062	5,101	5,142	5,178	5,220	5,260	5,056	5,085	
All	10,084	9,955	9,407	9,454	9,468	9,519	9,550	9,589	9,631	9,667	9,709	9,752	9,806	9,866	9,939	10,019	10,101	10,171	10,253	10,332	9,931	9,988	
SMiGR: mal	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: fem	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants in																							
Out-migration to the UK																							
Male	4,715	4,253	4,017	4,051	4,102	4,124	4,141	4,147	4,169	4,196	4,208	4,217	4,233	4,250	4,274	4,306	4,324	4,344	4,369	4,388	4,638	4,671	
Female	4,570	4,664	4,428	4,438	4,449	4,454	4,461	4,458	4,468	4,460	4,469	4,482	4,497	4,509	4,530	4,549	4,581	4,594	4,618	4,647	4,915	4,947	
All	9,285	8,917	8,445	8,489	8,551	8,578	8,603	8,605	8,637	8,656	8,677	8,699	8,730	8,760	8,804	8,854	8,904	8,939	8,988	9,035	9,553	9,618	
SMiGR: mal	62.6	55.3	51.6	51.5	51.6	51.5	51.4	51.2	51.2	51.2	51.1	50.9	50.8	50.6	50.5	50.4	50.2	50.0	49.9	49.7	52.1	52.4	
SMiGR: fem	62.6	61.8	58.0	57.7	57.6	57.4	57.1	57.0	56.8	56.6	56.5	56.4	56.3	56.1	56.0	55.7	55.6	55.5	55.1	54.9	57.6	58.0	
Migrants in																							
In-migration from Overseas																							
Male	454	459	460	459	482	466	470	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	
Female	375	404	405	404	420	409	412	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	
All	829	862	864	862	902	875	881	861	861	861	861	861	861	861	861	861	861	861	861	861	861	861	
SMiGR: mal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMiGR: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants in																							
Out-migration to Overseas																							
Male	305	375	375	376	375	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	
Female	230	303	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	
All	535	678	679	680	679	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	
SMiGR: mal	72.7	87.7	86.4	85.4	84.4	83.8	83.2	82.7	82.3	81.9	81.5	81.2	80.9	80.5	80.0	79.5	79.0	78.4	77.8	77.1	76.5	76.5	
SMiGR: fem	72.7	93.0	91.6	90.6	89.8	89.3	88.8	88.5	88.4	88.3	88.2	88.1	88.1	87.9	87.7	87.3	86.8	86.3	85.6	85.0	84.2	84.5	
Migrants in																							
Migration - Net Flows																							
UK	+799	+1,039	+962	+965	+917	+941	+948	+963	+994	+1,011	+1,032	+1,053	+1,076	+1,106	+1,135	+1,165	+1,196	+1,232	+1,266	+1,296	+378	+369	
Overseas	+294	+184	+185	+183	+223	+195	+201	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	
Summary of population change																							
Natural cha	+807	+677	+752	+752	+760	+763	+751	+735	+724	+707	+687	+665	+642	+612	+583	+554	+522	+486	+453	+422	+387	+354	
Net migrati	+1,093	+1,223	+1,148	+1,148	+1,140	+1,137	+1,149	+1,165	+1,176	+1,193	+1,213	+1,235	+1,258	+1,288	+1,317	+1,346	+1,378	+1,414	+1,447	+1,478	+569	+551	
Net change	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+1,900	+946	+905	
Crude Birth	11.84	11.76	11.84	11.69	11.61	11.54	11.49	11.35	11.20	11.07	10.93	10.80	10.65	10.49	10.34	10.19	10.04	9.90	9.76	9.64	9.55	9.50	
Crude Deat	6.49	7.33	6.97	6.88	6.81	6.78	6.66	6.58	6.48	6.35	6.22	6.09	5.93	5.79	5.65	5.50	5.35	5.20	5.05	4.90	4.73	4.63	
Crude Net I	7.25	8.01	7.42	7.33	7.20	7.09	7.09	7.10	7.08	7.10	7.15	7.19	7.25	7.34	7.42	7.51	7.60	7.72	7.82	7.91	2.97	2.91	
Summary of Population estimates/forecasts																							
Population at mid-year																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	9,423	9,343	9,272	9,228	9,263	9,285	9,345	9,412	9,442	9,470	9,487	9,493	9,485	9,473	9,457	9,436	9,410	9,378	9,345	9,312	9,282	9,241	9,209
5-10	10,945	10,970	11,290	11,595	11,825	11,996	12,122	12,168	12,141	12,120	12,163	12,189	12,245	12,314	12,352	12,388	12,415	12,431	12,429	12,420	12,407	12,332	12,254
11-15	9,179	9,093	8,999	8,979	9,010	9,209	9,346	9,582	9,896	10,190	10,351	10,511	10,571	10,528	10,522	10,562	10,583	10,626	10,699	10,745	10,787	10,783	10,767</

Scenario C: 10 Year Migration, All Areas

Population Estimates and Forecasts													Nathaniel Lichfield and Partners												
Components of Population Change													All Areas												
Year beginning July 1st																									
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33			
Births																									
Male	1,697	1,721	1,728	1,717	1,715	1,726	1,732	1,729	1,728	1,736	1,738	1,740	1,747	1,743	1,739	1,735	1,731	1,727	1,723	1,714	1,712	1,710			
Female	1,616	1,639	1,646	1,635	1,634	1,644	1,650	1,647	1,646	1,653	1,656	1,657	1,664	1,660	1,656	1,652	1,648	1,644	1,641	1,632	1,630	1,629			
All Births	3,313	3,359	3,374	3,352	3,349	3,369	3,382	3,376	3,373	3,389	3,394	3,398	3,411	3,403	3,395	3,387	3,379	3,371	3,363	3,347	3,342	3,339			
TFR	1.65	1.68	1.70	1.69	1.69	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.71	1.70	1.70	1.69	1.69	1.69	1.68	1.67	1.67	1.66			
Births input																									
Deaths																									
Male	885	956	924	920	930	932	948	960	963	978	991	1,005	1,022	1,039	1,058	1,074	1,093	1,116	1,137	1,161	1,185	1,211			
Female	933	1,029	951	954	944	959	963	966	970	976	985	994	1,000	1,011	1,023	1,036	1,052	1,069	1,087	1,107	1,129	1,153			
All deaths	1,818	1,985	1,874	1,874	1,874	1,890	1,911	1,926	1,933	1,954	1,976	2,000	2,022	2,050	2,081	2,110	2,145	2,185	2,225	2,268	2,314	2,364			
SMR: male	86.2	90.0	84.7	81.5	79.6	77.0	75.8	74.1	71.9	70.5	69.0	67.7	66.5	65.3	64.3	63.1	62.0	61.3	60.4	59.7	59.1	58.4			
SMR: female	86.9	93.6	85.5	83.6	80.6	79.7	78.0	76.4	73.0	71.6	70.4	68.8	67.6	66.4	65.2	64.3	63.3	62.4	61.6	61.0	60.4				
SMR: persc	86.5	91.8	85.1	82.6	80.1	78.3	76.9	75.2	73.2	71.7	70.3	69.0	67.6	66.4	65.3	64.1	63.1	62.3	61.4	60.6	60.0	59.4			
Expectation	81.4	80.9	81.6	82.1	82.4	82.8	83.0	83.3	83.7	83.9	84.2	84.4	84.7	84.9	85.1	85.3	85.5	85.7	85.9	86.0	86.1	86.3			
Expectation	85.0	84.2	85.2	85.5	85.9	86.3	86.5	86.8	87.0	87.2	87.4	87.7	87.9	88.1	88.3	88.5	88.6	88.8	89.0	89.1	89.2				
Expectation	83.3	82.6	83.5	83.9	84.2	84.5	84.7	85.0	85.3	85.5	85.8	86.0	86.2	86.4	86.6	86.8	87.0	87.2	87.4	87.5	87.6	87.8			
Deaths input																									
In-migration from the UK																									
Male	11,946	11,071	11,041	11,061	11,077	11,098	11,115	11,131	11,141	11,157	11,175	11,185	11,190	11,197	11,204	11,202	11,200	11,198	11,201	11,200	11,199	11,202			
Female	11,446	11,127	11,237	11,216	11,201	11,183	11,165	11,149	11,136	11,120	11,105	11,098	11,090	11,080	11,078	11,081	11,080	11,083	11,079	11,079	11,079	11,085			
All	23,392	22,198	22,278	22,277	22,278	22,281	22,280	22,280	22,277	22,277	22,280	22,283	22,280	22,277	22,282	22,283	22,280	22,281	22,280	22,279	22,278	22,287			
SMGr: male	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
SMGr: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
Migrants input																									
Out-migration to the UK																									
Male	11,818	12,227	11,027	11,050	11,096	11,152	11,175	11,195	11,208	11,242	11,250	11,258	11,270	11,270	11,263	11,271	11,256	11,255	11,258	11,251	11,251	11,245			
Female	11,676	11,578	11,412	11,392	11,345	11,292	11,263	11,248	11,233	11,204	11,193	11,183	11,170	11,172	11,177	11,170	11,184	11,185	11,184	11,189	11,192	11,192			
All	23,493	23,805	22,439	22,442	22,441	22,444	22,443	22,443	22,441	22,446	22,443	22,441	22,440	22,442	22,440	22,441	22,440	22,440	22,442	22,442	22,443	22,437			
SMGr: male	71.1	72.8	65.8	65.6	65.5	65.4	65.0	64.7	64.3	64.1	63.7	63.3	62.9	62.5	61.9	61.4	60.7	60.2	59.6	59.1	58.6	58.1			
SMGr: fem	73.7	72.7	71.1	71.1	70.8	70.4	69.9	69.7	69.4	69.1	68.8	68.5	68.0	67.6	67.1	66.5	66.0	65.6	65.1	64.7	64.3	63.9			
Migrants input																									
In-migration from Overseas																									
Male	3,055	2,583	3,553	3,551	3,568	3,558	3,561	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551			
Female	2,523	2,133	2,802	2,802	2,792	2,793	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802			
All	5,578	4,716	6,355	6,353	6,360	6,355	6,354	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353	6,353			
SMGr: male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
SMGr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Migrants input																									
Out-migration to Overseas																									
Male	1,911	1,617	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506	2,506			
Female	1,405	1,178	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012	2,012			
All	3,316	2,795	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518	4,518			
SMGr: male	194.0	163.3	254.8	253.8	252.8	251.9	250.7	249.4	248.0	246.7	245.5	244.4	243.3	242.1	240.6	238.9	237.1	235.1	233.1	231.1	229.2	227.3			
SMGr: fem	193.3	161.7	276.0	276.7	277.5	278.2	278.3	278.4	278.4	278.6	278.9	279.2	279.2	278.7	278.0	277.1	275.8	274.3	272.9	271.3	269.7	268.2			
Migrants input																									
Migration - Net Flows																									
UK	-101	-1,607	-161	-165	-163	-163	-158	-163	-164	-169	-163	-158	-160	-165	-158	-158	-160	-159	-162	-161	-165	-150			
Overseas	+2,262	+1,921	+1,837	+1,835	+1,842	+1,837	+1,836	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835	+1,835			
Summary of population change																									
Natural cha	+1,495	+1,375	+1,500	+1,477	+1,475	+1,479	+1,471	+1,451	+1,440	+1,435	+1,418	+1,398	+1,389	+1,353	+1,314	+1,277	+1,234	+1,186	+1,138	+1,079	+1,027	+976			
Net migrati	+2,161	+314	+1,676	+1,670	+1,679	+1,674	+1,678	+1,672	+1,671	+1,666	+1,672	+1,677	+1,675	+1,670	+1,677	+1,677	+1,675	+1,676	+1,673	+1,674	+1,670	+1,685			
Net change	+3,656	+1,689	+3,176	+3,147	+3,154	+3,153	+3,149	+3,123	+3,111	+3,101	+3,090	+3,075	+3,064	+3,023	+2,991	+2,954	+2,909	+2,862	+2,811	+2,753	+2,697	+2,661			
Crude Birth	12,077	12,122	12,077	11,866	11,588	11,444	11,311	11,244	11,124	11,014	10,904	10,818	10,742	10,659	10,574	10,487	10,399	10,312	10,225	10,138	10,051	9,964			
Crude Dea	6.63	7.16	6.71	6.63	6.56	6.54	6.54	6.52	6.48	6.48	6.49	6.50	6.51	6.53	6.57	6.60	6.65	6.71	6.77	6.85	6.93	7.02			
Crude Net f	7.88	1.13	6.00	5.91	5.87	5.79	5.74	5.66	5.60	5.53	5.49	5.45	5.39	5.32	5.29	5.24	5.19	5.15	5.09	5.05	5.00	5.01			
Summary of Population estimates/forecasts																									
Population at mid-year																									
0-4	16,045	16,391	16,400	16,493	16,678	16,761	16,859	17,083	17,093	17,116	17,153	17,178	17,195	17,230	17,260	17,268	17,263	17,249	17,213	17,177	17,134	17,092			
5-10	16,985	17,699	18,201	19,045	19,496	19,994	20,384	20,527	20,729	20,809	20,995	21,086	21,192	21,386	21,423	21,479	21,533	21,577	21,618	21,654	21,681	21,690			
11-15	14,252	14,232	14,301	14,469	14,635	14,959	15,296	15,801	16,395	16,962	17,337	17,727	17,981	18,006	18,107	18,285	18,370	18,458	18,660	18,719	18,777	18,834			
16-17	6,242	6,123	5,989	6,590	7,127	7,238	7,227	7,239	7,255	7,453	7,707	7,920	8,192	8,473	8,702	8,709	8,768	8,893	8,811	8,836	8,977	9,018			
18-59Fem	171,946	173,222	173,288	173,546	174,240	175,210	176,431	177,576	178,745	179,783	180,704	181,699	182,639	183,612	184,739</										

Scenario C: 10 Year Migration, Cambridge

Population Estimates and Forecasts													Nathaniel Lichfield and Partners												
Components of Population Change													Cambridge												
Year beginning July 1st																									
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33			
Births																									
Male	782	804	803	786	776	775	770	761	759	757	754	750	747	737	727	722	713	703	695	687	680	679			
Female	745	766	765	749	739	738	733	725	723	721	718	715	711	702	692	688	679	670	661	654	648	647			
All Births	1,527	1,570	1,568	1,536	1,516	1,512	1,503	1,487	1,482	1,478	1,472	1,465	1,458	1,439	1,419	1,410	1,391	1,373	1,356	1,341	1,327	1,327			
TFR	1.31	1.34	1.36	1.35	1.35	1.36	1.36	1.35	1.35	1.35	1.35	1.35	1.35	1.34	1.33	1.33	1.32	1.31	1.30	1.29	1.28	1.28			
Births input	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Deaths																									
Male	391	416	389	386	387	385	385	384	383	386	387	390	393	397	401	405	411	417	424	432	439	447			
Female	448	449	414	410	402	406	397	395	393	393	392	392	393	394	396	398	402	405	411	417	422	429			
All deaths	839	866	803	796	789	791	782	779	776	779	780	782	786	791	797	803	813	823	834	849	862	876			
SMR: male	99.2	102.0	93.8	91.3	89.6	87.2	85.4	83.1	80.8	79.3	77.4	75.9	74.4	72.9	71.6	70.3	69.2	68.2	67.2	66.4	65.6	64.7			
SMR: female	99.2	99.8	91.7	89.9	87.3	87.0	84.2	82.6	80.7	79.2	77.7	76.2	74.7	73.3	72.0	70.6	69.6	68.3	67.4	66.7	65.8	65.0			
SMR: pers c	99.2	100.8	92.7	90.6	88.4	87.1	84.8	82.8	80.7	79.2	77.6	76.1	74.5	73.1	71.8	70.4	69.4	68.2	67.3	66.5	65.7	64.8			
Expectation	79.7	79.4	80.4	80.8	81.0	81.3	81.6	81.9	82.3	82.5	82.8	83.0	83.3	83.5	83.8	84.0	84.2	84.4	84.5	84.7	84.8	85.0			
Expectation	83.6	83.5	84.5	84.7	85.0	85.0	85.4	85.6	85.9	86.1	86.3	86.5	86.8	87.0	87.2	87.4	87.6	87.8	87.9	88.0	88.2	88.3			
Expectation	81.8	81.5	82.5	82.8	83.1	83.3	83.6	83.8	84.1	84.4	84.6	84.8	85.1	85.3	85.5	85.7	85.9	86.1	86.3	86.4	86.6	86.7			
Deaths input	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
In-migration from the UK																									
Male	7,082	6,780	6,434	6,446	6,453	6,463	6,470	6,479	6,482	6,490	6,500	6,502	6,505	6,508	6,511	6,508	6,507	6,505	6,509	6,508	6,506	6,508			
Female	6,563	6,340	6,283	6,271	6,265	6,257	6,250	6,241	6,236	6,226	6,221	6,219	6,214	6,210	6,209	6,213	6,211	6,216	6,211	6,212	6,213	6,215			
All	13,645	13,121	12,717	12,717	12,718	12,720	12,720	12,720	12,718	12,716	12,721	12,721	12,719	12,718	12,720	12,721	12,718	12,721	12,720	12,720	12,719	12,723			
SMgr: ma	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
SMgr: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
Migrants in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Out-migration to the UK																									
Male	6,962	7,140	6,895	6,905	6,929	6,976	6,993	7,008	7,015	7,027	7,037	7,046	7,059	7,054	7,046	7,047	7,038	7,032	7,034	7,032	7,032	7,028			
Female	6,909	7,075	6,857	6,851	6,824	6,779	6,759	6,748	6,739	6,728	6,720	6,707	6,695	6,699	6,707	6,706	6,717	6,721	6,721	6,721	6,723	6,723			
All	13,871	14,216	13,752	13,756	13,753	13,755	13,752	13,756	13,754	13,755	13,757	13,753	13,754	13,753	13,753	13,753	13,755	13,753	13,755	13,753	13,755	13,751			
SMgr: ma	76.6	76.9	73.2	73.5	73.8	74.0	73.9	73.7	73.4	73.2	73.1	72.9	72.6	72.2	71.6	71.0	70.4	69.8	69.2	68.6	68.1	67.5			
SMgr: fem	80.8	81.8	78.6	79.7	80.0	79.8	79.6	79.5	79.5	79.6	79.6	79.4	79.0	78.7	78.3	77.8	77.4	77.0	76.6	76.2	75.9	75.5			
Migrants in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
In-migration from Overseas																									
Male	2,601	2,182	3,051	3,050	3,064	3,055	3,057	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050			
Female	2,148	1,802	2,361	2,362	2,351	2,357	2,355	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362	2,362			
All	4,749	3,984	5,412	5,412	5,415	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412	5,412			
SMgr: ma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
SMgr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Migrants in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Out-migration to Overseas																									
Male	1,606	1,317	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178			
Female	1,175	951	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746			
All	2,781	2,268	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924	3,924			
SMgr: ma	286.4	230.2	375.5	376.7	378.0	378.8	378.9	378.2	377.3	376.4	375.7	375.3	374.6	373.7	373.3	370.4	368.0	365.3	362.4	359.5	356.4	353.4			
SMgr: fem	286.4	230.2	421.2	427.4	433.9	439.2	442.4	445.1	447.6	450.4	453.4	456.2	457.9	458.3	458.1	457.4	455.0	454.4	452.9	451.3	449.3	447.3			
Migrants in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Migration - Net Flows																									
UK	-226	-1,095	-1,035	-1,039	-1,035	-1,035	-1,032	-1,036	-1,036	-1,036	-1,036	-1,036	-1,036	-1,036	-1,036	-1,036	-1,037	-1,032	-1,035	-1,033	-1,036	-1,028			
Overseas	+1,968	+1,716	+1,488	+1,488	+1,491	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488	+1,488			
Summary of population change																									
Natural cha	+888	+704	+765	+740	+727	+721	+707	+706	+699	+693	+683	+672	+648	+622	+607	+578	+550	+522	+492	+466	+450	+13,246			
Net migrat	+1,742	+621	+453	+449	+456	+453	+452	+449	+452	+456	+453	+453	+453	+455	+456	+451	+456	+453	+455	+452	+460	+10,523			
Net change	+2,430	+1,325	+1,218	+1,189	+1,183	+1,174	+1,177	+1,159	+1,158	+1,148	+1,145	+1,139	+1,125	+1,101	+1,077	+1,063	+1,029	+1,006	+975	+947	+918	+23,769			
Crude Birth	12.32	12.48	12.34	11.97	11.71	11.58	11.40	11.18	11.05	10.92	10.79	10.65	10.51	10.29	10.07	9.93	9.73	9.53	9.35	9.18	9.03	8.97			
Crude Dea	6.77	6.88	6.32	6.20	6.09	6.05	5.93	5.86	5.78	5.75	5.71	5.68	5.67	5.65	5.66	5.66	5.68	5.71	5.75	5.81	5.87	5.93			
Crude Net	14.06	4.94	3.56	3.50	3.52	3.47	3.46	3.40	3.37	3.32	3.31	3.31	3.27	3.24	3.23	3.21	3.15	3.17	3.12	3.12	3.08	3.11			
Summary of Population estimates/forecasts																									
Population at mid-year																									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
0-4	6,622	6,962	7,047	7,237	7,418	7,552	7,577	7,682	7,613	7,564	7,528	7,490	7,452	7,423	7,379	7,322	7,262	7,191	7,110	7,031	6,956	6,877	6,816		
5-10	6,040	6,483	6,894	7,293	7,504	7,793	8,084	8,212	8,477	8,656	8,828	8,940	8,987	9,063	9,020	8,987	8,956	8,924	8,892	8,855	8,803	8,749	8,694		
11-15	5,073	5,136	5,205	5,446	5,563	5,632	5,814	6,106	6,406	6,628	6,855	7,052	7,253	7,372	7,561	7,739	7,865	7,910	8,012	7,997	7,987	7,973	7,957		
16-17	2,424	2,287	2,190	2,970	3,703	4,																			

Scenario C: 10 year Migration, South Cambridgeshire

Population Estimates and Forecasts													Nathaniel Lichfield and Partners										
Components of Population Change													South Cambridgeshire										
Year beginning July 1st																							
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	
Births																							
Male	915	916	925	930	939	951	962	968	969	979	984	990	1,000	1,006	1,012	1,013	1,018	1,023	1,028	1,027	1,032	1,031	
Female	871	873	881	886	894	906	916	922	922	932	937	943	953	958	964	964	970	975	979	979	983	982	
All Births	1,786	1,789	1,806	1,816	1,833	1,857	1,879	1,890	1,891	1,911	1,922	1,933	1,953	1,964	1,976	1,977	1,988	1,998	2,007	2,006	2,014	2,013	
TFR	2.02	2.03	2.05	2.04	2.04	2.05	2.06	2.06	2.05	2.06	2.06	2.06	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.06	2.05	2.05	
Births input																							
Deaths																							
Male	494	539	534	534	543	547	563	575	580	592	604	615	628	642	657	669	682	699	713	729	746	764	
Female	485	580	537	545	542	553	566	571	577	583	593	602	607	617	627	638	650	664	677	690	707	724	
All deaths	979	1,119	1,071	1,078	1,085	1,099	1,129	1,146	1,157	1,176	1,196	1,217	1,236	1,259	1,284	1,307	1,332	1,363	1,390	1,419	1,452	1,488	
SMR: male	78.0	82.5	79.1	75.7	73.8	71.2	70.4	69.1	67.0	65.8	64.5	63.3	62.3	61.4	60.5	59.4	58.4	57.8	57.0	56.3	55.8	55.3	
SMR: female	78.0	89.3	81.2	79.4	76.2	75.0	74.1	72.5	70.9	69.3	68.1	67.0	65.5	64.4	63.3	62.3	61.4	60.6	59.7	58.9	58.5	58.0	
SMR: persc	78.0	85.9	80.1	77.5	75.0	73.1	72.2	70.8	68.9	67.5	66.2	65.1	63.8	62.8	61.8	60.8	59.8	59.1	58.3	57.5	57.1	56.6	
Expectation	82.7	82.0	82.5	83.1	83.4	83.8	84.0	84.2	84.6	84.8	85.1	85.3	85.5	85.7	85.9	86.1	86.3	86.4	86.6	86.8	86.9	87.0	
Expectation	86.3	84.8	86.8	86.1	86.5	86.7	86.8	87.1	87.3	87.6	87.8	88.0	88.3	88.5	88.7	88.8	89.0	89.2	89.3	89.5	89.6	89.7	
Expectation	84.6	83.4	84.3	84.6	85.0	85.3	85.5	85.7	86.0	86.3	86.5	86.7	86.9	87.1	87.3	87.5	87.7	87.8	88.0	88.2	88.3	88.4	
Deaths inp																							
In-migration from the UK																							
Male	4,865	4,291	4,607	4,615	4,624	4,635	4,645	4,652	4,659	4,667	4,675	4,683	4,685	4,689	4,693	4,694	4,693	4,693	4,692	4,692	4,693	4,694	
Female	4,882	4,787	4,954	4,945	4,936	4,926	4,915	4,908	4,900	4,894	4,884	4,879	4,875	4,870	4,869	4,868	4,869	4,867	4,868	4,867	4,866	4,870	
All	9,747	9,078	9,561	9,560	9,560	9,561	9,560	9,560	9,559	9,561	9,559	9,562	9,561	9,558	9,562	9,562	9,562	9,560	9,560	9,559	9,559	9,564	
SMGr: mal	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMGr: fem	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants in																							
Out-migration to the UK																							
Male	4,856	5,087	4,132	4,145	4,167	4,176	4,182	4,187	4,193	4,215	4,213	4,212	4,211	4,216	4,217	4,224	4,218	4,223	4,224	4,219	4,219	4,217	
Female	4,766	4,502	4,555	4,541	4,521	4,513	4,504	4,500	4,494	4,476	4,473	4,476	4,475	4,473	4,470	4,464	4,467	4,464	4,463	4,468	4,469	4,469	
All	9,622	9,589	8,687	8,686	8,688	8,689	8,686	8,687	8,687	8,691	8,686	8,686	8,686	8,689	8,687	8,688	8,685	8,687	8,687	8,687	8,688	8,686	
SMGr: mal	64.5	67.7	56.4	55.7	55.2	54.6	54.1	53.7	53.2	53.0	52.5	52.0	51.4	51.0	50.5	50.0	49.4	48.9	48.4	48.0	47.6	47.2	
SMGr: fem	65.3	61.8	62.2	61.2	60.4	59.7	59.2	58.8	58.3	57.7	57.2	56.8	56.3	55.8	55.3	54.6	54.1	53.6	53.1	52.7	52.2	51.8	
Migrants in																							
In-migration from Overseas																							
Male	454	401	502	501	504	503	504	501	501	501	501	501	501	501	501	501	501	501	501	501	501	501	
Female	375	331	441	440	441	440	438	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	
All	829	732	943	941	945	943	942	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	
SMGr: mal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMGr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants in																							
Out-migration to Overseas																							
Male	305	301	328	328	328	328	328	328	328	328	328	328	328	328	328	328	328	328	328	328	328	328	
Female	230	226	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	
All	535	527	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	
SMGr: mal	72.7	71.9	81.3	80.2	79.0	78.1	77.2	76.4	75.7	75.0	74.4	73.7	73.1	72.5	71.8	71.2	70.5	69.8	69.2	68.6	68.0	67.4	
SMGr: fem	72.7	71.9	84.6	83.5	82.5	81.7	81.0	80.5	80.0	79.5	79.1	78.7	78.4	78.0	77.7	77.2	76.7	76.2	75.6	75.0	74.4	73.9	
Migrants in																							
Migration - Net Flows																							
UK	+125	-512	+874	+874	+872	+872	+874	+873	+872	+870	+873	+874	+875	+870	+875	+874	+877	+873	+873	+872	+871	+878	
Overseas	+294	+205	+349	+347	+351	+349	+348	+347	+347	+347	+347	+347	+347	+347	+347	+347	+347	+347	+347	+347	+347	+347	
Summary of population change																							
Natural cha	+807	+671	+735	+738	+748	+758	+750	+743	+734	+735	+725	+715	+717	+705	+691	+670	+656	+635	+617	+587	+562	+525	
Net migrati	+419	-307	+1,223	+1,221	+1,223	+1,221	+1,222	+1,220	+1,219	+1,217	+1,220	+1,221	+1,222	+1,217	+1,222	+1,221	+1,224	+1,220	+1,220	+1,219	+1,218	+1,225	
Net change	+1,226	+364	+1,958	+1,959	+1,971	+1,979	+1,972	+1,963	+1,953	+1,952	+1,945	+1,936	+1,939	+1,922	+1,913	+1,891	+1,880	+1,855	+1,837	+1,806	+1,780	+1,750	
Crude Birth	11.87	11.83	11.85	11.76	11.73	11.73	11.72	11.65	11.52	11.50	11.43	11.36	11.29	11.23	11.12	11.07	11.01	10.95	10.83	10.77	10.67		
Crude Deal	6.51	7.40	7.03	6.99	6.94	6.94	7.04	7.06	7.05	7.07	7.12	7.16	7.19	7.24	7.30	7.35	7.42	7.51	7.58	7.66	7.77	7.88	
Crude Net I	2.78	-2.03	8.02	7.91	7.82	7.71	7.62	7.52	7.42	7.32	7.26	7.18	7.11	7.00	6.95	6.87	6.81	6.72	6.65	6.58	6.51	6.49	
Summary of Population estimates/forecasts																							
Population at mid-year																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	9,423	9,429	9,393	9,256	9,260	9,208	9,282	9,401	9,480	9,552	9,626	9,689	9,743	9,808	9,881	9,946	10,002	10,058	10,103	10,146	10,178	10,215	10,240
5-10	10,945	11,216	11,407	11,752	11,992	12,201	12,300	12,315	12,252	12,153	12,167	12,137	12,205	12,333	12,403	12,492	12,577	12,653	12,726	12,799	12,878	12,941	13,005
11-15	9,179	9,096	9,048	9,023	9,073	9,327	9,482	9,695	9,989	10,334	10,482	10,675	10,729	10,634	10,547	10,546	10,505	10,548	10,648	10,722	10,790	10,861	10,925
16-17	3,818	3,836	3,799	3,620	3,423	3,229	3,227	3,308	3,350	3,384	3,482	3,594	3,676	3,838	3,976	3,935	3,930	3,922	3,				

Scenario D: CCC Jobs Forecast, All Areas

Population Estimates and Forecasts										Nathaniel Lichfield and Partners													
Components of Population Change										All Areas													
Year beginning July 1st																							
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	
Births																							
Male	1,697	1,706	1,723	1,726	1,738	1,756	1,775	1,783	1,790	1,806	1,824	1,841	1,861	1,868	1,875	1,883	1,891	1,898	1,905	1,907	1,914	1,922	
Female	1,616	1,625	1,641	1,644	1,655	1,672	1,691	1,698	1,705	1,720	1,737	1,753	1,772	1,779	1,786	1,794	1,801	1,808	1,815	1,816	1,823	1,831	
All Births	3,313	3,331	3,364	3,370	3,393	3,429	3,466	3,481	3,495	3,527	3,562	3,594	3,633	3,648	3,661	3,677	3,691	3,705	3,720	3,723	3,737	3,753	
TFR	1.66	1.68	1.70	1.69	1.69	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.71	1.70	1.70	1.70	1.69	1.69	1.68	1.67	1.67	1.67	
Births input																							
Deaths																							
Male	885	956	924	922	933	936	954	967	973	989	1,004	1,021	1,040	1,059	1,081	1,099	1,120	1,146	1,170	1,196	1,224	1,253	
Female	933	1,029	951	955	946	961	967	972	977	985	997	1,009	1,017	1,031	1,046	1,062	1,082	1,101	1,123	1,146	1,171	1,199	
All deaths	1,818	1,985	1,874	1,877	1,879	1,897	1,921	1,939	1,950	1,974	2,001	2,030	2,067	2,090	2,126	2,161	2,201	2,248	2,293	2,342	2,396	2,452	
SMR: male	86.2	90.0	84.7	81.6	79.7	77.1	75.8	74.1	71.9	70.6	69.0	67.7	66.5	65.4	64.3	63.1	62.1	61.3	60.4	59.7	59.1	58.4	
SMR: fema	86.9	93.6	85.5	83.6	80.6	79.7	78.0	76.3	74.6	73.0	71.7	70.4	68.9	67.6	66.4	65.3	64.3	63.3	62.4	61.6	61.1	60.4	
SMR: pers	86.5	91.8	85.1	82.6	80.1	78.4	76.9	75.2	73.2	71.8	70.3	69.0	67.6	66.5	65.3	64.2	63.2	62.3	61.4	60.6	60.0	59.4	
Expectator	81.4	80.9	81.6	82.1	82.4	82.8	83.0	83.3	83.7	83.9	84.2	84.4	84.7	84.9	85.1	85.3	85.5	85.7	85.9	86.0	86.1	86.3	
Expectator	85.0	84.2	85.2	85.5	85.9	86.0	86.3	86.5	86.8	87.0	87.2	87.4	87.7	87.9	88.1	88.3	88.5	88.6	88.8	89.0	89.1	89.2	
Expectator	83.3	82.6	83.5	83.9	84.2	84.5	84.7	85.0	85.3	85.5	85.7	86.0	86.2	86.4	86.6	86.8	87.0	87.2	87.4	87.5	87.6	87.8	
Deaths input																							
In-migration from the UK																							
Male	11,070	11,121	12,039	11,830	11,683	11,997	11,987	11,972	11,976	12,226	12,206	12,186	12,195	12,295	12,439	12,585	12,686	12,792	12,894	12,949	13,014	13,083	
Female	11,893	11,931	12,217	11,978	11,797	12,069	12,027	11,980	11,960	12,181	12,135	12,102	12,092	12,180	12,309	12,460	12,563	12,673	12,761	12,814	12,894	12,961	
All	22,963	23,052	24,256	23,808	23,480	24,066	24,015	23,952	23,936	24,407	24,341	24,288	24,286	24,475	24,748	25,045	25,249	25,465	25,665	25,770	25,908	26,044	
SMgR: ma	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
SMgR: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Migrants input																							
Out-migration to the UK																							
Male	11,085	11,679	10,974	10,965	11,055	11,125	11,142	11,146	11,162	11,172	11,163	11,153	11,173	11,214	11,300	11,403	11,504	11,605	11,715	11,794	11,870	11,954	
Female	11,980	11,692	11,352	11,303	11,300	11,265	11,235	11,204	11,193	11,147	11,121	11,095	11,089	11,138	11,233	11,323	11,453	11,553	11,657	11,748	11,831	11,913	
All	23,064	23,370	22,326	22,268	22,355	22,390	22,378	22,350	22,355	22,319	22,284	22,249	22,263	22,352	22,532	22,726	22,957	23,159	23,372	23,542	23,701	23,867	
SMgR: ma	66.7	69.5	65.5	64.6	64.5	64.3	63.7	63.1	62.7	62.2	61.5	60.9	60.3	59.9	59.6	59.4	59.2	58.9	58.7	58.4	58.2	58.0	
SMgR: fem	75.6	73.4	70.7	69.8	69.4	68.9	68.1	67.5	67.0	66.4	65.7	64.9	64.2	63.8	63.6	63.2	63.1	62.9	62.7	62.5	62.2	62.1	
Migrants input																							
In-migration from Overseas																							
Male	3,117	2,727	2,734	2,727	2,856	2,769	2,789	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	
Female	2,461	2,160	2,165	2,160	2,241	2,187	2,199	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	
All	5,578	4,887	4,898	4,887	5,097	4,956	4,988	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	
SMgR: ma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMgR: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																							
Out-migration to Overseas																							
Male	1,829	2,345	2,347	2,349	2,347	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	
Female	1,487	1,882	1,884	1,886	1,884	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	
All	3,316	4,227	4,231	4,235	4,231	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	
SMgR: ma	186.6	236.8	238.6	236.5	234.2	232.9	230.8	228.8	227.2	225.6	223.6	221.7	219.8	217.9	215.8	213.5	211.0	208.5	206.1	203.7	201.4	199.3	
SMgR: fem	204.6	258.3	258.4	256.8	255.2	255.1	253.6	252.3	251.3	250.5	249.1	247.7	246.1	244.3	242.3	240.1	237.5	234.9	232.5	230.1	227.8	225.7	
Migrants input																							
Migration - Net Flows																							
UK	-101	-318	+1,929	+1,540	+1,125	+1,676	+1,637	+1,602	+1,581	+2,088	+2,057	+2,039	+2,024	+2,122	+2,216	+2,319	+2,292	+2,307	+2,282	+2,228	+2,207	+2,177	
Overseas	+2,262	+681	+688	+652	+867	+721	+753	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	
Summary of population change																							
Natural ch	+1,495	+1,346	+1,490	+1,493	+1,514	+1,532	+1,545	+1,542	+1,545	+1,553	+1,561	+1,564	+1,576	+1,558	+1,535	+1,516	+1,490	+1,458	+1,427	+1,381	+1,341	+1,301	
Net migrati	+2,161	+343	+2,597	+2,192	+1,992	+2,396	+2,390	+2,248	+2,227	+2,734	+2,561	+2,685	+2,670	+2,769	+2,862	+2,965	+2,929	+2,874	+2,853	+2,823	+2,790	+2,750	
Net change	+3,656	+1,689	+4,087	+3,684	+3,505	+3,928	+3,935	+3,791	+3,773	+4,287	+4,265	+4,245	+4,246	+4,327	+4,397	+4,481	+4,428	+4,411	+4,355	+4,255	+4,194	+4,124	
Crude Birth	12.07	12.02	12.02	11.87	11.80	11.78	11.75	11.65	11.55	11.50	11.45	11.40	11.37	11.26	11.16	11.05	10.95	10.85	10.75	10.63	10.54	10.47	
Crude Deat	6.63	7.16	6.69	6.61	6.54	6.52	6.51	6.49	6.44	6.44	6.43	6.44	6.44	6.45	6.48	6.50	6.53	6.58	6.63	6.69	6.76	6.84	
Crude Net I	7.88	1.24	9.27	7.72	6.93	8.23	8.10	7.52	7.36	8.91	8.69	8.52	8.36	8.55	8.72	8.91	8.72	8.65	8.47	8.21	8.05	7.87	
Summary of Population estimates/forecasts																							
Population at mid-year																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	16,045	16,391	16,440	16,464	16,651	16,759	16,907	17,209	17,331	17,456	17,596	17,735	17,869	18,025	18,180	18,317	18,437	18,540	18,619	18,695	18,759	18,822	18,886
5-10	16,985	17,699	18,301	19,072	19,542	20,048	20,464	20,616	20,803	20,887	21,136	21,301	21,500	21,813	21,992	22,186	22,384	22,579	22,774	22,960	23,137	23,299	23,439
11-15	14,252	14,232	14,253	14,301	14,483	14,827	15,185	15,708	16,317	16,916	17,325	17,753	18,039	18,084	18,191	18,406	18,548	18,718	19,021	19,206	19,382	19,556	19,726
16-17	6,242	6,123	5,989	6,251	6,411	6,346	6,362	6,422	6,450	6,633	6,882	7,098	7,348	7,637									

Scenario D: CCC Jobs Forecast, Cambridge

Population Estimates and Forecasts													Nathaniel Lichfield and Partners												
Components of Population Change													Cambridge												
Year beginning July 1st																									
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33			
Births																									
Male	782	786	799	793	789	791	792	787	789	791	794	796	798	793	788	789	784	779	774	770	765	767			
Female	745	749	761	755	752	753	754	750	751	753	756	758	760	756	751	751	746	742	737	733	729	730			
All Births	1,527	1,535	1,560	1,548	1,541	1,544	1,545	1,537	1,540	1,544	1,550	1,555	1,558	1,549	1,539	1,540	1,530	1,521	1,511	1,503	1,494	1,497			
TFR	1.33	1.34	1.36	1.35	1.35	1.36	1.36	1.35	1.35	1.35	1.35	1.35	1.35	1.34	1.33	1.33	1.32	1.31	1.30	1.29	1.28	1.28			
Births input																									
Deaths																									
Male	391	416	389	388	390	388	389	389	389	393	395	399	403	407	413	418	424	431	439	447	456	464			
Female	448	449	414	411	404	408	401	400	399	399	400	401	403	405	409	412	418	422	429	436	443	451			
All deaths	839	866	803	799	794	797	790	789	788	792	796	800	806	813	822	830	842	853	867	884	899	915			
SMR: male	99.2	102.0	93.8	91.3	89.6	87.2	85.4	83.1	80.8	79.3	77.4	75.9	74.4	72.9	71.6	70.3	69.2	68.2	67.2	66.4	65.6	64.7			
SMR: female	99.2	99.8	91.7	89.9	87.3	87.0	84.2	82.6	80.7	79.2	77.7	76.2	74.7	73.3	72.0	70.6	69.6	68.3	67.4	66.7	65.8	65.0			
SMR: persc	99.2	100.8	92.7	90.6	88.4	87.1	84.8	82.8	80.7	79.2	77.6	76.1	74.5	73.1	71.8	70.4	69.4	68.2	67.3	66.5	65.7	64.8			
Expectation	79.7	79.4	80.4	80.8	81.0	81.3	81.6	81.9	82.3	82.5	82.8	83.0	83.3	83.5	83.8	84.0	84.2	84.4	84.5	84.7	84.8	85.0			
Expectation	83.6	83.5	84.5	84.7	85.0	85.0	85.4	85.6	85.9	86.1	86.3	86.5	86.8	87.0	87.2	87.4	87.6	87.8	87.9	88.0	88.2	88.3			
Expectation	81.8	81.5	82.5	82.8	83.1	83.3	83.6	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.5	85.7	85.9	86.1	86.3	86.4	86.6	86.7			
Deaths inp																									
In-migration from the UK																									
Male	6,514	6,981	7,305	6,995	6,867	7,068	7,074	7,044	7,028	7,057	7,018	6,982	6,944	7,003	7,082	7,155	7,213	7,266	7,340	7,360	7,354	7,403			
Female	6,702	6,676	7,126	6,797	6,660	6,833	6,826	6,782	6,758	6,764	6,713	6,676	6,630	6,683	6,751	6,827	6,887	6,941	7,002	7,025	7,023	7,069			
All	13,216	13,857	14,431	13,791	13,527	13,902	13,900	13,826	13,786	13,821	13,731	13,658	13,575	13,686	13,833	13,982	14,101	14,207	14,341	14,385	14,377	14,472			
SMigR: mal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
SMigR: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
Migrants in																									
Out-migration to the UK																									
Male	6,542	6,756	6,937	6,885	6,932	6,969	6,963	6,954	6,935	6,905	6,888	6,834	6,818	6,826	6,870	6,926	6,994	7,067	7,139	7,187	7,233	7,283			
Female	6,901	6,921	6,901	6,833	6,828	6,777	6,734	6,697	6,662	6,611	6,560	6,504	6,463	6,482	6,539	6,593	6,674	6,754	6,821	6,870	6,915	6,966			
All	13,442	13,678	13,838	13,719	13,761	13,746	13,697	13,652	13,597	13,516	13,427	13,338	13,281	13,309	13,409	13,518	13,668	13,821	13,959	14,056	14,148	14,249			
SMigR: mal	72.0	72.8	73.7	72.3	72.3	72.2	71.6	71.0	70.4	69.7	68.9	68.1	67.5	67.1	66.9	66.7	66.6	66.6	66.6	66.4	66.2	66.1			
SMigR: fem	80.7	80.0	79.1	77.8	77.7	77.2	76.3	75.6	75.0	74.3	73.5	72.5	71.6	71.2	71.1	70.9	71.0	71.1	71.2	71.0	70.9	71.0			
Migrants in																									
In-migration from Overseas																									
Male	2,676	2,268	2,274	2,268	2,375	2,303	2,319	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265			
Female	2,073	1,757	1,760	1,757	1,821	1,778	1,787	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755			
All	4,749	4,025	4,034	4,025	4,196	4,081	4,107	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020			
SMigR: mal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
SMigR: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Migrants in																									
Out-migration to Overseas																									
Male	1,533	1,970	1,972	1,974	1,972	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974			
Female	1,248	1,579	1,590	1,582	1,590	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582			
All	2,781	3,548	3,562	3,556	3,562	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556			
SMigR: mal	273.4	344.4	340.0	338.2	336.8	336.4	334.9	332.9	331.5	330.1	328.5	327.0	325.3	323.7	321.6	319.0	316.0	312.9	310.0	307.0	304.1	301.6			
SMigR: fem	304.1	382.0	381.2	380.7	381.1	384.2	384.2	383.6	383.6	383.9	383.7	383.5	382.5	380.8	378.6	376.1	372.9	369.9	367.2	364.5	361.8	359.6			
Migrants in																									
Migration - Net Flows																									
UK	-226	+179	+593	+73	-232	+156	+203	+174	+188	+305	+303	+321	+294	+378	+424	+464	+433	+387	+382	+329	+230	+223			
Overseas	+1,968	+477	+482	+469	+644	+525	+551	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465			
Summary of population change																									
Natural cha	+688	+669	+757	+749	+748	+747	+755	+748	+752	+751	+754	+754	+752	+736	+717	+711	+689	+667	+644	+619	+595	+582			
Net migrati	+1,742	+656	+1,076	+542	+412	+681	+754	+639	+653	+770	+768	+785	+758	+843	+889	+929	+897	+851	+847	+793	+694	+688			
Net change	+2,430	+1,325	+1,833	+1,291	+1,159	+1,428	+1,509	+1,387	+1,406	+1,521	+1,522	+1,540	+1,510	+1,579	+1,606	+1,639	+1,586	+1,519	+1,491	+1,412	+1,290	+1,270			
Crude Birth	12.32	12.20	12.25	12.01	11.84	11.74	11.61	11.44	11.34	11.25	11.17	11.08	11.00	10.81	10.61	10.51	10.33	10.19	9.99	9.84	9.70	9.64			
Crude Dea	6.77	6.88	6.30	6.19	6.10	6.06	5.94	5.87	5.80	5.77	5.73	5.70	5.69	5.67	5.67	5.66	5.68	5.70	5.73	5.79	5.83	5.89			
Crude Netf	14.06	5.21	8.44	4.20	3.16	5.18	5.67	4.76	4.81	5.61	5.54	5.60	5.35	5.88	6.13	6.33	6.06	5.69	5.60	5.20	4.51	4.43			
Summary of Population estimates/forecasts																									
Population at mid-year																									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
0-4	6,622	6,962	7,047	7,207	7,374	7,507	7,544	7,679	7,665	7,664	7,669	7,679	7,690	7,712	7,722	7,719	7,711	7,689	7,654	7,618	7,582	7,537	7,505		
5-10	6,040	6,483	6,894	7,302	7,506	7,788	8,074	8,184	8,420	8,588	8,768	8,903	9,067	9,085	9,104	9,126	9,151	9,177	9,202	9,222	9,226	9,226	9,211		
11-15	5,073	5,136	5,205	5,194	5,309	5,374	5,568	5,868	6,163	6,386	6,614	6,810	7,001	7,113	7,283	7,458	7,590	7,661	7,792	7,826	7,857	7,883	7,910		

Scenario D: CCC Jobs Forecast, South Cambridgeshire

Population Estimates and Forecasts		Nathaniel Lichfield and Partners																					
Components of Population Change		South Cambridgeshire																					
Year beginning July 1st		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Births																							
Male	915	920	924	933	948	965	984	996	1,001	1,016	1,031	1,045	1,062	1,075	1,087	1,094	1,107	1,119	1,131	1,137	1,149	1,155	
Female	871	876	880	889	903	919	937	948	954	967	981	995	1,012	1,024	1,035	1,042	1,054	1,066	1,077	1,083	1,094	1,100	
All Births	1,786	1,796	1,804	1,822	1,852	1,885	1,921	1,944	1,955	1,983	2,012	2,039	2,074	2,099	2,123	2,136	2,161	2,185	2,209	2,221	2,242	2,255	
TFR	2.00	2.03	2.05	2.04	2.04	2.05	2.06	2.06	2.05	2.06	2.06	2.06	2.07	2.07	2.07	2.07	2.07	2.06	2.06	2.06	2.05	2.05	
Births input																							
Deaths																							
Male	494	539	534	544	544	548	565	578	584	596	609	622	636	652	668	681	696	715	732	749	768	789	
Female	485	580	537	544	542	553	566	572	579	586	597	607	614	625	637	650	664	679	694	710	728	748	
All deaths	979	1,119	1,071	1,078	1,085	1,100	1,131	1,150	1,162	1,182	1,205	1,229	1,250	1,277	1,305	1,331	1,360	1,394	1,426	1,459	1,497	1,537	
SMR: male	78.0	82.5	79.1	75.7	73.8	71.2	70.4	69.1	67.0	65.8	64.5	63.3	62.3	61.4	60.5	59.4	58.4	57.8	57.0	56.3	55.8	55.3	
SMR: fema	78.0	89.3	81.2	79.4	76.2	75.0	74.1	72.5	70.9	69.3	68.1	67.0	65.5	64.4	63.3	62.3	61.4	60.6	59.7	58.9	58.5	58.0	
SMR: persc	78.0	85.9	80.1	77.5	75.0	73.1	72.2	70.8	68.9	67.5	66.2	65.1	63.8	62.8	61.8	60.8	59.8	59.1	58.3	57.5	57.1	56.6	
Expectator	82.7	82.0	82.5	83.1	83.4	83.8	84.0	84.2	84.6	84.8	85.1	85.3	85.5	85.7	85.9	86.1	86.3	86.4	86.6	86.8	86.9	87.0	
Expectator	86.3	84.8	85.8	86.1	86.5	86.7	86.8	87.1	87.3	87.6	87.8	88.0	88.3	88.5	88.7	88.8	89.0	89.2	89.3	89.5	89.6	89.7	
Expectator	84.6	83.4	84.3	84.6	85.0	85.3	85.5	85.7	86.0	86.3	86.5	86.7	86.9	87.1	87.3	87.5	87.7	87.8	88.0	88.2	88.3	88.4	
Deaths inp																							
In-migration from the UK																							
Male	4,556	4,140	4,733	4,835	4,816	4,929	4,913	4,929	4,948	5,168	5,188	5,204	5,250	5,202	5,356	5,430	5,473	5,526	5,554	5,589	5,660	5,680	
Female	5,191	5,056	5,090	5,191	5,137	5,236	5,202	5,198	5,203	5,417	5,422	5,425	5,461	5,406	5,558	5,633	5,676	5,732	5,759	5,796	5,870	5,892	
All	9,747	9,196	9,824	10,016	9,953	10,164	10,115	10,126	10,151	10,585	10,610	10,629	10,712	10,708	10,915	11,063	11,149	11,258	11,313	11,385	11,530	11,572	
SMigr: ma	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
SMigr: fem	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Migrants in																							
Out-migration to the UK																							
Male	4,543	4,922	4,037	4,080	4,123	4,156	4,179	4,192	4,227	4,267	4,295	4,320	4,355	4,388	4,429	4,477	4,511	4,538	4,576	4,607	4,638	4,671	
Female	5,079	4,770	4,451	4,470	4,473	4,488	4,502	4,506	4,531	4,535	4,561	4,591	4,626	4,656	4,694	4,730	4,779	4,800	4,837	4,879	4,915	4,947	
All	9,622	9,693	8,488	8,550	8,596	8,644	8,681	8,698	8,758	8,803	8,856	8,911	8,982	9,044	9,123	9,207	9,290	9,338	9,413	9,486	9,553	9,618	
SMigr: ma	60.3	65.5	55.1	54.8	54.5	54.2	53.8	53.3	53.1	53.0	52.5	52.0	51.7	51.4	51.1	50.8	50.4	49.9	49.6	49.3	48.9	48.6	
SMigr: fem	69.6	65.5	60.7	60.3	59.7	59.2	58.7	58.2	57.9	57.4	56.9	56.5	56.1	55.7	55.4	54.9	54.6	54.1	53.7	53.4	53.1	52.7	
Migrants in																							
In-migration from Overseas																							
Male	441	459	460	459	482	466	470	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	
Female	388	404	405	404	420	409	412	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403	
All	829	862	864	862	902	875	881	861	861	861	861	861	861	861	861	861	861	861	861	861	861	861	
SMigr: ma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMigr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants in																							
Out-migration to Overseas																							
Male	296	375	375	376	375	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	
Female	239	303	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	
All	535	678	679	680	679	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	
SMigr: ma	70.5	89.7	93.0	91.7	90.1	89.0	87.7	86.6	85.6	84.7	83.5	82.4	81.3	80.2	79.2	78.1	76.9	75.8	74.6	73.6	72.6	71.6	
SMigr: fem	75.5	96.3	96.6	95.3	93.9	92.8	91.6	90.7	89.9	89.2	88.2	87.1	86.2	85.3	84.3	83.3	82.2	81.0	79.9	78.8	77.8	76.8	
Migrants in																							
Migration - Net Flows																							
UK	+125	-497	+1,336	+1,467	+1,357	+1,520	+1,434	+1,428	+1,392	+1,783	+1,754	+1,718	+1,730	+1,745	+1,791	+1,855	+1,859	+1,920	+1,900	+1,899	+1,977	+1,954	
Overseas	+294	+184	+185	+183	+223	+195	+201	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	
Summary of population change																							
Natural cha	+807	+677	+733	+744	+766	+785	+790	+794	+793	+801	+807	+810	+824	+822	+818	+806	+801	+790	+783	+762	+746	+719	
Net migrati	+419	-313	+1,521	+1,649	+1,580	+1,715	+1,636	+1,609	+1,574	+1,964	+1,936	+1,900	+1,912	+1,926	+1,973	+2,037	+2,041	+2,102	+2,082	+2,081	+2,159	+2,135	
Net change	+1,226	+364	+2,254	+2,393	+2,346	+2,500	+2,426	+2,404	+2,367	+2,765	+2,742	+2,710	+2,736	+2,748	+2,791	+2,842	+2,842	+2,892	+2,865	+2,843	+2,904	+2,854	
Crude Birth	11.87	11.87	11.82	11.77	11.77	11.80	11.85	11.81	11.71	11.70	11.68	11.65	11.67	11.63	11.59	11.48	11.44	11.39	11.35	11.24	11.19	11.10	
Crude Dea	6.51	7.40	7.02	6.96	6.90	6.89	6.98	6.99	6.96	6.97	7.00	7.03	7.04	7.08	7.12	7.15	7.20	7.27	7.33	7.39	7.47	7.56	
Crude Net I	2.78	-2.07	9.97	10.65	10.05	10.74	10.09	9.78	9.43	11.59	11.24	10.86	10.76	10.67	10.77	10.95	10.80	10.96	10.70	10.54	10.77	10.51	
Summary of Population estimates/forecasts																							
Population at mid-year																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	9,423	9,429	9,383	9,257	9,276	9,252	9,362	9,531	9,665	9,792	9,927	10,057	10,179	10,312	10,458	10,599	10,726	10,851	10,965	11,077	11,177	11,285	11,361
5-10	10,945	11,216	11,407	11,769	12,036	12,260	12,391	12,432	12,383	12,298	12,368	12,399	12,534	12,729	12,889	13,060	13,233	13,402	13,572	13,738	13,911	14,073	14,227
11-15	9,179	9,096	9,048	9,108	9,174	9,453	9,616	9,839	10,153	10,530	10,711	10,943	11,038	11,091	11,008	10,958	11,057	11,229	11,380	11,511	11,625	11,872	11,816
16-17	3,818	3,836	3,799	3,786	3,741	3,620	3,649	3,767	3,814	3,855	3,969	4,104	4,191	4,388	4,566	4,534	4,531	4,544	4,455	4,464	4,529	4,580	4,642
18-59Fem	86,540	86,454	85,880	86,874	88,054	89,137	90,345	91,351	92,418	93,4													

Scenario E: Oxford Economics Job Forecast, All Areas

Population Estimates and Forecasts										Nathaniel Lichfield and Partners												
Components of Population Change										All Areas												
Year beginning July 1st																						
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Births																						
Male	1,697	1,706	1,723	1,718	1,721	1,731	1,742	1,741	1,741	1,750	1,761	1,771	1,784	1,786	1,788	1,792	1,795	1,798	1,802	1,801	1,804	1,810
Female	1,616	1,625	1,641	1,636	1,639	1,648	1,659	1,659	1,658	1,666	1,677	1,686	1,699	1,701	1,703	1,706	1,709	1,712	1,716	1,715	1,719	1,724
All Births	3,313	3,331	3,364	3,353	3,359	3,379	3,400	3,400	3,399	3,416	3,438	3,457	3,483	3,487	3,491	3,498	3,504	3,510	3,518	3,516	3,523	3,534
TFR	1.66	1.68	1.70	1.68	1.68	1.69	1.70	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.68	1.68	1.67	1.67	1.66	1.65	1.65	1.64
Births input																						
Deaths																						
Male	885	956	924	921	931	933	951	963	967	982	996	1,012	1,030	1,048	1,068	1,086	1,105	1,130	1,153	1,177	1,204	1,231
Female	933	1,029	951	954	944	958	962	966	971	977	988	999	1,007	1,019	1,032	1,047	1,066	1,085	1,105	1,127	1,151	1,177
All deaths	1,818	1,985	1,874	1,875	1,875	1,891	1,913	1,929	1,938	1,960	1,984	2,011	2,036	2,067	2,101	2,133	2,171	2,215	2,258	2,304	2,354	2,407
SMR: male	86.2	90.0	84.7	81.6	79.7	77.1	75.9	74.2	72.0	70.6	69.1	67.7	66.6	65.4	64.4	63.2	62.1	61.4	60.5	59.8	59.2	58.5
SMR: femal	86.9	93.6	85.5	83.6	80.6	79.7	78.0	76.4	74.6	73.0	71.7	70.4	68.9	67.7	66.5	65.3	64.4	63.4	62.5	61.7	61.1	60.5
SMR: persc	86.5	91.8	85.1	82.6	80.1	78.4	76.9	75.3	73.3	71.8	70.4	69.1	67.7	66.5	65.4	64.2	63.2	62.4	61.5	60.7	60.1	59.5
Expectation	81.4	80.9	81.6	82.1	82.4	82.8	83.0	83.3	83.7	83.9	84.2	84.4	84.6	84.8	85.1	85.3	85.5	85.7	85.8	86.0	86.1	86.3
Expectation	85.0	84.2	85.2	85.5	85.9	86.0	86.3	86.5	86.7	87.0	87.2	87.4	87.7	87.9	88.1	88.3	88.4	88.6	88.8	88.9	89.0	89.2
Expectation	83.3	82.6	83.5	83.9	84.2	84.5	84.7	84.9	85.3	85.5	85.7	86.0	86.2	86.4	86.6	86.8	87.0	87.2	87.3	87.5	87.6	87.7
Deaths input																						
In-migration from the UK																						
Male	11,070	11,121	11,802	11,590	11,439	11,751	11,740	11,721	11,722	11,967	11,946	11,926	11,934	12,034	12,178	12,325	12,426	12,533	12,636	12,693	12,759	12,830
Female	11,893	11,931	11,954	11,714	11,530	11,802	11,759	11,709	11,688	11,905	11,859	11,826	11,816	11,904	12,034	12,186	12,290	12,399	12,489	12,551	12,625	12,695
All	22,963	23,052	23,756	23,304	22,969	23,553	23,499	23,430	23,410	23,873	23,805	23,751	23,750	23,938	24,212	24,511	24,716	24,932	25,125	25,244	25,384	25,525
SMgrR: ma	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SMgrR: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Migrants input																						
Out-migration to the UK																						
Male	11,085	11,679	10,974	10,965	11,055	11,125	11,142	11,146	11,162	11,172	11,163	11,153	11,173	11,214	11,300	11,403	11,504	11,605	11,715	11,794	11,870	11,954
Female	11,980	11,692	11,352	11,303	11,300	11,265	11,235	11,204	11,193	11,147	11,121	11,095	11,089	11,138	11,233	11,323	11,453	11,553	11,657	11,748	11,831	11,913
All	23,064	23,370	22,326	22,268	22,355	22,390	22,350	22,350	22,355	22,319	22,284	22,249	22,263	22,352	22,532	22,726	22,957	23,159	23,372	23,542	23,701	23,867
SMgrR: ma	66.7	69.5	65.5	64.7	64.7	64.6	64.2	63.7	63.4	63.0	62.4	61.8	61.4	61.1	60.9	60.8	60.6	60.4	60.3	60.1	59.9	59.8
SMgrR: fem	75.6	73.4	70.7	70.0	69.7	69.3	68.8	68.2	67.9	67.4	66.8	66.1	65.6	65.2	65.1	64.9	64.8	64.7	64.6	64.5	64.4	64.3
Migrants input																						
In-migration from Overseas																						
Male	3,117	2,727	2,734	2,727	2,856	2,769	2,789	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724	2,724
Female	2,461	2,160	2,165	2,160	2,241	2,187	2,199	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158
All	5,578	4,887	4,898	4,887	5,097	4,956	4,988	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881	4,881
SMgrR: ma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SMgrR: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Migrants input																						
Out-migration to Overseas																						
Male	1,829	2,345	2,347	2,349	2,347	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349	2,349
Female	1,487	1,882	1,884	1,886	1,884	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886	1,886
All	3,316	4,227	4,231	4,235	4,231	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235
SMgrR: ma	186.6	236.8	238.6	237.0	235.3	234.4	232.8	231.2	230.0	228.8	227.1	225.6	224.0	222.4	220.6	218.6	216.3	213.9	211.7	209.5	207.4	205.4
SMgrR: fem	204.6	258.3	258.4	257.5	256.7	257.3	256.5	255.8	255.4	255.2	254.3	253.3	252.2	250.8	249.1	247.2	244.9	242.6	240.5	238.3	236.2	234.3
Migrants input																						
Migration - Net Flows																						
UK	-101	-318	+1,430	+1,036	+614	+1,162	+1,122	+1,080	+1,055	+1,554	+1,521	+1,503	+1,488	+1,586	+1,680	+1,785	+1,759	+1,773	+1,753	+1,702	+1,683	+1,658
Overseas	+2,282	+661	+668	+652	+867	+721	+753	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646	+646
Summary of population change																						
Natural cha	+1,495	+1,346	+1,490	+1,478	+1,485	+1,488	+1,488	+1,471	+1,462	+1,456	+1,453	+1,446	+1,447	+1,420	+1,390	+1,365	+1,333	+1,295	+1,260	+1,211	+1,169	+1,127
Net migrati	+2,161	+343	+2,098	+1,888	+1,481	+1,883	+1,874	+1,726	+1,701	+2,200	+2,167	+2,149	+2,134	+2,233	+2,327	+2,431	+2,405	+2,419	+2,399	+2,348	+2,329	+2,304
Net change	+3,656	+1,689	+3,588	+3,166	+2,965	+3,371	+3,362	+3,197	+3,163	+3,656	+3,621	+3,595	+3,581	+3,650	+3,717	+3,796	+3,738	+3,715	+3,659	+3,560	+3,498	+3,431
Crude Birth	12.07	12.02	12.03	11.85	11.74	11.68	11.62	11.49	11.36	11.29	11.23	11.16	11.11	11.00	10.89	10.78	10.68	10.58	10.48	10.36	10.28	10.21
Crude Deat	6.63	7.16	6.70	6.62	6.55	6.54	6.54	6.52	6.48	6.48	6.48	6.49	6.50	6.52	6.55	6.57	6.62	6.67	6.73	6.79	6.87	6.95
Crude NetI	7.88	1.24	7.50	5.96	5.17	6.51	6.40	5.83	5.69	7.27	7.08	6.94	6.81	7.04	7.26	7.49	7.33	7.29	7.15	6.92	6.80	6.65
Summary of Population estimates/forecasts																						
Population at mid-year																						
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	16,045	16,391	16,440	16,451	16,611	16,679	16,772	17,006	17,048	17,095	17,157	17,223	17,286	17,375	17,465	17,543	17,608	17,661	17,695	17,729	17,757	17,785
5-10	16,985	17,699	18,301	19,032	19,465	19,936	20,321	20,445	20,610	20,663	20,868	20,976	21,106	21,336	21,424	21,527	21,636	21,746	21,859	21,969	22,073	22,169
11-15	14,252	14,232	14,253	14,284	14,466	14,769	15,103	15,597	16,172	16,735	17,109	17,506	17,765	17,936	18,064	18,165	18,282	18,519	18,628	18,731	18,831	18,930
16-17	6,242	6,123	5,989	6,249	6,406	6,334	6,343	6,395	6,415	6,590	6,827	7,029	7,265	7,536	7,773	7,780	7,831	7,958				

Scenario E: Oxford Economics Job Forecast, Cambridge

Population Estimates and Forecasts		Nathaniel Lichfield and Partners																					
Components of Population Change		Cambridge																					
Year beginning July 1st		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Births																							
Male	782	786	799	795	793	796	799	796	799	803	807	811	814	810	806	808	804	799	795	791	787	789	
Female	745	749	761	757	755	758	761	758	761	764	769	772	775	772	768	769	765	761	757	753	750	751	
All Births	1,527	1,535	1,560	1,551	1,548	1,554	1,559	1,554	1,560	1,567	1,576	1,583	1,589	1,582	1,574	1,577	1,569	1,560	1,552	1,544	1,536	1,540	
TFR	1.33	1.34	1.36	1.35	1.35	1.36	1.36	1.35	1.35	1.35	1.35	1.35	1.35	1.34	1.33	1.33	1.32	1.31	1.30	1.29	1.28	1.28	
Births input																							
Deaths																							
Male	391	416	389	388	390	389	390	390	390	394	397	400	405	409	414	419	426	433	441	450	458	467	
Female	448	449	414	411	404	409	401	401	400	400	401	403	404	407	410	414	419	424	431	439	445	453	
All deaths	839	866	803	799	794	798	791	791	790	794	798	803	809	816	825	833	845	857	872	888	904	920	
SMR: male	99.2	102.0	93.8	91.3	89.6	87.2	85.4	83.1	80.8	79.3	77.4	75.9	74.4	72.9	71.6	70.3	69.2	68.2	67.2	66.4	65.6	64.7	
SMR: female	99.2	99.8	91.7	89.9	87.3	84.2	82.6	80.7	79.2	77.7	76.2	74.7	73.3	72.0	70.6	69.6	68.3	67.4	66.7	65.8	65.0		
SMR: persc	99.2	100.8	92.7	90.6	88.4	87.1	84.8	82.8	80.7	79.2	77.6	76.1	74.5	73.1	71.8	70.4	69.4	68.2	67.3	66.5	65.7	64.8	
Expectation	79.7	79.4	80.4	80.8	81.0	81.3	81.6	81.9	82.3	82.5	82.8	83.0	83.3	83.5	83.8	84.0	84.2	84.4	84.5	84.7	84.8	85.0	
Expectation	83.6	83.5	84.5	84.7	85.0	85.0	85.4	85.6	85.9	86.1	86.3	86.5	86.8	87.0	87.2	87.4	87.6	87.8	87.9	88.0	88.2	88.3	
Expectation	81.8	81.5	82.5	82.8	83.1	83.3	83.6	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.5	85.7	85.9	86.1	86.3	86.4	86.6	86.7	
Deaths inpi																							
In-migration from the UK																							
Male	6,514	6,981	7,390	7,071	6,938	7,136	7,140	7,106	7,087	7,113	7,073	7,036	6,998	7,057	7,137	7,210	7,269	7,322	7,395	7,414	7,406	7,454	
Female	6,702	6,876	7,209	6,871	6,728	6,899	6,889	6,842	6,815	6,818	6,765	6,728	6,681	6,735	6,803	6,881	6,940	6,994	7,054	7,076	7,073	7,117	
All	13,216	13,857	14,599	13,942	13,666	14,035	14,029	13,948	13,901	13,931	13,838	13,764	13,679	13,792	13,940	14,091	14,209	14,315	14,448	14,489	14,479	14,571	
SMGr: mal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
SMGr: fem	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Migrants in																							
Out-migration to the UK																							
Male	6,542	6,756	6,937	6,885	6,932	6,969	6,963	6,954	6,935	6,905	6,868	6,834	6,818	6,826	6,870	6,926	6,994	7,067	7,139	7,187	7,233	7,283	
Female	6,901	6,921	6,901	6,833	6,828	6,777	6,734	6,697	6,662	6,611	6,560	6,504	6,463	6,482	6,539	6,593	6,674	6,754	6,821	6,870	6,915	6,966	
All	13,442	13,678	13,838	13,719	13,759	13,746	13,697	13,652	13,597	13,516	13,427	13,338	13,281	13,309	13,409	13,518	13,668	13,821	13,959	14,056	14,148	14,249	
SMGr: mal	72.0	72.8	73.7	72.1	72.0	71.9	71.2	70.4	69.7	69.0	68.2	67.3	66.6	66.2	65.9	65.7	65.6	65.6	65.5	65.3	65.0	64.9	
SMGr: fem	80.7	80.0	79.1	77.6	77.3	76.7	75.7	74.9	74.2	73.5	72.6	71.5	70.6	70.2	70.0	69.8	69.8	69.9	69.9	69.7	69.6	69.7	
Migrants in																							
In-migration from Overseas																							
Male	2,676	2,268	2,274	2,268	2,375	2,303	2,319	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	2,265	
Female	2,073	1,757	1,760	1,757	1,821	1,778	1,787	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	
All	4,749	4,025	4,034	4,025	4,196	4,081	4,107	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	4,020	
SMGr: mal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMGr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants in																							
Out-migration to Overseas																							
Male	1,533	1,970	1,972	1,974	1,972	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	1,974	
Female	1,248	1,579	1,580	1,582	1,580	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	1,582	
All	2,781	3,548	3,552	3,555	3,552	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	
SMGr: mal	273.4	344.4	340.0	337.5	335.5	334.6	332.5	330.0	328.1	326.3	324.4	322.6	320.7	318.8	316.5	314.6	312.7	310.8	308.9	307.4	305.9	295.7	
SMGr: fem	304.1	382.0	381.2	379.8	379.4	381.6	380.9	379.6	378.7	378.0	377.3	376.5	375.9	374.0	371.5	368.8	365.4	362.2	359.4	356.5	353.7	351.4	
Migrants in																							
Migration - Net Flows																							
UK	-226	+179	+481	+223	-94	+289	+332	+297	+305	+415	+411	+426	+398	+483	+531	+573	+542	+495	+489	+433	+331	+323	
Overseas	+1,968	+477	+672	+469	+644	+525	+551	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	+465	
Summary of population change																							
Natural cha	+688	+669	+757	+752	+754	+756	+768	+764	+771	+772	+778	+780	+780	+786	+799	+744	+723	+703	+680	+656	+633	+620	
Net migrati	+1,742	+656	+1,243	+693	+550	+815	+883	+761	+769	+880	+875	+891	+863	+948	+696	+1,038	+1,006	+959	+954	+898	+796	+787	
Net change	+2,430	+1,325	+2,000	+1,445	+1,304	+1,571	+1,651	+1,525	+1,540	+1,652	+1,653	+1,671	+1,644	+1,715	+1,745	+1,762	+1,730	+1,662	+1,634	+1,554	+1,429	+1,408	
Crude Birth	12.32	12.20	12.24	12.01	11.86	11.77	11.67	11.50	11.41	11.33	11.26	11.18	11.09	10.91	10.73	10.62	10.44	10.27	10.10	9.95	9.81	9.74	
Crude Deat	6.77	6.88	6.30	6.19	6.08	6.04	5.92	5.85	5.77	5.74	5.70	5.67	5.65	5.63	5.62	5.61	5.63	5.64	5.67	5.72	5.77	5.82	
Crude Net I	14.06	5.21	9.75	5.36	4.22	6.17	6.61	5.63	5.63	5.63	5.57	5.48	5.42	5.28	5.11	5.01	4.81	4.63	4.45	4.23	4.04	3.92	
Summary of Population estimates/forecasts																							
Population at mid-year																							
0-4	6,622	6,962	7,047	7,208	7,380	7,520	7,568	7,716	7,719	7,734	7,755	7,780	7,806	7,843	7,866	7,874	7,877	7,866	7,839	7,810	7,781	7,741	
5-10	6,040	6,483	6,894	7,3																			

Scenario E: Oxford Economics Job Forecast, South Cambridgeshire

Population Estimates and Forecasts													Nathaniel Lichfield and Partners												
Components of Population Change													South Cambridgeshire												
Year beginning July 1st																									
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33			
Births																									
Male	915	920	924	923	928	935	943	945	942	947	954	960	970	976	982	984	991	999	1,007	1,010	1,017	1,021			
Female	871	876	880	879	884	890	898	900	897	902	908	914	924	929	935	937	944	951	959	962	969	973			
All Births	1,786	1,796	1,804	1,802	1,811	1,825	1,841	1,846	1,839	1,849	1,862	1,874	1,894	1,905	1,917	1,921	1,935	1,950	1,966	1,971	1,986	1,994			
TFR	2.00	2.03	2.05	2.04	2.04	2.05	2.06	2.06	2.05	2.06	2.06	2.06	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.05	2.05	2.04			
Births input	*																								
Deaths																									
Male	494	539	534	533	541	544	560	572	577	588	600	612	625	639	654	666	679	697	712	728	745	764			
Female	485	580	537	543	539	549	561	566	571	577	587	596	602	612	622	634	647	661	674	688	705	723			
All deaths	979	1,119	1,071	1,076	1,081	1,093	1,122	1,138	1,148	1,165	1,187	1,208	1,227	1,251	1,276	1,300	1,326	1,358	1,386	1,416	1,451	1,487			
SMR: male	78.0	82.5	79.1	75.7	73.8	71.2	70.4	69.1	67.0	65.8	64.5	63.3	62.3	61.4	60.5	59.4	58.4	57.8	57.0	56.3	55.8	55.3			
SMR: female	78.0	89.3	81.2	79.4	76.2	75.0	74.1	72.5	70.9	69.3	68.1	67.0	65.5	64.4	63.3	62.3	61.4	60.6	59.7	58.9	58.5	58.0			
SMR: persc	78.0	85.9	80.1	77.5	75.0	73.1	72.2	70.7	68.9	67.5	66.2	65.1	63.8	62.8	61.8	60.8	59.8	59.1	58.3	57.5	57.1	56.6			
Expectation	82.7	82.0	82.5	83.1	83.4	83.8	84.0	84.2	84.6	84.8	85.1	85.3	85.5	85.7	85.9	86.1	86.3	86.4	86.6	86.8	86.9	87.0			
Expectation	86.3	84.8	85.8	86.1	86.5	86.7	86.8	87.1	87.3	87.6	87.8	88.0	88.3	88.5	88.7	88.8	89.0	89.2	89.3	89.5	89.6	89.7			
Expectation	84.6	83.4	84.3	84.6	85.0	85.3	85.5	85.7	86.0	86.3	86.5	86.7	86.9	87.1	87.3	87.5	87.7	87.8	88.0	88.2	88.3	88.4			
Deaths inp	*																								
In-migration from the UK																									
Male	4,556	4,140	4,412	4,519	4,501	4,615	4,600	4,614	4,635	4,854	4,873	4,890	4,936	4,977	5,041	5,114	5,157	5,211	5,241	5,280	5,353	5,376			
Female	5,191	5,056	4,745	4,843	4,802	4,903	4,870	4,867	4,874	5,087	5,094	5,098	5,135	5,169	5,231	5,305	5,349	5,405	5,435	5,475	5,552	5,577			
All	9,747	9,196	9,158	9,362	9,303	9,517	9,471	9,481	9,509	9,941	9,967	9,987	10,071	10,147	10,276	10,419	10,507	10,616	10,676	10,755	10,905	10,953			
SMgr: ma	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
SMgr: fem	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2			
Migrants in	*																								
Out-migration to the UK																									
Male	4,543	4,922	4,037	4,080	4,123	4,156	4,179	4,192	4,227	4,267	4,295	4,320	4,355	4,388	4,429	4,477	4,511	4,538	4,576	4,607	4,638	4,671			
Female	5,079	4,770	4,451	4,470	4,473	4,488	4,502	4,506	4,531	4,535	4,561	4,591	4,626	4,656	4,694	4,730	4,779	4,800	4,837	4,879	4,915	4,947			
All	9,622	9,693	8,488	8,550	8,596	8,644	8,681	8,698	8,758	8,803	8,856	8,911	8,982	9,044	9,123	9,207	9,290	9,338	9,413	9,486	9,553	9,618			
SMgr: ma	60.3	65.5	55.1	55.2	55.3	55.3	55.2	55.0	55.1	55.2	55.0	54.8	54.7	54.6	54.5	54.4	54.2	53.9	53.7	53.5	53.3	53.1			
SMgr: fem	69.6	65.5	60.7	60.8	60.6	60.6	60.4	60.2	60.3	60.1	59.9	59.8	59.7	59.5	59.3	59.1	59.0	58.6	58.4	58.3	58.2	58.0			
Migrants in	*																								
In-migration from Overseas																									
Male	441	459	460	459	482	466	470	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458			
Female	388	404	405	404	420	409	412	403	403	403	403	403	403	403	403	403	403	403	403	403	403	403			
All	829	862	864	864	902	875	881	861	861	861	861	861	861	861	861	861	861	861	861	861	861	861			
SMgr: ma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
SMgr: fem	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Migrants in	*																								
Out-migration to Overseas																									
Male	296	375	375	376	375	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376			
Female	239	303	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304			
All	535	678	679	680	679	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680			
SMgr: ma	70.5	83.7	83.0	82.5	81.6	81.1	80.4	80.9	80.5	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2			
SMgr: fem	75.5	86.3	86.6	86.3	85.7	85.5	85.0	84.8	84.7	84.6	84.1	83.5	83.0	82.4	81.8	81.0	80.2	79.3	78.3	77.4	76.9	76.9			
Migrants in	*																								
Migration - Net Flows																									
UK	+125	-497	+669	+813	-708	+873	+790	+783	+750	+1,139	+1,111	+1,076	+1,090	+1,103	+1,149	+1,212	+1,217	+1,278	+1,264	+1,269	+1,352	+1,335			
Overseas	+294	+184	+185	+183	+223	+195	+201	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182	+182			
Summary of population change																									
Natural cha	+807	+677	+733	+726	+731	+732	+720	+708	+691	+684	+675	+666	+667	+654	+641	+621	+609	+592	+580	+555	+536	+507			
Net migrati	+419	-313	+855	+965	+930	+1,068	+991	+965	+932	+1,320	+1,292	+1,262	+1,251	+1,284	+1,331	+1,394	+1,398	+1,460	+1,445	+1,450	+1,533	+1,517			
Net change	+1,226	+364	+1,587	+1,721	+1,661	+1,800	+1,711	+1,673	+1,623	+2,004	+1,967	+1,924	+1,938	+1,938	+1,971	+2,015	+2,008	+2,052	+2,025	+2,006	+2,069	+2,023			
Crude Birth	11.87	11.87	11.85	11.71	11.64	11.60	11.58	11.48	11.32	11.26	11.20	11.14	11.13	11.07	11.02	10.91	10.87	10.83	10.80	10.71	10.67	10.60			
Crude Deat	6.51	7.40	7.04	6.99	6.95	6.95	7.05	7.08	7.07	7.10	7.14	7.19	7.21	7.27	7.34	7.39	7.45	7.54	7.61	7.69	7.80	7.91			
Crude NetI	2.78	-2.07	4.81	6.47	5.98	6.79	6.23	6.00	5.74	8.04	7.77	7.48	7.47	7.47	7.65	7.92	7.86	8.11	7.94	7.88	8.24	8.06			
Summary of Population estimates/forecasts																									
Population at mid-year																									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
0-4	9,423	9,429	9,393	9,243	9,232	9,159	9,204	9,291	9,329	9,361	9,403	9,444	9,480	9,532	9,600	9,669	9,731	9,795	9,856	9,919	9,976	10,044	10,105		
5-10	10,945	11,216	11,407	11,226	11,952	12,138	12,236	12,248	12,175	12,056	12,074	12,037	12,089	12,186	12,236	12,298	12,364	12,429	12,500	12,574	12,659	12,742	12,824		
11-15	9,179	9,096	9,048	9,087	9,132	9,388	9,524	9,716	9,994	10,331	10,476	10,675	10,742	10,653	10,570	10,576	10,537	10,573	10,627	10,704	10,842	10,941	10,901		
16-17	3,618	3,636	3,799	3,779	3,727	3,598	3,620	3,730	3,769	3,800	3,902	4,022	4,093	4,273	4,433	4,390	4,379	4,383	4,287	4,286	4,329	4,347	4,374		
18-59Feme	86,540	86,454	85,880	86,345	87,005	87,573	88,270	88,770	89,331	89,930	90,536	91,181	91,805	92,390	93,075	93,852	94,621	95,333	96,069						

Appendix 3 Market Signals Comparator Data

	Land Prices	House Prices		Rents		Affordability Ratio		Overcrowding	
Rank	£ per ha Bulk Residential Land 2010	Median (2013)	Change % (1996-2013)	Median Monthly Rent Q1 2014	Change % (Q2 2011-Q1 2014)	Ratio 2013	Change (1998-2012)	% of Housing Over-Occupied	Change 2001-2011 (% points)
Cambridge	£5,120,000	£308,000	231%	£850	6.9%	10.3	101%	14.1%	16.6%
England	£1,770,000	£187,000	182%	£570	4.4%	6.5	81%	8.7%	22.7%
Oxford	£5,000,000	£287,750	188%	£950	4.7%	10.2	70%	13.9%	17.9%
Chelmsford	£3,700,000	£229,498	206%	£725	0%	8.7	114%	5.8%	33.5%
Basingstoke	£1,772,000	£225,000	156%	£775	3.3%	7.7	71%	5.5%	27.7%
Reading	~	£201,950	169%	£825	10.0%	7.6	85%	13.6%	24.3%
Crawley	~	£201,500	158%	£850	13.3%	7.3	73%	9.8%	29.5%
Ashford	~	£195,000	162%	£695	6.9%	8.1	86%	5.2%	13.6%
Southend	~	£186,000	221%	£650	4.8%	7.2	116%	9.6%	25.4%
Milton Keynes	~	£185,000	194%	£738	9.3%	6.7	94%	9.6%	25.4%
Harlow	~	£177,500	155%	£725	3.6%	7.5	93%	10.0%	21.3%
Stevenage	£1,800,000	£172,000	165%	£725	7.4%	7.2	89%	7.9%	24.4%
Norwich	£2,535,000	£147,000	220%	£595	8.2%	6.3	113%	7.6%	18.2%
Ipswich	£1,800,000	£137,000	180%	£475	5.6%	5.8	76%	8.6%	37.7%
Peterborough	£1,400,000	£135,000	181%	£550	4.8%	5.6	101%	8.4%	50.0%
Source:	VOA Property Market Report (Note some areas not covered)	CLG Live Table 586		VOA Private Market Rental Statistics		CLG live Table 576		Census 2001/2011	



**Nathaniel Lichfield
& Partners**

Planning. Design. Economics.

-  Applications & Appeals
-  Climate Change & Sustainability
-  Community Engagement
-  Daylight & Sunlight
-  Economics & Regeneration
-  Environmental Assessment
-  Expert Evidence
-  GIS & Graphics
-  Heritage
-  Property Economics
-  Site Finding & Land Assembly
-  Strategy & Appraisal
-  Urban Design

Cardiff
029 2043 5880

Leeds
0113 397 1397

London
020 7837 4477

Manchester
0161 837 6130

Newcastle
0191 261 5685

nlpplanning.com