

Strategic Housing Market

Assessment

Central Lincolnshire

July 2015

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Executive Summary

1. This report represents a new Strategic Housing Market Assessment (SHMA) for the Central Lincolnshire authorities of Lincoln, North Kesteven and West Lindsey. The research has been undertaken by Turley in partnership with specialist demographic consultancy Edge Analytics.
2. The preparation of a new SHMA for Central Lincolnshire will enable the development of the housing strategy in the emerging Local Plan, informed by a robust and detailed understanding of the levels and details of housing need across the housing market area in conformity with guidance outlined in the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).
3. The PPG highlights the importance of considering housing needs across housing market area geographies, recognising that this often extends beyond local authority boundaries. This report includes analysis of a range of spatial indicators – as per the PPG – to confirm that Lincoln, North Kesteven and West Lindsey can be jointly considered as a single housing market area. The analysis clearly highlights the strong relationship between the three authorities, with a high proportion of moves self-contained within this area, common house price characteristics – and limited overlap with prices in neighbouring areas – and a strong containment of labour, with Lincoln playing a significant role as an employment centre. This is recognised within the Economic Needs Assessment (ENA), which considers the three authorities to comprise a functional economic market area (FEMA).
4. With the geography for assessment established, the ‘starting point’ for assessing housing need – as per the PPG – is the latest official household projections published by DCLG. The level of projected housing need suggested by these projections following the PPG methodology should however be adjusted to reflect:
 - local demographic factors and evidence, recognising that the household projections may require adjustment to reflect factors affecting local demography and household formation;
 - the need to take into account appropriate market signals, including market indicators of the balance between the demand for and supply of dwellings; and
 - the need to support economic growth based upon an assessment of likely future job growth.
5. The SHMA has applied a methodological stepped process – aligned with the PPG – to derive an evidenced position as to the likely objectively assessed need (OAN) for Central Lincolnshire.

The Demographic ‘Starting Point’

6. The 2012 sub-national household projections (SNHP) were released in February 2015. The SHMA has translated the 2012 SNHP into a projection of housing need, identifying that this translates into a need for approximately 970 dwellings per annum across Central Lincolnshire.

7. Analysis of the underpinning demographic assumptions within the 2012 sub-national population projections (SNPP) in Central Lincolnshire has revealed that the projections of population change – and in particular the migration component – imply a comparatively low level of population growth in the context of recent historic trends. This recognises that the trend-based projections are primarily based on analysis of population data over the period 2007 – 2012, with this period defined by the severe national recession that occurred. This has had an impact on net migration flows for many parts of the country over this period, subsequently affecting the scale of projected population change modelled within the population projections.
8. The 2012 SNHP implies a significantly lower projection of underpinning population growth than that implied by shorter and longer term extrapolations of historic trends¹. The analysis has identified that an important contributing factor to this lower projection of population growth is an assumption around increased outflows of people to other parts of the UK within the ONS projection, beyond that seen over those years following the recession. Based on the analysis of historic population change in this report, this suggests a departure from historic trends, and therefore on the basis of the local evidence around historic population growth, a number of alternative demographic trend-based projections have been modelled by Edge Analytics.
9. On the basis of this analysis, the SHMA identifies a more appropriate projection of future need associated with demographic trends based upon a 10 year period of population data. This projection therefore extrapolates forward future projected growth on the basis of the longer term ten year period back to 2002, therefore encompassing pre and post-recession conditions. In addition, recognising the under-count in population in Central Lincolnshire by the ONS between the Census years, the modelling has also taken into account a modest uplift associated with the unattributable population change (UPC) component in the historic mid-year population estimates. Application of the 2012 household formation rates to this variant population projection and consistent vacancy rates suggests an increased demographically derived housing need of approximately 1,400 dwellings per annum on average.

Taking Account of Market Signals

10. The SHMA has analysed market signals in detail. This analysis has identified that there is some evidence of a slight worsening of conditions against a number of market signals (although not all). On this basis, the conclusion is reached that there is a justification for only a modest uplift above that implied by household projections alone.
11. Detailed analysis of the underpinning household formation rates of different age groups within the 2012 SNHP has identified that younger age groups have seen household formation rates fall between the Census years in Central Lincolnshire. A sensitivity test was run by Edge Analytics on household formation rates to assess the impact of a return or recovery to rates seen in 2001 for those identified age groups. This is considered to be a period where the relationship between house prices and earnings was more in line with longer term national trends.
12. The modelling suggested that this would result in a higher level of housing need in the area, due to an assumed increase in household formation rates amongst younger

¹ As shown in Figure 6.3

households. This translates into a suggested longer-term demographic need for **1,432 dwellings per annum**. The adjustment to headship rates in response to the analysis of market signals represents an uplift of 3% from the adjusted demographic projection using the 2012 SNHP headship rates. Combined with the uplift associated with population growth, this level of uplift is considered to form a reasonable basis for understanding the scale of need implied by demographic factors, whilst taking account of market signals evidence.

Taking Account of Likely Change in Job Numbers and Growth of the Labour Force

13. The NPPF expects local authorities to ensure an alignment between housing and employment policy. The PPG states that this should be considered when establishing an OAN by ensuring that the growth in labour force required to support likely job growth can be accommodated through the growth of the population and associated housing needs.
14. The Central Lincolnshire authorities commissioned the Central Lincolnshire Economic Needs Assessment² (ENA) which has been undertaken in parallel with the SHMA. The ENA has included a detailed consideration of three sets of economic forecasts from leading forecasting houses, in order to make direct comparisons between the scale and distribution of forecast growth and decline in different business sectors across the area. The ENA recommends a baseline level of likely forecast employment growth for Central Lincolnshire. The ENA recognises the limitations associated with forecasting long-term employment growth and the level of uncertainty which is highlighted by differences in the baseline economic forecasts that have been considered. On this basis, the ENA also presents two variant forecasts, both of which forecast higher levels of job growth than the Oxford Economics baseline forecast. This followed a detailed consideration of trends over the most recent historic growth period – between 1998 and 2008 – as well as more recent economic trends and local intelligence gathered through consultation with key employers and local partners.
15. The SHMA has sought to assess the implications of accommodating the levels of job growth identified within the ENA and confirmed that an uplift to the projected growth in Central Lincolnshire population – from that assumed within the demographic projection – is reasonable to support such forecast levels of job growth.
16. Under the baseline forecast scenario, the modelling indicates that around 1,540 dwellings per annum³ would enable a larger growth of the labour force in the area to match the anticipated scale of job growth across Central Lincolnshire. This recognises the ageing of the current workforce and suggests a slightly higher level of migration into the area than implied under the demographic trend-based projections.
17. The modelling indicates that in order to support and realise the higher levels of job growth implied by the adjusted economic scenarios presented within the ENA, a higher level of labour-force growth would be required. This in turn implies a higher level of net migration per annum and therefore population growth. In order to support the economic prospects represented by the two adjusted ENA scenarios (Lower and Higher Growth

² Turley/Ekosgen (2015) Central Lincolnshire Economic Needs Assessment

³ This also includes an uplift to allow for an adjustment to household formation rates for younger age groups, as set out in Figure 6.22

rates), there is potentially a need to provide for between 1,681 and 1,780 dwellings per annum.

18. The assessed level of need under the employment-led scenarios evidently represents an upward adjustment from the demographic based projection of need, representing an increase of between approximately 7.5% and 24%.

Affordable Housing Need

19. The SHMA also considers a separate PPG compliant calculation of the need for affordable housing in the housing market area. The SHMA identifies a need to provide around 676 affordable units per annum to meet newly arising need in the future, which will require an uplift – to 911 units per annum – over the short-term (5 years 2014 – 2019) to meet the existing backlog of households on the housing register. Taking these figures together, this would suggest a need for 17,400 affordable homes over the 24 year period from 2012 to 2036, equivalent to approximately 725 affordable dwellings annually on average
20. The provision of this level of affordable housing would represent 51% of the implied need under the Past Growth Scenario. The higher levels of provision implied by the various ENA aligned employment-led scenarios would potentially reduce the proportion of housing represented by affordable housing to between 40% and 47%. These would evidently represent challenging levels of provision across Central Lincolnshire on the basis of historic rates of development.
21. Whilst this comparison of affordable need to the modelled projections of total need – associated with demographic and economic factors – provides useful context, the approach to calculating each is fundamentally different. It is recognised within the SHAM that the calculation of affordable housing need includes steps in the calculation in which the provision of affordable housing would directly result in existing housing being freed up for other households. The consideration of the need to deliver an uplift in affordable housing does, however, add further weight to the importance of planning for an uplifted level of provision above that suggested by the ‘starting point’ household projections.

Overall Housing Need

22. The analysis in the SHMA has confirmed that whilst the 2012 SNHP form the starting point for assessing housing need, they are not considered to represent the full assessment of need for housing across Central Lincolnshire over the plan period.
23. It is apparent that the 2012 SNPP assume a level of future population growth which is lower than that seen over a recent historical period, and this is important to consider given that this is an important factor in the projected level of need under this scenario. In particular, it is apparent that the projections imply a sustained level of net migration into Central Lincolnshire which falls below recent and longer-term historic levels. This is underpinned by a sustained high level of out-migration to other parts of the UK, contrasting with historic evidence and the wider understanding of the operation of the housing market. The reduction in the levels of housing completed in the housing market area following the onset of the recession – as well as the reduction in employment opportunities – are both likely to have contributed to changing levels of population growth, by impacting on the rate at which people have migration in and out of the area and the capacity of households to form.

24. Analysis of local historic demographic data and the running of alternative demographic projections using longer historic periods to build trends – and a recognition of the implications of under-estimation of population growth between the Census years (UPC) – have been used to derive a more robust demographic assessment of housing need.
25. A detailed review of market signals evidence also suggests that the extent to which households are assumed to be able to form (household formation rates) reflects a partially constrained position in the DCLG published 2012 SNHP. The application of adjustments to household formation rates is therefore considered appropriate to reflect a return to more positive rates of formation for younger household groups. This recognises the justification for a moderate uplift associated with the other market signals analysis.
26. The SHMA identifies a demographic derived need for 1,432 dwellings per annum. This assessed level of need factors in a 3% uplift associated with the adjustments to household formation rates to reflect the evidenced assessment of market signals. The use of a longer-term period from which to derive projections of need also ensures that the impact of historic undersupply is reflected in an assumed higher level of future migration within the projections, reflecting both pre and post-recession periods. This represents an uplift of approximately 47% above the assessment of need derived directly from the 2012 SNHP, with this uplift largely a result of assumptions around levels of population growth and migration levels which are more in line with historic trends.
27. The modelling undertaken by Edge Analytics in the SHMA suggests that the above recommended demographic scenario will support approximately 460 jobs per annum⁴. Analysis presented within the ENA, however, suggests that Central Lincolnshire has the potential to see a stronger level of job growth, with the level of job growth attributed to the adjusted demographic scenario falling slightly below recent historic averages⁵. The modelling undertaken by Edge Analytics – which includes the adoption of a series of prudent economic assumptions – implies that a further uplift in population growth and therefore housing need will be required to support the implied stronger baseline level of job growth (approximately 630 jobs per annum⁶). The modelling suggests a need for a minimum of 1,540 dwellings per annum to support this baseline level of job growth identified within the ENA.
28. The ENA identifies that local analysis suggests that there exists a potential stronger level of job growth beyond the recommended baseline forecast in Central Lincolnshire. The Adjusted scenarios within the ENA suggest the potential to realise between approximately 820 and 940 jobs per annum (Lower and Higher Adjusted scenarios respectively) to 2036. These levels of job growth are more closely aligned to that seen in the ten years preceding the recession in 2008. The Edge Analytics modelling suggests that supporting these stronger levels of job growth would generate a need for up to 1,780 dwellings per annum. It is noted that the modelling underpinning this assessment

⁴ The exact figures are included at Figure 6.21

⁵ The ENA identifies that between 1998 and 2008 Central Lincolnshire saw an average growth of 870 jobs per annum (ABI). However, between 2009 and 2012 the area saw a fall in 1,540 jobs on average per annum (BRES). Whilst the sources of data are different across the two periods this suggests an average job growth of approximately 500.

⁶ Extrapolated job growth forecasts are presented in Figure 4.26

is subject to sensitivities in the economic assumptions used and, more generally, the performance of the local economy will need to be monitored in the future.

29. Application of the PPG methodology therefore suggests that the OAN for the Central Lincolnshire housing market area falls within a range of 1,432 dwellings per annum to 1,780 dwellings per annum over the period 2012 – 2036.
30. This range of implied need should be considered as the OAN for the housing market area where there are no identified development constraints. The bottom end of this range takes full account of adjustments for local evidenced longer-term demographic projections and an adjustment to household formation rates for younger households to respond to market signals. This level of need represents only a modest boosting of long-term housing supply levels. The implied level of population growth at the lower end of the range will support the growth of the economy, albeit at a level which falls slightly below the scale of job growth seen on average pre and post-recession.
31. In order to support higher levels of job growth – responding to the assessment of potential likely change in numbers concluded within the ENA – a larger growth in the labour force is likely to be required, which in turn results in a higher need for housing. Responding to the assessment of likely job growth in the ENA suggests an uplift to the range to provide for between 1,540 and 1,780 dwellings per annum over the period 2012 – 2036. The implied higher level of provision would also represent a more significant boost to housing numbers representing a return to development levels seen briefly prior to the recession and a return to the stronger profile of net migration into the HMA in this period.

Specific Housing Requirements of Selected Groups

32. The SHMA has also considered the specific needs of different groups, as required by national guidance. The report has specifically focused on the needs of several groups, noting that the NPPF does not require every group to be assessed in detail:
 - **Older persons** – Central Lincolnshire has seen significant growth in older persons, which is expected to continue under all of the scenarios modelled by Edge Analytics. It is notable, however, that a clear majority of residents aged 65 and over continue to live in private households, rather than communal establishments such as care homes, although the PPG does require specific consideration to be given to the level of need for residential institutions within Use Class C2. All modelled scenarios project growth in the communal population, which – in line with national datasets – is entirely attributable to people aged 75 and over. The modelling therefore includes an additional need for bedspaces within communal establishments to accommodate those persons who do not live in private households;
 - **Students** – there is a significant student population in Lincoln, driven by the presence of the University of Lincoln and Bishop Grosseteste University, although student numbers in the former have not seen significant growth over recent years. The demographic scenarios modelled by Edge Analytics, therefore, are not based on trends during which significant growth in student numbers has occurred. Should the student population grow significantly in the future, this could result in a greater level of population growth in Central Lincolnshire, particularly compared to

the demographic migration-led scenarios. This would evidently have implications for the future need for student accommodation within the housing market, although this is also dependent on the planned supply response of Universities;

- **People with disabilities** – the Census shows that the majority of residents in Central Lincolnshire whose day-to-day activities are limited a lot by their long-term health problem or disability do not live in communal establishments, suggesting that they live at home or with relatives, friends or carers. This suggests an on-going need to ensure that there is a sufficient supply of adapted homes, through the Disabled Facilities Grant or other initiatives;
- **Black and Minority Ethnic** – Central Lincolnshire contains a relatively high proportion of White British residents, although it is important to note that other ethnic groups – particularly mixed ethnic groups – are largely characterised by a **younger** demographic. Other ethnic groups also have a greater reliance upon the private rented sector, with overcrowding more frequent;
- **Ministry of Defence** – Lincolnshire has a long-standing association with the military, with several RAF bases located in Central Lincolnshire. The number of stationed personnel in the area has remained relatively steady historically, with the military population living either on bases or clustered in local communities. Bases could expand in the future, although it is unclear at the time of writing the impact that this could have on the total military population and the local housing market. Therefore, any growth in the military population has not been factored in to the modelling undertaken by Edge Analytics, and should be considered by the Councils through continuing discussions with the RAF; and
- It will also be important for the Councils to consider the potential for **self-build homes** to meet specific needs, particularly recognising the Government's ambition to increase the contribution of this type of development. The needs of Gypsies and Travellers will also need to be considered, as detailed in the separate Gypsy and Traveller Accommodation Assessment.

1. Introduction

- 1.1 This report represents a new Strategic Housing Market Assessment (SHMA) for the Central Lincolnshire authorities of Lincoln, North Kesteven and West Lindsey. The research has been undertaken by Turley in partnership with specialist demographic consultancy Edge Analytics.

Purpose of the SHMA

- 1.2 The preparation of a new SHMA for Central Lincolnshire will enable the development of the housing strategy in the emerging Local Plan, informed by a robust and detailed understanding of the levels and details of housing need across the housing market area.
- 1.3 Since publication of the previous SHMA in 2010, there has been a changing national policy agenda, with the National Planning Policy Framework (NPPF)⁷ and web-based Planning Practice Guidance (PPG)⁸ providing further guidance on the assessment of housing needs.

National Planning Policy Framework

- 1.4 The National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government (DCLG) in March 2012 – after the publication of the previous SHMA – and sets out guidance on preparing this evidence. Firstly, it is important to recognise that the NPPF is built around a policy commitment to achieving sustainable development. A ‘*presumption in favour of sustainable development*’ is at the heart of the NPPF, requiring local authorities to adopt a positive approach in the development of their Local Plans in order to ‘*seek opportunities to meet the development needs of an area*’⁹.
- 1.5 Further clarification is provided through the core planning principles set out in paragraph 17 of the Framework. Importantly, this includes the following requirement that planning should:

*“Proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business and other development needs of an area, and respond positively to wider opportunities for growth. Plans should take account of market signals, such as land prices and housing affordability, and set out a clear strategy for allocating sufficient land which is suitable for development in their area, taking account of the needs of the residential and business communities”*¹⁰

- 1.6 On the issue of housing, the Framework states that, in order to boost the supply of housing, local authorities should:

⁷ DCLG (2012) National Planning Policy Framework

⁸ <http://planningguidance.planningportal.gov.uk>

⁹ DCLG (2012) National Planning Policy Framework (para 14)

¹⁰ *Ibid* (para 17)

“Use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework”¹¹

1.7 This is qualified further in paragraph 14, which states that:

“Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to change unless:

- any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or*
- specific policies in this Framework indicate development should be restricted.”¹²*

1.8 The Framework provides further guidance on the use of a proportionate evidence base, stating that:

“Each local planning authority should ensure that the Local Plan is based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics and prospects of the area. Local planning authorities should ensure that their assessment of and strategies for housing, employment and other uses are integrated, and that they take full account of relevant market and economic signals”¹³

1.9 The NPPF explains that a number of drivers and datasets should be considered when establishing this estimate of the objectively assessed housing need:

“Local planning authorities should have a clear understanding of housing needs in their area. They should:

- Prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries. The Strategic Housing Market Assessment should identify the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period which:*
 - Meets household and population projections, taking account of migration and demographic change;*
 - Addresses the need for all types of housing, including affordable housing and the needs of different groups...; and*
 - Caters for housing demand and the scale of housing supply necessary to meet this demand”¹⁴*

¹¹ *Ibid* (para 47)

¹² *Ibid* (para 14)

¹³ *Ibid* (para 158)

¹⁴ *Ibid* (para 159)

Planning Practice Guidance

- 1.10 The NPPF recognises that local authorities are required to undertake an assessment of the need for housing, identifying the SHMA as the central evidence based document for establishing objectively assessed housing needs.
- 1.11 In March 2014, DCLG released a full set of new national Planning Practice Guidance (PPG) notes, in response to the Taylor Review. This replaced the previous beta version, which was released in August 2013, and the final version included a number of updates but largely retained the content of the beta version. Of particular relevance to the calculation of the objectively assessed needs of an area is the publication of the guidance note titled *'Housing and economic development needs assessments'*.
- 1.12 The PPG sets out a framework that local authorities can follow to develop a good understanding of how housing markets operate, in line with the requirements of the NPPF. It retains the core methodological processes set out in the 2007 DCLG Guidance¹⁵ – which the PPG now supersedes – whilst providing additional clarity on the methodology required to establish objectively assessed need within a housing market area.
- 1.13 Clarification is provided within the PPG around the 'definition of need':
- "Need for housing in the context of the guidance refers to the scale and mix of housing and the range of tenures that is likely to be needed in the housing market area over the plan period – and should cater for the housing demand of the area and identify the scale of housing supply necessary to meet that demand"*¹⁶
- 1.14 A clear distinction is made between the 'objective assessment of need' and the development of planning policy to seek to provide for future needs:
- "The assessment of development needs is an objective assessment of need based on facts and unbiased evidence. Plan makers should not apply constraints to the overall assessment of need, such as limitations imposed by the supply of land for new development, historic under performance, viability, infrastructure or environmental constraints. However, these considerations will need to be addressed when bringing evidence bases together to identify specific policies within development plans"*¹⁷
- 1.15 With regards to the calculation of need, the PPG states:
- "There is no one methodological approach or use of a particular dataset(s) that will provide a definitive assessment of development need. But the use of this standard methodology is strongly recommended because it will ensure that the assessment findings are transparently prepared. Local planning authorities may consider departing from the methodology, but they should explain why their particular local circumstances have led them to adopt a different approach where this is the case. The assessment*

¹⁵ DCLG (2007) Strategic Housing Market Assessments – Practice Guidance

¹⁶ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/#paragraph_003

¹⁷ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/#paragraph_004

should be thorough but proportionate, building where possible on existing information sources outlined within the guidance”¹⁸

- 1.16 The PPG identifies that the household projections published by DCLG should provide the starting point for the estimate of overall housing need¹⁹. Importantly, the PPG states:

“Plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates. Account should also be taken of the most recent demographic evidence including the latest Office of National Statistics population estimates”²⁰

- 1.17 The PPG also recognises the importance of taking other long-term drivers of the housing market into account in understanding future projections of need. The guidance states that importance should be attributed to employment trends, noting:

“Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area... Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems”²¹

- 1.18 In addition to economic factors, the PPG also recognises the importance of taking market signals into account:

“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”²²

Duty to Co-operate: policy and legislative framework

- 1.19 The NPPF states that local authorities have a ‘Duty to Co-operate’ on planning issues that cross administrative boundaries. The Planning and Compulsory Purchase Act (2004) also requires local authorities to engage constructively with neighbours.
- 1.20 The NPPF makes particular reference to the importance of effectively fulfilling this duty when considering – and presenting – the strategic policies to deliver new homes and jobs within Local Plan preparation.

¹⁸ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/#paragraph_005

¹⁹ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

²⁰ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_017

²¹ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

²² http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

1.21 The NPPF provides guidance to local authorities regarding the appropriate measures to undertake in order to fulfil the duty:

- Joint working on areas of common interest is to be diligently undertaken to the mutual benefit of neighbouring local authorities;
- Collaborative working is to be undertaken between local authorities and other bodies, such as Local Enterprise Partnerships (LEPs); and
- Consideration of the preparation of joint planning policies on strategic matters.

1.22 The Duty to Co-operate therefore acts as the mechanism by which local planning authorities can effectively:

“Ensure that strategic priorities across local boundaries are properly coordinated and clearly reflected in individual Local Plans”²³

1.23 The NPPF states that the required outcome of the Duty to Co-operate is that, through this constructive process, it should enable:

“Local planning authorities to work together to meet development requirements which cannot be met within their own areas”²⁴

1.24 The PPG provides further guidance on the Duty to Co-operate, particularly clarifying the expectation for local planning authorities to take a strategic approach in the development of a Local Plan, in compliance with requirements of the NPPF. Importantly, in relation to the objective assessment of need, it is noted that:

“Local Plans should be based on a strategy which seeks to meet objectively assessed development and infrastructure requirements, including unmet requirements from neighbouring local planning authorities where it is reasonable to do so and consistent with achieving sustainable development. Therefore, if a local planning authority preparing a Local Plan provides robust evidence of an unmet requirement, such as unmet housing need, identified in a Strategic Housing Market Assessment, other local planning authorities in the housing market area will be required to consider the implications, including the need to review their housing policies”²⁵

1.25 Finally, the PPG clarifies that the Duty to Co-operate is not necessarily a duty to agree. Clarification is provided to explain that there is not an obligation for unmet needs from other authorities in a housing market area to be met in addition to an authority's own needs. However, in arriving at this position, the PPG states that:

“Local planning authorities are not obliged to accept the unmet needs of other planning authorities if they have robust evidence that this would be inconsistent with the policies

²³ DCLG (2012) National Planning Policy Framework (para 179)

²⁴ *Ibid* (para 179)

²⁵ http://planningguidance.planningportal.gov.uk/blog/guidance/duty-to-cooperate/what-is-the-duty-to-cooperate-and-what-does-it-require/#paragraph_020

set out in the National Planning Policy Framework, for example policies on Green Belt or other environmental constraints”²⁶

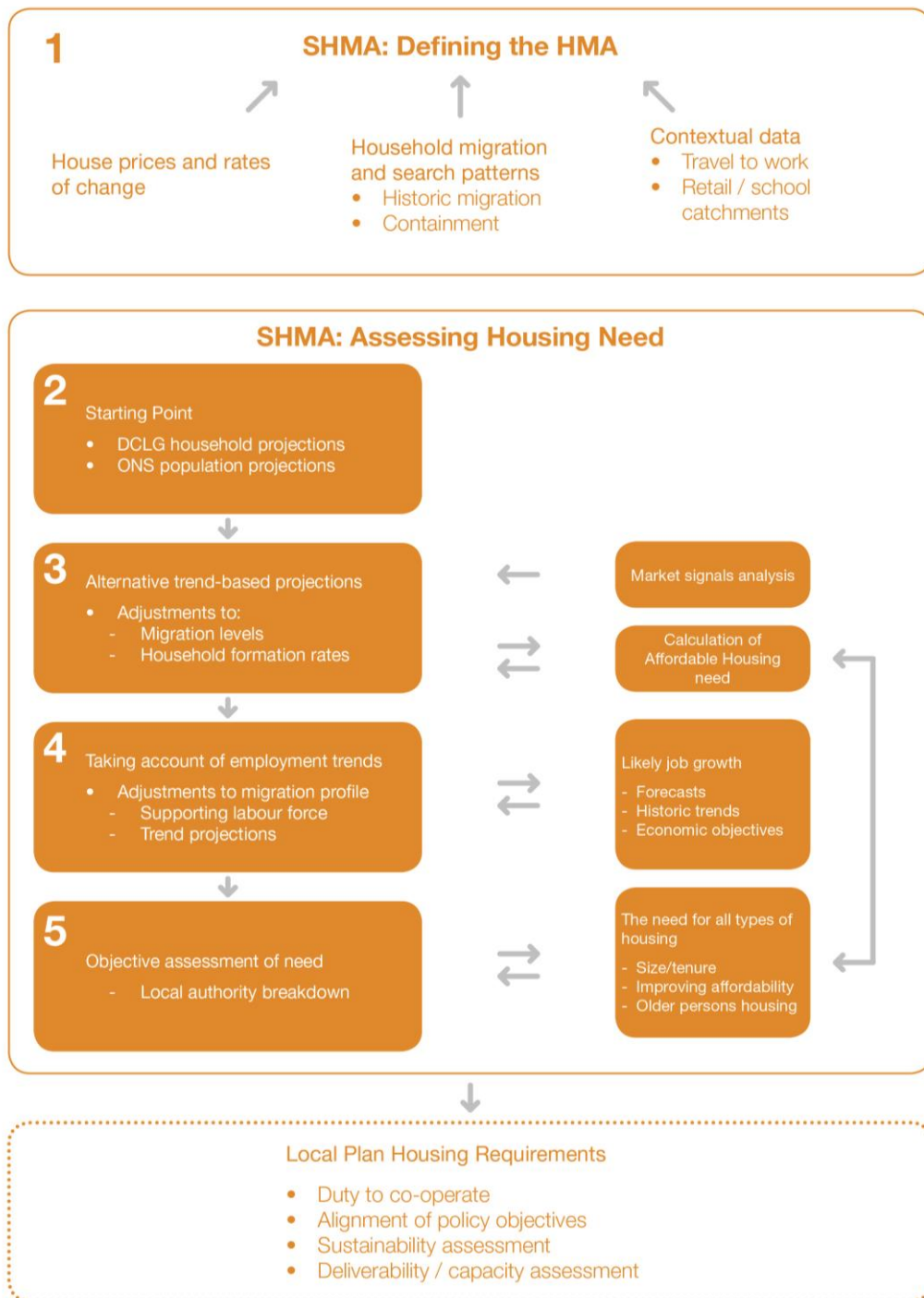
- 1.26 This report acknowledges the importance of recognising linkages with other surrounding housing market areas and their evidence bases, investigating any areas where there are recognisable market linkages between Central Lincolnshire and neighbouring authorities.

Methodological Approach

- 1.27 Turbulence in the economy and housing market in recent years makes this an extremely interesting time to evaluate the extent to which the market has evolved, although it also presents a number of challenges in forecasting likely trajectories of change.
- 1.28 In order to reflect these issues in understanding housing need, the analysis presented in this report adopts a scenario-driven approach which considers the impacts of different input assumptions relating to demographic and economic factors, as well as market signals. This approach is consistent with national guidance, and is illustrated in the diagram presented at Figure 1.1.

²⁶ http://planningguidance.planningportal.gov.uk/blog/guidance/duty-to-cooperate/what-is-the-duty-to-cooperate-and-what-does-it-require/#paragraph_021

Figure 1.1: Objectively Assessed Needs – Methodology



Stakeholder Engagement

- 1.29 The methodology for the SHMA recognises the importance of engaging with stakeholders in order to obtain a wide-ranging set of views on the local housing market, and to provide further insights to assess the wide range of data sources used.
- 1.30 In October/November 2014, the Councils undertook a public consultation on a Preliminary Draft of the Central Lincolnshire Local Plan. A range of alternative proposed levels of housing provision were consulted upon as part of this exercise. This range of

requirements was based upon the interim findings of the SHMA, with a report appended including the baseline evidence and modelling undertaken at that point.

- 1.31 Three scenarios of potential housing need were presented as part of the consultation using the latest published datasets available at the time. The Councils reviewed the responses to the consultation, with comments received used to inform the subsequent production of the SHMA. The evidence presented within this SHMA has updated that presented within the Preliminary Draft consultation to take account of the Central Lincolnshire Economic Needs Assessment²⁷ as well as the release of the 2012 Sub National Household Projection (SNHP) dataset which was published in February 2015. The SHMA has also sought to take into account responses received through the consultation process.
- 1.32 In addition to the above public consultation, a presentation on the emerging findings of the SHMA was delivered at the Central Lincolnshire Developer and Agents Forum in October 2014, which provided wider context on the Local Plan and consultation process. The event was attended by a range of public and private sector bodies, including representatives from the three Central Lincolnshire authorities, the Homes and Communities Agency (HCA), housing associations, house builders, local planning consultancies and local agents.
- 1.33 The presentation by Turley included an overview of the elements required to assess the housing market, along with an explanation of the evidence covered in the SHMA and the implications for Central Lincolnshire.

Report Structure

- 1.34 The remainder of this report is structured around the following sections:
- **Section 2 – Housing Market Area Geography** – this section defines the housing market area geography of Central Lincolnshire, based on guidance in the PPG which requires an analysis of key spatial indicators, including house prices, migration and other contextual data;
 - **Section 3 – Housing Stock** – an assessment of the current profile of the housing stock across Central Lincolnshire, identifying change over time. This includes estimates of the current housing offer, with the number of current dwellings disaggregated by size, type, condition and tenure;
 - **Section 4 – Demographic and Economic Drivers of the Market** – this section contains an analysis of the key long-term drivers of the housing market, including a range of demographic and economic factors with reference made directly to the Economic Needs Assessment study;
 - **Section 5 – Market Signals** – the relationship between supply and demand manifests itself in the operation of the active housing market. House prices, rental values and key measures of demand are all indicators of market behaviour,

²⁷ Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment – Final Draft June 2015

providing a picture of the current health of the market and its future direction of travel;

- **Section 6 – Alternative Projections of Housing Need** – a range of population and household projections are presented, built using the POPGROUP model. The assumptions underpinning these projections are derived from the analysis of historic and future trends set out in sections 3 to 5. The impact of the projected growth in the number of households is translated into associated estimates of the implied requirement for housing of all tenures;
- **Section 7 – Affordable Housing Need** – a calculation of the level of need for affordable housing, with data to populate the model drawn from a range of secondary data sources. Income and housing costs are considered in order to assess the role of different 'affordable' products in meeting need, including intermediate housing. This section concludes with an estimation of the breakdown by size of the affordable housing required over the next five years in Central Lincolnshire;
- **Section 8 – Housing Requirements of Specific Groups** – this section draws out specific conclusions related to a series of household groups with particular housing requirements in Central Lincolnshire, based on information collected through secondary sources; and
- **Section 9 – Study Conclusions and the Objective Assessment of Need** – the SHMA concludes with a section outlining the conclusions and recommendations arrived at through this research. This includes an evaluation of the evidence presented in the preceding sections in order to arrive at an objectively assessed need for the Central Lincolnshire authorities.

2. Housing Market Area Geography

- 2.1 National guidance highlights the importance of understanding housing needs across housing market area geographies, with the PPG stating that:

“A housing market area is a geographical area defined by household demand and preferences for all types of housing, reflecting the key functional linkages between places where people live and work. It might be the case that housing market areas overlap”²⁸

- 2.2 The PPG also includes guidance on how housing market areas should be defined, recommending analysis of three key indicators:

- **House prices and rate of change in house prices** – analysis of these indicators is intended to provide a market based reflection of housing market area boundaries, and can show the relationship between housing demand and supply across different locations. This enables the identification of areas which have clearly different price levels compared to surrounding areas;
- **Household migration and search patterns** – considering the movement of people provides an indication of housing search patterns and preferences, and the extent to which people move house within a specific geography; and
- **Contextual data** – analysis of further spatial indicators to understand the local context, with commuting patterns providing information on the spatial structure of the labour market which influences household price and location.

- 2.3 These indicators are analysed within this chapter to determine the extent to which Lincoln, North Kesteven and West Lindsey can be considered as a single housing market area. Other defined market areas – based on neighbouring authorities’ evidence and previous national, regional and sub-regional research – are also summarised later in this section.

Migration

- 2.4 Migration data from the 2011 Census was released in July 2014, and provides the most reliable and up-to-date picture of movements across the country. The PPG recognises that migration flows and housing search patterns can help to identify relationships around housing preferences, and can highlight the extent to which people move house within an area.
- 2.5 The concept of containment of moves is therefore central to the definition of housing market areas. The Census 2011 migration data allows an assessment of the proportion of moves that are contained within Lincoln, North Kesteven and West Lindsey. Calculating the proportion of people moving from an authority shows the likelihood of moving households to remain within the same authority, while a similar calculation can

²⁸ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/scope-of-assessments/#paragraph_010

show the propensity of moving households to remain within a wider housing market area. This is summarised in the following table, based on 2011 Census data.

Figure 2.1: Containment of Moves 2011

Origin	Containment within authority	Containment within Central Lincolnshire
Lincoln	59.9%	73.7%
North Kesteven	47.7%	61.8%
West Lindsey	51.5%	64.9%
Central Lincolnshire	–	67.7%

Source: Census 2011

- 2.6 As shown, of households moving from an address in Lincoln, only around 26% move outside the housing market area, partially reflecting the geography of Central Lincolnshire with Lincoln at its centre. While the overall levels of containment in West Lindsey and – particularly – North Kesteven are slightly lower, at a Central Lincolnshire level, there is a high containment of moving households. This suggests that, when households are moving, they are likely to remain within the wider Central Lincolnshire area, reinforcing the view that the area operates as a distinct housing market with Lincoln at its centre.
- 2.7 A similar calculation can show the proportion of people who moved to an address in Lincoln, North Kesteven and West Lindsey during the year before the Census that moved from another area within the same authority or wider housing market area.

Figure 2.2: Origin of Migrants 2011

Origin	Moved from within authority	Moved from within Central Lincolnshire
Lincoln	53.3%	65.5%
North Kesteven	48.5%	63.6%
West Lindsey	52.5%	65.3%
Central Lincolnshire	–	64.9%

Source: Census 2011

- 2.8 This shows that around 65% of people moving to an address in Central Lincolnshire moved from inside Lincoln, North Kesteven and West Lindsey. This again suggests a relatively high level of containment.
- 2.9 The calculation of self-containment does not specifically seek to exclude long-distance moves, although it is noted that – if these were excluded – the level of containment would increase further. Indeed, identifying areas with which Central Lincolnshire authorities share a strong migratory relationship is important, in order to understand the

strength, direction and distance of migration flows between authorities. The following table therefore summarises the largest gross migration flows for each authority – based on 2011 Census data – highlighting the ten largest gross flows for each authority. A column is also included to show the net flow, in order to establish the main direction of movement.

Figure 2.3: Largest Migration Flows 2011

Lincoln			North Kesteven			West Lindsey		
Authority	Gross	Net	Authority	Gross	Net	Authority	Gross	Net
North Kesteven	2,608	-102	Lincoln	2,608	102	Lincoln	1,511	-97
West Lindsey	1,511	97	South Kesteven	664	34	North Lincolnshire	728	-26
East Lindsey	641	203	West Lindsey	664	-18	North Kesteven	664	18
Newark and Sherwood	288	14	East Lindsey	623	31	North East Lincolnshire	504	-34
Boston	282	70	Newark and Sherwood	352	-42	East Lindsey	474	-66
Nottingham	279	-25	Boston	275	83	Bassetlaw	249	31
South Kesteven	276	50	Wiltshire	210	-34	Sheffield	208	-56
North Lincolnshire	270	58	Shropshire	188	-52	Newark and Sherwood	126	0
Sheffield	230	-16	Sheffield	159	-55	Doncaster	118	8
Bassetlaw	210	40	Nottingham	153	-29	Leeds	109	-15

Source: Census 2011

- 2.10 Lincoln shares the strongest relationship with North Kesteven and West Lindsey, with a net outflow of migrants to the former and a net inflow of migrants from West Lindsey. Outside of Central Lincolnshire, Lincoln evidently also shares a relationship with East Lindsey, represented by a net inflow to Lincoln of approximately 200 people in the year before the 2011 Census. There are also relatively weaker relationships with Newark and Sherwood and Boston, which each account for a net inflow of migrants to Lincoln.
- 2.11 North Kesteven shares a relatively strong relationship with South Kesteven, with a net inflow of 34 residents during the year before the Census. There is also a net inflow of residents from East Lindsey, although there is a net outflow of residents to West Lindsey. North Kesteven is also characterised by relationships with several distant authorities – including Wiltshire and Shropshire – which are likely to be driven by the location of a number of Royal Air Force bases in the authority.
- 2.12 There was a net outflow of migrants from West Lindsey to North Lincolnshire during the year before the 2011 Census, with a stronger net outflow to Lincoln. There were also notable net outflows to North East Lincolnshire and East Lindsey, although there is a small net inflow from North Kesteven.

House Prices

- 2.13 The PPG suggests that house prices should be analysed in order to understand housing market area geographies. This recognises that house prices – which reflect the outcomes of supply and demand in the market – can be used to identify patterns in the relationship between housing demand and supply across different locations. An analysis of house prices therefore provides a market based reflection of housing market area geographies, allowing the identification of areas with clearly different price levels to surrounding areas.
- 2.14 It is important to consider house prices in the Central Lincolnshire authorities within the wider context, and the table below therefore summarises change in average house prices across a wider geography which encompasses all neighbouring authorities. The table highlights change between 2002 and 2012, with 2007 – commonly interpreted as the peak of the market – also shown for additional information. This data is sourced from DCLG Live Tables, which are produced based on Land Registry data.

Figure 2.4: Change in Mean House Prices 2002 – 2012

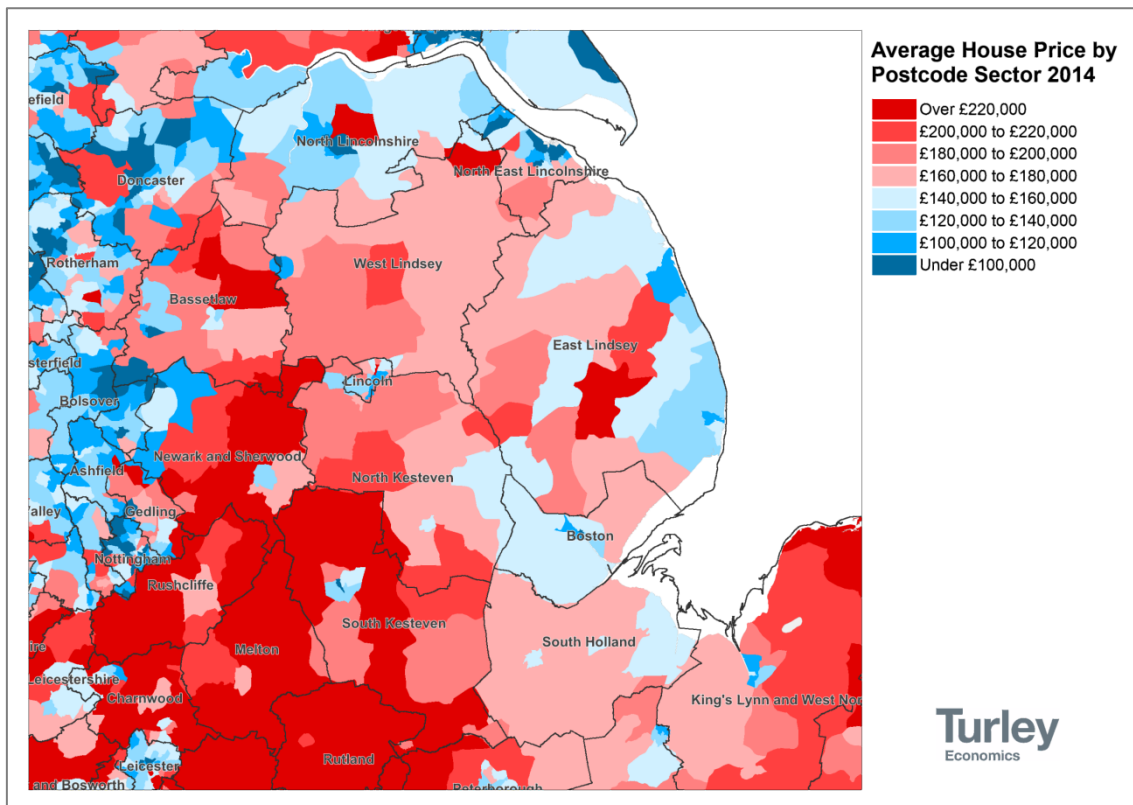
Authority	2002	2007	2012	2002 – 12 % Change	2007 – 12 % Change
North East Lincolnshire	£59,256	£119,775	£118,735	100.4%	-0.9%
North Lincolnshire	£70,472	£137,541	£127,583	81.0%	-7.2%
Lincoln	£76,751	£138,285	£130,678	70.3%	-5.5%
Boston	£81,568	£142,130	£134,788	65.2%	-5.2%
West Lindsey	£90,950	£162,036	£149,421	64.3%	-7.8%
East Lindsey	£91,553	£163,672	£146,968	60.5%	-10.2%
North Kesteven	£103,662	£175,194	£164,719	58.9%	-6.0%
Bassetlaw	£88,576	£151,007	£138,565	56.4%	-8.2%
South Kesteven	£117,900	£188,652	£177,242	50.3%	-6.0%
South Holland	£100,287	£164,618	£150,143	49.7%	-8.8%
Newark & Sherwood	£112,921	£176,994	£167,457	48.3%	-5.4%

Source: DCLG, 2014

- 2.15 As shown, within the wider context, the three authorities display relatively average market characteristics, although house prices have historically been relatively high in North Kesteven. Like many authorities, house prices have seen long-term growth over the last decade – with prices increasing by approximately 60 – 70% – but there has been a short-term decline in values due to the impact of the economic recession. This is consistent with all neighbouring authorities, although values in North East Lincolnshire were close to recovering to their market peak in 2012.
- 2.16 While this analysis provides useful historical context, it is important to recognise the recent national recovery in the housing market. It is now widely acknowledged that consumer confidence has returned to the market in many areas, with improved credit conditions supporting the return of many buyers. This is considered in more detail later in this report.
- 2.17 It is therefore beneficial to bring the analysis up to date using Land Registry data, with the following plan showing the average price paid in each postcode sector in Central Lincolnshire and surrounding areas. Areas are shown in red and blue to signify average values which are higher or lower than the average house price for Central Lincolnshire in 2014²⁹.

²⁹ £160,223 – rounded to £160,000

Figure 2.5: Average House Price by Postcode Sector 2014



Source: Land Registry, 2015

- 2.18 The map evidently shows broad consistency in house prices throughout Central Lincolnshire, with limited overlap to North Lincolnshire – where values are typically lower – and South Kesteven, where values were higher. There is some overlap with East Lindsey, although it is notable that much of the authority is characterised by lower values. Much of the overlap, therefore, is largely limited to the rural areas of each authority.
- 2.19 Overall, the analysis indicates that while there is some variation in average house prices in Central Lincolnshire, there are several points of commonality which suggest that there is a broadly consistent price geography across the area.

Commuting

- 2.20 The PPG suggests that other contextual data should be analysed when defining housing market areas, with commuting – for example – illustrating the spatial structure of the labour market, evidencing the relationship between where people live and where they work.
- 2.21 Commuting data from the 2011 Census was published in July 2014, and provides an updated picture of where residents of Central Lincolnshire work, and where the workforce in each authority is drawn from.

- 2.22 The following table shows the proportion of residents of each authority who work within the same authority, and the proportion that work within the wider Central Lincolnshire area.

Figure 2.6: Containment of Labour 2011

Residence	Works within authority	Works within Central Lincolnshire
Lincoln	61.0%	84.5%
North Kesteven	46.6%	75.6%
West Lindsey	40.3%	69.9%
Central Lincolnshire	–	76.9%

Source: Census 2011

- 2.23 This evidence suggests that over three quarters of people who live in Central Lincolnshire also work within Central Lincolnshire, suggesting a relatively high level of containment of labour. There is a particularly clear level of containment within Lincoln – where over 60% of residents work in the city – while there are higher levels of out-commuting from North Kesteven and West Lindsey. Nevertheless, the majority of people commuting from these districts commute to another location within Central Lincolnshire.
- 2.24 It is also important to consider the composition of the workforce in Central Lincolnshire, and the proportion of which live within the housing market area. This is summarised in the following table.

Figure 2.7: Containment of Workforce 2011

Workplace	Lives within authority	Lives within Central Lincolnshire
Lincoln	47.8%	86.4%
North Kesteven	54.7%	78.9%
West Lindsey	59.4%	75.0%
Central Lincolnshire	–	81.5%

Source: Census 2011

- 2.25 There is evidently a relatively localised workforce within Central Lincolnshire, with over 80% of workers living within the housing market area. Over 85% of the workforce in Lincoln live in Central Lincolnshire, although fewer than half live in Lincoln, suggesting a high level of in-commuting from other areas. North Kesteven and West Lindsey have a relatively higher level of containment of workforce, suggesting that the workforce is more localised in these districts.
- 2.26 The following table shows the main places of work for residents of Central Lincolnshire, based on the 2011 Census.

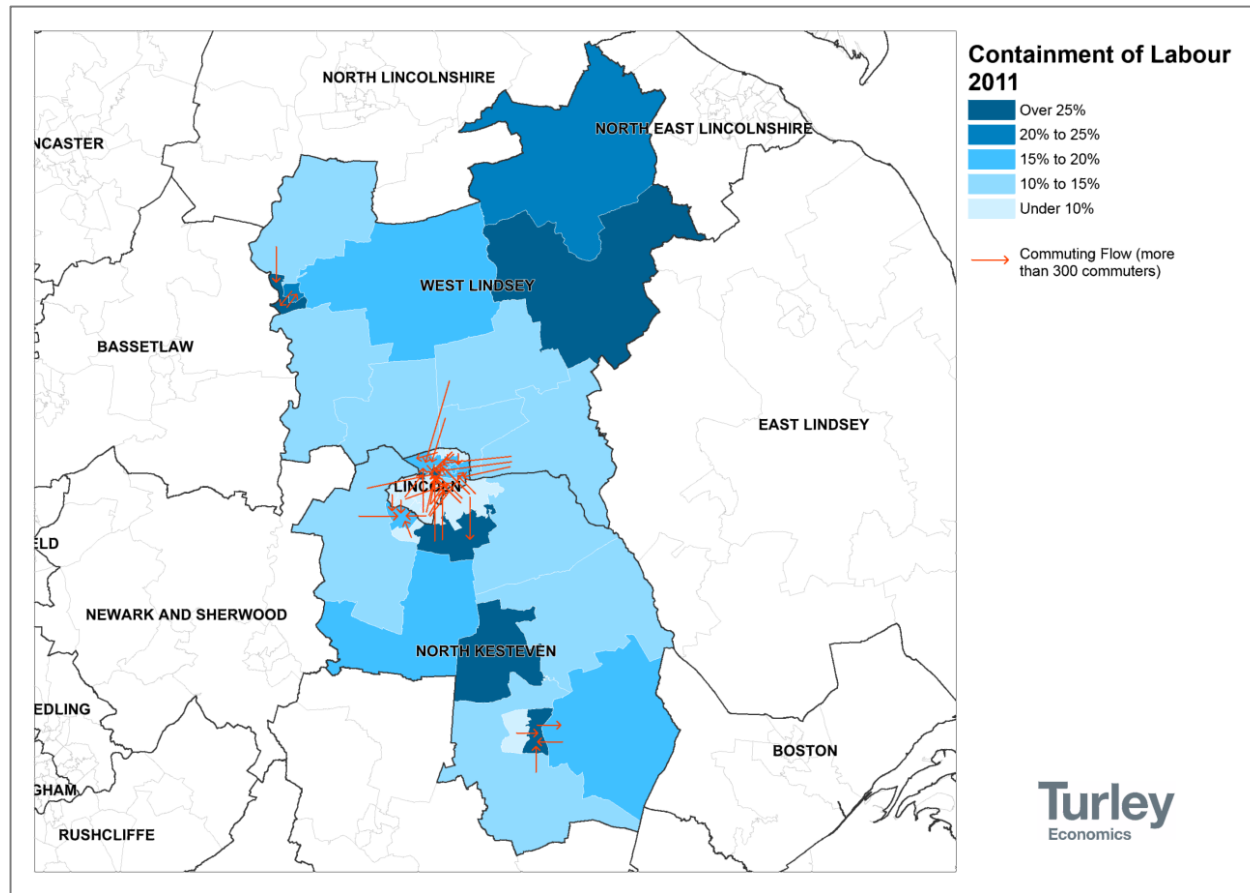
Figure 2.8: Place of Work for Residents of Central Lincolnshire 2011

Lincoln		North Kesteven		West Lindsey	
Authority	%	Authority	%	Authority	%
Lincoln	61.0%	North Kesteven	46.6%	West Lindsey	40.3%
North Kesteven	17.7%	Lincoln	26.0%	Lincoln	23.6%
West Lindsey	5.8%	South Kesteven	5.3%	North Lincolnshire	8.8%
Newark & Sherwood	3.7%	East Lindsey	3.3%	North Kesteven	5.9%
East Lindsey	2.0%	Newark & Sherwood	3.1%	North East Lincolnshire	5.3%

Source: Census 2011

- 2.27 As shown, the majority of residents in Lincoln also work within the city, although there is a flow of commuters to West Lindsey and – in particular – North Kesteven. Fewer than one in four commuters from North Kesteven travel outside Lincoln or the district itself, with a relatively small flow of commuters to South Kesteven. North Lincolnshire and North East Lincolnshire evidently play a role as employment centres for some residents of West Lindsey, although Lincoln represents the main external commuting flow with around a quarter of residents working in the city.
- 2.28 This is reinforced within the following plan, which shows containment of labour by middle super output area (MSOA). In addition, major commuting flows – of more than 300 persons – are shown as red arrows, which highlight the attraction of Lincoln as a place of work for a wider geography. There are, however, other areas – such as Sleaford and Gainsborough – which attract significant commuting flows, while Caistor and Market Rasen draw upon a comparatively localised workforce.

Figure 2.9: Commuting Patterns in Central Lincolnshire 2011



Source: Census 2011

- 2.29 The operation of Lincoln, North Kesteven and West Lindsey as a functional economic market geography (FEMA) is also established in the Economic Needs Assessment³⁰. This reflects the high levels of labour force containment and similar economic characteristics across the three authorities, with Lincoln functioning as the largest settlement, the administrative base for the county and the home of the University of Lincoln, a major asset for the wider area which has helped to drive growth historically. The city's tight administrative boundary has helped to drive growth in neighbouring North Kesteven and West Lindsey, with clear labour market links between the three authorities.

Neighbouring Authorities

- 2.30 Collectively, the evidence presented above indicates that Lincoln, North Kesteven and West Lindsey act as a single housing market area, with a containment of moves, commonality in house prices and strong commuting relationships, particularly centred on Lincoln.
- 2.31 In order to develop a robust housing evidence base, it is important to consider housing market area definitions adopted in the preparation of neighbouring authorities' Local Plans in order to assist in identifying instances where housing market area geographies overlap into Central Lincolnshire. A review of the existing and emerging evidence base conclusions in comparable documents for neighbouring areas is summarised below with additional evidence included in Appendix 2. Whilst a number of these documents recognise housing market linkages with the Central Lincolnshire authorities, they do not challenge the identification of Central Lincolnshire as a housing market area geography, with other HMA definitions in many cases serving to reinforce this position.

Coastal Lincolnshire

- 2.32 The housing market area of Coastal Lincolnshire includes the two local authorities of East Lindsey and Boston. Housing market assessment work by DTZ Pida³¹ recognised that these areas have comparable spatial patterns of housing and labour markets. A SHMA for the Coastal Lincolnshire area was completed in September 2012³² and was undertaken alongside a parallel exercise for Central Lincolnshire with a recognised understanding of the relationships between housing markets and trends in demand, need and affordability as well as migration and commuter trends and economic links. The HMA is assessed and compared against Central Lincolnshire throughout the document.
- 2.33 East Lindsey District Council commissioned an update of the SHMA covering the district in isolation, in order to integrate updated household projections³³. This does not draw any conclusions around the functional housing market area.
- 2.34 Boston Borough Council has subsequently prepared a SHMA³⁴ which focuses on the authority rather than the wider Coastal Lincolnshire area. The SHMA considers 2011 Census data and arrives at the conclusion that Boston represents a relatively self-

³⁰ Turley/Ekosgen (2015) Central Lincolnshire Economic Needs Assessment (March 2015 Draft)

³¹ DTZ Pida Consulting (2005) Identifying the Sub-Regional Housing Markets of the East Midlands

³² Opinion Research Services (2012) Coastal Lincolnshire Strategic Housing Market Assessment

³³ ORS (2014) East Lindsey Strategic Housing Market Assessment Update

³⁴ jgConsulting (2015) Boston Borough Council Strategic Housing Market Assessment

contained housing market area. The SHMA recommends, however, that the Council focuses its Duty to Co-operate discussions with South Holland and East Lindsey.

Peterborough Sub-Regional

- 2.35 The housing market area of Peterborough Sub-Regional includes the four local authorities of Rutland, South Holland, South Kesteven and Peterborough and was established due to an identifiable sub-regional housing market and the drive to encourage joint working on housing and planning issues.
- 2.36 This extent of this housing market area was confirmed in the recently completed joint SHMA – finalised in July 2014³⁵ – which included an analysis of housing market area indicators cited in the PPG. This suggests a relatively high degree of containment within this housing market area, which has been ‘best fit’ to local authority boundaries.
- 2.37 The SHMA notes that there are clear functional linkages at the boundaries with adjoining housing market areas, which means that housing supply could influence market dynamics in neighbouring markets. This highlights a particular relationship between North Kesteven, Boston, South Holland and South Kesteven.
- 2.38 It is understood that a further update is planned of the SHMA to take account of the release of the 2012 SNHP. It is not known if this will include a reconsideration of the HMA definition.

North East Lincolnshire

- 2.39 The North East Lincolnshire SHMA was published in May 2013 for the administrative area of North East Lincolnshire only; however the Council has identified four distinct ‘spatial zones’ across the local authority that reflects areas of similar characteristics, and display close physical and functional relationships which has been analysed further in the SHMA.
- 2.40 The SHMA also highlights that the North East Lincolnshire housing market has strong linkages with the housing markets of surrounding authorities including East Lindsey and West Lindsey, as well as to North Lincolnshire – appropriately evidenced by both household migration patterns and economic/employment (travel-to-work) drivers³⁶.
- 2.41 The SHMA states that because Strategic Housing Market Assessment for the Central Lincolnshire area was prepared before the application of the NPPF, it does not provide equivalent employment, population or household projection data to enable a direct comparison with North East Lincolnshire.

North Derbyshire and Bassetlaw

- 2.42 The housing market area of North Derbyshire and Bassetlaw includes the four districts of North East Derbyshire, Chesterfield, Bolsover and Bassetlaw. It was recognised that these four authorities face many similar issues and are joined by the common factor that their housing markets are all influenced by the major urban areas of Sheffield and Rotherham, located across the regional border.

³⁵ GL Hearn (2014) Peterborough Sub-Regional Strategic Housing Market Assessment

³⁶ North East Lincolnshire Council (2013) Strategic Housing Market Assessment

- 2.43 The November 2013 submitted Draft SHMA³⁷ indicates a need for 1,190 homes per annum across the HMA to 2021 in response to the area's changing population structure.
- 2.44 The SHMA mentions the HMA's relations to various surrounding locations, notably the local authority of West Lindsey. However relations to the entire HMA of Central Lincolnshire are not considered indicating little evidence of a relationship with the wider central area.

Nottingham Outer

- 2.45 A SHMA for the Nottingham Outer area, which includes the districts Ashfield, Mansfield and Newark and Sherwood, was published for consultation in June 2015³⁸. The SHMA concludes that the three authorities comprise a single housing market area, citing the analysis of current and historic evidence as well as the existing planning ties between the authorities.
- 2.46 The SHMA acknowledges that whilst a 'best fit' HMA geography as defined above represents a practical solution there are housing market relationships and interactions in several directions. Reference specifically is made to linkages with Bolsover and the City of Nottingham. In the context of this SHMA no direct reference is made in the conclusion as to the definition of the HMA to strong relationships with the Central Lincolnshire authorities.

North Lincolnshire

- 2.47 North Lincolnshire is considered to have unique housing market challenges and opportunities has relatively self-contained housing market with just under 70% of all households in North Lincolnshire moving home being expected to remain within the borough. Therefore a SHMA was published in October 2012³⁹ for the single local authority area and little reference is made to the Central Lincolnshire HMA despite some association with the northern local authority of West Lindsey.

Previous Definitions

- 2.48 In considering housing market areas, it is also important to recognise that historically national and regional research has been undertaken to look at housing market relationships. It is, though, important to recognise that the geographies arrived at within these studies are varied in their definitions, reflecting the use of different technical approaches and the relative weight given to the different sources of data introduced earlier in this section. In addition it is important to note that these 'historic' analytical definitions are based on earlier datasets with the 2011 Census outputs not available when they were prepared.
- 2.49 This section summarises the outputs of research undertaken historically to define housing market areas, both nationwide and within the East Midlands.

³⁷ GL Hearn (2013) North Derbyshire & Bassetlaw Strategic Housing Market Assessment Final Draft Report

³⁸ GL Hearn (2015) Nottingham Outer 2014 Strategic Housing Market Assessment

³⁹ GC and Edge Analytics (2012) Strategic Housing Market Assessment

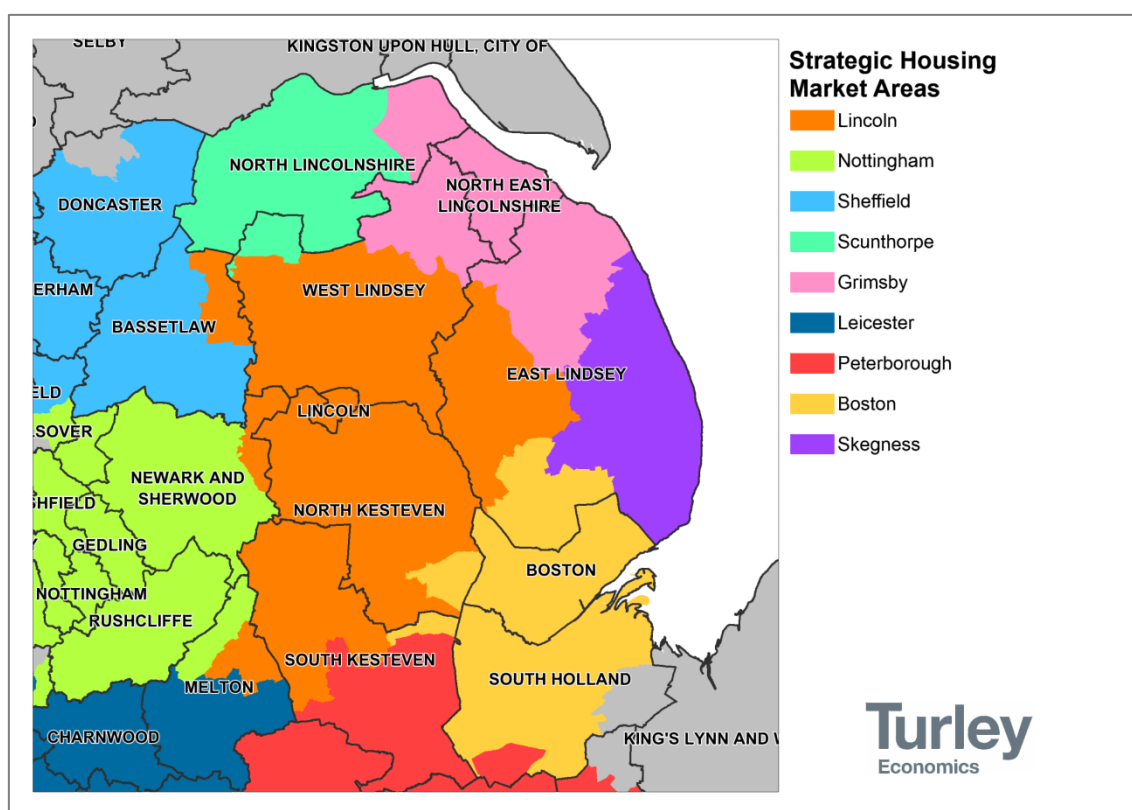
National Research

- 2.50 In 2010 the National Housing and Planning Advice Unit (NHPAU) and DCLG published a national piece of research⁴⁰ which sought to consider the best approach to dividing the country into non-overlapping housing market areas through a consideration of commuting and migration trends, as well as standardised house prices.
- 2.51 The research defined a two-tier structure of strategic and local housing market area geographies, with the former built from an assumption of 77.5% containment of commuting and the latter developed based on an assumed 50% self-containment of migration. Each is considered in turn below, although it is important to note that this methodology differs from that advocated within the PPG, which suggests that a 70% migration containment threshold should be used. As noted above it is also heavily reliant upon 2001 Census data, which has now been superseded with the release of more up-to-date information from the 2011 Census analysed earlier in this section.

Strategic Housing Market Areas

- 2.52 The following graphic shows identified strategic housing market areas neighbouring the authorities of Lincoln, North Kesteven and West Lindsey.

Figure 2.10: Strategic Housing Market Areas



Source: DCLG/NHPAU, 2010

- 2.53 As shown, the Lincoln HMA covers Lincoln in its entirety, and stretches to cover most of West Lindsey and North Kesteven. It also extends into East Lindsey, South Kesteven

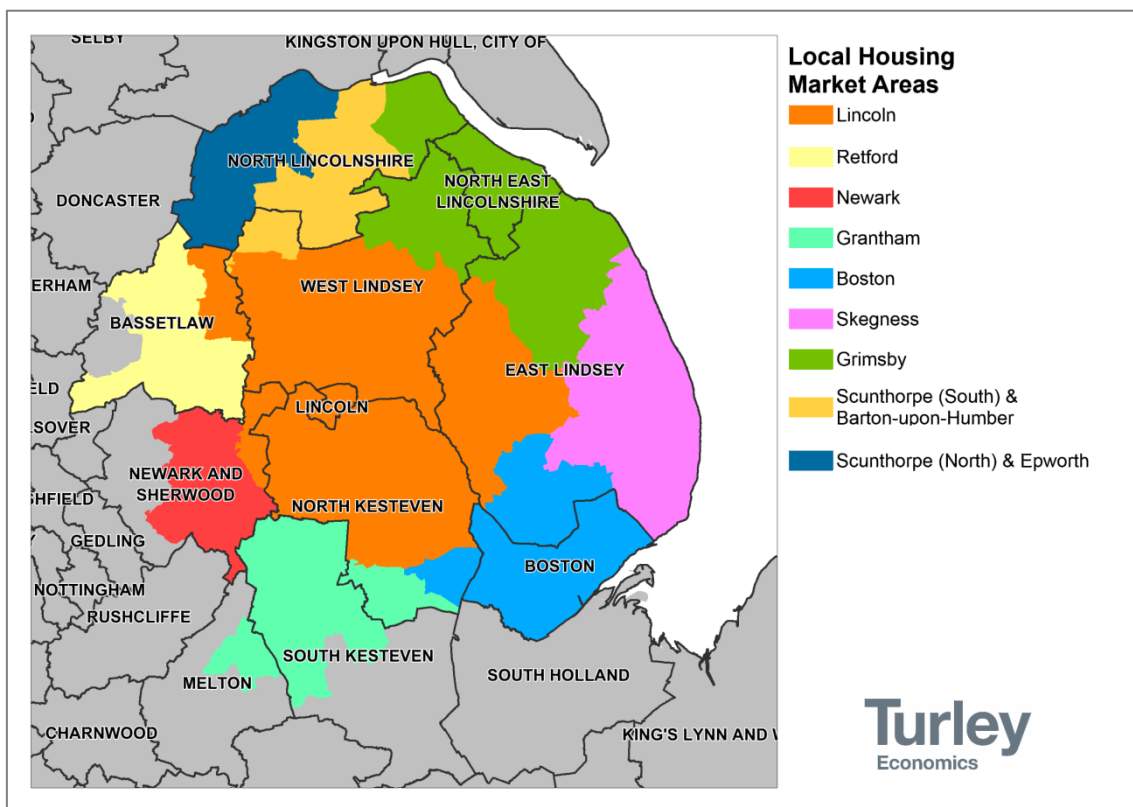
⁴⁰ DCLG (2010) Geography of Housing Market Areas

and north Melton, as well as Newark and Sherwood and Bassetlaw to the east. Notably, the Grimsby and Scunthorpe HMAs also extend into the northern areas of West Lindsey, while the Boston HMA covers a small area in the south-east of North Kesteven.

Local Housing Market Areas

- 2.54 Recognising the importance of more locally defined markets, the research also represented a lower tier of market areas, with the following plan showing the spatial boundaries of these geographies.

Figure 2.11: Local Housing Market Areas



Source: DCLG/NHPAU, 2010

- 2.55 Evidently, based on this definition, the extent of the Lincoln HMA is largely unchanged from the 'strategic' definition, although an area to the south of North Kesteven is deemed to fall within the Grantham HMA.
- 2.56 Overall, both definitions clearly highlight the strength and containment of a distinct Lincoln housing market geography, which extends into neighbouring authorities including the majority of North Kesteven and West Lindsey. While it also covers western East Lindsey, this authority is clearly influenced by a number of different housing markets, including Skegness, Grimsby and Boston on the basis of the research findings.

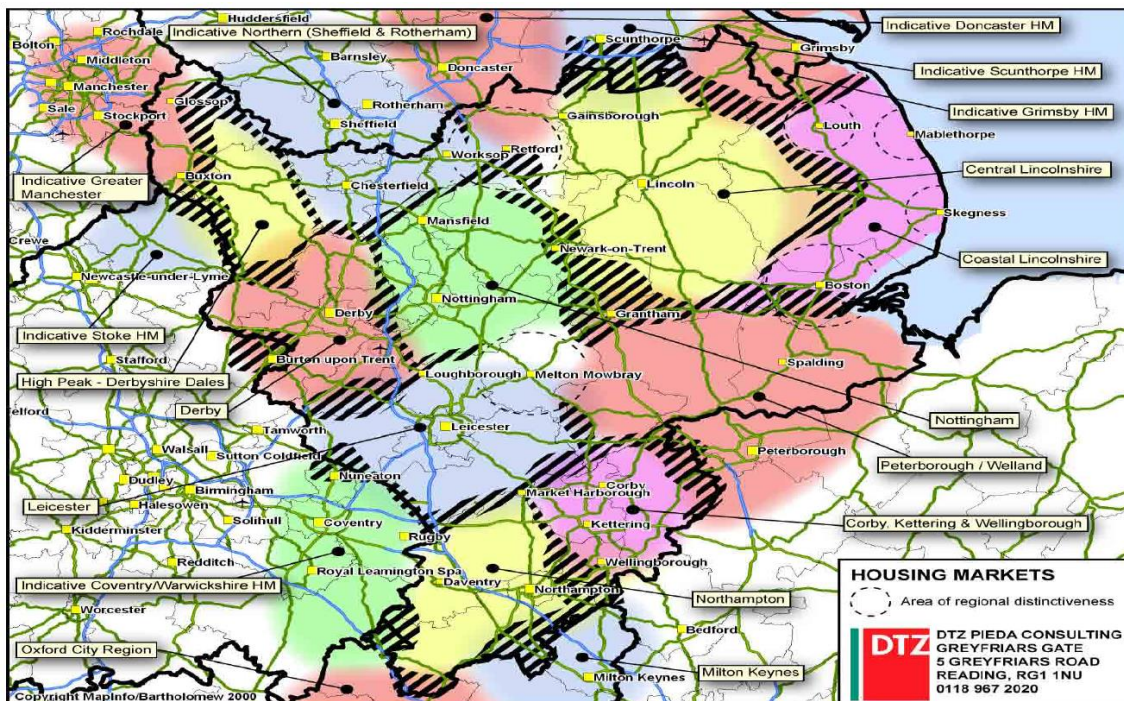
Regional Research

- 2.57 In preparing the evidence base for the East Midlands RSS, analysis was undertaken of housing market area geographies, with a report published by DTZ Pieda⁴¹. This identified a Central Lincolnshire sub-regional housing market, centred around Lincoln as the main employment centre. The report notes:

“Considerable levels of household and travel to work movement between Lincoln and its southerly and northerly hinterland define the sub-region’s spatial extent, which covers the greater part of West Lindsey and North Kesteven and extends into North Lincolnshire, East Lindsey and the eastern margins of Newark and Sherwood”⁴²

- 2.58 The report also highlights an eastern extent, due to a lack of employment centres to the east and subsequently stronger commuting flows from areas of East Lindsey into Lincoln. The areas to the west – primarily Newark and Sherwood – share a stronger relationship with Nottingham, while the River Trent acts as a geographical barrier to the sub-region to the north-west. This is also reflected in the comparative lack of commuting flows between Bassetlaw, Lincoln and West Lindsey. The Lincoln sub-region also extends south into South Kesteven, but does not extend to Grantham which shows a stronger degree of connectivity with Peterborough.
- 2.59 The extent of the sub-regional housing market area is shown in the following map, replicated from the DTZ report.

Figure 2.12: Sub-Regional Housing Markets with Shaded Overlaps



Source: DTZ Pieda, 2005

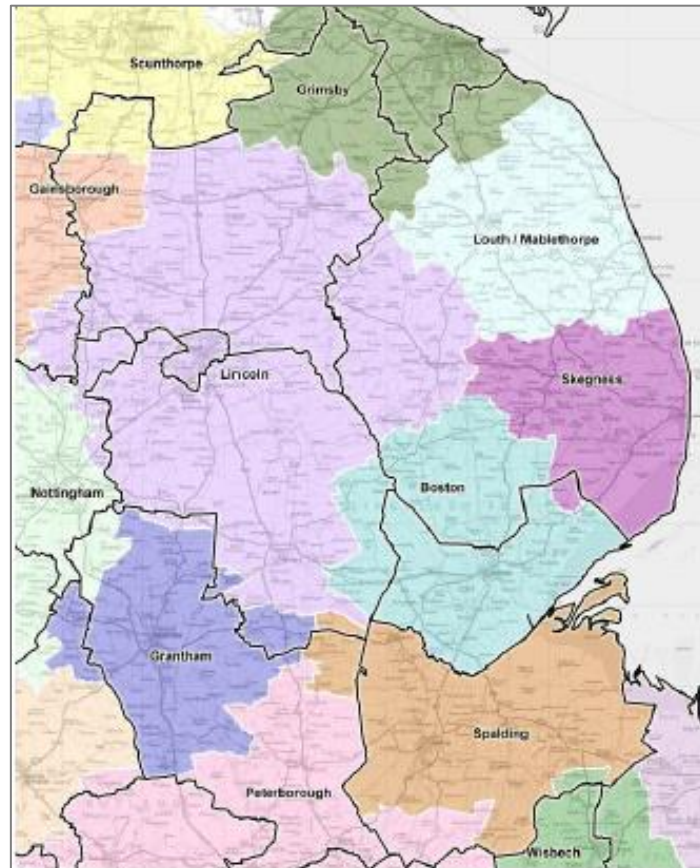
⁴¹ DTZ Pieda Consulting (2005) Identifying the Sub-Regional Housing Markets of the East Midlands

⁴² *Ibid* (para 3.25)

Sub-Regional Research

- 2.60 The Lincolnshire Sub-Regional Housing Strategy⁴³ included a detailed analysis of the local housing market areas, adopting a similar approach to the DCLG research whereby migration and commuting trends were both analysed. This was, however, based on output area geographies, rather than wards, although the findings are broadly comparable and consistent. This is illustrated in the following graphic, which overlays administrative boundaries to the identified housing market areas.

Figure 2.13: Housing Market Areas in the Sub-Region



Source: ORS, 2009

- 2.61 Again, this definition largely groups Lincoln with North Kesteven and West Lindsey, although Caistor is considered to fall within the Grimsby housing market area geography and there is some overlap into East Lindsey and – to a lesser extent – Bassetlaw.
- 2.62 Collectively, this evidence shows that there has been a longstanding recognition of a housing market area geography centred on Lincoln which extends to cover West Lindsey and North Kesteven. The analysis earlier in this section suggests that the latest data continues to highlight these housing market area relationships.

⁴³ Lincolnshire County Council (2009) Lincolnshire Sub-regional Housing Strategy

Bringing the Evidence Together

- 2.63 Following the guidance in the PPG, this section has reviewed a number of spatial indicators – namely migration and house prices, contextualised through analysis of commuting patterns – in order to determine the extent to which Lincoln, North Kesteven and West Lindsey can be considered as a single housing market area. This analysis draws upon the latest available data, including migration and commuting flows from the 2011 Census and 2014 average house prices.
- 2.64 The analysis of migration shows that where households are moving, they are likely to remain within the wider Central Lincolnshire area, with around 68% of moves self-contained within this geography during the year before the 2011 Census. Moves from Lincoln are particularly contained, suggesting that the area operates as a distinct housing market with Lincoln at its centre.
- 2.65 While the level of containment falls below the suggested 70% threshold suggested in the PPG, it is important to recognise that North Kesteven in particular saw a number of long-distance moves to and from areas such as Wiltshire and Shropshire, which is likely to be linked to the Royal Air Force operations in the area. While these have not been removed from the calculation of containment, excluding these moves would be likely to increase the level of containment within the Central Lincolnshire geography.
- 2.66 In terms of house prices, there is broad consistency throughout Central Lincolnshire, although the rural areas are typically characterised by higher values than in urban Lincoln. There is limited overlap with North Lincolnshire and South Kesteven – where values are typically lower and higher respectively – although there is some overlap with the rural areas of East Lindsey. There is, though, an overall commonality between different areas of Central Lincolnshire, while recognising that there are areas of higher and lower demand within this geography.
- 2.67 The PPG suggests that other contextual data should be analysed, and commuting provides a valuable indication of the spatial structure of the labour market. The labour force is strongly contained within the Central Lincolnshire geography – with around 77% of people living in the area also working within this geography – while around 82% of people who work in Central Lincolnshire live within Central Lincolnshire, suggesting a high containment of the workforce. Lincoln evidently plays a significant role as an employment centre, while there are also notable commuting flows to Gainsborough and Sleaford which draw upon a wider geography.
- 2.68 Collectively, the evidence suggests that Lincoln, North Kesteven and West Lindsey function as a single housing market area, with a containment of moves, commonality in house prices and strong commuting relationships, particularly centred on Lincoln. The latest data supports the longstanding identification of a Lincoln-centred housing market which extends to West Lindsey and North Kesteven – as identified in national and regional research – while there is only limited overlap identified with the definitions of neighbouring authorities. It will, however, be important for the Councils to maintain discussions through the Duty to Co-operate to ensure that housing needs are met in full at a strategic level.

3. Housing Stock

- 3.1 This section provides an assessment of the current housing stock in Central Lincolnshire, in order to provide valuable context on local characteristics and recent change. The findings of the 2011 Census are integrated within this analysis, allowing consideration of changes and trends since 2001, with this augmented by other datasets and information provided by the Councils.

Current Stock Profile

- 3.2 The number of dwellings in Central Lincolnshire increased by around 16,731 between 2001 and 2011, equivalent to a 14.7% increase in housing stock. This is summarised in the table below.

Figure 3.1: Change in Number of Dwellings 2001-2011

Local Authority	2001	2011	Change	%
Lincoln	38,281	42,556	4,275	11.2%
North Kesteven	40,357	47,551	7,194	17.8%
West Lindsey	34,936	40,198	5,262	15.1%
Central Lincolnshire	113,574	130,305	16,731	14.7%
England	21,206,804	22,976,066	1,769,262	8.3%

Source: Census 2001, Census 2011

- 3.3 As shown, the housing stock has grown across all areas of Central Lincolnshire at a faster rate than the national level. In absolute terms, North Kesteven has seen the greatest increase of the three local authorities, with an additional 7,194 dwellings in 2011 relative to 2001. Overall, though, it is clear that growth has been spread across Central Lincolnshire during this time.

Dwelling Type

- 3.4 The following table provides a further assessment of the housing stock, through the identification of the type of dwellings provided in each district. The following table presents the type of accommodation in each local authority at the time of the 2011 Census, with figures shown as a proportion of all household spaces⁴⁴. Comparable figures for England are also shown for comparison.

⁴⁴ A household space is accommodation which is used, or available for use, by an individual household. A dwelling may comprise one or more household spaces

Figure 3.2: Household Spaces by Type 2011

Local Authority	Detached	Semi-Detached	Terraced	Flat	Caravan
Lincoln	19.1%	28.7%	32.0%	20.2%	0.1%
North Kesteven	54.5%	30.0%	10.3%	4.3%	1.0%
West Lindsey	50.1%	26.8%	16.9%	5.0%	1.2%
Central Lincolnshire	41.6%	28.6%	19.4%	9.7%	0.8%
England	22.3%	30.7%	24.5%	22.1%	0.4%

Source: Census 2011

- 3.5 Comparison against the national average shows that Central Lincolnshire is characterised by a high proportion of detached stock, with this type constituting 41.6% of all household spaces. In areas of the housing market area – North Kesteven and West Lindsey – over half of the total stock is detached, whilst Lincoln has comparatively low proportions of detached stock relative to the wider area and much higher levels of terraced housing and flats.
- 3.6 Around a third of properties in Lincoln are terraced, whilst North Kesteven and West Lindsey have 10.3% and 16.9% respectively. The overall figure for Central Lincolnshire remains a lower than national average concentration, like the proportion of flats in the area.
- 3.7 Central Lincolnshire has relatively few flats, with less than 10% of household spaces in the region being flats. Figure 3.2 shows how North Kesteven and West Lindsey have significantly low levels of flats whilst the relatively high proportions of detached stock in Lincoln match the national average.
- 3.8 Compared to England, Central Lincolnshire has a similar proportion of semi-detached stock, with this accounting for just over one in four household spaces in the housing market area. The proportion of semi-detached household spaces is relatively even in comparison to the other types of housing.
- 3.9 As noted earlier, Central Lincolnshire has seen considerable growth in the size of the housing stock, and for this reason, it is useful to assess how the type mix has changed in this time. Absolute change in each housing type for each sub-area can be calculated to highlight the type of new housing provided. A positive figure indicates an increase in a housing type, while a negative figure indicates a loss. The proportionate growth of each type of housing between 2001 and 2011 is also presented for Central Lincolnshire as a whole.

Figure 3.3: Absolute Change in Housing Stock 2001-2011

Local Authority	Detached	Semi-Detached	Terraced	Flat	Caravan
Lincoln	761	867	502	2,110	-55
North Kesteven	4,034	1,264	1,189	672	18
West Lindsey	2,934	1,156	922	268	-21
Central Lincolnshire	7,729	3,287	2,613	3,050	-58
% change between 2001 – 2011	16.6%	9.7%	11.5%	31.8%	-5.5%

Source: Census 2001, Census 2011

- 3.10 As shown – with the exception of caravans – there has been notable growth in all types of housing in Central Lincolnshire. The highest rate of stock growth has been flats where the proportion has increased in the area by 31.8%. A considerable mass of this stock has been developed in the City of Lincoln over the period from 2001 – 2011 whilst the development of detached properties in Lincoln has been considerably lower with just 761 new detached spaces being developed over the ten year period. The detached stock in Central Lincolnshire has seen the greatest increase regarding number of household spaces (more than double that of flats), yet the margin of increase is lower showing that the provision of detached stock was much greater than flats in 2001.
- 3.11 A large number of semi-detached properties have also been delivered with greater increases in the districts of North Kesteven and West Lindsey than Lincoln. Figures total to an additional 3,287 household spaces in 2011 relative to 2001. This represented only a modest increase in semi-detached stock, however, equivalent to only 9.7%, recognising the historic prevalence of this house type definition in the authority. The terraced stock saw greater proportionate increases despite the number of housing spaces delivered being lower.

Tenure

- 3.12 An analysis of tenure allows an understanding of the basis on which households occupy their homes. The table below shows the proportion of all households within each tenure, with England also included as a comparator.

Figure 3.4: Household Tenure 2011

Local Authority	Owned Outright	Owned with Mortgage/Loan	Shared Ownership	Social Rented	Private Rented from Landlord	Private Rented: Other	Living Rent Free
Lincoln	24.4%	30.7%	0.6%	21.9%	19.4%	1.6%	1.5%
North Kesteven	37.2%	37.1%	0.5%	10.2%	10.7%	2.8%	1.5%
West Lindsey	38.2%	34.4%	1.0%	11.1%	12.0%	1.7%	1.7%
Central Lincolnshire	33.4%	34.2%	0.6%	14.2%	13.9%	2.1%	1.6%
England	30.6%	32.8%	0.8%	17.7%	15.4%	1.4%	1.3%

Source: Census 2001, Census 2011

- 3.13 Around two thirds of households in Central Lincolnshire are owner occupiers, of which a slightly higher proportion own with a mortgage or loan than own outright. This indicates that owner occupation is slightly more frequent in Central Lincolnshire than the national average. Within the area, there is a notably high level of outright ownership in North Kesteven and West Lindsey in comparison to the City of Lincoln. Lincoln also accommodates a lower proportion of households with a mortgage or loan than the national average.
- 3.14 Fewer households in Central Lincolnshire are in both rented tenures – social and private rented from a landlord or agency – compared to the national profile. However, over one in five households in Lincoln are socially renting, which differs from the one in ten households in North Kesteven. Private renting from a landlord or letting agency is also significantly higher in Lincoln and again is higher than the national average.
- 3.15 Again, understanding how the tenure profile has changed between 2001 and 2011 provides useful context by identifying tenure trends. The following table shows absolute change in tenure.

Figure 3.5: Change in Household Tenure 2001 – 2011

Local Authority	Owned Outright	Owned with Mortgage/Loan	Shared Ownership	Social Rented	Private Rented from Landlord	Private Rented: Other	Living Rent Free
Lincoln	477	-1,384	-81	363	4,014	143	-350
North Kesteven	3,611	816	4	110	2,534	268	-241
West Lindsey	2,703	653	212	251	1,864	84	-254
Central Lincolnshire	6,792	86	135	724	8,412	495	-845
% Change between 2001-2011	19.6%	0.2%	20.1%	4.3%	95.6%	23.8%	-30.3%

Source: Census 2001, Census 2011

- 3.16 As shown, the most notable increase has been in the private rented sector, with approximately 8,412 additional households renting from a private landlord or agency in 2011 compared to 2001. This represents an almost doubling of the total number of households operating in this sector. A significant proportion of this growth has been concentrated in Lincoln, however the number of socially rented households in Lincoln has increased the most by 363 households yet the proportional increase has been the highest in West Lindsey where there has been an increase of 6.3% in socially rented households compared with 4.3% in Lincoln. This demonstrated the history of social renting in Lincoln compared to the more recent changes in tenure in West Lindsey. In the area overall there has been a 4.3% increase in social renting.
- 3.17 Notably, there has been a significant decline in the number of households owning their home with a mortgage or loan in the City of Lincoln whilst North Kesteven and West Lindsey have seen an increase. Lincoln's decline reflects the impact of the credit crunch, and subsequent economic recession, which saw a more risk-adverse bank lending environment than seen in the first half of the previous decade which the markets of North Kesteven and West Lindsey have appeared to be resilient to. This made it difficult for many households to access a mortgage, with the evidence suggesting that many turned to the private rented sector which typically requires a smaller upfront financial commitment. This could also be driven by an increase in the student housing market in Lincoln, due to the expansion of the University, with the analysis presented in section 8 suggesting that there has been an increase in the proportion of students privately renting in Central Lincolnshire.
- 3.18 Interestingly, there has also been an increase in the number of households who own their home outright, without a mortgage or loan. This is likely to reflect the proportion of older households who have paid off mortgages on property over this period. This has been notably high in North Kesteven and West Lindsey, where outright ownership has increased by 26.7% and 22.6% respectively.

Vacancy

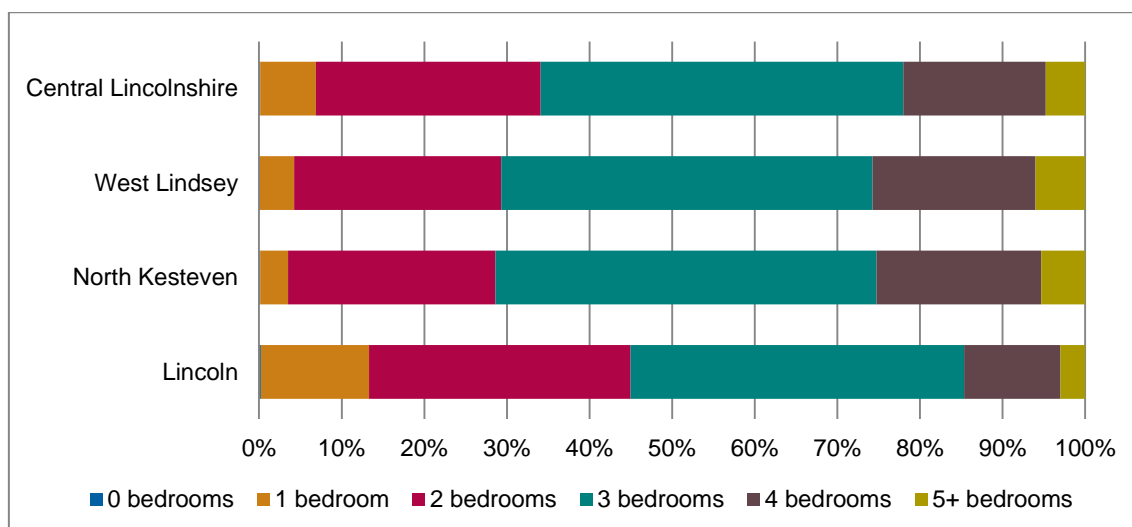
- 3.19 Council Tax data is a valuable indicator of the number of properties which are unoccupied. At any point in time the number of empty properties is likely to be impacted as a result of 'churn' in the market as people move into and out of property. It is therefore expected and reasonable for a level of vacancy to be sustained in an active housing market. In the context of the operation of the housing market it is particularly useful therefore to understand the number of properties which have been vacant for more than six months as an indicator of potential capacity or 'demand' issues associated with stock.
- 3.20 Based on analysis of Council Tax data in July 2014, a total of **361 properties** in Lincoln had been empty for more than six months, with **128 properties** vacant for more than 2 years. This represents a vacancy rate of **0.8% and 0.3% respectively**.
- 3.21 In West Lindsey, **786 properties** have been vacant for more than six months, and **288 properties** have been vacant for 2 years or more. This represents a vacancy rate of **1.9% and 0.7% respectively**.
- 3.22 In North Kesteven, **607 properties** have been vacant for six months or more, with **267 properties** vacant for over 2 years. This represents a vacancy rate of **1.2% and 0.5% respectively**.
- 3.23 Evidence obtained from DCLG suggests that the national vacancy rate of properties vacant for more than six months in 2013 was 2.7%⁴⁵, suggesting that the level of vacancy in Central Lincolnshire falls below the national average implying a comparatively strong demand for stock and suggesting that there is limited numbers of 'low demand' properties. West Lindsey records the highest level of vacancy within the three Central Lincolnshire authorities.

Dwelling Size

- 3.24 The Census allows an understanding of the size of the housing stock, measured by the number of bedrooms. This can be further developed by considering overcrowding and under-occupation, based on the number of occupants and the number of bedrooms.
- 3.25 The following graph breaks down all household spaces – with at least one usual resident – by the number of bedrooms.

⁴⁵ DCLG Live Table 615 Vacant dwellings by local authority district: England, from 2004

Figure 3.6: Number of Bedrooms 2011



Source: Census 2011

- 3.26 In Central Lincolnshire, around 66% of household spaces contain three bedrooms or more, although this is variable across the housing market area. Lincoln is evidently characterised by a high proportion of smaller stock with 45% of the stock having two bedrooms or fewer, compared to just 29% in North Kesteven. North Kesteven and West Lindsey contain a notably high proportion of larger household spaces, with around 26% of the housing stock containing 4 or more bedrooms.

Stock Condition and Quality

- 3.27 In 2014, the Councils commissioned a joint survey of the condition of private stock⁴⁶. This provides valuable qualitative context on the housing stock in Central Lincolnshire.
- 3.28 For Lincoln, the assessment indicates that around 8% of all stock is in disrepair, which is slightly higher than the rate for Lincolnshire or indeed North Kesteven and West Lindsey. This is particularly driven by comparatively high levels of disrepair in the city's private rented stock. This sector also contains a relatively high number of households on lower incomes, as does all stock in Lincoln. Overall, however, a relatively low proportion of stock contains a category 1 hazard⁴⁷, and Lincoln falls below all other authorities in the county for property of all types.
- 3.29 A slightly higher proportion of stock in North Kesteven has a category 1 hazard, although this falls slightly below the county average. Relatively few dwellings are in disrepair in the district, with the lowest levels of disrepair in all types of property.
- 3.30 West Lindsey contains a relatively high proportion of stock with a category 1 hazard, exceeding all Lincolnshire authorities except East Lindsey. This is high across all types of property, although it is particularly high for private rented stock, where there are a comparatively high number of dwellings in disrepair.

⁴⁶ BRE (2014) Dwelling Level Housing Stock Modelling and Database for Lincolnshire County

⁴⁷ Category 1 hazard under the Housing Health and Safety Rating System (HHSRS), reflecting both condition and thermal efficiency

Bringing the Evidence Together

- 3.31 This section provides a valuable insight into the current housing stock in Central Lincolnshire, and recent change. This highlights the sizeable growth in the dwelling stock over the decade to 2011 – surpassing the national growth rate – with North Kesteven seeing the greatest increase, although it is notable that growth has been distributed throughout the three authorities. The area is characterised by a high concentration of detached stock – particularly in North Kesteven and West Lindsey – although Lincoln has much higher levels of terraced housing and flats. Flats in particular have seen a significant increase between 2001 and 2011, although detached stock has also seen growth, particularly in North Kesteven and West Lindsey.
- 3.32 In Central Lincolnshire, around two thirds of household spaces contain three bedrooms or more, suggesting a relative concentration of larger housing. There is again, however, variation between the districts of North Kesteven and West Lindsey and the City of Lincoln, with the latter characterised by a higher proportion of smaller stock.
- 3.33 The Councils have also commissioned a joint survey to understand the quality and condition of private stock, with Lincoln containing a relatively high proportion of stock in disrepair compared to the wider county or neighbouring authorities. This is particularly driven by disrepair in the private rented sector, although it is notable that the city has relative few properties containing a major hazard. A higher proportion of stock contain such hazards in North Kesteven and, particularly, West Lindsey, where there are particularly notable issues with private rented stock.
- 3.34 The analysis also shows that the level of vacancy in Central Lincolnshire is relatively low, particularly compared to the national rate. A total of around 1,750 properties have been empty for longer than six months, with 683 properties vacant for over two years.
- 3.35 It is also beneficial to understand tenure trends, and this highlights that around two thirds of households are owner occupiers, which is slightly higher than the national average. Outright ownership is comparatively high in North Kesteven and West Lindsey, with Lincoln characterised by a high level of social and private renting. The latter in particular has seen a significant growth between 2001 and 2011, following national trends.

4. Demographic and Economic Drivers of the Market

- 4.1 Guidance on the preparation of SHMAs highlights the importance of establishing an understanding of the key drivers of historic trends related to the housing market. Demographic evidence, including population and household dynamics, is a central factor in assessing the overall future need and demand for housing.
- 4.2 It is important in considering these factors to note their inter-related nature. Market and economic factors, for example, will have influenced the historic demographic change considered in this section. For example, the recent economic downturn has contributed to a slowdown in the levels of completions. In addition, wider financial factors - including the availability of mortgages and comparatively limited growth in incomes – have impacted on the ability of households to access finance and therefore exercise choice within the housing market. Collectively, these factors, in turn, have potentially impacted on levels of household formation and potentially wider migration flows.
- 4.3 It is therefore equally important to consider economic and market factors alongside demographic factors, while adopting a more forward-looking approach to understand their impacts on the future level of housing demand in Central Lincolnshire. In addition – as both the NPPF and PPG identify – there is a clear steer from the government to facilitate and encourage opportunities for growth, necessitating a recognition of the role that housing has to play in enabling employment generation and business investment decisions.
- 4.4 On this basis, this section considers both demographic and economic factors, with further analysis developed in section 5 related to market signals.

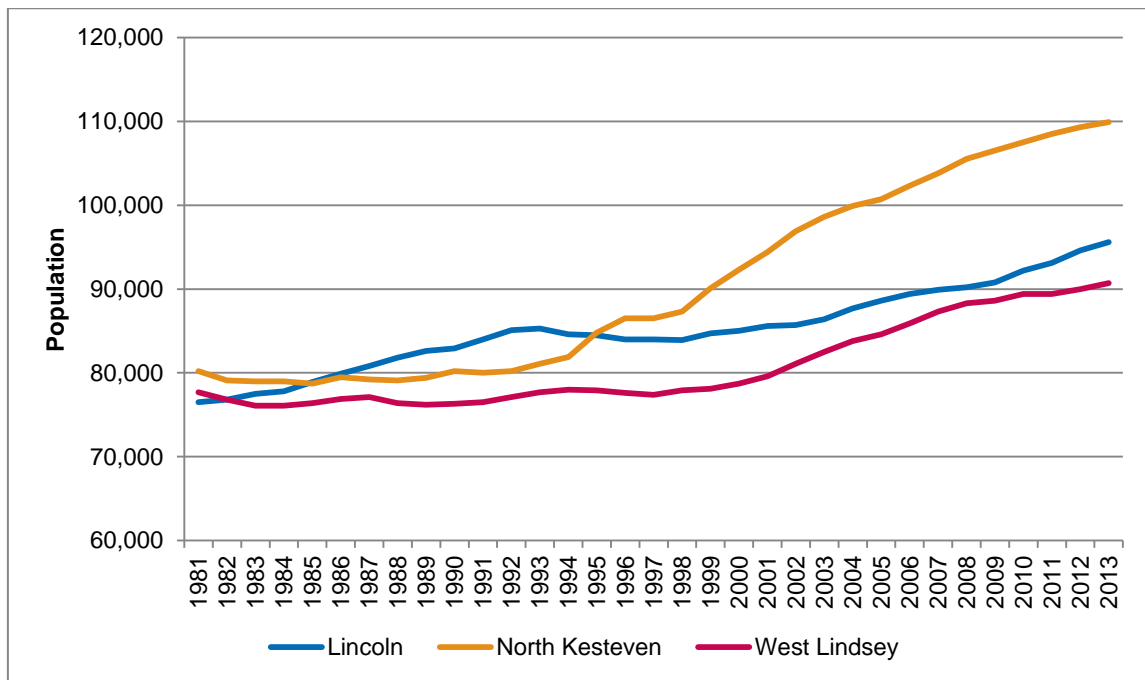
Demographic Drivers of Change

- 4.5 Demographics have traditionally been a key component of understanding current housing markets and projecting future demand, through a combination of demographic forecasts and supply side information. This approach recognises how changing demographic conditions influence the housing market, through overall housing requirements and the requirements of specific groups, such as the elderly, which will be considered in further detail later in this report.

Population

- 4.6 Analysis of long-term population change can be undertaken using mid-year population estimates (MYE) produced by ONS. The MYE dataset estimates the total population within each local authority at the mid-point of the year. The following graph shows how the population of each authority has changed since 1981.

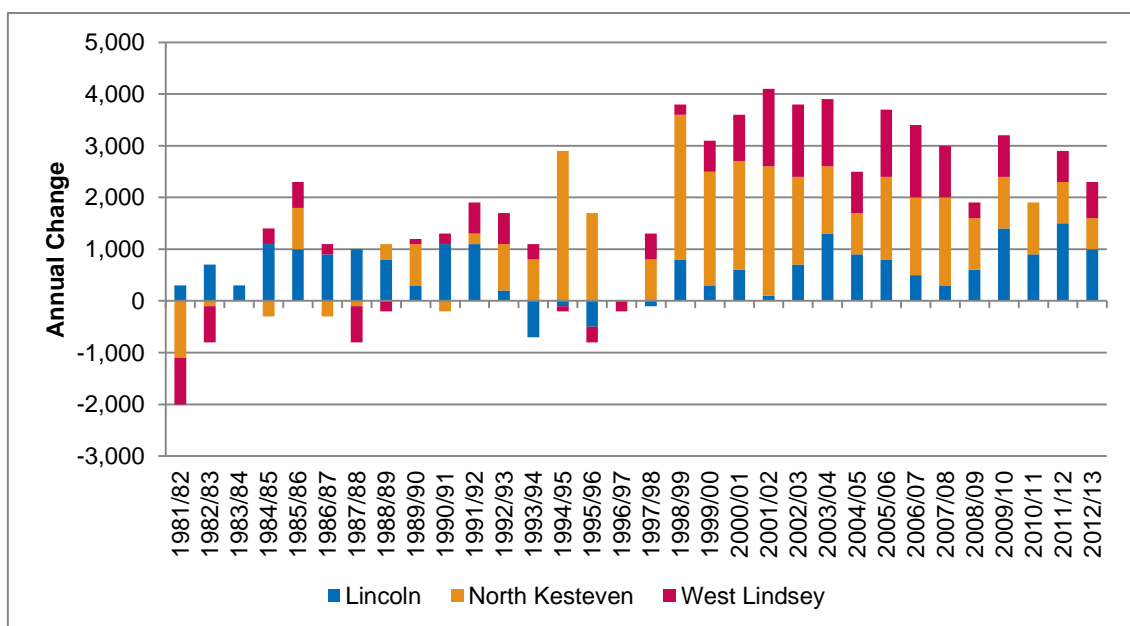
Figure 4.1: Change in Mid-Year Population Estimates 1981 – 2013



Source: ONS, 2014

- 4.7 All authorities saw a growth in population from the late 1990s until the present day, with North Kesteven in particular seeing more notable growth over this time. As the following graph shows, Central Lincolnshire has seen sustained population growth annually since 1997, although it is noted that prior to 1997 the area saw more muted growth annually even seeing a contraction over a number of isolated years.

Figure 4.2: Annual Change in Population 1981 – 2013



Source: ONS, 2014

- 4.8 Focusing on more recent history, population data from the 2011 Census can be compared against the 2001 Census to understand how population has changed over this period.

Figure 4.3: Population Change 2001 – 2011

Authority	2001	2011	Change	%
Lincoln	85,595	93,541	7,946	9.3%
North Kesteven	94,024	107,766	13,742	14.6%
West Lindsey	79,515	89,250	9,735	12.2%
Central Lincolnshire	259,134	290,557	31,423	12.1%
England	49,138,831	53,012,456	3,873,625	7.9%

Source: Census 2001, Census 2011

- 4.9 Over the period shown, the population of Central Lincolnshire increased by 31,423 residents, with this representing growth of around 12% and just over 3,100 persons per annum on average. North Kesteven saw the greatest level of growth – both in absolute and proportional terms – and remains the largest district in population terms in Central Lincolnshire. All authorities have grown at a faster rate than seen nationally.
- 4.10 Analysis of population change since 2011 can be undertaken based on the MYE dataset. Estimates have been published for 2011, 2012 and 2013 since the Census was undertaken in March 2011⁴⁸. This is summarised in the following table.

Figure 4.4: Population Change 2011 – 2013

Authority	Census	MYE		
	2011	2011	2012	2013
Lincoln	93,541	93,085	94,588	95,623
North Kesteven	107,766	108,518	109,263	109,906
West Lindsey	89,250	89,352	90,047	90,715
Central Lincolnshire	290,557	290,955	293,898	296,244

Source: ONS, 2014

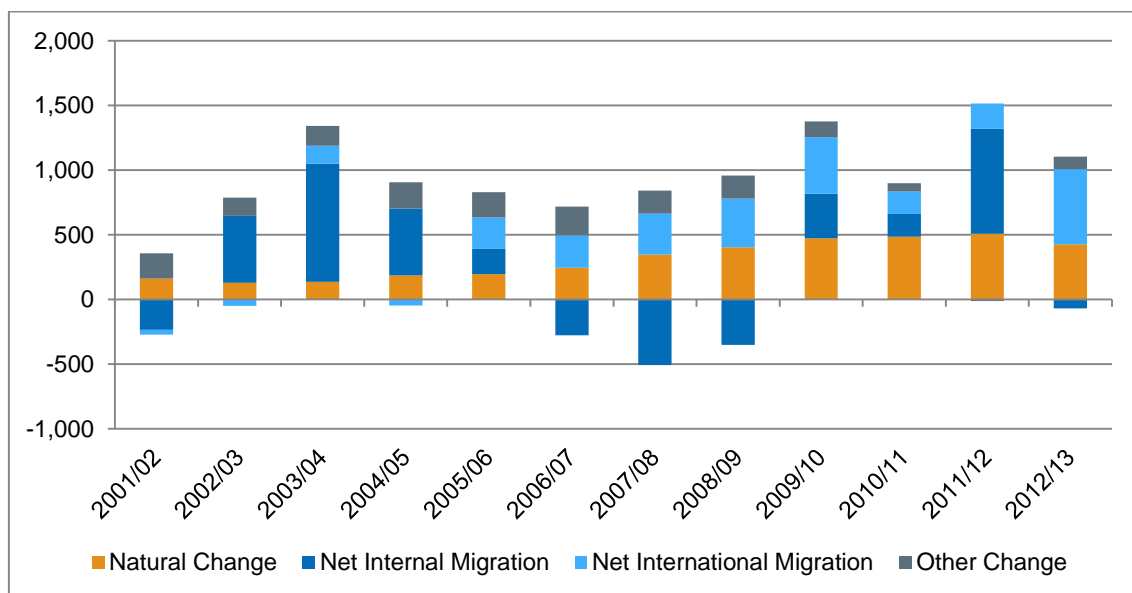
- 4.11 This table shows that the population of Central Lincolnshire has continued to grow since 2011, with the population growing by 5,687 residents – or 2% - over the two years since the Census was undertaken. This results in an average growth of 2,843 per annum which is slightly below the longer term average shown above between 2001 and 2011.

⁴⁸ The modelling undertaken in section 6 uses 2012 as a base date, given that the 2013 MYE was not published at the time the original modelling was undertaken by Edge Analytics. For consistency the modelling has retained this base date. Consideration has, however, been given to the 2013 MYE in the analysis in this section and section 6.

Components of Population Change

- 4.12 The MYE dataset allows a further analysis of population to be undertaken in order to identify the components of population change. This can be done by considering the relationship between natural change – i.e. the difference between births and deaths – and migration, and determining the relative role of these components in shaping overall increases and decreases.
- 4.13 The graphs also highlight other change as a further component. A revision to mid-year population estimates resulted in an adjustment, which Edge Analytics assert is primarily associated with the mis-estimation of international migration. ONS has not explicitly assigned the mid-year estimate adjustment to international migration, but instead identified an additional ‘other unattributable’ component – shown in the graph as ‘other change’. This is considered further later in this section.

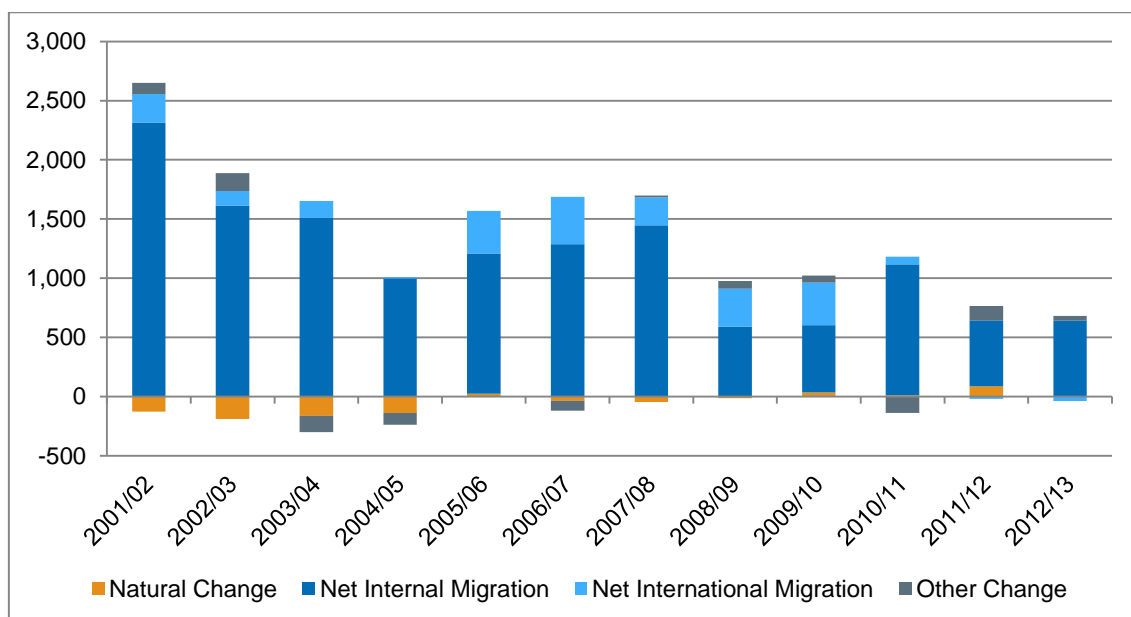
Figure 4.5: Components of Population Change 2001 – 2013 – Lincoln



Source: ONS, 2013

- 4.14 In Lincoln, there has been an interesting trend in migration, with a significant fall from 2003/04 which led to a net outflow of residents to other parts of the UK between 2006 and 2009. This has, though, largely recovered in recent years, although between 2012 and 2013 there was a net outflow of internal migrants. The influence of international migration has also grown, and natural change remains an increasingly important driver of population growth.

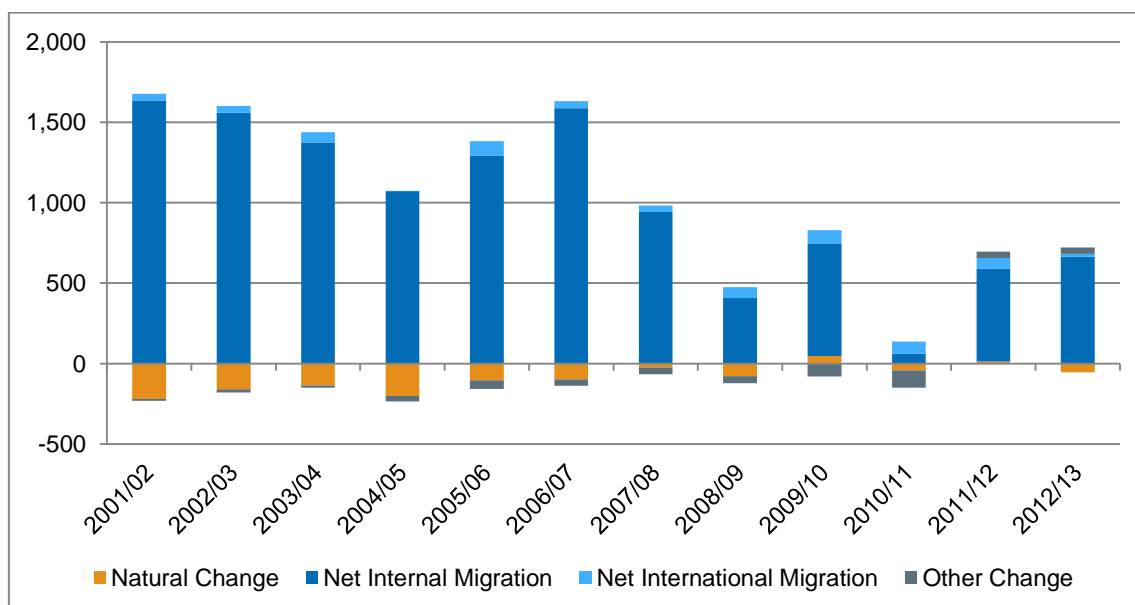
Figure 4.6: Components of Population Change 2001 – 2013 – North Kesteven



Source: ONS, 2013

- 4.15 There has clearly been significant net immigration into North Kesteven over the period shown, although this has followed a general declining trend. International migration has also contributed to population growth. It is also clear that there is a relative balance between births and deaths, particularly since 2005.

Figure 4.7: Components of Population Change 2001 – 2013 – West Lindsey



Source: ONS, 2013

- 4.16 Similarly, West Lindsey has also seen significant net immigration over the period shown, although this has declined over recent years. Natural change factors suggest that

deaths have largely outnumbered births over the last decade, although there is an improving trend.

Impact of the Recession

- 4.17 The analysis presented above shows that – particularly in West Lindsey and North Kesteven – the rate of internal migration has fallen over recent years, and this has coincided with a national economic recession which had significant effects on employment, the housing market and demographics. Analysis by the ONS⁴⁹ shows that the number of internal migration movements between English regions and between UK countries decreased by about 6% in the year to mid-2009, compared with the two previous years. This is partially linked to the fall in property sales – considered further in section 5 – which was due to increased difficulty in obtaining a mortgage, resulting in people being less likely to move house. Contraction in the labour market also had an impact, given that many moves are made for job-related reasons.
- 4.18 It is therefore beneficial to establish average net migration flows in Central Lincolnshire before, during and after the recession, in order to establish the extent to which this has been influenced by the more recessionary national and local climate. The following table summarises the average annual net migration flow for each authority before (2001 – 2007) and after (2007 – 2012) the recession. This includes both internal and international migration, but excludes unattributable population change (UPC), which is considered separately below.

Figure 4.8: Change in Average Annual Net Migration Flow

	Average Annual Net Migration		% Change
	2001 – 2007	2007 – 2012	
Lincoln	355	395	11.3%
North Kesteven	1,697	1,046	-38.4%
West Lindsey	1,468	604	-58.9%
Central Lincolnshire	3,520	2,045	-41.9%

Source: ONS, 2014

- 4.19 The scale of net migration to Central Lincolnshire has fallen considerably following the recession, with the annual average net inflow reducing by around 42%. This has been driven by falls in net migration to North Kesteven and West Lindsey in particular, with Lincoln actually seeing a slight increase in net flows following the recession.

Unattributable Population Change

- 4.20 Following the results of the 2011 Census, the ONS revised their mid-year estimates to align with the 2011 Census. Nationally, this highlighted a difference of 103,700 between the rolled forward 2011 MYE and the 2011 Census-based MYE. The ONS has not explicitly assigned the mid-year estimate adjustment to a component of change, instead identifying an additional unattributable population change (UPC) component.

⁴⁹ ONS (2011) Regional Trends 43 – Impact of the Recession

- 4.21 It is therefore beneficial to establish the extent to which UPC has an impact on assumed migration levels in Central Lincolnshire. The following table summarises the total 'other change' recorded between Census years for each authority.

Figure 4.9: Total Unattributable Population Change 2001 – 2011

	Total UPC
Lincoln	1,648
North Kesteven	-80
West Lindsey	-443
Central Lincolnshire	1,125

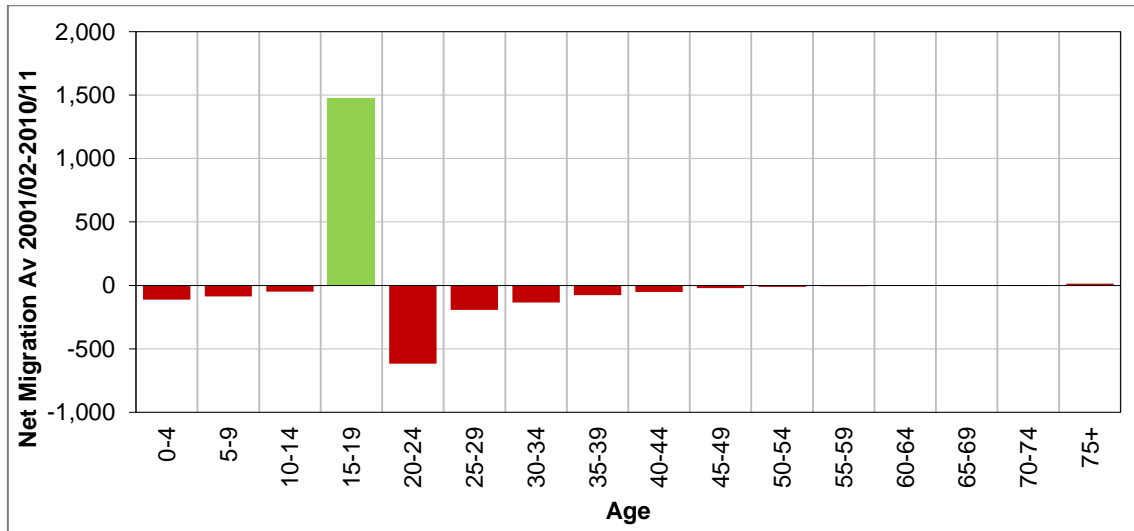
Source: ONS, 2014

- 4.22 Across Central Lincolnshire, there was a total UPC of 1,125 between 2001 and 2011, equivalent to around 4% of all population change over this period. UPC therefore has only a marginal effect on the recorded population of Central Lincolnshire, although it is important to note that it has a different effect for each authority – with a positive UPC in Lincoln and a negative UPC in North Kesteven and West Lindsey – which may suggest a slightly different historical distribution of population growth than previously estimated by the ONS.

Age of Internal Migrants

- 4.23 The analysis undertaken by Edge Analytics – derived from the Patient Register Data Service (PRDS) – allows an understanding of the social profile of migrants, with age a key indicator. The graph below breaks down migrants by age group, based on net average migration flows over the period from 2001/02 to 2010/11. This data is used by the ONS in its mid-year population estimates and forms the basis for estimating migrant flows between local authority areas. Separate graphs are presented for Lincoln, North Kesteven and West Lindsey.

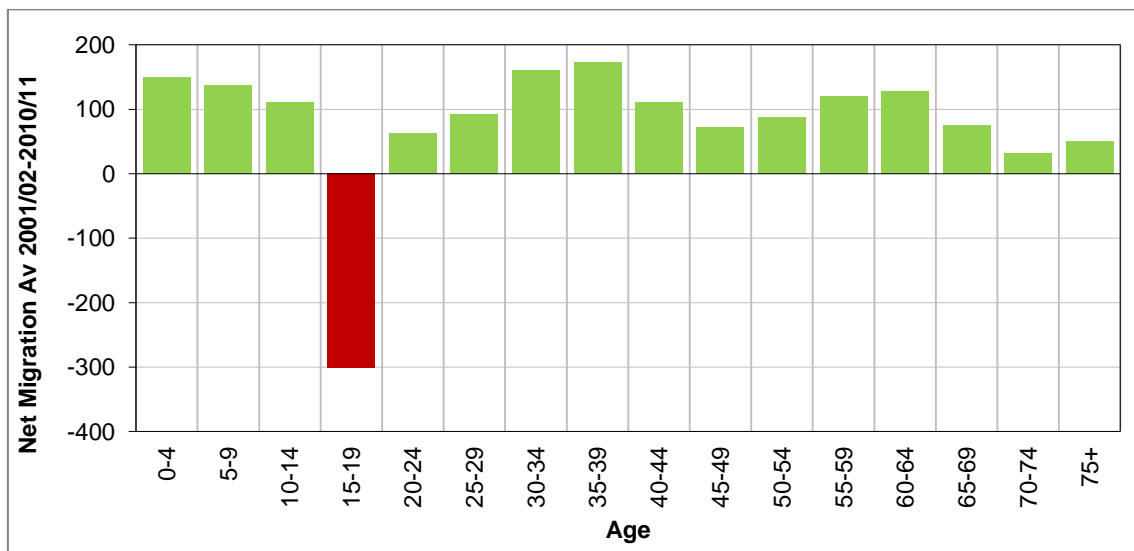
Figure 4.10: Age Group Net Flows 2001/02 – 2010/11 – Lincoln



Source: PRDS, Edge Analytics 2014

- 4.24 As shown, Lincoln has a significant net inflow of people aged 15 to 19, with this inflow – of around 1,500 people on average – likely associated with inward movement of prospective University students. There is a subsequent outflow of residents aged 20 to 24 – with many graduating and moving elsewhere – and indeed there is also a net outflow of older age groups up to around aged 50. In subsequent age groups, migration is relatively balanced.

Figure 4.11: Age Group Net Flows 2001/02 – 2010/11 – North Kesteven

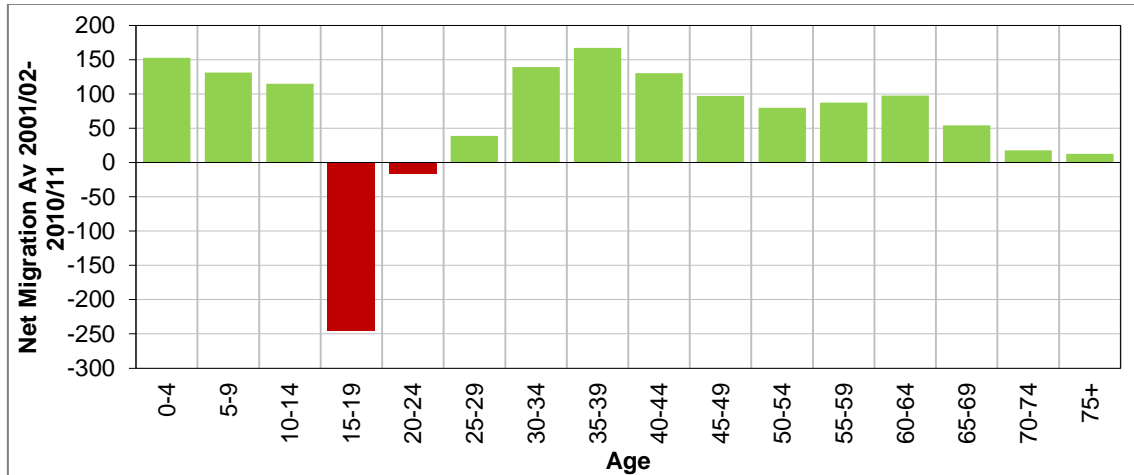


Source: PRDS, Edge Analytics 2014

- 4.25 The profile for North Kesteven notably differs from Lincoln, with a net inflow of all age groups with the exception of 15 to 19 year olds, with many moving elsewhere to study at University, for example. Given that there is not a similarly sized inflow in subsequent

age groups, this suggests that many students do not return to North Kesteven after graduation.

Figure 4.12: Age Group Net Flows 2001/02 – 2010/11 – West Lindsey



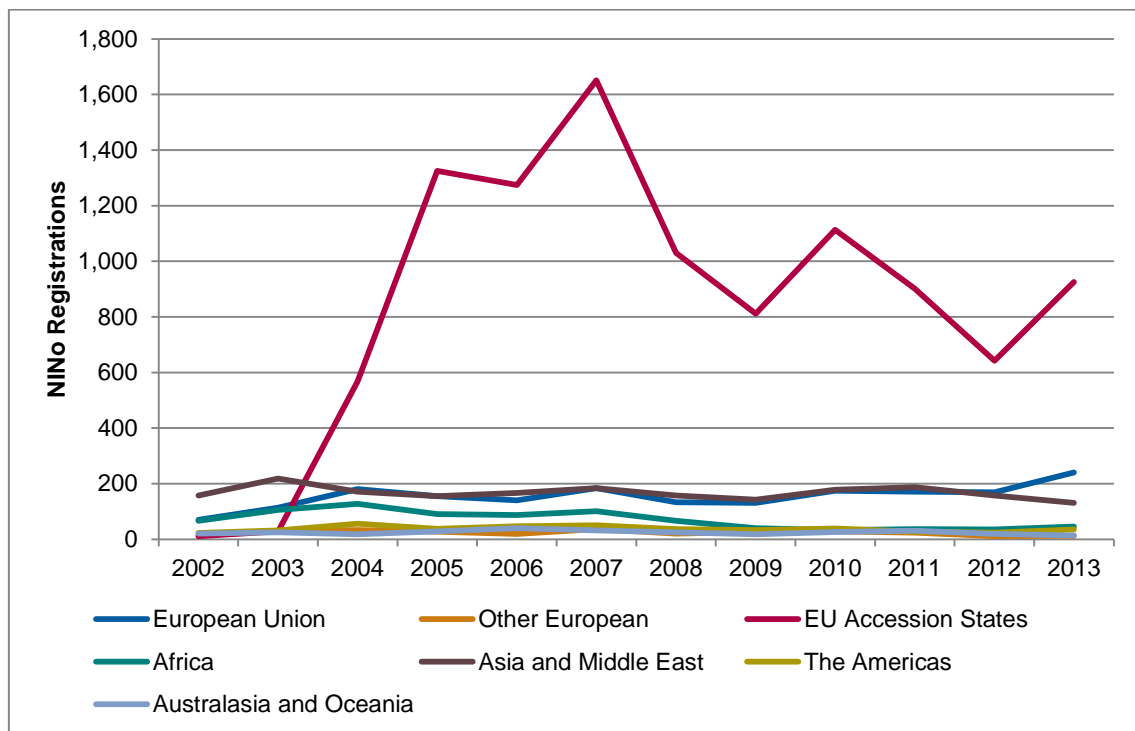
Source: PRDS, Edge Analytics 2014

- 4.26 West Lindsey is similar to North Kesteven, with a net inflow of all age groups except for those aged 15 to 24. Again, this suggests that many young people move away from the district, with relatively few returning immediately after graduation, for example.

International Migration

- 4.27 International migration has also been shown to be an important component of population change in Central Lincolnshire, particularly in Lincoln and – historically – North Kesteven.
- 4.28 The following graph shows the number of international migrants to Central Lincolnshire, through an assessment of National Insurance Number (NINo) registrations sourced from the Department for Work and Pensions (DWP). Migrants are grouped by world region, with the number of registrations per calendar year shown. It should be noted that this data should not be directly compared with the analysis into components of population change, as this is a measure of gross registrations – i.e. immigration – and does not take account of emigration.

Figure 4.13: Central Lincolnshire NINo Registrations to Adult Overseas Nationals Entering the UK



Source: DWP, 2014

- 4.29 As shown, there has been considerable growth in the number of NINo registrations in Central Lincolnshire from migrants originating in EU Accession countries, which was driven by enlargement of the European Union in 2004. This has clearly been the major driver of international migration in Central Lincolnshire, with all other world regions accounting for fewer than approximately 200 registrations per year.
- 4.30 Further analysis highlights, however, that the majority of this international immigration has been centred around Lincoln, with around 69% of NINo registrations since 2002 registered in Lincoln. Around one in five registrations have been in North Kesteven, with 11% in West Lindsey. This is an important reference point in considering the scale of UPC, and its distribution in the earlier section. The extent to which international migration is mis-estimated is widely considered to be an important factor in the correction required and indicated by UPC. The analysis of the NINo data highlights that the under-count in population could well be attributed to the comparatively high levels of registrations in Lincoln, with this most likely to have occurred prior to 2008 based on the notable spike between 2004 and 2008.
- 4.31 Further context can be added by considering the age profile of NINo registrations, with this presented in the following table for the calendar year of 2013. This shows that over three quarters of registrants in Central Lincolnshire are aged 18 to 34, while a high proportion of registrants in Lincoln and North Kesteven in particular are aged 18 to 24. Overall, this suggests that international migrants are typically younger, with fewer than 2% of registrants aged 55 or over.

Figure 4.14: Age of NINo Registrants 2013

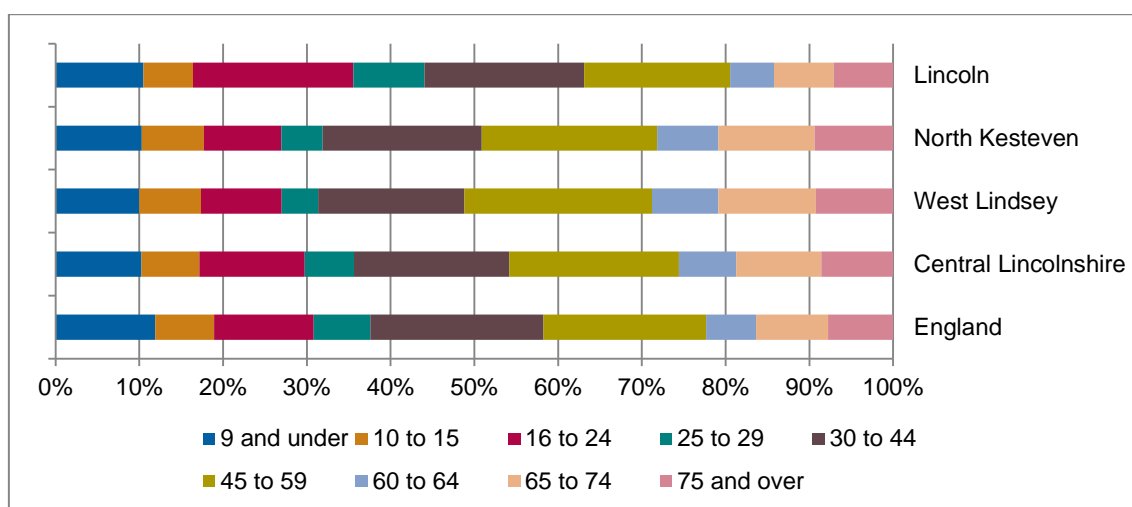
	Up to 18	18 – 24	25 – 34	35 – 44	45 – 54	55 – 59	Over 60
Lincoln	1.3%	41.6%	36.6%	12.4%	6.4%	1.1%	0.6%
North Kesteven	1.1%	40.4%	35.0%	14.7%	6.6%	1.4%	0.7%
West Lindsey	1.2%	32.6%	38.0%	17.6%	8.4%	1.0%	1.3%
Central Lincolnshire	1.2%	40.4%	36.4%	13.4%	6.7%	1.2%	0.7%

Source: DWP, 2014

Age

- 4.32 Population data can also be grouped by age to show the distribution between age groups. This is important in understanding how the age profile of Central Lincolnshire has changed over time, and will be considered in relation to the differing housing requirements of different age groups. The following graph summarises the age structure of the local population, presented separately and amalgamated for the Central Lincolnshire authorities. England is also included as a comparator.

Figure 4.15: Age Profile 2011

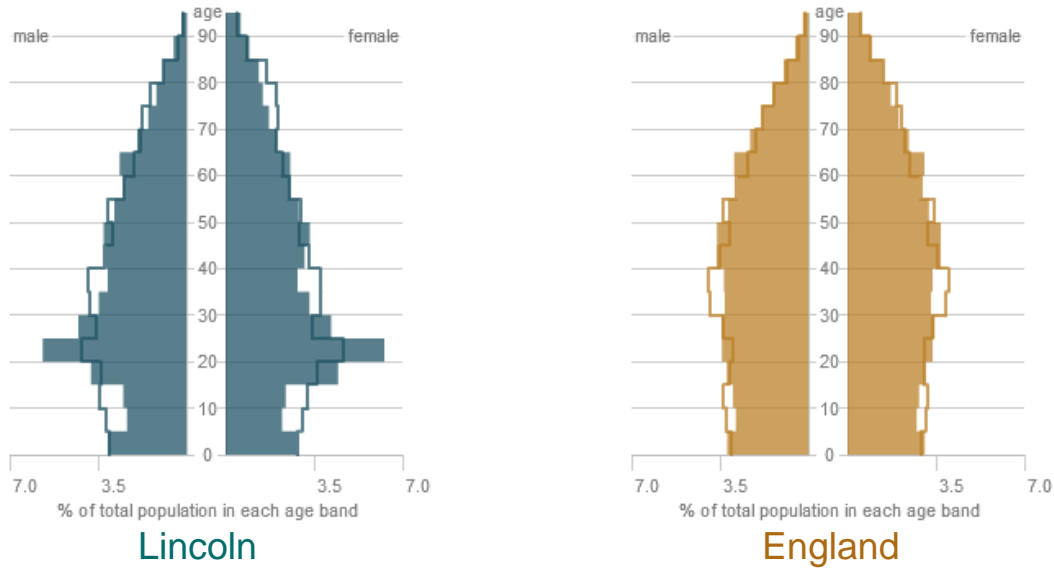


Source: Census 2011

- 4.33 As shown, Lincoln in particular has a relatively large population of younger people, with this likely associated with the Universities in the city. Older people consequently make up a smaller proportion of the population than in North Kesteven or West Lindsey, or indeed the national average.
- 4.34 In contrast, West Lindsey and North Kesteven share similar characteristics, with a smaller proportion of younger people and around half of residents aged 45 or over. There are also a sizeable number of residents aged 65 and over.
- 4.35 It is also important to understand how the age profile of the Central Lincolnshire authorities has changed over time, with the graphics below showing the age profile of each authority against the profile for England. The coloured bars show the proportion of

the population within each age band at the time of the 2011 Census, while the outlines show the comparable age structure from 2001.

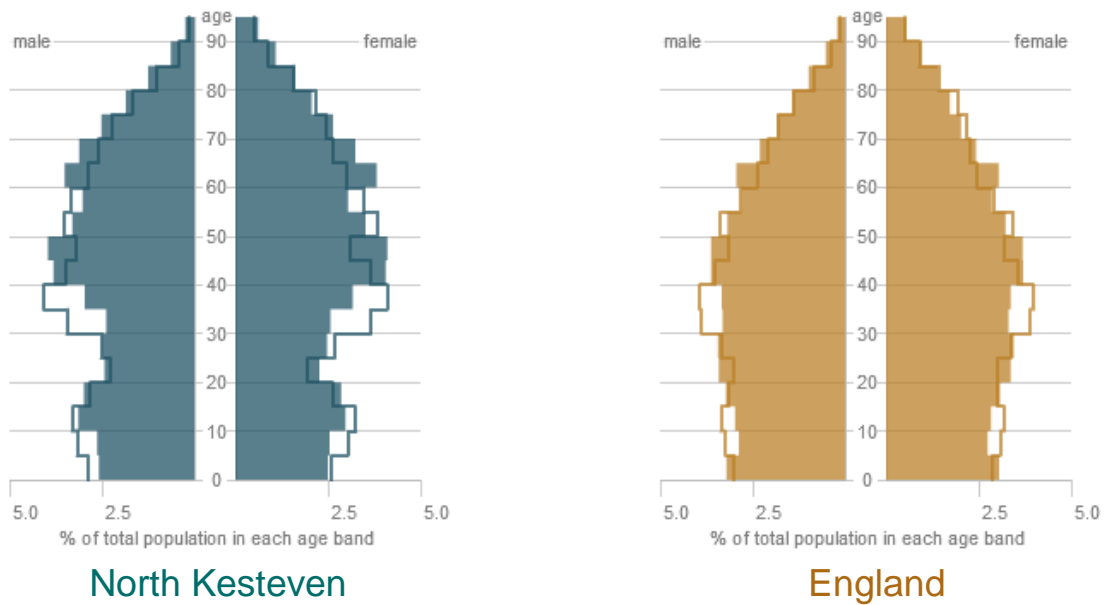
Figure 4.16: Age Profile of Lincoln and England 2011



Source: 2011 Census, 2001 Mid-Year Population Estimates. Graphic by ONS Data Visualisation Centre

- 4.36 The age profile of Lincoln clearly differs from the national profile, with a notably high proportion of younger people. The number of residents aged 15 to 30 has increased, although there has been a fall in the proportion of children and those aged 30 to 40, suggesting a reduced number of families in the city.

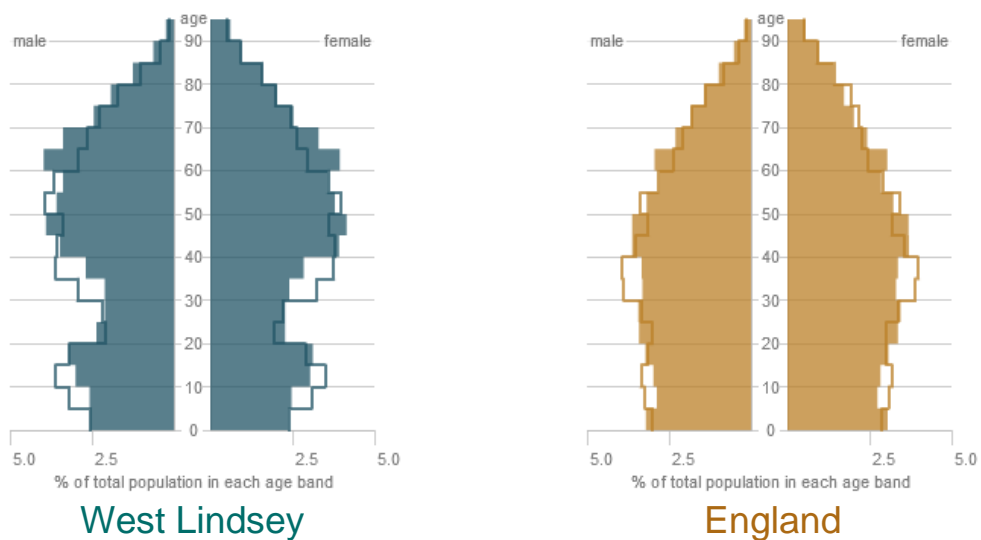
Figure 4.17: Age Profile of North Kesteven and England 2011



Source: 2011 Census, 2001 Mid-Year Population Estimates. Graphic by ONS Data Visualisation Centre

- 4.37 The profile for North Kesteven also differs from the national picture, with comparatively few in younger age groups – and particularly those aged 25 to 40, which has fallen proportionately since 2001 – and over-representation of older age groups. Since 2001, there has been an increase in the proportion of residents aged 60 and over, with a fall in the proportion of children and those aged 50 to 60.

Figure 4.18: Age Profile of West Lindsey and England 2011



Source: 2011 Census, 2001 Mid-Year Population Estimates. Graphic by ONS Data Visualisation Centre

- 4.38 The profile for West Lindsey is comparable to that for North Kesteven, with a high proportion of older people and relatively few younger people. There has also been a considerable fall in the proportion of people aged 30 to 40, with growth in those aged 60 and over. This again suggests a decline in the number of families, particularly given that there are proportionately fewer children in the district in 2011.

Households

- 4.39 It is important to consider the relationship between the total population and the total number of households, in order to understand the rate of household formation in recent years in Central Lincolnshire. This is presented in the following table.

Figure 4.19: Change in Total Number of Households 2001 – 2011

Authority	2001	2011	Change	%
Lincoln	36,643	39,825	3,182	8.7%
North Kesteven	38,870	45,972	7,102	18.3%
West Lindsey	32,872	38,385	5,513	16.8%
Central Lincolnshire	108,385	124,182	15,797	14.6%

Source: Census 2001, Census 2011

- 4.40 As shown, around 15,800 households formed in Central Lincolnshire between 2001 and 2011, at an average annual rate of 1,580 per annum. Around 45% of these households formed in North Kesteven – which saw the greatest increase in the number of households – with West Lindsey also seeing a similar proportional increase. Lincoln, however, saw a lower level of growth.
- 4.41 This analysis allows average household size to be calculated, by dividing the usual resident household population⁵⁰ by the total number of households in each authority. This is presented in the following table, with figures for 2001 and 2011 shown to allow comparison. England is also included for context.

Figure 4.20: Change in Average Household Size 2001 – 2011

Authority	2001	2011
Lincoln	2.28	2.21
North Kesteven	2.37	2.31
West Lindsey	2.38	2.29
Central Lincolnshire	2.34	2.27
England	2.36	2.36

Source: Census 2001, Census 2011

⁵⁰ Excluding those living in residential institutions

- 4.42 All three Central Lincolnshire authorities have seen a notable fall in household size, with an average of 2.27 residents per household in 2011 – lower than the national figure. Households in Lincoln are typically smallest, with larger households in North Kesteven.
- 4.43 It is important to highlight that whilst national household size has remained constant across Central Lincolnshire it is apparent that the average household size has continued to fall, with this true of all three authorities. This forms an important context in considering whether household formation rates have been constrained by supply, a factor considered further within the modelling in section 6.

Economic Drivers of Change

- 4.44 The PPG notes that likely change in employment and the local economy should be taken into account when assessing the need for housing, and this section therefore considers the economic drivers of change in Central Lincolnshire.
- 4.45 This analysis draws upon the findings of the Economic Needs Assessment (ENA) prepared by Turley and Ekosgen⁵¹, which was commissioned to form a key part of the evidence base for the emerging Local Plan by objectively assessing the future demand for jobs and employment land. This provides an assessment of likely change in job numbers, as required by the PPG⁵².
- 4.46 This section initially focuses on the historic economic picture in Central Lincolnshire, including a summary of key labour market indicators at the current point in time, before looking at forecast likely job growth in the authorities.

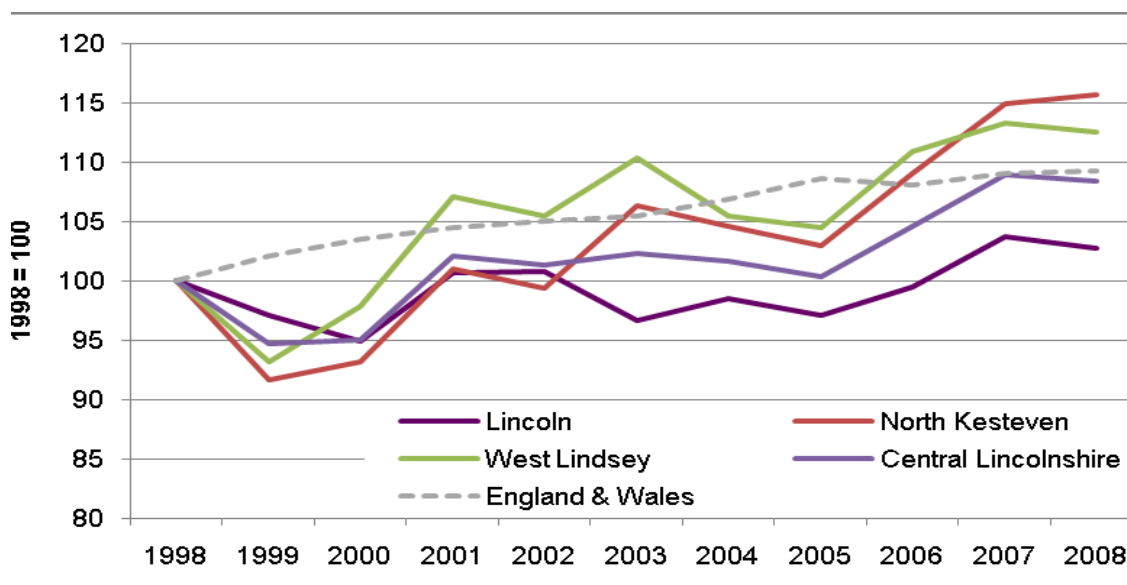
Historic Trends

- 4.47 The ENA includes an assessment of trends during the most recent economic growth period – from 1998 to 2008 – and more recent trends between 2009 and 2012, which have covered a post-recessionary period. This includes analysis of trends relating to employment, sectoral changes and the business base of Central Lincolnshire.
- 4.48 The ENA highlights that Central Lincolnshire saw an 8% increase in employment between 1998 and 2008, compared to a national growth rate of 9%. Growth in the area is considered to be more erratic compared to the national profile, with periods of sharp increase and decline evident in each of the local authority areas. Growth in North Kesteven and West Lindsey in particular was sharp between both 1999 – 2001 and 2005 – 2007 – exceeding the national average – but growth in Lincoln was lower than the national rate. This is illustrated in the following graph, which shows the rate of employment change between 1998 and 2008.

⁵¹ Turley/Ekosgen (2015) Central Lincolnshire Economic Needs Assessment (June 2015 Final Draft)

⁵² http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

Figure 4.21: Rate of Employment Change 1998 – 2008



Source: Annual Business Inquiry

- 4.49 Overall, the analysis in the ENA suggests that 8,700 net jobs were created between 1998 and 2008, at an average annual rate of around 870 jobs per annum. Over half of this growth was seen in North Kesteven, as summarised in the following table.

Figure 4.22: Net Change in Employment 1998 – 2008

	Total Net Change 1998 – 2008	Average Annual Change
Lincoln	1,400	140
North Kesteven	4,500	450
West Lindsey	2,800	280
Central Lincolnshire	8,700	870

Source: Annual Business Inquiry

- 4.50 Focusing on more recent growth trends, the ENA notes that Central Lincolnshire saw a decline in total employment between 2009 and 2012 – following the trends of the wider Local Enterprise Partnership (LEP) – with both the public and private sectors contracting. BRES data suggests that over the three years employment fell by on average 1,540 jobs per annum. This differed from the national trend, where growth in the private sector compensating for decline in the public sector, albeit with relative stability in the total number of employees.
- 4.51 Total employment in Central Lincolnshire shrank by around 4% between 2009 and 2012, driven by a circa 12% contraction in public sector employment and a reduction of around 1.5% in the private sector. Public sector decline in particular exceeded the

national rate of around 5%, suggesting that the area was disproportionately affected by the fall in public sector employment.

Current Labour Market

- 4.52 The ENA also includes an assessment of the current labour market in Central Lincolnshire, which highlights that – based on the Annual Population Survey – 74.7% of the working age population of the area is in employment. This exceeds both the national and Greater Lincolnshire rate, suggesting a strong utilisation of the labour force and/or a potentially limited capacity for greater utilisation. The unemployment rate of 5.8% is also lower than the Greater Lincolnshire and national rate, with a lower level of economic inactivity. This is summarised in the following table, replicated from the ENA. It should be noted that the unemployment and inactivity rates are shown as a proportion of the working age population, with the unemployment rate derived as a proportion of economically active residents.

Figure 4.23: Labour Market Indicators 2014

	Central Lincolnshire		Greater Lincolnshire	England & Wales
	No.	%	%	%
Employment	134,200	74.7	73.0	71.8
Unemployment	8,300	5.8	6.7	7.3
Inactivity	37,200	20.7	21.7	22.6

Source: Annual Population Survey

- 4.53 It is noted that the high employment rate is driven by strong levels of employment and economic activity in Lincoln and North Kesteven, which both outperform the national average. West Lindsey, however, has a lower employment rate, due to higher levels of inactivity, although unemployment remains largely in line with the national position.

Likely Future Job Growth

- 4.54 The PPG highlights the importance of taking employment trends into account:

“Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area”⁵³

- 4.55 The ENA draws upon a detailed analysis of a range of economic datasets and forecasts to independently devise and test a number of employment growth scenarios, providing evidence on the level of employment growth that Central Lincolnshire is expected to support over the plan period from 2012 to 2036.
- 4.56 Within the ENA, economic forecasts are highlighted as an important source for understanding the potential scale of job growth within local economies, although it is noted that – due to variance in underpinning assumptions and quarterly updates – the

⁵³ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

forecast levels of growth can vary notably between different forecasts. It is therefore considered beneficial to compare forecasts from different models and different time periods, with the ENA presenting analysis of three sets of baseline employment forecasts from two respected professional forecasting houses:

- Oxford Economics, based on the Summer 2014 release;
- Experian Local Market Forecast Quarterly, June 2014; and
- Experian Local Market Forecast Quarterly, September 2014.

4.57 The ENA notes that the levels of growth forecast at both national and local levels varies between the three sets of forecasts, with Experian generally suggesting more buoyant growth rates than the Oxford Economics model. The levels of job growth associated with each baseline scenario are summarised below.

Figure 4.24: Comparison of Economic Forecasts – Total Job Creation 2012 – 2030

	Experian (June 2014)	Experian (September 2014)	Oxford Economics (Summer 2014)
Lincoln	8,450	10,510	3,600
North Kesteven	7,230	5,350	5,248
West Lindsey	4,100	5,560	3,349
Central Lincolnshire	19,780	21,420	12,197

Source: Experian, Oxford Economics

4.58 The ENA does, however, highlight concerns about the scale of growth forecast in the Experian models, in light of recent and historic growth trends, with a recognition that the economic recovery is slower in Central Lincolnshire relative to the national position, with Lincoln capturing only low levels of growth during the last major growth period but expected by Experian to be the main centre for growth. The volatility and variances between the two Experian models is also noted as a concern.

4.59 Based on this evidence – and consultation with local businesses – the ENA considers that there is sufficient evidence to recommend that the Oxford Economics forecasts provide the most robust baseline position for future likely employment growth in Central Lincolnshire. The scale of growth is considered to be realistic, based on the area's performance in the previous growth period and recent indications of slowed business confidence and growth in the interim period.

4.60 The ENA also develops and presents two variant 'adjusted scenarios', which apply different levels of optimism to the baseline position to take account of specific local evidence. The first adjusted scenario applies higher growth rate assumptions to a number of specific industrial sectors, based on local market intelligence. The second adjusted scenario applies slightly more conservative adjustments albeit still representing a more positive position than the baseline rates of growth assumed by Oxford

Economics. The adjustments and the justification behind them are identified throughout the data analysis and conclusions in the ENA report, particularly in section 9.

- 4.61 The ENA also includes an adjustment to the timing of growth, with baseline forecasts showing a high level of growth in the early years of the projection period and particularly between 2013 and 2014. Given that data was not available at the point at which the analysis was undertaken to confirm if this was realised, the revised levels of growth in the variant adjusted economic scenarios have been evenly distributed between 2012 and 2030.
- 4.62 The baseline and adjusted scenarios for each local authority are aggregated to provide results at Central Lincolnshire level. The forecast level of job growth (absolute and proportionate) under the baseline and adjusted scenarios are summarised below, over the period from 2012 to 2030.

Figure 4.25: Baseline and Likely Job Growth 2012 – 2030

	Baseline	Adjusted Scenario (Lower Growth)	Adjusted Scenario (Higher Growth)
Lincoln	3,600 (+6%)	4,955 (+9%)	6,108 (+11%)
North Kesteven	5,248 (+11%)	5,543 (+12%)	6,065 (+13%)
West Lindsey	3,349 (+11%)	3,468 (+12%)	3,815 (+13%)
Central Lincolnshire	12,197 (+9%)	13,967 (+11%)	15,989 (+12%)

Source: Oxford Economics, 2014; ekosgen, 2015

- 4.63 The two adjusted scenarios project a higher rate of growth in employment than the baseline. The Higher Growth adjusted scenario suggests that employment will increase by 12% between 2012 and 2030, compared to the baseline uplift of 9%. The Lower Growth adjusted scenario suggests a slightly less optimistic level of growth at 11%. By way of context the adjusted scenarios suggest a level of growth in Central Lincolnshire which is closer to the national baseline increase of 14% expected by Oxford Economics.
- 4.64 Comparing annual levels of job growth with the historic rate of growth between 1998 – 2008 of 870 jobs per annum (as shown in Figure 4.22) also suggests that the Higher Growth adjusted scenario shows a strong alignment with this pre-recession period of job growth, with it suggesting 888 jobs per annum. This is notably higher than the 677 jobs per annum projected under the Oxford Economics baseline scenario forecast.
- 4.65 As the timescales for the Local Plan extend to 2036, this evidently surpasses the end point of the forecasts. All of the economic forecast scenarios have therefore been extrapolated forward by ekosgen to provide an estimate of the level of employment that could occur within each local authority to the end of the Local Plan period.
- 4.66 This extrapolation is based upon the average annual growth rate between 2020 and 2030, which has been carried out individually for each sector within each local authority for each year from 2030 onwards. The results are then summed to provide the total

estimated uplift for each area and Central Lincolnshire, as summarised in the following table.

Figure 4.26: ENA Forecast Job Growth Scenarios 2012 – 2036

	Total Change 2012 – 2036		
	Baseline	Adjusted Scenario (Lower Growth)	Adjusted Scenario (Higher Growth)
Lincoln	4,204	6,916	8,572
North Kesteven	6,792	7,822	8,518
West Lindsey	4,076	4,914	5,380
Central Lincolnshire	15,071	19,653	22,469
	Annual Average Change		
	Baseline	Adjusted Scenario (Lower Growth)	Adjusted Scenario (Higher Growth)
Lincoln	175	288	357
North Kesteven	283	326	355
West Lindsey	170	205	224
Central Lincolnshire	628	819	936

Source: ekosgen, 2015

- 4.67 The ENA concludes that based upon the assessment of the local economy there is evidence of potential for the economy to grow at a stronger rate than forecast under the Oxford Economics baseline forecasts, which as noted above are considered to represent a sound baseline position. The Higher Growth Adjusted Scenario represents a level of growth which is comparatively aligned with historic rates of growth prior to the recession and therefore represents an assumed continuation of a more positive economic context in the area, albeit still noting that it falls below the national baseline rate of growth forecast by Oxford Economics. The Adjusted Scenario Lower Growth forecasts a level of employment change that sits between the baseline and the higher growth scenario and can be considered as representing a slightly more cautious view of the long-term employment growth potential of the area.
- 4.68 The two adjusted scenarios are both deemed realistic yet ambitious, based on the areas' historic growth trends, local evidence and the views of businesses in the area. It is important to note that whilst the two adjusted scenarios are based on the Oxford Economics baseline, the projection of growth under the scenarios departs from the published outputs of any one of the economic forecasting models.

Bringing the Evidence Together

- 4.69 This section has considered and analysed demographic and economic drivers of housing demand in Central Lincolnshire, in accordance with national guidance. This analysis provides invaluable context when assessing housing need, given that market and economic factors will have influenced historic demographic change, which – in turn

– may influence future projections of household formation which are based on historic trends.

- 4.70 Central Lincolnshire saw significant and sustained population growth from the late 1990s until the present day, with North Kesteven in particular seeing steep growth over this time. Over more recent years, the population of Central Lincolnshire increased by around 12% between 2001 and 2011, with all of the component authorities surpassing the national rate of 8%.
- 4.71 Much of this growth has been driven by high levels of net migration from other parts of the country, although natural change – with a surplus of births over deaths – has also become an increasingly important component of change, particularly in Lincoln. Migration levels have, however, been impacted by the recession, with the average annual net migration rate falling by around 42% during the post-recession period compared to the pre-recession period. This follows national trends, with households increasingly unlikely to move due to difficulties in obtaining mortgage finance and the impact of a labour market contraction, given that many moves are made for employment reasons. West Lindsey and North Kesteven have seen the greatest falls in migration levels over this time, suggesting a fundamental demographic shift since the recession due to changes in migration trends in particular.
- 4.72 NINo registrations provide further context on immigration to Central Lincolnshire, which shows that the number of registrations from EU Accession countries grew significantly following the expansion of the European Union in 2004. This has been the main driver of international migration in Central Lincolnshire, with the majority of this centred around Lincoln. The majority of international migrants are also younger, with over three quarters aged 18 to 34.
- 4.73 Lincoln is characterised by a notably younger demographic, with North Kesteven and West Lindsey sharing similar characteristics given that around half of residents are over 45. There are also a sizeable number of residents aged 65 and over in both districts. The older population has increased in these districts, with the proportion of family-age residents generally falling across the area. In terms of migration, however, both West Lindsey and North Kesteven have seen an inflow of all age groups with the exception of those age groups most associated with students. Lincoln, conversely, has seen a significant inflow of those aged 15 to 19, with this likely to be associated with University students. There is a net outflow of all other age groups from Lincoln, however.
- 4.74 Change in the number of households is also important to consider, with the 2011 Census showing that 1,580 new households formed annually in Central Lincolnshire on average over the preceding decade. All three authorities saw a fall in average household size, contrasting with a national picture which has seen household size remain constant over this period. Equally the average household size in Central Lincolnshire in 2011 was lower than the national average.
- 4.75 It is also important to consider historic and future change in the economy, and this section has drawn upon evidence from the Economic Needs Assessment undertaken by Turley and ekosgen. This provides an objective assessment of the future change in job numbers, while providing valuable context on historic trends both before and after the recession.

- 4.76 Prior to the recession, Central Lincolnshire saw the creation of around 870 jobs annually between 1998 and 2008, with over half of the growth falling within North Kesteven. The overall growth rate fell slightly below the national average, but was considered to be more erratic, with periods of strong growth and sharp decline evident in each local authority. Since the recession, however, there was a significant decline in employment between 2009 and 2012, with the public sector in particular seeing disproportionate job losses compared to the national profile. This is reflective of the economies of many northern cities, which typically take longer to recover from recession.
- 4.77 Central Lincolnshire has a comparatively high employment rate, with lower levels of unemployment and economic activity, compared to the national and Greater Lincolnshire position. This is driven by strong employment and economic activity rates in Lincoln and North Kesteven in particular, and suggests that – at a housing market area level – there is currently a strong utilisation of the labour force.
- 4.78 The ENA also includes a detailed analysis of a range of economic datasets and forecasts to independently devise and test a number of employment growth scenarios. Three forecasts from two well-respected forecasting houses – Experian and Oxford Economics – are analysed in detail. Based on this evidence – and consultation with local businesses – the ENA considers that there is sufficient evidence to recommend that the Oxford Economics forecasts provide the most robust baseline position for future employment growth in Central Lincolnshire. This suggests that a total of 12,197 jobs could be created between 2012 and 2030, at an average rate of 678 jobs per annum. This has been extrapolated forward to 2036 to cover the Plan period with this resulting in a per annum average rate of job growth of 628 over this longer time period.
- 4.79 In addition, the ENA also developed two adjusted scenarios of job growth built from the Oxford Economics Baseline but amended to take account of identified local opportunities and circumstances drawing upon the data analysis and consultations. The adjustments set out in the report suggest that depending upon the application of higher and lower rates of growth being applied to identified industrial sectors between 13,967 and 15,989 jobs could be created over the period from 2012 to 2030 (776 – 880 jobs per annum on average). The analysis identifies that the local economy has the potential to deliver these higher levels of job growth based on the assessment of the area's economic profile. Again the ENA has extrapolated forward the adjusted economic projections to provide a forecast level of job growth to 2036 to reflect the plan period in the emerging Local Plan. The resultant annual average job growth ranges from 820 to 936 jobs per annum over this longer period of time.

5. Market Signals

5.1 The PPG highlights the importance of taking market signals into account when assessing housing need, given that they provide an indication of the balance between demand and supply. This is particularly important to consider given the significant and well-documented changes in the housing market over recent years, which were exacerbated by the economic downturn and subsequent issues in obtaining mortgage finance.

5.2 The PPG states:

“The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rents rising faster than the national/local average may well indicate particular market undersupply relative to demand.”⁵⁴

5.3 The PPG sets out six market signals which should be reviewed:

- Land prices;
- House prices;
- Rents;
- Affordability;
- Rate of development; and
- Overcrowding

5.4 Where there is evidence of an imbalance between supply and demand, the PPG states that an uplift in planned housing numbers is required – compared to those solely derived from household projections – in order to increase the supply of housing to meet demand and tackle affordability issues:

“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.

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 (eg the differential between land prices), the

⁵⁴ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

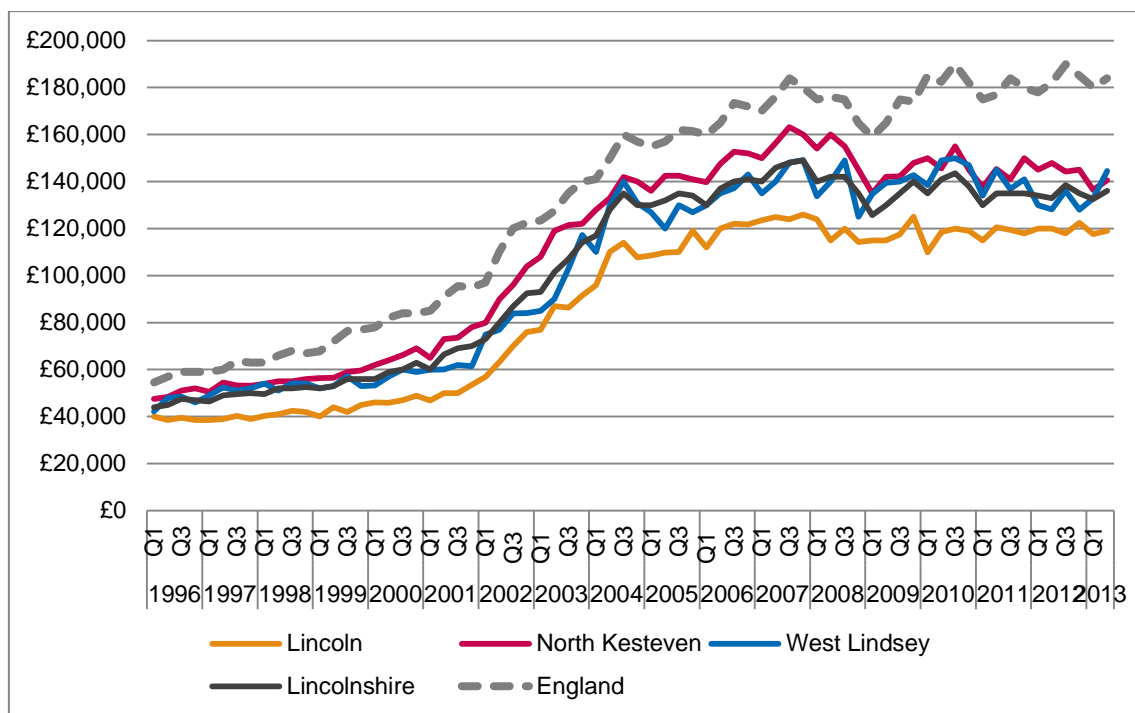
larger the improvement in affordability needed and, therefore, the larger the additional supply response should be.”⁵⁵

- 5.5 This section therefore contains an overview of the key market signals indicated in the PPG, in order to determine how the housing market has operated in Central Lincolnshire. This will have implications for the overall level of housing need (section 9), and will also form a key consideration in assessing the number of households that are – or will be – in need of affordable housing (set out in section 7).

House Prices

- 5.6 The PPG states that longer term increases in house prices can be indicative of an imbalance between supply and demand. DCLG provides information on median house prices, based on Land Registry data, enabling the analysis of long-term house price trends. The graph below shows how median house prices have changed since 1996, with the county and national average also shown for context.

Figure 5.1: Median House Price Change 1996 – Q2 2013



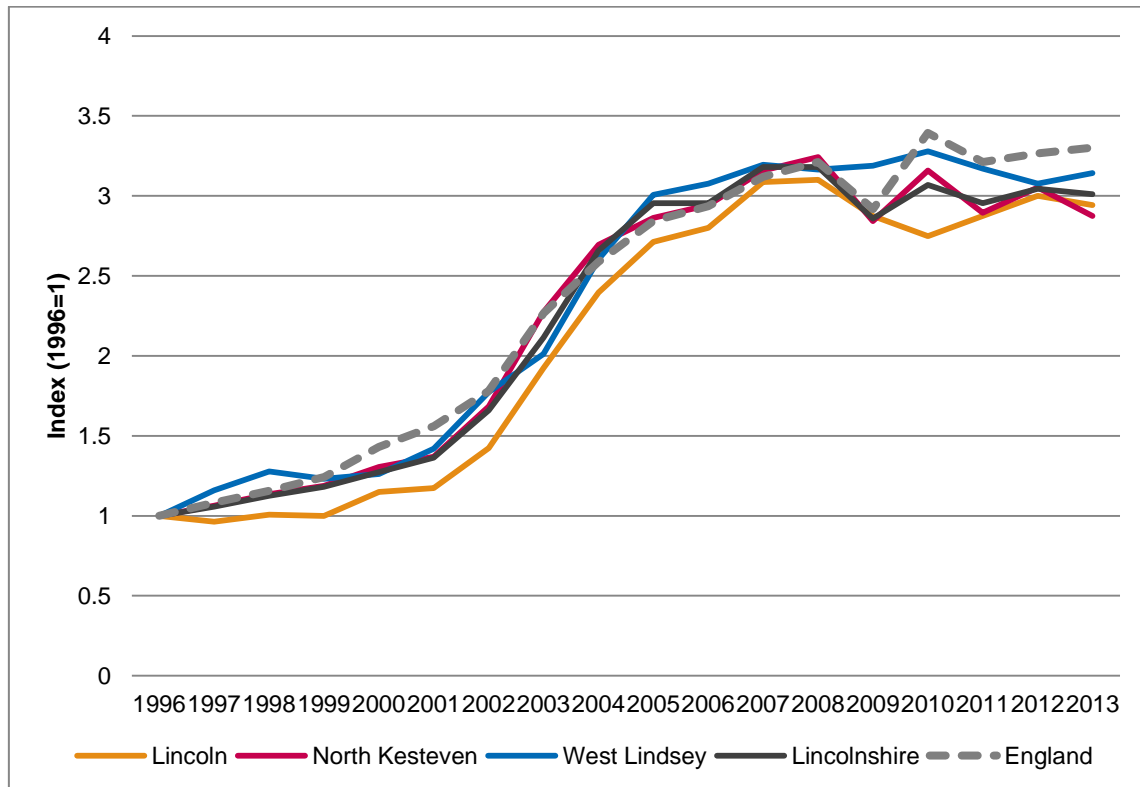
Source: DCLG 2014

- 5.7 Historically, median property prices in Lincoln have been less expensive than the neighbouring authorities of West Lindsey and North Kesteven, with values in the latter notably higher. House prices in all three authorities are, however, lower than the national average.

⁵⁵ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_020

- 5.8 Understanding the rate of change also provides useful context, and the following graph therefore indexes change in median prices in Lincoln, North Kesteven, West Lindsey, Lincolnshire and England. This helps to understand the rate of growth in prices over the period to 2013.

Figure 5.2: Indexed Median House Price Change 1996 – 2013



Source: DCLG 2014

- 5.9 The graph shows how the local authorities of Central Lincolnshire have followed the national trend with house prices increasing by around 3 times between 1996 and 2013. Following the economic recession and downturn in the housing market, however, it is clear that values in Central Lincolnshire have not recovered to the same extent as seen nationally, although the graph also suggests that the market in West Lindsey has not been affected by the recession to the same extent as elsewhere.
- 5.10 It is important to note that available DCLG datasets contain an inherent time delay, and given the continued national recovery in the housing market, it is therefore beneficial to bring average values up to date. This can be achieved through analysis of Land Registry data, which records every residential transaction up to the full calendar year of 2014. Average values in 2014 are therefore summarised in the following table, with the rate of longer term change presented by drawing comparison with average values in 2001. Neighbouring authorities, Lincolnshire and the national average is also shown for context.

Figure 5.3: Change in Average House Price 2001 – 2014

	Average Price Paid 2014	Average Price Paid 2007	Average Price Paid 2001	% Change 2001 – 2014
Lincoln	£138,779	£137,814	£58,209	138.4%
North East Lincolnshire	£126,545	£119,547	£53,634	135.9%
West Lindsey	£165,111	£159,453	£73,160	125.7%
Central Lincolnshire	£160,223	£157,846	£72,026	122.5%
Lincolnshire	£156,221	£152,801	£71,915	117.2%
England	£264,350	£218,959	£121,768	117.1%
North Lincolnshire	£134,788	£136,647	£62,389	116.0%
East Lindsey	£157,887	£162,522	£73,849	113.8%
Boston	£138,705	£140,969	£65,161	112.9%
North Kesteven	£174,484	£174,967	£82,151	112.4%
Bassetlaw	£145,599	£149,739	£70,932	105.3%
South Kesteven	£192,832	£188,311	£94,951	103.1%
Newark and Sherwood	£177,235	£176,273	£89,483	98.1%
South Holland	£159,986	£163,404	£84,553	89.2%

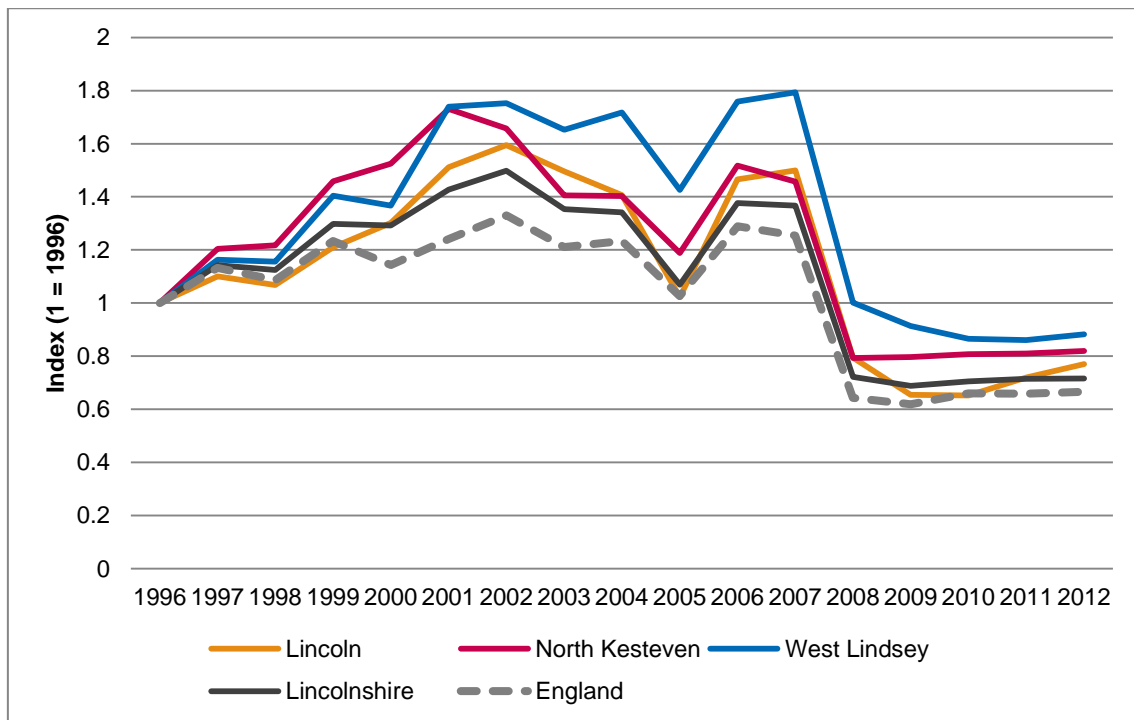
Source: Land Registry, 2014

- 5.11 The table shows that there has been notable local variation in house price growth, with Lincoln and West Lindsey – and Central Lincolnshire as a whole – seeing growth which has exceeded the national rate. This has also exceeded many neighbouring authorities, although North Kesteven has seen a slower rate of growth.

Sales Volumes

- 5.12 While not explicitly suggested as a market signal in the PPG, it is beneficial to understand sales volumes as a measure of demand given that this can drive changes in house prices. The following graph shows the volume of residential transactions in Central Lincolnshire – indexed to 1996 – compared to wider Lincolnshire and England.

Figure 5.4: Indexed Number of Transactions 1996 – 2012



Source: DCLG 2014

- 5.13 The graph shows how property sales dropped significantly at the local, regional and national level around 2007/8, stimulated by the economic downturn. Notably, however, while there has been little real growth in the number of transactions in Central Lincolnshire – with the exception of Lincoln, where there is some growth – it appears that the recession did not have such a significant impact as seen nationally.

Rents

- 5.14 The PPG suggests that the rental market should also be considered as a market signal, with longer term changes in rental levels indicative of a potential imbalance between the demand for and the supply of housing. The analysis within this section focuses on change in private rents, as suggested in the PPG, with analysis of social renting included in section 7.
- 5.15 It is important to therefore establish an understanding of the private rental market in Central Lincolnshire. Data published by the Valuation Office Agency (VOA) collates information provided by private rental landlords, and proves a useful starting point for this assessment. The latest available data covers the period from October 2013 to September 2014, and includes both lower quartile and median rents to show the cost of rental properties at both the lower end and midpoint of the market.

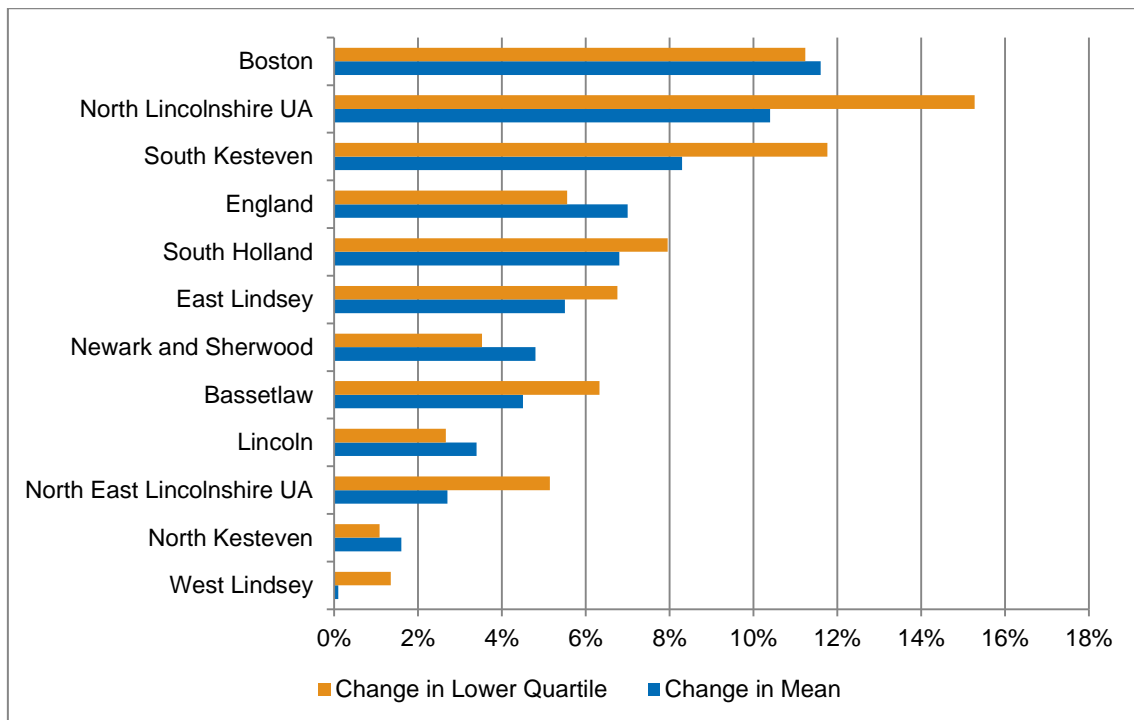
Figure 5.5: Monthly Private Rental Cost 2013/14

		Lincoln	North Kesteven	West Lindsey	Lincolnshire	England
Lower quartile	1 bed	£395	£353	£280	£347	£425
	2 beds	£450	£435	£350	£440	£485
	3 beds	£500	£525	£425	£520	£550
	4+ beds	£675	£675	£550	£650	£800
	All	£385	£465	£375	£425	£475
Median	1 bed	£425	£395	£315	£395	£520
	2 beds	£495	£475	£400	£495	£580
	3 beds	£575	£575	£500	£575	£675
	4+ beds	£750	£750	£700	£750	£1,100
	All	£475	£550	£450	£515	£595

Source: VOA, 2014

- 5.16 The table shows that rents in Lincoln – particularly for smaller properties – are higher than West Lindsey or North Kesteven, suggesting that there is high demand for such property in the city, particularly at the lower end of the market. Values in West Lindsey are generally low, with the overall average rents in North Kesteven higher than the average for wider Lincolnshire. All values are, however, lower than the national average.
- 5.17 Crucially, however, it is important to understand how rents have changed, with the PPG stating that longer term change in rents can be indicative of an imbalance between supply and demand. The following graph therefore illustrates how both mean and lower quartile rents have changed in Central Lincolnshire, through a comparison between the values presented above and the oldest available VOA dataset, which covers the year to June 2011.

Figure 5.6: Change in Monthly Private Rents 2011 – 2014



Source: VOA, 2014

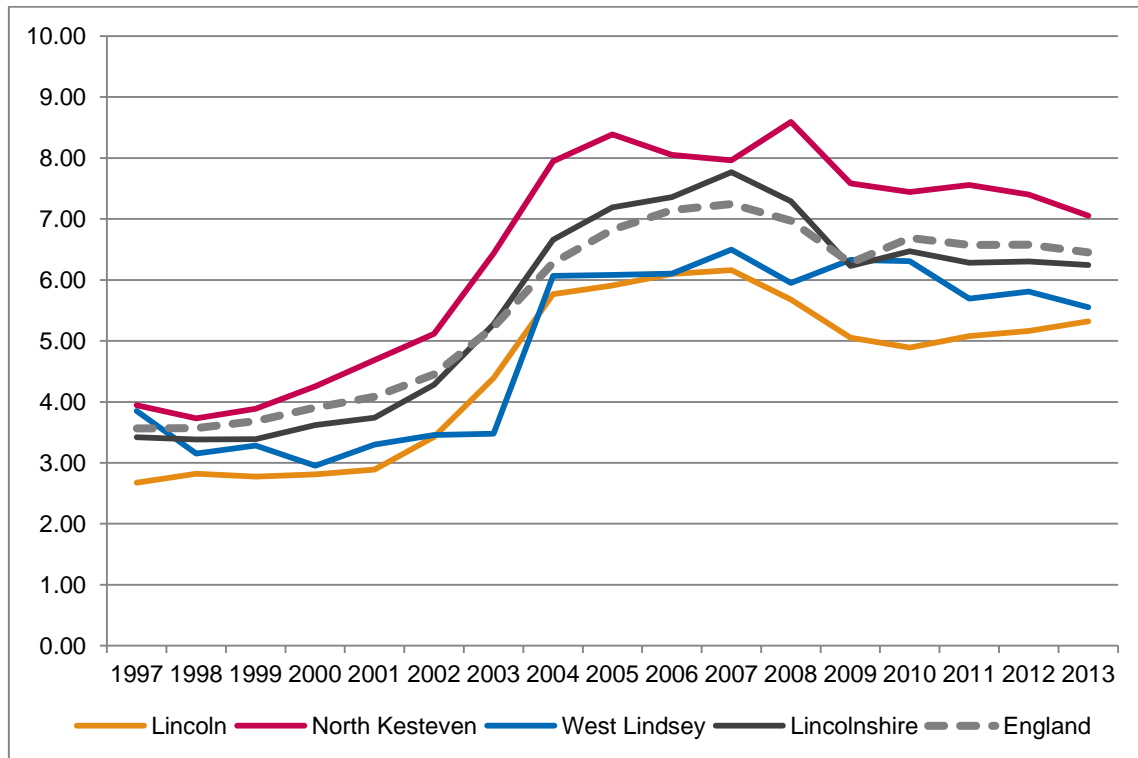
- 5.18 As shown, across this wider geography, lower quartile rents have seen the greatest growth, suggesting that rents at the lower end of the market have grown at a faster rate. Overall, however, rents in Central Lincolnshire have not grown to the same extent as seen nationally or in neighbouring authorities, with West Lindsey in particular seeing very little growth in mean rents. Lincoln – at 2.7% - has seen the greatest growth, but this remains significantly below the national growth rate of 7%.

Affordability

- 5.19 The PPG states that an assessment of the relative affordability of housing within an area should be undertaken, through a comparison of housing costs and the ability of households to pay.
- 5.20 Nationally, the housing market has undergone significant change in recent years, with the recent economic downturn constraining the availability of mortgage finance. First time buyers, and those households purchasing at the height of the market, now find themselves in a much more challenging position when looking to either buy a home or move home. Many younger households are increasingly turning to parents for deposit contributions, or looking to alternative housing products with lower immediate financial requirements.
- 5.21 Nationally, this has resulted in a considerable reduction in the number of residential transactions, with many households either saving for a deposit, deciding to remain in their current home due to economic insecurity or looking to the social rented or private rented sector as an alternative option.

- 5.22 The impact of rising house prices on affordability of homes within Central Lincolnshire is demonstrated in the following graph, which shows the ratio of lower quartile house prices to lower quartile earnings in West Lindsey, Lincoln and North Kesteven compared to Lincolnshire and England. It is evident that North Kesteven has historically been less affordable than nationally or in wider Lincolnshire, although the onset of the national market downturn saw a relative improvement. Lincoln is typically the most affordable of the Central Lincolnshire authorities.

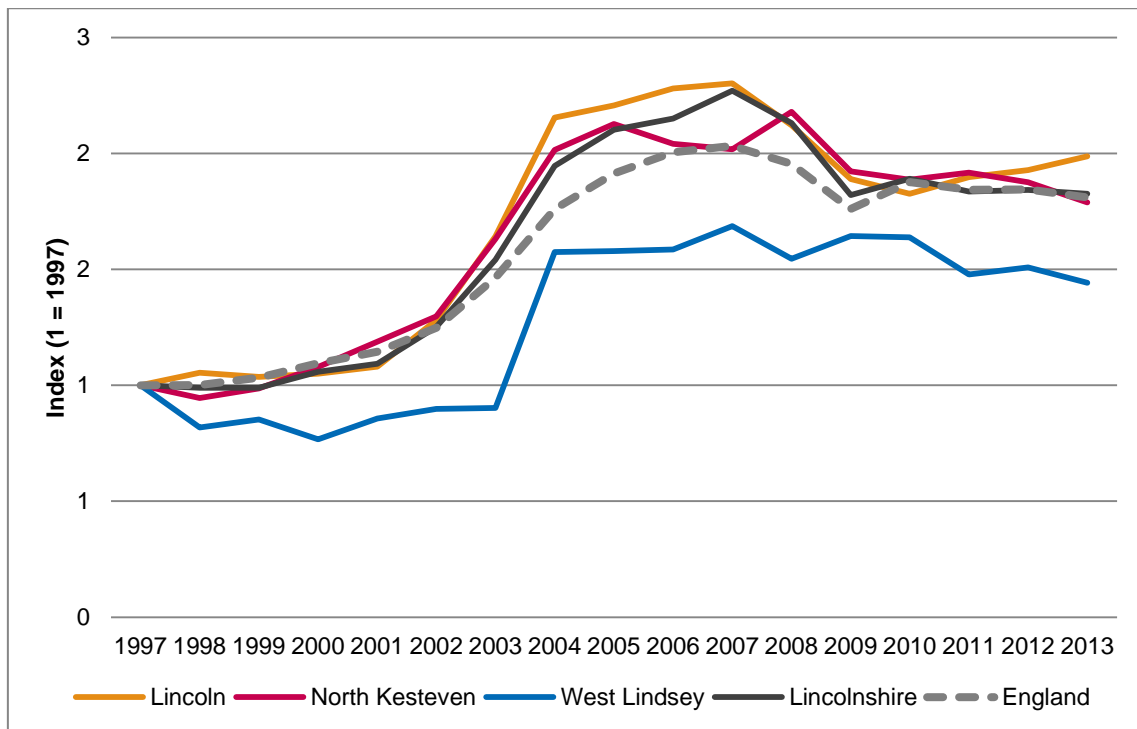
Figure 5.7: Ratio of Lower Quartile House Price to Earnings (1997 – 2013)



Source: DCLG 2014

- 5.23 The following graph shows the indexed figures for the ratio of lower quartile house price to earnings to show how the Central Lincolnshire figures differ from the regional and national average. The national figures show a lower and more regulated increase in the ratio of lower quartile house price to lower quartile earnings in comparison to the figures for Central Lincolnshire, where ratios are higher. This therefore has an increased impact on the affordability of homes in the area. West Lindsey, however, is notably different, suggesting that affordability is not worsening to the same extent as seen elsewhere.

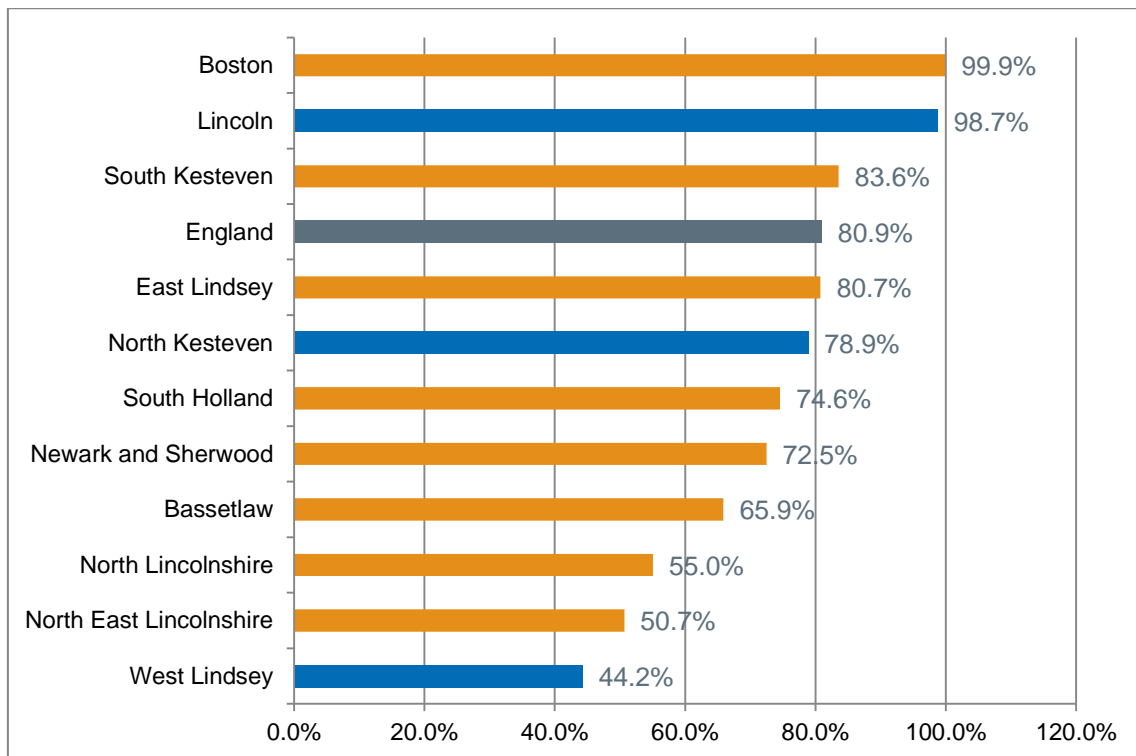
Figure 5.8: Indexed Ratio of Lower Quartile House Price to Earnings (1997 – 2013)



Source: DCLG 2014

- 5.24 It is also beneficial to place this analysis within the context of neighbouring authorities – and the national picture – and the following graph therefore summarises the rate of long-term growth in affordability ratios between 1997 and 2013. Central Lincolnshire authorities are highlighted in blue.

Figure 5.9: Change in Affordability Ratio 1997 – 2013



Source: DCLG, 2014

- 5.25 There is a relatively mixed message for Central Lincolnshire, with Lincoln seeing a considerable worsening of affordability – with the ratio increasing by around 99% – at a faster rate than seen nationally. West Lindsey, however, has seen relatively little worsening of affordability ratios, while North Kesteven’s rate of growth falls just below the national rate. This does, however, surpass many neighbouring authorities, with the exceptions of Boston, South Kesteven and East Lindsey.

Rate of Development

- 5.26 The PPG suggests that the recent supply of new dwellings should be analysed in order to identify any shortfalls against planned provision as an indicator of previous under-delivery. The PPG states that:

“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.”⁵⁶

- 5.27 Monitoring undertaken by the Councils allows net completions to be analysed since 1996, allowing an understanding of how net completion levels have changed in Central Lincolnshire.

⁵⁶ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

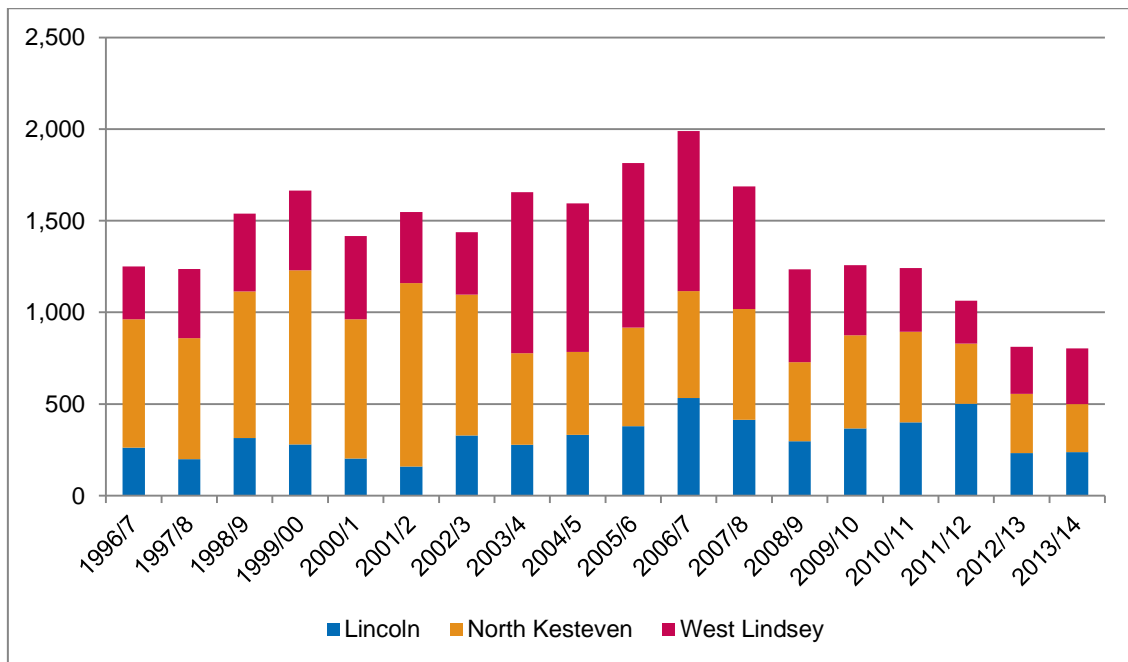
Figure 5.10: Net Dwelling Completions 1996/97 – 2013/14

Year	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
1996/7	262	700	288	1,250
1997/8	199	660	378	1,237
1998/9	315	800	423	1,538
1999/00	280	950	435	1,665
2000/1	203	760	453	1,416
2001/2	159	1001	387	1,547
2002/3	329	768	341	1,438
2003/4	278	499	878	1,655
2004/5	332	453	809	1,594
2005/6	379	538	897	1,814
2006/7	532	584	873	1,989
2007/8	414	605	668	1,687
2008/9	297	432	506	1,235
2009/10	367	508	383	1,258
2010/11	400	494	347	1,241
2011/12	501	329	233	1,063
2012/13	233	322	257	812
2013/14	237	263	303	803

Source: Central Lincolnshire Authorities

- 5.28 The impact of the recession on housing completions in Central Lincolnshire is clear, with the completion rate evidently slowing in 2008/09. For example, over the past five years, an average of around 1,035 dwellings have been completed per annum across the housing market area, compared to around 1,665 over the preceding five years (2004/05 to 2008/09).
- 5.29 Within Central Lincolnshire, the rate of delivery was notably high in North Kesteven during the early part of the period analysed, although this fell in subsequent years from 2002. From 2002, however, the rate of completions increased in West Lindsey, peaking in 2005/06. The level of completions has typically been lower in Lincoln, although there was a notable positive trend prior to the onset of the recession.
- 5.30 This is further illustrated in the following graph, which shows that completions have slowed over recent years in Central Lincolnshire.

Figure 5.11: Net Dwelling Completions 1996/97 – 2013/14

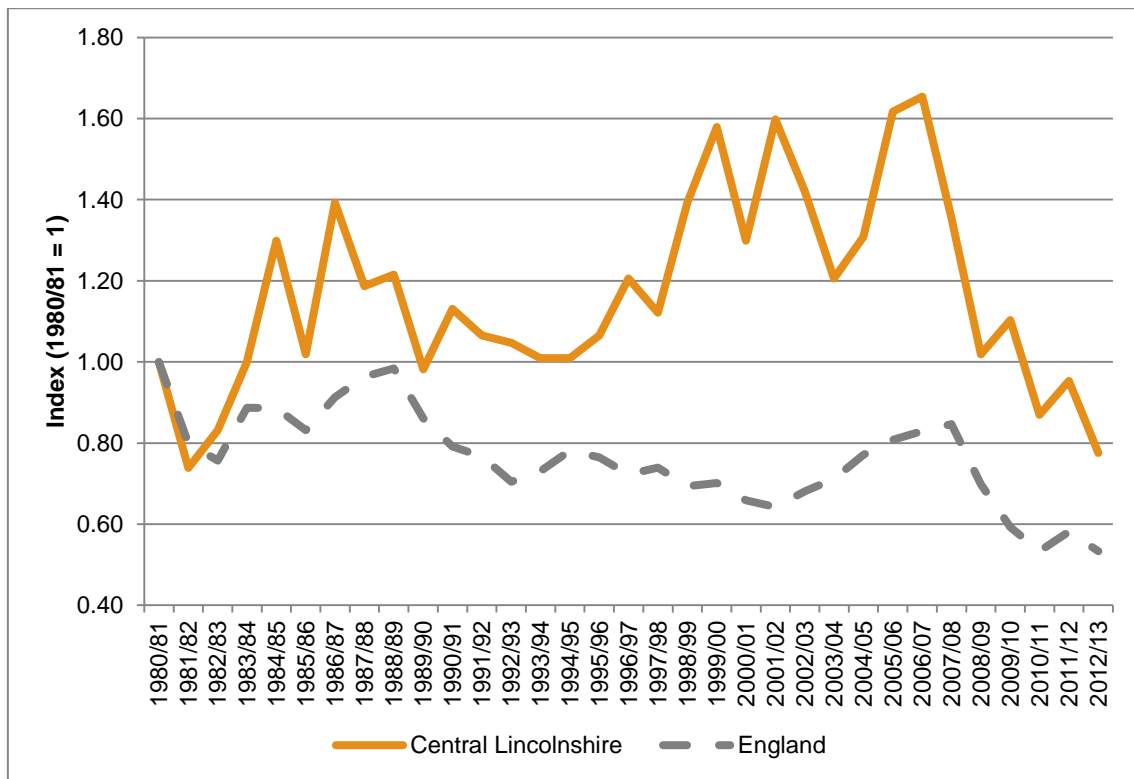


Source: Central Lincolnshire Authorities

- 5.31 The rate of development in Central Lincolnshire has clearly varied over the period shown, with a strong growth from 1996 to 2006/07, when almost 2,000 dwellings were delivered within the reporting year. Since this point, however, supply has fallen, with fewer than 1,000 dwellings delivered annually since 2011.
- 5.32 The historic rate of net completions is shown in the following graph indexed against the rate of development in England. This provides a useful indicator as to the extent to which development levels have compared with the national picture, noting that it is widely acknowledged that – at a national level – there has been a position of under-supply over a number of years⁵⁷.

⁵⁷ The 'Barker Review of Housing Supply' (Kate Barker, March 2004) highlighted the need to stimulate an increase in the supply of housing nationally. This was reflected in the 2007 Housing Green Paper ('Homes for the future: more affordable, more sustainable', DCLG, July 2007) of the Labour Government and continues to be recognised through the NPPF and the imperative to significantly boost the supply of housing.

Figure 5.12: Indexed Dwelling Completions 1981 – 2013



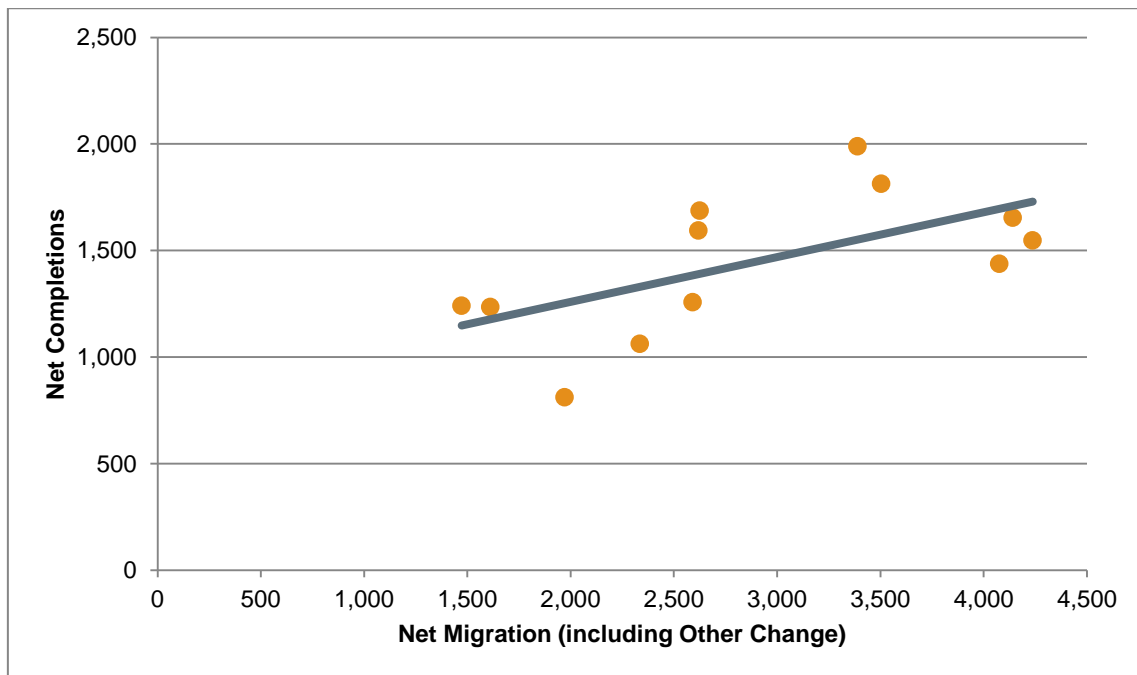
Source: DCLG live tables, 2014

- 5.33 Prior to 1997/98, the chart indicates that Central Lincolnshire followed the national trend, albeit with a more notable level of volatility. This period saw an initial rise in completions up to the late 1980s followed by a fall and then comparative stabilisation of development levels. Importantly, however, from 1997/98 – whilst the country continued to see a decreasing trend in completions until 2002/03 – Central Lincolnshire saw an increase in completion levels with high levels of completions sustained up to the onset of the recession.

Relationship with Migration

- 5.34 With the analysis in section 4 highlighting that the scale of migration fell considerably in Central Lincolnshire following the recession – and recognising the inter-related nature of the housing market and the wider market and economic context – it is beneficial to determine the extent to which migration levels in the area are linked to the rate of development. The following table therefore compares these two indicators.

Figure 5.13: Relationship between Net Completions and Net Migration



Source: ONS; Central Lincolnshire authorities

- 5.35 It is apparent that there is a comparatively strong relationship between the number of dwellings completed and the level of net migration to Central Lincolnshire over the past decade. This suggests that underlying levels of net migration within the area have been influenced by the delivery of housing, which may therefore have constrained recent population growth in the area.
- 5.36 This highlights the importance of considering a range of alternative trend-based projections – set out in section 6 – which recognise that the 2012 SNPP primarily bases its trend based projections on a period – from 2007 to 2012 – which has evidently represented a period of lower development activity levels.

Previously Evidenced Position

- 5.37 As set out in the PPG, it is important to understand how the historic rate of development compares to planned supply, as set out in the East Midlands Regional Plan. In contrasting these two figures, the material difference of the approach adopted within the RSS to derive a housing provision figure should be recognised, relative to the approach now required through the NPPF. The NPPF represents a “*radical policy change in respect of housing provision*”⁵⁸, with a recent High Court decision in relation to Solihull stating that “*extreme caution*”⁵⁹ should be applied by plan-makers seeking to use housing data from now-revoked regional strategies.
- 5.38 Housing requirements across Central Lincolnshire were based on the now-revoked East Midlands Regional Spatial Strategy (RSS) (2009), which indicated a requirement for

⁵⁸ Gallagher Homes Limited v Lioncourt Homes Limited v Solihull Metropolitan Borough Council [2014] (30 April 2014)

⁵⁹ Ibid

around 2,030 dwellings per annum in the Central Lincolnshire housing market area, equivalent to a total provision of 40,600 dwellings over the period from 2006 to 2026⁶⁰.

- 5.39 The Central Lincolnshire HMA fell within the RSS defined Eastern sub-area, about which the RSS stated:

“The only Principal Urban Area in the Sub-area is Lincoln, which acts as a focus for employment and services. Grimsby to the north and Peterborough to the south fulfil this role for other parts of the Sub-area. Lincoln has significant potential to strengthen its position in the Region as a cultural and commercial centre and this should be encouraged. The establishment and planned expansion of the University of Lincoln has started this process, and will also benefit the Sub-area as a whole.” (paragraph 2.4.3)

- 5.40 The RSS states, with regards to the establishment of the Regional Housing Provision figures, that the following factors were considered:

- Market conditions within each Housing Area grouping;
- Regional economic growth forecasts developed by *emda* and consistent with the Regional Economic Strategy;
- Housing land supply and the availability of previously developed land underused buildings;
- The environmental, social and economic implications of development;
- The impact of development on existing and planned infrastructure;
- Emerging ‘New Growth Point’ designations; and
- Emerging planning policy in adjacent regions.

- 5.41 An important aspect of the distinction between the RSS and approach required through the NPPF is the distinct two-step process between establishing an OAN and then the translation of this OAN evidence base into a housing requirement.

- 5.42 The PPG establishes that constraints should not be applied in the identification of the OAN:

“The assessment of development needs is an objective assessment of need based on facts and unbiased evidence. Plan makers should not apply constraints to the overall assessment of need, such as limitations imposed by the supply of land for new development, historic under performance, viability, infrastructure or environmental constraints. However, these considerations will need to be addressed when bringing evidence bases together to identify specific policies within development plans”¹

- 5.43 It is clear that in the setting of policy the second stage, however, can involve the consideration of other aspects of sustainable development – as set out through the NPPF – including development constraints and the implications of the Duty to Co-

⁶⁰ Government Office for the East Midlands (2009) East Midlands Regional Plan

operate process, particularly where there is identified requirement to addressing unmet needs from other authorities with which there are identified housing market linkages.

- 5.44 It is apparent that the RSS adopted an approach which included the consideration of constraints in deriving the housing provision figures, with the Panel Report⁶¹ for the East Midlands RSS including information on the derivation of the RSS target. Prior to the Examination in Public, the ONS and DCLG published 2004 household projections. These represented an important update to the 2003-based dataset, on which the draft iteration of the RSS was based. The updated dataset was used to adjust the regional requirement, with the projections indicating an additional projected growth of 21,000 households in the East Midlands by 2026 compared to the level suggested in the 2003-based projections. In order to reflect the latest available dataset at the time previous policy adjustments were applied to the updated projections to derive the final requirement figures for each authority.
- 5.45 For Central Lincolnshire, the Draft RSS proposed a policy adjustment of only 1.4%. This was applied to the 2004 projections – which indicated a per annum average growth of 1,877 households across the HMA – resulting in a per annum requirement of 1,985 per annum, taking account of an adjustment for vacancy. The final figure identified was adjusted to reflect completions between 2001 and 2006.
- 5.46 The impact of the policy adjustment is illustrated in the following table, replicated from Table 2 of Chapter 4 of the Panel Report. For Central Lincolnshire, this highlights that the RSS approach resulted in a slightly higher requirement than indicated by the household projections.

⁶¹ East Midlands Regional Plan (2007) Examination in Public – Report of the Panel

Figure 5.14: Housing Market Areas – Summary Table

Housing Market Area	DCLG Trend 2004 (hhpa)	Amended Rounded Total 2001-26 (dpa)	Dwellings Built Total 2001-6 (dpa)	Residual requirement 2006-26 Rounded Total (dpa)	+/- DCLG Trend
Central Lincolnshire	1,880	49,625 (1,985)	8906 (1,781)	40,720 (2,036)	↑
Coastal Lincolnshire	1,490	13,445 (537)	4747 (949)	8,700 (435)	↕
Peterborough (Partial)	1,530	30,390 (1,215)	7,394 (1,479)	22,995 (1,150)	↓
N/A/M (Nottingham Outer)	1,500	43,325 (1,733) ¹	6,731 (1,346)	36,595 (1,830)	↑
Northern (Sheffield/Rotherham)	1,550	35,700 (1,428)	6,266 (1,253)	29,435 (1,472)	↓
Peak Dales & Park ²	650	12,490 (500)	2,488 (498)	10,000 (500)	↓
Derby	2,010	44,750 (1,790)	8,244 (1,649)	36,505 (1,825)	↓
Leicester and Leicestershire	3,790	96,125 (3,845)	16,187 (799)	79,940 (3,997)	↑
Nottingham Core	2,500	70,425 (2,817) ³	10,313 (2,063)	60,110 (3,006)	↑
Northampton (West Northamptonshire)	(1,652)	62,125 (2,485)	9,877 (1,974)	52,250 (2,613)	↑
C/K/W (North Northamptonshire)	(1,696)	66,075 (2,643)	8,190 (1,638)	57,885 (2,894)	↑
TOTAL	(20,244)	523,675 (20,980)	89,341 (17,868)	435,135 (21,757)	↑

Source: East Midlands RSS Panel Report, 2007 (Chapter 4, Table 2)

- 5.47 It is apparent that the evidence underpinning the RSS is now considerably dated. The ONS has employed a number of methodological changes in its generation of subsequent iterations of the SNPP datasets, with the same also true with regards to the production of the DCLG published SNHP datasets. The analysis presented throughout this SHMA draws upon the latest datasets and methodological assumptions to present an updated assessment of need.
- 5.48 In the context of understanding future need, judgement within the High Court has also asserted that the previous policy figure (i.e. the RSS) should not be used to assess the existence of a backlog of provision as distinct to the analysis of forward looking projections of need as required through the PPG. The judgement noted:

“...There was no methodological error in the way these competing estimates for the period 2011-2031 were drawn up by reason of the notional ‘shortfall’ in housing delivery between 2006 and 2011 by comparison with the average annual figure for additional housing indicated in the South East Plan... There was no reason whatever for a person in 2011 seeking to draw up a current estimate of population growth and housing requirements looking into the future from that date to 2031 and using up-to-date evidence to do so, to add on to the estimated figures any shortfall against what had been estimated to be needed in the first phase of the previously modelled period included in the South East Plan..”⁶²

5.49 It continues, at [95]:

“According to Mr Cahill’s suggestion, the modellers in 2011 should have begun by saying that there was a shortfall of 854 homes against a previous estimate and then should have added that on their own modelled estimates for new homes for 2011-2031 to produce the relevant total figure. In fact, none of them proceeded in that way, and rightly so. In my view, they would clearly have been wrong if they had tried to do so. Their own modelling for 2011-2031 is self-contained, with its own evidence base, and would have been badly distorted by trying to add in a figure derived from a different estimate using a different evidence base. That would have involved mixing apples and oranges in an unjustifiable way.”

5.50 Comparing the levels of completions shown in Figure 5.7, it is clear that the annual RSS target has not been achieved in any of the years it was in place. The closest level was recorded in 2006/07 when 1,989 completions were recorded. The result has therefore been the generation of a backlog for some 3,707 dwellings accumulate against planned targets in the Regional Plan up to 2011/12 (the base date of the POPGROUP modelling period). Spread across the 24 year plan / projection period (2012 – 2036), this would equate to an additional 154 dwellings per annum to address past under-provision against the RSS target across Central Lincolnshire. As noted above, however, this needs to be considered with recognition that the RSS housing provision figure does not represent an NPPF compliant OAN with adjustments made to account for policy factors and a prior backlog position back to 2001.

5.51 It is also important to recognise that the RSS target was applied retrospectively in 2009, in order to cover the period from 2006, and a lower target of 1,155 dwellings per annum was actually in place between 2006 and 2009. Given that this housing target was significantly exceeded over this period – as set out in Figure 5.10 – assessing the backlog against the target that was in place would suggest a much smaller shortfall of 1,082 dwellings.

Overcrowded Households and Concealed Families

5.52 The PPG suggests that indicators on overcrowding, concealed and sharing households, homelessness and the numbers in temporary accommodation should be analysed, given that they can be indicative of unmet need for housing.

⁶² Zurich Assurance Limited v Winchester City Council and South Downs National Park Authority, [2014] EWHC 758 (Admin) at [94]18th March 2014

5.53 The PPG states that:

“Longer term increase in the number of such households may be a signal to consider increasing planned housing numbers.”⁶³

5.54 The 2011 Census allows an understanding of overcrowding and also under-occupation, based on the number of occupants and the number of bedrooms. The following table summarises the proportion of households who are overcrowded – with at least one fewer bedroom than required – or under-occupied – with at least one more bedroom than required – based on the bedroom standard, as a proportion of all households.

Figure 5.15: Proportion of Overcrowded and Under-Occupied Households 2011

	% of households overcrowded	% of households under-occupied
Lincoln	3.6%	67.7%
North Kesteven	1.1%	85.3%
West Lindsey	1.2%	84.0%
Central Lincolnshire	2.0%	79.2%
Bassetlaw	2.1%	79.4%
Boston	4.0%	72.5%
East Lindsey	1.9%	79.5%
Newark and Sherwood	1.8%	81.0%
North East Lincolnshire	2.5%	75.1%
North Lincolnshire	2.8%	77.7%
South Holland	3.1%	78.4%
South Kesteven	1.5%	82.0%
England	4.6%	68.7%

Source: Census 2011

5.55 As shown, Central Lincolnshire has a lower level of overcrowding than the national average, with under-occupancy subsequently more frequent. Within Central Lincolnshire, Lincoln has the highest levels of overcrowding, with around 1,429 households living with at least one fewer bedroom than required, based on the bedroom standard. This surpasses the overcrowding rate in all neighbouring authorities, with the exception of Boston. Under-occupancy is less common in Lincoln, even more so than the national average, whilst under-occupancy levels for North Kesteven and West Lindsey are much higher and far above the national average at 85.3% and 84% respectively. This surpasses all neighbouring authorities.

⁶³ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_019

- 5.56 Given that the number of bedrooms was not recorded in the 2001 Census, it is difficult to profile how the level of overcrowding has changed in Central Lincolnshire over recent years. However, the Census in both 2001 and 2011 recorded an occupancy rating based on the number of rooms in a household, allowing an understanding of whether there has been an increase in the number of overcrowded households based on the room standard. This is presented in the following table.

Figure 5.16: Proportion of Households Overcrowded (Rooms) 2001 – 2011

	Number of Overcrowded Households (rooms)		
	2001	2011	% Change
Boston	1,011	1,865	84.5%
South Holland	852	1,531	79.7%
North Lincolnshire	1,775	2,527	42.4%
Lincoln	2,150	2,905	35.1%
England	1,457,512	1,928,596	32.3%
Central Lincolnshire	3,736	4,647	24.4%
South Kesteven	1,470	1,757	19.5%
Bassetlaw	1,519	1,794	18.1%
Newark and Sherwood	1,349	1,590	17.9%
North East Lincolnshire	2,494	2,824	13.2%
North Kesteven	853	956	12.1%
West Lindsey	733	786	7.2%
East Lindsey	2,119	2,203	4.0%

Source: Census 2001; Census 2011

- 5.57 Of the Central Lincolnshire authorities, the greatest increase in the number of overcrowded households has been seen in Lincoln, suggesting that households are increasingly occupying smaller property. This growth exceeded the national average, but fell below the growth seen in Boston, South Holland and North Lincolnshire. North Kesteven and West Lindsey, however, have seen only a small increase in the number of such households, with only East Lindsey seeing a slower level of growth.
- 5.58 A further indicator of overcrowding and concealment is the proportion of families who are concealed, broken down by the age of family reference person (FRP). A family is considered as concealed if they are a family reference person but not a household reference person (HRP), indicating that they are not the main family in the household.

Figure 5.17: Proportion of Families Concealed by Age of FRP 2011

	Age of FRP					All ages
	Under 24	25 – 34	35 – 49	50 – 64	65+	
Lincoln	8.6%	2.2%	0.4%	0.4%	0.7%	1.3%
North Kesteven	12.4%	2.1%	0.4%	0.3%	0.7%	0.9%
West Lindsey	9.9%	2.8%	0.4%	0.3%	0.7%	1.0%
Central Lincolnshire	9.9%	2.3%	0.4%	0.4%	0.8%	1.0%
Bassetlaw	11.8%	2.4%	0.5%	0.5%	0.6%	1.1%
Boston	17.6%	6.4%	1.1%	0.7%	1.2%	2.5%
East Lindsey	11.5%	3.2%	0.8%	0.6%	1.1%	1.3%
Newark and Sherwood	11.2%	2.8%	0.4%	0.4%	0.9%	1.1%
North East Lincolnshire	9.0%	1.6%	0.5%	0.4%	0.8%	1.1%
North Lincolnshire	13.0%	3.0%	0.5%	0.4%	1.0%	1.4%
South Holland	19.2%	4.8%	0.9%	0.4%	1.1%	1.8%
South Kesteven	10.5%	2.7%	0.4%	0.4%	0.9%	1.1%
England	12.8%	4.0%	0.8%	0.9%	1.8%	1.9%

Source: Census 2011

- 5.59 Within Central Lincolnshire, Lincoln contains the highest proportion of concealed families, with 1.3% of all families classified as concealed. Interestingly, however, the city has the youngest number of younger concealed families – aged under 24 – with this likely to be attributable to the city’s universities and younger demographic. The rate of concealment in West Lindsey and North Kesteven, however, is lower than all neighbouring authorities – or the national average – although the districts rank slightly higher when focusing solely on younger age groups.
- 5.60 Again, it is important to understand how the number of concealed families has changed, although it is not possible to break this down by age. This is summarised in the following table, which compares the overall rate of concealment in families from the 2001 and 2011 Censuses.

Figure 5.18: Change in Concealed Families 2001 – 2011

	2001	2011	% Change
Boston	138	492	256.5%
South Holland	192	487	153.6%
Lincoln	149	319	114.1%
North Lincolnshire	355	688	93.8%
South Kesteven	228	435	90.8%
Central Lincolnshire	479	892	86.2%
North Kesteven	172	309	79.7%
England	161,254	275,954	71.1%
West Lindsey	158	264	67.1%
Bassetlaw	229	366	59.8%
Newark and Sherwood	244	381	56.1%
East Lindsey	386	559	44.8%
North East Lincolnshire	370	527	42.4%

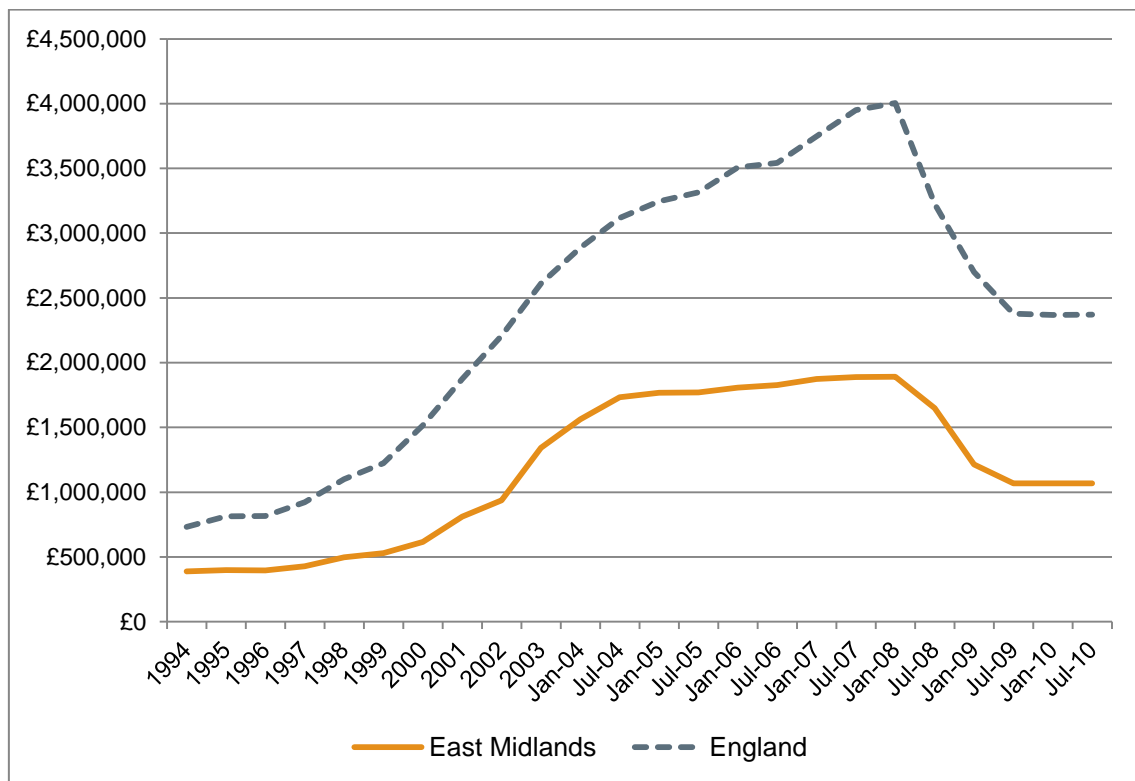
Source: Census 2001; Census 2011

- 5.61 Central Lincolnshire has seen an increase in the number of concealed families, increasing by around 86%. Notably, the number of families in the area increased by only around 12%, suggesting that the growth in concealed families has been disproportionate. This follows the national trend, and suggests that families have been increasingly restricted from forming independent households.
- 5.62 Within Central Lincolnshire, the greatest growth has been seen in Lincoln, and indeed this surpasses many neighbouring authorities and the national rate of growth. The rate of growth in North Kesteven exceeded the national rate, but the reverse is true in West Lindsey.

Land Prices

- 5.63 The PPG notes that land prices are one of the market signals that should be understood when assessing the need for housing, with prices indicative of the demand for land relative to supply. Price premiums may provide direct information on a shortage of land in an area.
- 5.64 Data published by DCLG shows the average valuation of residential building land with planning permission over the period from 1994 to 2010. This data is only available at a regional level, but nevertheless provides an indication of historic supply and demand in the wider East Midlands context. Land price trends are also presented for England to allow comparison.

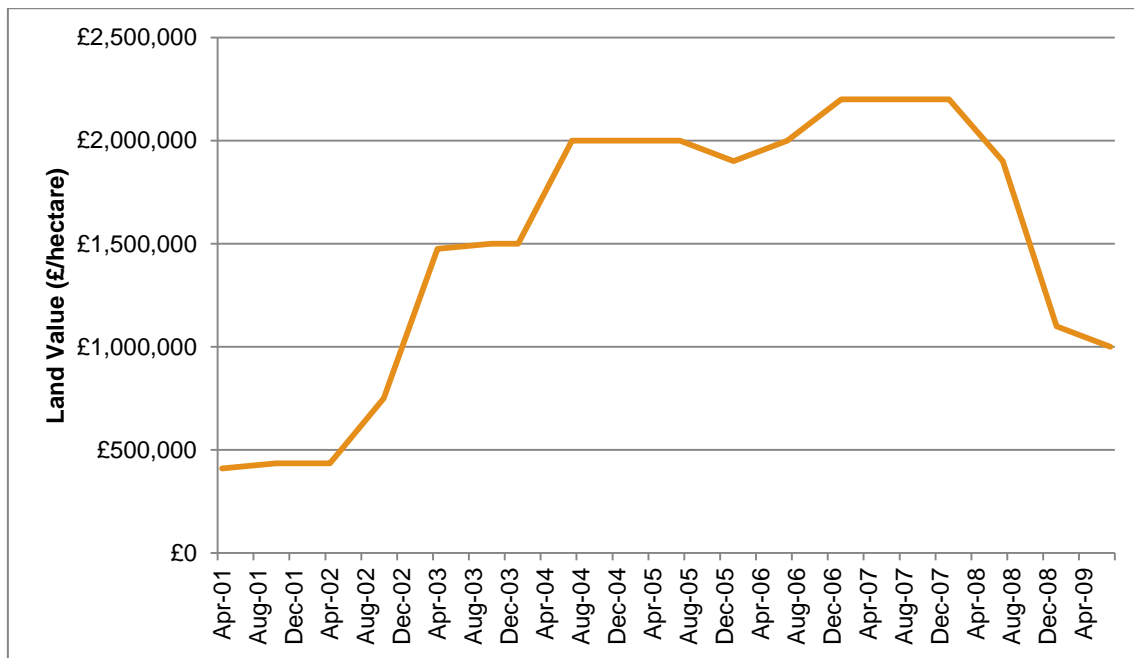
Figure 5.19: Average Valuations of Residential Building Land with Outline Planning Permission



Source: DCLG

- 5.65 As shown, land prices generally increased at the start of the period shown, up to 2004, where growth broadly stabilised. From January 2008, the onset of the recession stimulated a decline in land values, with reduced demand from residential developers owing to the credit crunch and subsequent reduction in the level of housing market activity. Overall, land prices in the East Midlands are typically lower than the average for England, which are particularly skewed by high values in the south east. This dataset does not extend beyond 2010, due to a decline in market activity.
- 5.66 Property Market Reports published by VOA provide estimates of residential bulk land values for regions and select cities across the country, and this therefore provides a valuable source in understanding how land values have changed in Lincoln over the period to 2009, when the dataset was discontinued.

Figure 5.20: Change in Residential Bulk Land Value in Lincoln 2001 – 2009



Source: VOA

- 5.67 As the graph illustrates, bulk land in Lincoln saw a significant growth in value between 2002 and early 2008, peaking in excess of £2 million per hectare. The recession had a significant effect, however, with land values halving over the subsequent year.
- 5.68 As noted, the discontinuation of these datasets means that it is challenging to understand how land values have recovered. However, a number of up-to-date assessments of the residential land market have been produced by property consultancies, which help to provide valuable national context.
- 5.69 Savills highlight that momentum is continuing to build in land markets nationally⁶⁴, with both greenfield and urban values increasing as the housing market recovery spreads across the country. Larger greenfield sites are appreciating in value more quickly as housebuilders seek sites at scale, although there also remains demand for smaller sites from smaller builders with growing market ambitions. There is, however, concern that material and labour shortages are putting pressure on build costs, although it is felt that there remains room for land price growth. This view is shared by Knight Frank, who published similar research which found that annual growth in residential development land values in England and Wales slowed to 3.7% in Q3 2014, compared to 5.6% in the previous quarter⁶⁵. This suggests stability in values, but it is noted that accelerating construction costs – alongside material and labour shortages – have put pressure on prices. This has seen developers become more selective with sites, leading to a slowing in sales volumes, but there remains strong competition for good development sites nationally. Values in Q3 2014 in the East Midlands were 3.3% higher than Q3 2013, with this growth rate behind only Greater London, the West Midlands and Wales.

⁶⁴ Savills (August 2014) Market in Minutes – UK Residential Development Land

⁶⁵ Knight Frank (2014) Residential Research – Residential Development Land Index

Bringing the Evidence Together

- 5.70 This section has drawn together evidence on market signals – as required by the PPG – in order to determine whether there is an imbalance between supply and demand in Central Lincolnshire.
- 5.71 In particular – in line with the PPG – the rate of change is important to consider, and understanding how the Central Lincolnshire authorities compare with neighbouring areas and the national profile provides valuable wider context. The following table therefore compares selected key market signals – where comparable data is available across this wider geography – to consider change in house prices, rents, affordability, overcrowding and concealed families. This brings together the analysis undertaken throughout this section.
- 5.72 A rank of 1 – coloured in orange – indicates that the area has the worst market signal relative to the other areas shown, while a rank of 12 – coloured in blue – suggests more favourable market signals.

Figure 5.21: Selected Market Signals Summary

	Lincoln	North Kesteven	West Lindsey	England	Bassetlaw	Boston	East Lindsey	Newark and Sherwood	North East Lincolnshire	North Lincolnshire	South Holland	South Kesteven
House prices												
Change (mean) 2001 – 2014	1	8	3	4	9	7	6	11	2	5	12	10
Rents												
Change 2011 – 2014	9	11	12	4	8	1	6	7	10	2	5	3
Affordability ratio												
Change 1997 – 2013	2	6	12	4	9	1	5	8	11	10	7	3
Overcrowding (rooms)												
Change 2001 – 2011	4	10	11	5	7	1	12	8	9	3	2	6
Concealed families												
Change 2001 – 2011	3	6	8	7	9	1	11	10	12	4	2	5

- 5.73 This table allows a number of conclusions to be drawn, relative to neighbouring authorities and the national profile. West Lindsey, for example, has seen the least growth in rents and affordability ratios, with comparatively little change in the number of overcrowded households based on the room standard. North Kesteven has also seen relatively little growth in rents, although it is notable that Lincoln has seen a relatively significant worsening in house prices and affordability over the periods summarised.
- 5.74 The growth in house prices has, however, exceeded the national average in Lincoln and West Lindsey, although private rents and affordability ratios have grown at a slower rate. Central Lincolnshire also ranks below neighbouring Boston, which has seen a significant worsening in market signals based on rents, affordability, overcrowding and concealment. Taken as a whole, therefore, Central Lincolnshire has not seen a significant worsening in market signals, compared to neighbouring authorities and the national context. There has, however, been a limited worsening in some market signals – primarily house prices and affordability, in Lincoln in particular – which may justify a moderate uplift against the level of housing implied by the household projections (the starting point), reflecting the guidance of the PPG.
- 5.75 In addition, this section has considered the rate of development and land prices, which are not included within the summary table due to a lack of comparable data for neighbouring authorities. While there is no evidence of a significant price premium for residential development land – albeit with an absence of comprehensive data – the rate of development has clearly been variable in Central Lincolnshire over recent years. In particular, the impact of the recession on housing completions is clear, with the rate of development slowing. For example, over the past five years, an average of around 1,035 dwellings have been completed annually across the housing market area, compared to around 1,660 over the preceding five years.
- 5.76 This has resulted in the accumulation of a backlog against planned targets in Central Lincolnshire. It is, however, important to note that the RSS housing provision figure is not necessarily representative of the need for housing in Central Lincolnshire, with adjustments made to account for policy factors and a previous backlog position. It is also important to recognise that Central Lincolnshire exceeded the Structure Plan target which was in place between 2006 and 2009, with the retrospective application of higher targets following publication of the RSS generating a higher backlog. Nevertheless, the recent rate of development in the context of planned levels of provision could have implications for both projected population change and household formation, and this is considered in further detail in the generation of alternative demographic projections in section 6.

6. Population and Household Projections

6.1 Available guidance – in the form of the NPPF and the PPG – stresses the importance of understanding housing need based on the application and testing of projections of growth. The assessment of alternative projections of future growth represents an integral part of identifying the objectively assessed need (OAN) for housing in an area.

6.2 The PPG states that household projections published by DCLG should provide the ‘starting point’ for informing the OAN, but notes that:

“The household projections are trend based, ie they provide the household levels and structures that would result if the assumptions based on previous demographic trends in the population and rates of household formation were to be realised in practice. They do not attempt to predict the impact that future government policies, changing economic circumstances or other factors might have on demographic behaviour”⁶⁶

6.3 The PPG identifies the importance of considering factors which have altered local demography and household formation rates, stating:

“The household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends. For example, formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under delivery of housing. As household projections do not reflect unmet housing need, local planning authorities should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply.”⁶⁷

6.4 The PPG also goes on to assert that:

“Plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates. Account should also be taken of the most recent demographic evidence including the latest Office of National Statistics population estimates.

“Any local changes would need to be clearly explained and justified on the basis of established sources of robust evidence”⁶⁸

6.5 The analysis of demographic drivers in section 4 and market signals in section 5 has highlighted that recent levels of population growth have fallen below that seen prior to the recession, with a fall in the rate of development – below planned levels – one potential contributing factor. In addition, the analysis of market signals has revealed that affordability issues have worsened over recent years, although it is noted that the scale

⁶⁶ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

⁶⁷ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

⁶⁸ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_017

of change is below that seen at a national level and in a number of surrounding areas. On this basis, this section presents a number of alternative trend-based scenarios of projected population and household change. These scenarios are intended to test the impact of different assumptions – using local demographic data – in order to provide a considered position on the adjustments required to reflect historic changes in the supply of housing and wider market factors. This takes into account the drivers of historic population and household change presented in the preceding sections.

- 6.6 The NPPF expects local authorities to ensure an alignment between housing and employment policy. The PPG states that this should be considered when objectively assessing housing need by ensuring that the growth in labour force required to support likely job growth can be accommodated through the growth of the population and associated housing needs:

“Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area”⁶⁹

- 6.7 The PPG recognises the potential implications of imbalance between labour force growth and job growth:

“Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems”⁷⁰

- 6.8 The projections within this section also therefore consider the scale of labour force growth associated with different levels of modelled population growth. In order to consider the scale of housing required to support likely employment change, the demographic modelling uses the various employment growth forecasts presented within the Central Lincolnshire Economic Needs Assessment⁷¹ (ENA) which have been reviewed and summarised in section 4.

- 6.9 Further detail of the modelling methodology and assumptions applied is provided within Appendix 1.

The ‘Starting Point’: The 2012 Sub National Household Projections

- 6.10 The 2012 sub national household projections (SNHP) were released in February 2015. This represented a full new official DCLG published dataset, and forms the ‘starting point’ for assessing need as set out through the PPG.
- 6.11 The 2012 SNHP is underpinned by the projected population growth under the 2012 sub-national population projections (SNPP) datasets published by ONS. The 2012 SNPP

⁶⁹ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

⁷⁰ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

⁷¹ Turley and ekosgen (2015) Central Lincolnshire Employment Needs Assessment

was released in May 2014 and provides the latest official benchmark for the analysis of population growth, taking full account of the results of the 2011 Census.

- 6.12 The 2012 SNHP have been derived through the application of projected household representative rates (also referred to as headship rates) to a projection of the private household population, disaggregated by age, sex and relationship status.
- 6.13 The following table sets out the projected growth in population and households across Central Lincolnshire, broken down into the three authorities, over the period from 2012 to 2036. The resultant annual average household growth under the official dataset is also presented. This annual average household growth has been translated into dwelling projections through the application of a vacancy rate assumption, recognising the functional operation of the housing market. These vacancy rates have been derived from 2011 Census data by Edge Analytics, and are fixed at the following levels throughout the projection period:
- **Lincoln** – 6.4%;
 - **North Kesteven** – 3.3%; and
 - **West Lindsey** – 4.5%.

Figure 6.1: 2012 Population and Household Projections 2012 – 2036

	Change 2012 – 2036		Average per year	
	Population Change	Households Change	Net Migration	Dwellings
Lincoln	8,928	5,834	0	260
North Kesteven	18,471	9,652	868	416
West Lindsey	11,621	6,813	590	297
Central Lincolnshire	39,020	22,299	1,458	973

Source: Edge Analytics, 2015

- 6.14 Modelling of the 2012 SNPP by Edge Analytics – and its translation into households through the 2012 SNHP – suggests a need for approximately 970 dwellings per annum across Central Lincolnshire. This is based upon population growth of around 39,000 persons, resulting in the formation of around 22,300 households. This forms the ‘starting point’ for considering future housing needs within Central Lincolnshire, in accordance with the PPG.

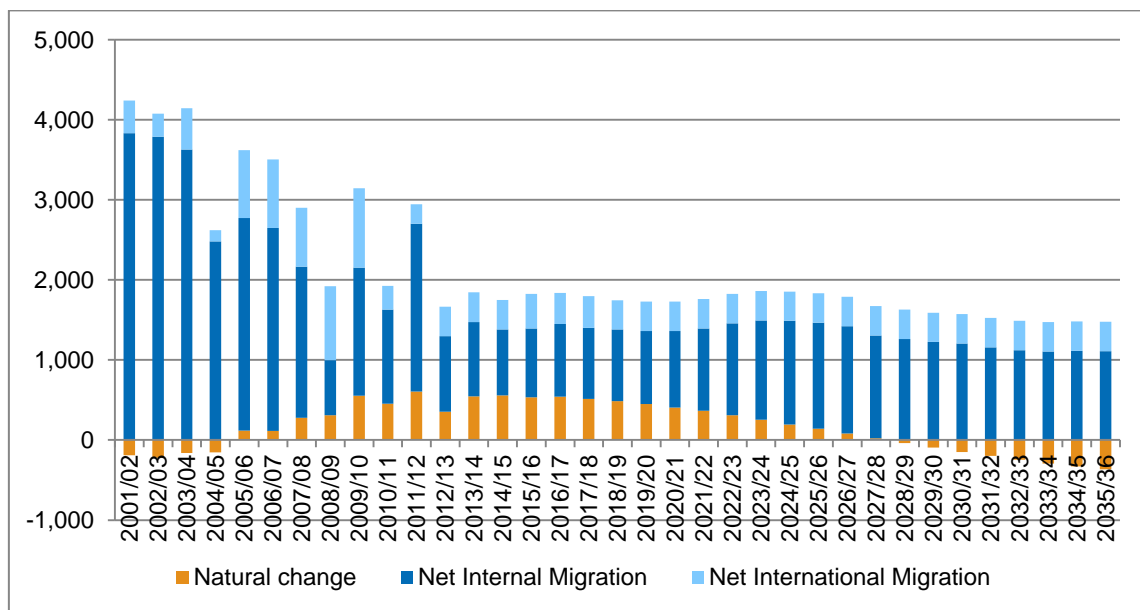
Considering the Need for Demographic Sensitivities – Taking account of historic trends and market signals

- 6.15 This section considers both the underpinning population growth assumptions in the 2012 SNPP and the translation of population growth to households through the application of household formation rates within the 2012 SNHP. This is considered in

the context of the analysis of longer-term demographic drivers (section 4) and market signals evidence (section 5).

- 6.16 The analysis of the historic demographic drivers of change within section 4 identified the important role that migration has played in the changing population of Central Lincolnshire. The following chart shows the migration levels underpinning the 2012 SNPP over the plan period to 2036, alongside the historic components of change since 2001. This shows that the 2012 SNPP projects a considerably lower net annual level of migration into Central Lincolnshire than that seen through the more recent period of population growth.

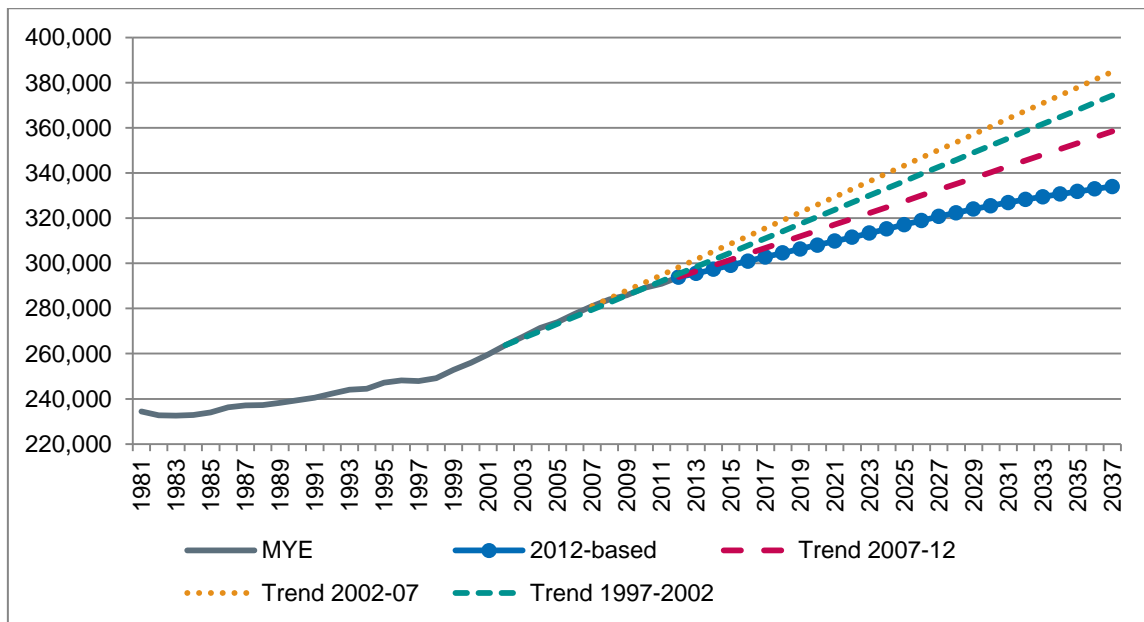
Figure 6.2: 2012 SNPP Components of Population Change



Source: ONS, 2014

- 6.17 In order to illustrate further the impact of projecting forward trends in different historic periods, the following chart compares the trend-based projection of population growth under the 2012 SNPP against linear forward extrapolations of population growth, linked to different historic periods.

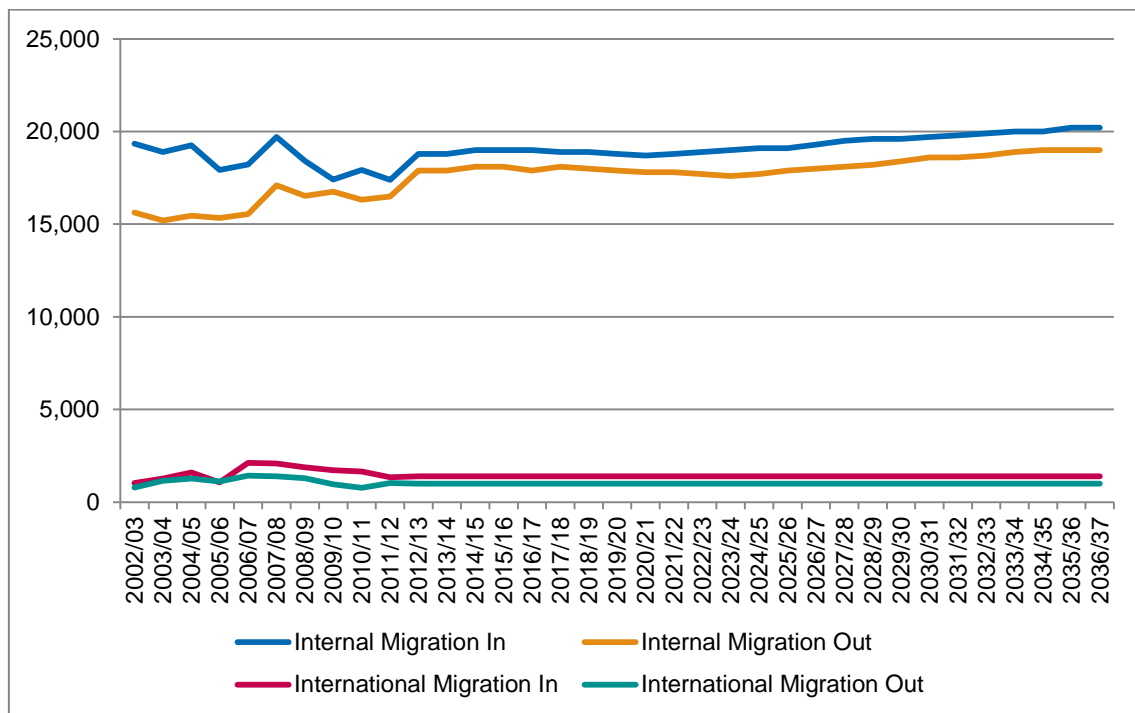
Figure 6.3: Recent Population Trends Relative to 2012 SNPP



Source: ONS, 2014; Turley, 2015

- 6.18 Whilst this represents a comparatively crude modelling approach, it is apparent that the period from 1998 represented a significantly higher growth trajectory than previously since 1981, when the area saw a lower rate of population growth. The chart shows that the 2012 SNPP represents a projection of growth which falls below even a level of extrapolated growth based on the 2007 – 2012 trend, a period including the economic recession, and notably below a continuation of growth based on more buoyant economic periods.
- 6.19 In order to further understand the underpinning assumptions behind the projected levels of net migration, the following chart compares both historic and projected in and out-migration within the ONS datasets.

Figure 6.4: Historic and Projected In and Outmigration in Central Lincolnshire under the 2012 SNPP

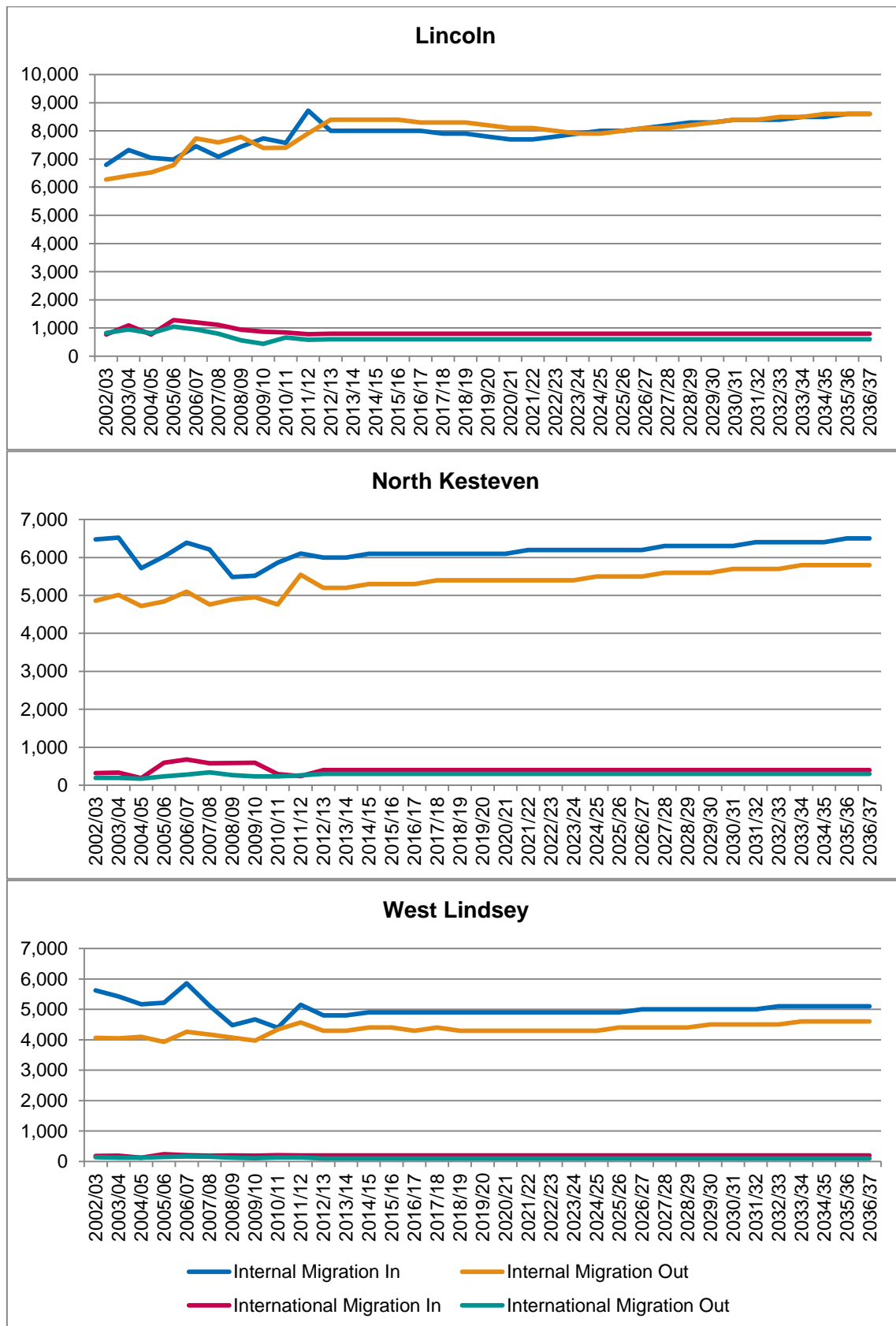


Source: ONS, 2015

- 6.20 Examining internal migration flows, it is apparent that the 2012 SNPP dataset projects a return to pre-recession flows of people into Central Lincolnshire, and indeed a higher level than seen historically by the end of the projection period. However, it importantly also projects an increased outflow of people beyond that seen since 2002/03. Whilst this partially reflects a trend seen during and following the recession, the projection represents a significant departure from both the trend seen over the last ten years, and more recent years since the onset of the recession.
- 6.21 This suggests that the 2012 SNPP are projecting forward a level of out-migration which departs from recent historical trends. This has an important impact on the overall net migration into Central Lincolnshire, explaining the comparatively low levels of projected net migration shown in the projections in Figure 6.2. It is evident that this requires further consideration to establish the extent to which this is realistic or reasonable, particularly in the context of other factors such as the likely scale of employment growth anticipated. This would be likely to have an impact on the number of people both retained in the area and choosing to move into the area, and is considered later in this section.
- 6.22 The comparable picture for international migration flows reveals that the inflow of international migration is projected to be higher than outflows, largely reflecting the historic balance, albeit slightly below levels seen between 2005 and 2010. The net flow of international migration, as considered within the SHMA analysis, does not make such a significant impact on overall population change across the area as internal migration flows.

6.23 A comparable analysis is presented over the page for each of the three constituent Central Lincolnshire authorities to understand spatial variations in projected changes to the population of each under the 2012 SNPP dataset.

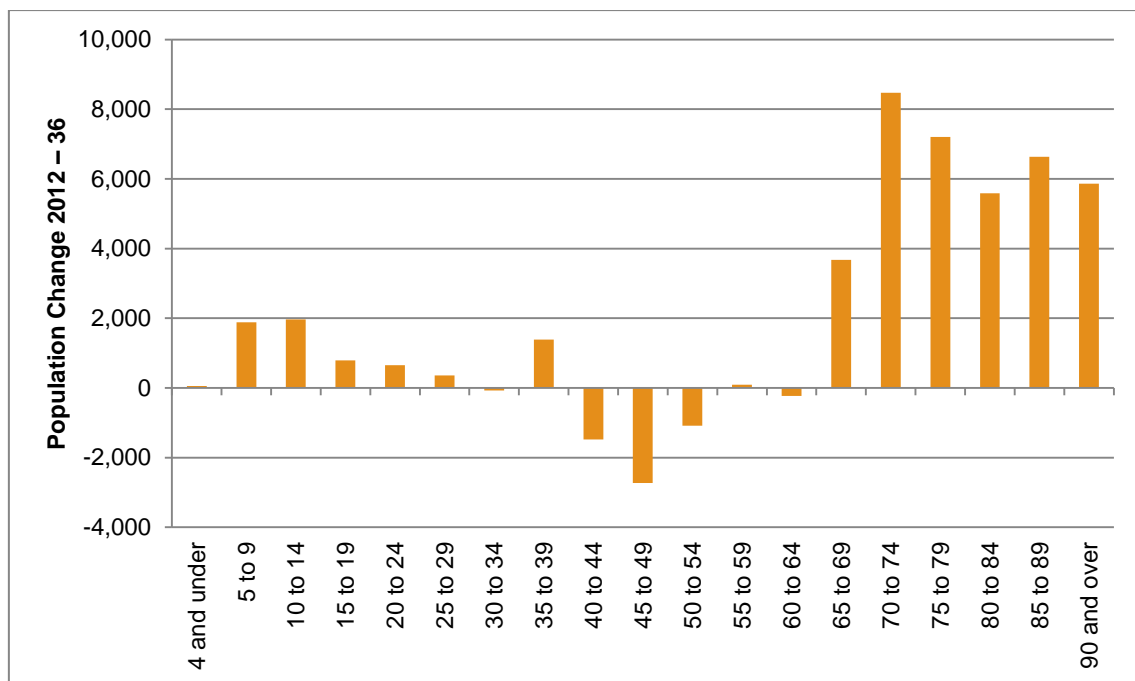
Figure 6.5: Historic and Projected In and Outmigration under the 2012 SNPP



Source: ONS, 2014

- 6.24 It is apparent that the 2012 SNPP projects an increase in the level of internal migration flows out for each of the authorities in Central Lincolnshire, generally exceeding the average rates seen since the onset of the recession. This is particularly true for Lincoln, where the level of internal out-migration is projected to exceed in-migration over the initial period of the projection. Importantly, however, all three authorities are projected to see a level of internal in-migration which is higher than that seen since the onset of the recession and in the case of Lincoln above that seen prior to the recession as well.
- 6.25 One impact of the above projected changes to the demography of Central Lincolnshire is a notable change in the age profile of the area. The following chart illustrates the projected change to the population – within 5 year age groups – under the 2012 SNPP, over the plan period from 2012 to 2036.

Figure 6.6: 2012 SNPP Projected Changing Age Profile 2012 - 2036



Source: ONS, 2014

- 6.26 It is evident that an important implication of the implied changes to the population resulting from migration is a notable ageing of the population. It is evident that under this projection of population change, the working age population of the area would decline by 2036. This would have an impact on the capacity of the area to potentially support employment growth. Again, the implications of this changing demographic structure in the context of the future profile of the economy – as considered in section 4 – is considered later in this section.
- 6.27 Finally, recognising the approach set out in the PPG⁷², it is useful to compare the most recent ONS mid-year population estimates (MYE) with the projected growth implied by the 2012 SNPP. Locally, this establishes whether the implied projected population

⁷² http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_017

change is being followed or already departed from. The following table compares the 2012 SNPP projection for this year with the ONS MYE components for 2012/13.

Figure 6.7: Latest ONS Mid-Year Estimates Components of Change 2012/13 compared to the 2012 SNPP for 2012/13

	Natural Change	Internal Migration	International Migration	Other	Total Population Change	% Population Change
2013 MYE	374	1,235	561	176	2,346	0.8%
2012 SNPP	300	900	400	0	1,700	0.6%

Source: ONS, 2014

- 6.28 Evidently, this shows that the mid-year estimates indicate a notably stronger level of population growth over this year than the 2012 SNPP projections suggested, with higher estimates across all of the components of change and the largest absolute difference relating to internal migration. Indeed, the compound impact is a projected additional growth of almost 650 persons in one year alone. This serves to reinforce the analysis above, which highlights a number of challenges to the 2012 SNPP as being sufficiently representative of future projected population growth in the area over the plan period.
- 6.29 Whilst this data is only presented for a single year, it will be important to continue to monitor future estimates of population carefully to assess whether there is a continued deviation away from the official population projection dataset.

Alternative Demographic Projections

- 6.30 Recognising the implications of the analysis above, it is considered reasonable to undertake a process of sensitivity testing in relation to variant trend-based demographic projections⁷³.
- 6.31 The following table presents a variant demographic scenario modelled by Edge Analytics using the POPGROUP software. This scenario bases projected internal and international migration on the historic trends seen between 2002/03 and 2011/12. This is a longer historic time horizon than used within the 2012 SNPP, and covers a period which extends prior to the onset of the economic recession and subsequent downturn in 2008. For comparison, the 2012 SNHP projected implied dwelling requirement is presented.

⁷³ *ibid*

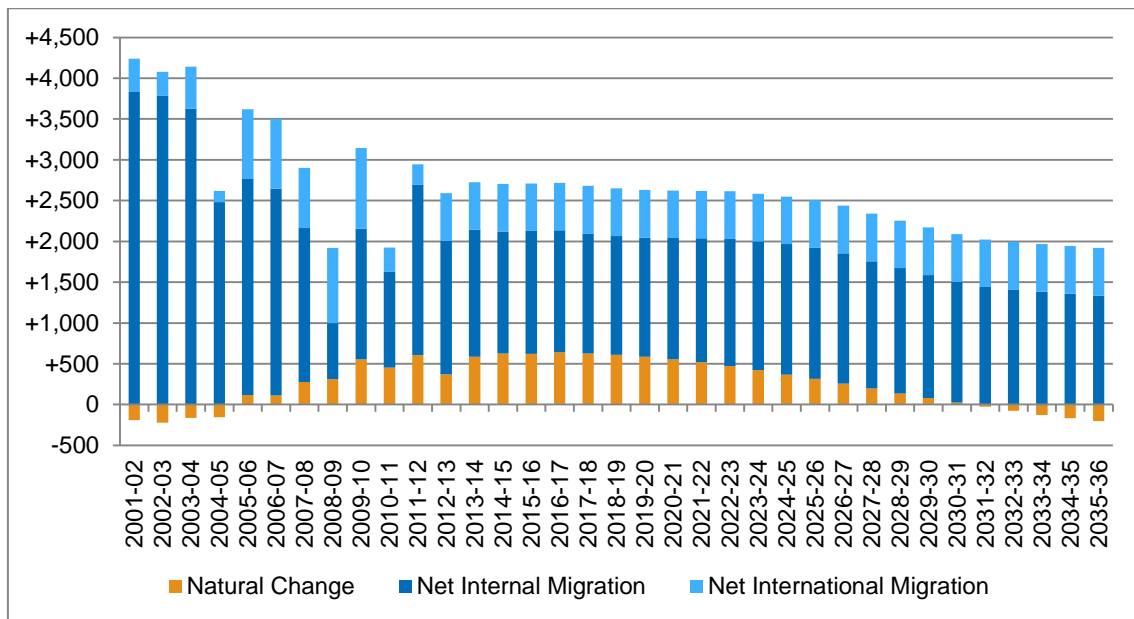
Figure 6.8: 10 Year Past Growth Scenario

	Change 2012 - 2036		Average per year		2012 SNPP scenario dwellings per annum
	Population Change	Households Change	Net Migration	Dwellings	
Lincoln	11,650	7,117	-11	317	260
North Kesteven	24,848	13,539	1,124	584	416
West Lindsey	19,906	10,683	941	466	297
Central Lincolnshire	56,404	31,339	2,054	1,367	973

Source: Edge Analytics, 2015

- 6.32 The modelled 10 year Past Growth Scenario projects forward a stronger level of future population growth compared to the 2012 SNPP, reflecting the stronger levels of population growth seen prior to 2007. This can be considered to represent a more balanced picture of population growth, given that it draws upon a time period which covers both a stronger and weaker demographic period of change in Central Lincolnshire.
- 6.33 The assumed higher level of migration – just in excess of 2,000 persons a year – forms an important factor in the projected higher level of population growth, with this comparing to a figure of approximately 1,460 per annum under the 2012 SNPP dataset, as shown in Figure 6.1.
- 6.34 The POPGROUP modelling prepared by Edge Analytics uses the historic demographic evidence to define future migration *rates* for internal migration and fixed migration *counts* for international migration. The use of migration *rates* for modelling internal migration is consistent with the ONS SNPP methodology. The migration schedule of rates is applied to an external ‘reference’ population defined by those areas with which there are historically significant migration links. This ensures a level of integration within the modelling, which is important in the context of the ONS model to ensure that the sub-area projections sum to the national level. The implication of this modelling approach is that whilst the migration profile *rates* are built upon a ten year historic period, the resultant average net migration level in absolute terms does not directly represent the average net migration based upon this historic time period..
- 6.35 Whilst this scenario, therefore, represents a more positive demographic trend-based projection of population growth compared to the 2012 SNPP, it does not represent a return in full to longer-term projected levels of average migration in the area. This is illustrated through the following chart, which shows the implied components of change under the 10 year Past Growth Scenario.

Figure 6.9: 10 Year Past Growth Scenario Components of Change



Source: Edge Analytics, 2015

Unattributable Population Change

- 6.36 The analysis of demographic drivers of change in section 4 highlighted the issue of Unattributable Population Change (UPC). Across Central Lincolnshire, the 2011 Census revealed a relatively modest previous undercount of the population by the ONS.
- 6.37 In the document accompanying the 2012 SNPP methodology report, the ONS confirms that there is an absence of clear evidence to confirm whether discrepancies are in the Census numbers (2001 and 2011) or in the estimation of migration flows⁷⁴. The ONS has suggested that if the discrepancies are in the migration flows, recent work to improve the estimation of international flows would imply that errors are most likely to be in the earlier part of the decade. This would therefore have less of an impact on trends based on the second half of the decade, from which the 2012 SNPP are derived. On this basis, they are explicit that they have not taken into account the UPC in producing the 2012 SNPP.
- 6.38 Whilst at a national level – as the ONS confirms – the impact is relatively modest, and falls within the confidence interval for the international migration estimates and the sum of confidence intervals for the 2001 and 2011 Censuses, the impact can be more marked at a local authority level.
- 6.39 A failure to recognise the implication of a higher level of historic migration could potentially serve to under represent future projected growth. Therefore, in order to illustrate the implications of including UPC, Edge Analytics have modelled a variant of the 10 year past growth scenario which assigns the Unattributable Population Change (UPC) component of change identified by the ONS within the latest mid-year estimate revisions to the international migration component, as this has the greatest uncertainty

⁷⁴ http://www.ons.gov.uk/ons/dcp171776_364795.pdf

associated with its estimation. At a Central Lincolnshire level, this therefore suggests a slightly higher trend based projection of future growth. This is illustrated in the following table, which compares the outputs of the application of this assumption for Central Lincolnshire.

Figure 6.10: 10 Year Past Growth Scenario Including UPC

	Change 2012 - 2036		Average per year	
	Population Change	Households Change	Net Migration	Dwellings
Lincoln	13,030	7,695	33	343
North Kesteven	25,013	13,615	1130	587
West Lindsey	19,409	10,467	923	457
Central Lincolnshire	57,452	31,777	2,086	1,387

Source: Edge Analytics, 2015

- 6.40 Across Central Lincolnshire, the inclusion of the UPC component represents an additional uplift in associated need of only 20 dwellings per annum. This is considered appropriate to take into account at a Central Lincolnshire level, and implies a level of need based upon a longer-term demographic projection of approximately 1,390 dwellings per annum. In the context of the analysis in sections 4 and 5, this uplift is considered appropriate and reasonable to respond to the implication of the impact of reduced levels of development through the recession – which is an important market signal – and the impact of an economic period during which jobs were lost in the area. This represents an uplift of 42% against the implied dwelling requirement under the 2012 SNHP, which – for the reasons set out above – is not considered to be representative of the likely long-term projection of need based on demographic factors alone.

Household Formation Rates – Alternative historic rates and sensitivities associated with Market Signals

- 6.41 In addition to the underlying projected population growth, the application of household representative rates or headship rates represents an important factor in understanding the anticipated need for housing resulting from a changing demographic.
- 6.42 As set out at the start of this section, the DCLG published the 2012 SNHP dataset at the end of February 2015. This dataset was therefore published towards the end of the SHMA research process. In recognition of the importance of this dataset, the analysis in the SHMA has sought to take the underlying assumptions around household formation into account in its translation of population into households and subsequently dwellings. It is, however, noted within the PPG that the DCLG anticipate updating the input assumptions to the dataset, which may have implications for the modelling presented within this section⁷⁵. In addition, it is anticipated that the dataset will be subject to scrutiny by the Planning Inspectorate through the consideration of evidence base

⁷⁵ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_016

reports at Local Plan Examinations, and it is therefore considered advisable that the Councils monitor any updates and interpretation of this dataset and its implications for the analysis presented in this SHMA report.

- 6.43 Prior to considering the detailed headship rate assumptions underpinning the dataset, it is useful to compare the scale of growth implied by the latest DCLG dataset against previous iterations of the household projections, noting these are underpinned by the different ONS sub-national population projection (SNPP) datasets. The following table shows the average annual household growth rate in both the 2008- and 2011-based household projections compared with the 2012 dataset. It should be noted, however, that the interim 2011 dataset only project to 2021, with the former covering a longer period to 2033.

Figure 6.11: Central Lincolnshire Previous Household Projections – Average Per Annum Household Growth

Authority	2008-based SNHP (Average per annum 2008 – 2033)	2011-based SNHP (Average per annum 2011 – 2021)	2012-based SNHP (Average per annum 2012 – 2036)
Lincoln	226	119	243
North Kesteven	569	581	402
West Lindsey	543	524	284
Central Lincolnshire	1,338	1,224	929

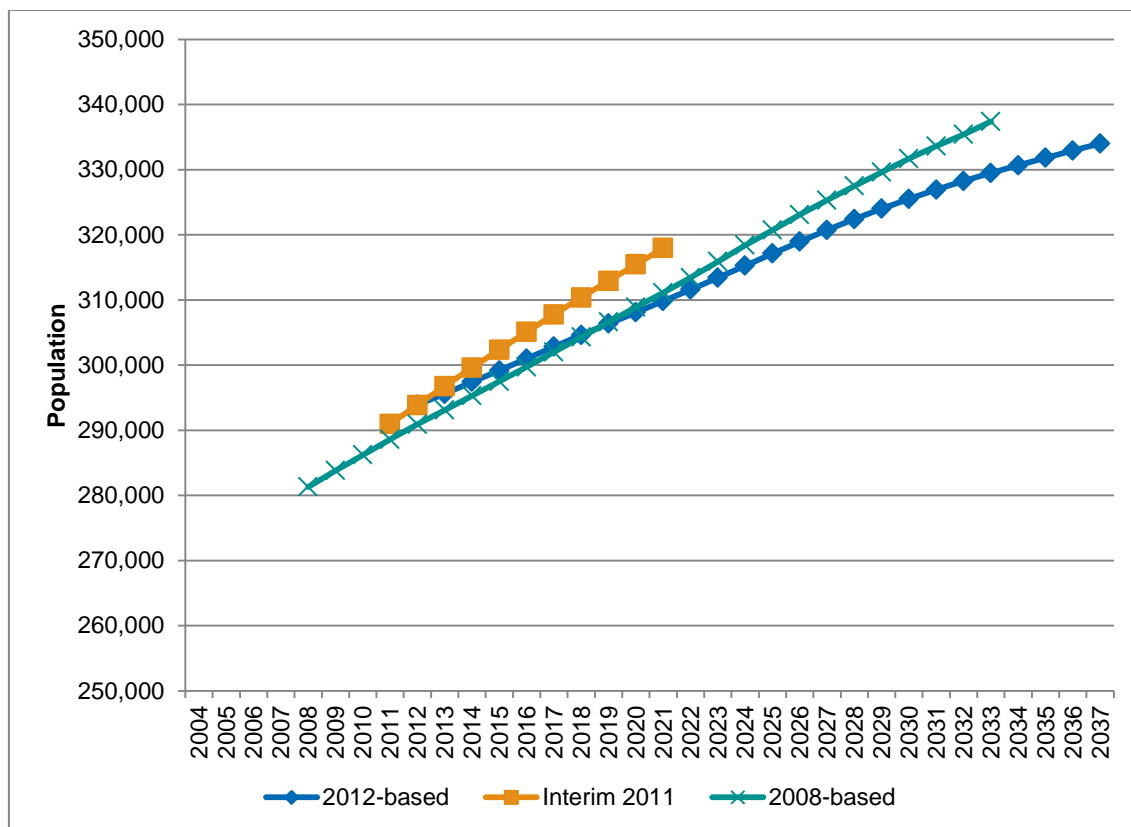
Source: DCLG, 2014

- 6.44 As shown, looking at Central Lincolnshire collectively, there has been a fall in the number of households projected to form each year on average from the 2008 SNHP dataset in the subsequently published DCLG datasets. The fall between 2008 and 2011-based datasets is almost entirely driven by a fall in the projected rate of household formation in Lincoln, which has been reversed in the latest 2012-based projections. North Kesteven and West Lindsey, however, are projected to see a notably lower level of household formation under the 2012-based projections, compared to earlier datasets. The application of variant headship rate assumptions is only one aspect of the difference in projected household growth, with underpinning population projections also an important factor.
- 6.45 The following chart compares the 2012 SNPP dataset for Central Lincolnshire with previous iterations published by the ONS. The 2012 SNPP shows a lower rate of growth than the two preceding datasets, albeit the 2011 dataset shows a stronger level of population growth than the other two datasets⁷⁶. These differences are not directly reflected within the implied household rates of growth, and it is therefore important to

⁷⁶ The 2012 SNHP Methodological note (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408233/Household_Projections_2012-based_Methodology_Report-final-a.pdf) states that: 'The population of the UK is projected to grow at a slower rate in the 2012-based projections than the 2011-based projections. The slower projected growth is due to the change in the assumptions made for the 2012-based projections, with the assumptions for migration being lower and those for fertility higher in the long term, but lower in the short term than the 2011-based projections.'

look at the role of the different application of headship rate assumptions in generating different levels of implied household growth.

Figure 6.12: Central Lincolnshire Official Population Projections



	2012-based	Interim 2011-based	2008-based
Time period	2012 – 2037	2011 – 2021	2008 – 2033
Total change in population	40,099	27,005	56,100
Annual change in population	1,604	2,700	2,244

Source: ONS, 2014

- 6.46 Prior to the release of the 2012 SNHP, the 2008 SNHP represented the last full sub-area set of projections, with the 2011 SNHP only representing an interim release with a ten year horizon. In the context of the methodology set out in the PPG, it is considered useful to compare and contrast the variant headship rate assumptions proposed within these datasets, recognising that they span different economic conditions. It is important in this context, however, to recognise that – in line with the PPG – the 2012 SNHP ‘are the most up-to-date estimate of future household growth’⁷⁷.

⁷⁷ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_016

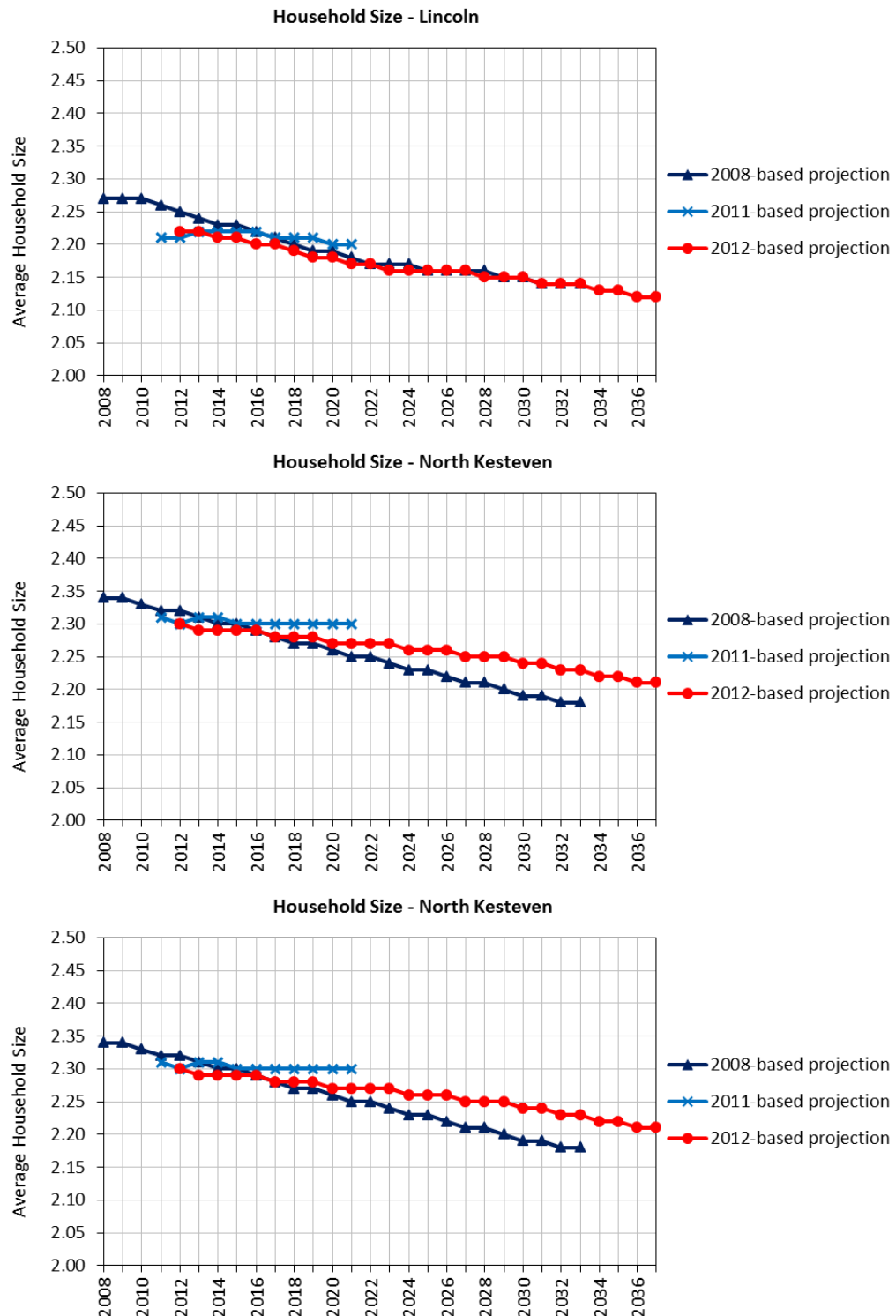
6.47 The latest 2012 SNHP dataset provides a number of important updates on the previous Interim 2011 SNHP dataset, with the inclusion of the following new information⁷⁸:

- Household population by sex, age and relationship-status consistent with the 2011 Census (rather than estimates for 2011, which were derived from 2001 Census data, projections national trends, as used in the 2011-interim projections);
- Communal population statistics by age and sex consistent with the 2011 Census (rather than the previous estimate, which were calibrated to the total communal population from the 2011 Census);
- Further information on household representatives from the 2011 Census relating to aggregate household representative rates by relationship status and age;
- Aggregate household representative rates at a local authority level, controlled to the national rate, based on the total number of households divided by the total adult population (rather than the total number of households divided by the total household population); and
- Adjustments to the projections of the household representative rates in 2012 based on the Labour Force Survey (LFS).

6.48 The following chart directly compares the different projected change to household size for all ages for each of the three Central Lincolnshire authorities under the three DCLG datasets.

⁷⁸ Source: DCLG Methodology, pages 4 -5
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408233/Household_Projections_2012-based_Methdology_Report-final-a.pdf

Figure 6.13: Average Household Size under the 2008-based, 2011-based and 2012-based household projection models



Source: DCLG

6.49 As shown, household size in Central Lincolnshire has continued to fall over recent years, in contrast to the national profile which – as considered in section 4 – has remained constant between 2001 and 2011. Indeed, the graphs above suggest that

household size fell at a faster than anticipated rate, under the 2008 SNHP. This is likely, at least in part, to reflect the analysis in section 5, which concluded that the market signals evidence did not indicate that demand had significantly outpaced supply across the area when compared against national evidence and neighbouring areas.

- 6.50 It is also apparent from the charts that the 2012 SNHP suggests a rate of falling household size, which is more rapid than that suggested under the Interim 2011 SNHP dataset but less than the 2008 SNHP. In Lincoln, the 2008 and 2012 projections suggest a similar level of projected household size towards the end of the projection period, but there is a more notable difference in the case of North Kesteven and West Lindsey. Overall, however, it is evident that the projected fall in household size under the 2012 SNHP reflects a more positive trend regarding household formation than that suggested under the 2011 SNHP.
- 6.51 Edge Analytics have explored the different headship rate assumptions being applied within the different DCLG datasets. The outputs of this analysis are included at Appendix 3.
- 6.52 Given these variations in assumptions regarding household formation, it is beneficial to assess the implications of applying previous headship rates to the demographic modelling introduced in this section. This is summarised in the following table, for each of the three scenarios presented.

Figure 6.14: Variant Demographic Scenarios - Average Annual Housing Need (Dwellings) 2012 - 2036 by Applied Headship Rate

Scenario	2012 SNHP headship rates	2011 SNHP headship rates	2008 SNHP headship rates
2012 SNPP	973	827	1,009
10 Year Past Growth Scenario	1,367	1,214	1,339
10 Year Past Growth Scenario including UPC	1,387	1,234	1,419

Source: Edge Analytics, 2015

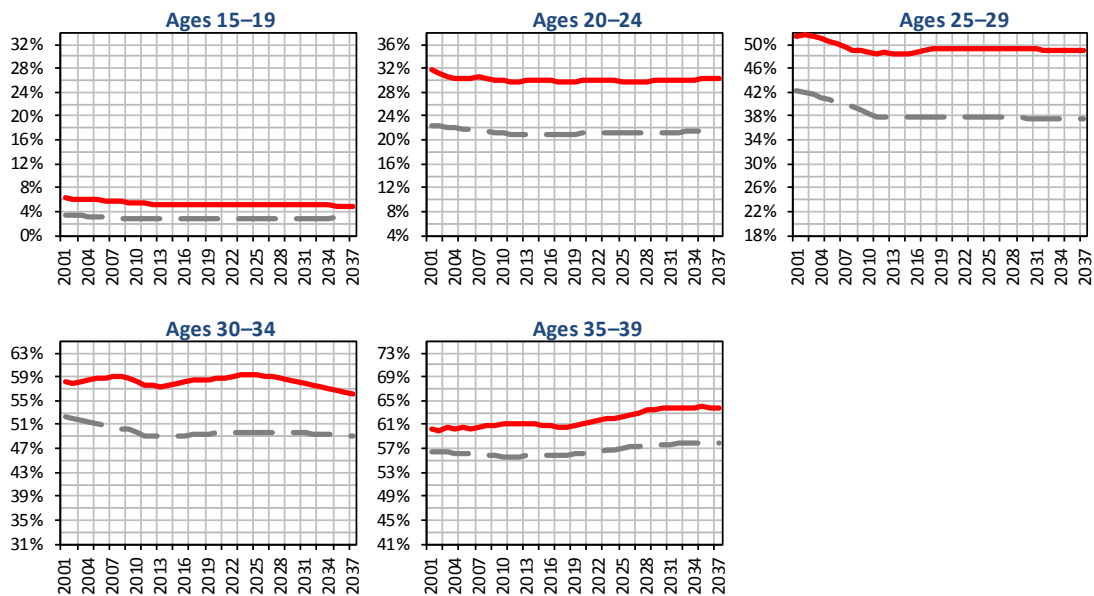
- 6.53 The previous sub-section has already factored in an uplift associated with demographic (migration) assumptions recognising the comparative fall in provision of housing in recent years in contrast to that seen earlier in the decade and against planned levels of supply. It is also important to consider the extent to which adjustments are appropriate to household formation rates in the context of the evidence presented above.
- 6.54 The DCLG 2012 SNHP methodological report confirms:

“At the present time the results from the Census 2011 show that the 2008-based projections were overestimating the rate of household formation and support the evidence from the Labour Force Survey that household representative rates for some (particularly younger) age groups have fallen markedly since the 2001 Census. However

for this update, it has not been possible to include detailed data on Stage One household representative from the Census 2011.”

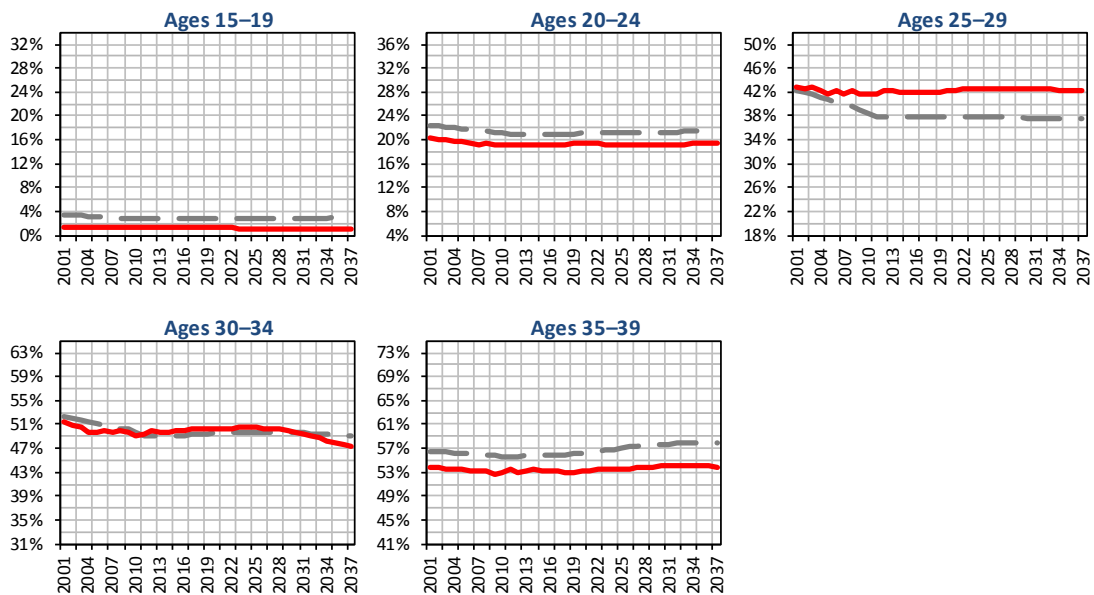
- 6.55 Whilst it is acknowledged that the DCLG will be publishing further modelling outputs to take account of further 2011 Census data it is important, in accordance with the PPG to assess how household formation rates have changed historically by individual age groups. Edge Analytics have presented the historic and projected household formation rates under the DCLG 2012 SNHP model for 5 year age groups of younger persons for all three authorities with the England figures included for context in the following charts. A full set of charts for all 5 year age groups is included in Appendix 3.

Figure 6.15: Lincoln and England: DCLG 2012-based Headship Rates



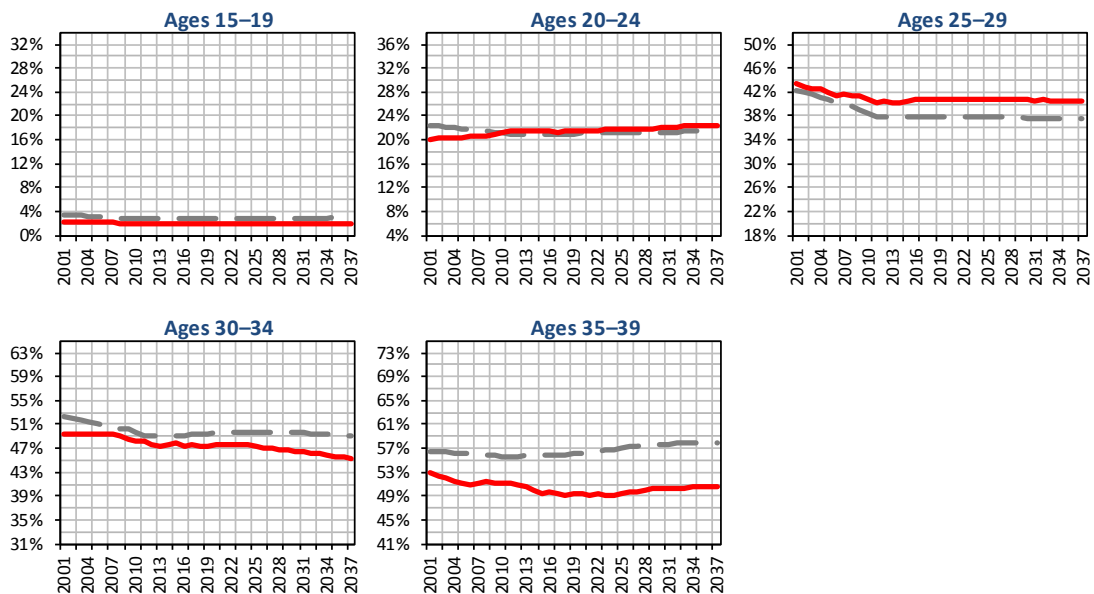
Source: DCLG, Edge Analytics 2015

Figure 6.16: North Kesteven and England: DCLG 2012-based Headship Rates



Source: DCLG, Edge Analytics 2015

Figure 6.17: West Lindsey and England: DCLG 2012-based Headship Rates



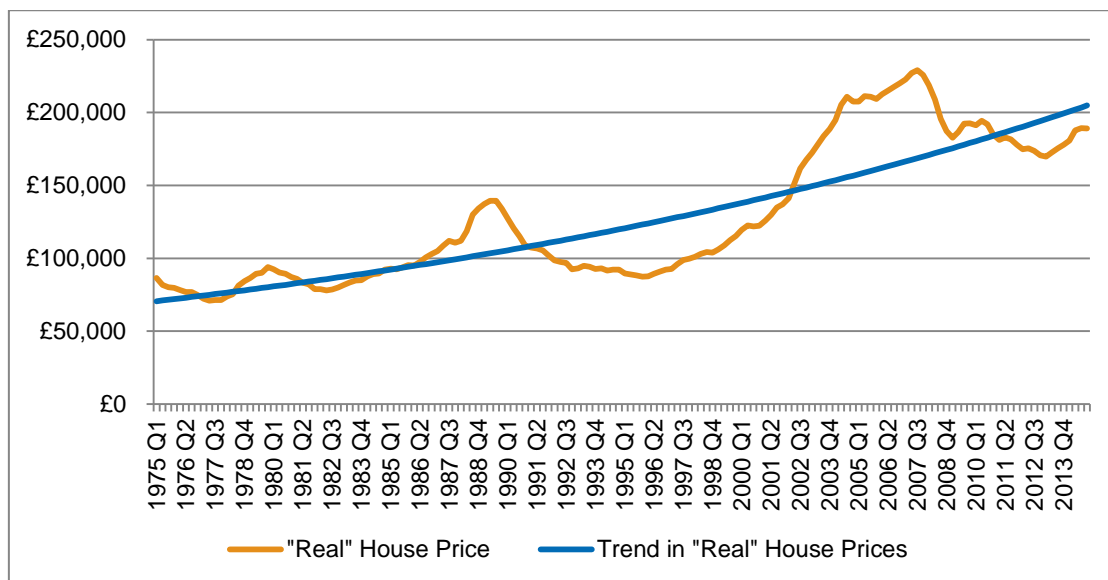
Source: DCLG, Edge Analytics 2015

- 6.56 Recognising the issue raised within the DCLG methodology note it is agreed that housing market factors, including affordability, are most likely to have impacted on younger households (i.e. those aged 20 – 39) with regards to their capacity and ability to form households.
- 6.57 Considering the charts above it is apparent that a number of the 5 year age bands within this younger households classification have seen household formation rates fall in both

authorities since 2001. It is also evident that for a number of the age groups the 2012 SNHP dataset does not suggest a recovery to rates seen in 2001 but rather a continuation or indeed in some cases a further reduction in the propensity to form households (the age groups of which this is the case for each authority are set out at paragraph 6.61).

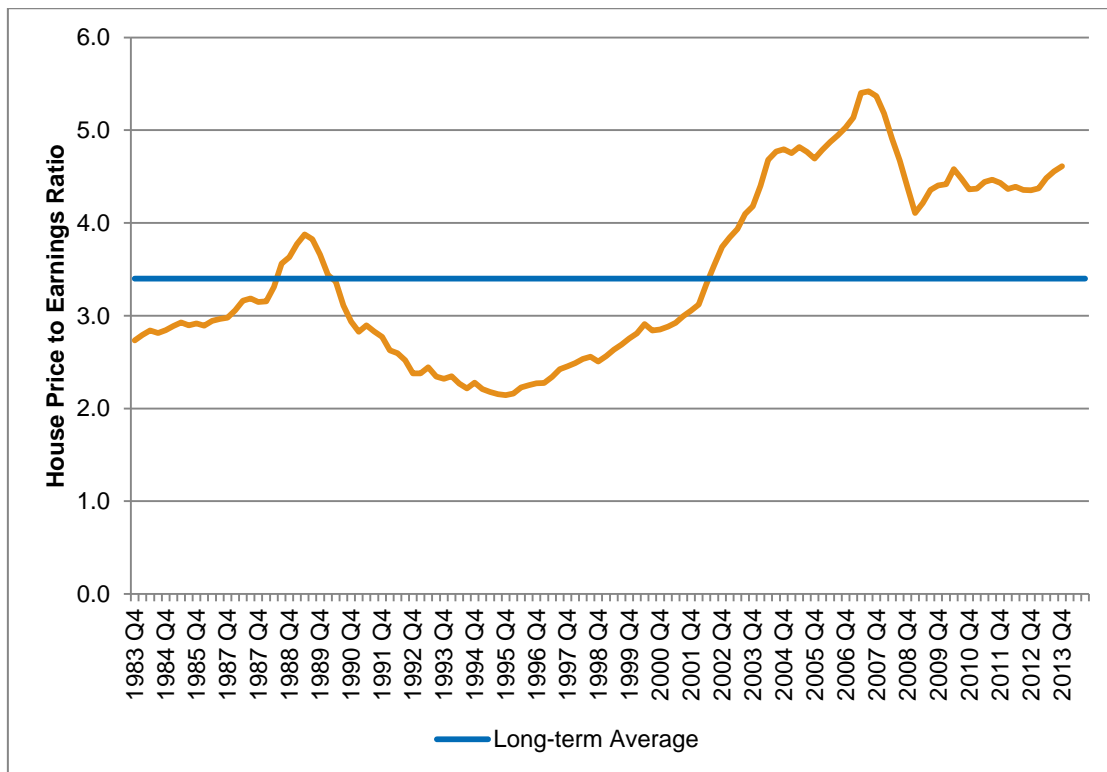
- 6.58 In recognition that formation rates may have been suppressed as a result of market factors over this period Edge Analytics have modelled a sensitivity analysis of headship rates to illustrate the implication of alternative rates being applied.
- 6.59 The sensitivity scenario explores the impact of a reversal of this trend – where this is not already anticipated in the 2012 SNHP dataset – and a recovery of household formation rates to a level previously seen in 2001 for those younger age groups for which this applies. The year 2001 is used as a benchmark, as it is widely acknowledged that since 2001 the housing market has seen a period of significant growth with prices far exceeding comparable rises in incomes resulting in affordability issues. This is illustrated in the following selected longer-term house price and affordability charts at a national level. A return to 2001 rates of household formation therefore could be viewed as exploring the impact of returning to a set of market conditions which suggests a healthier market situation, although it is noted that the supply of housing in 2001 at a national level was still falling short of projected levels of need and therefore potentially continued to inhibit the ability of households to form.

Figure 6.18: Long-term average house price – UK



Source: Nationwide

Figure 6.19: First Time Buyer Gross House Price to Earnings Ratio – UK



Source: Nationwide, ONS

6.60 The following table sets out the implied variant levels of household formation and therefore dwelling growth on the basis of the adjustment assuming a recovery of headship rates for the following age groups:

- Lincoln – head of household aged 20 – 29 years;
- North Kesteven – head of household aged 20 – 24 and 30 – 34 years;
- West Lindsey – head of household aged 25 – 39 years.

6.61 The scale of difference from the scenarios using the 2012 SNHP rates is highlighted in the following table with this sensitivity adjustment applied.

Figure 6.20: Household Formation Sensitivity for Younger Age Groups – Central Lincolnshire

	Dwellings 2012 - 2036		
	2012 SNHP headship rates	2012 SNHP Headship Rate Sensitivity	Difference (% change)
2012 SNPP	973	1,017	44 (5%)
10 Year Past Growth Scenario	1,367	1,412	45 (3%)
10 Year Past Growth Scenario, including UPC	1,387	1,432	45 (3%)

Source: Edge Analytics, 2015

- 6.62 It is evident that the application of the sensitivity results in an uplifting of the number of households projected to form. This reflects an increase in the formation of younger households within the sensitivity. The scale of increase is relatively similar across the scenarios, standing at between 3% and 5%.
- 6.63 It is apparent that further adjustments could feasibly be made to the household formation rates to explore the implication of seeing rates for other age groups vary, or a different level of uplift or indeed suppression for younger age groups. Given that the PPG confirms that the DCLG are undertaking this work at a national level with the addition of specially commissioned Census 2011 data, it is considered at this point that it would be advantageous to await the outputs of this exercise prior to considering further sensitivity testing.

Factoring in Likely Job Growth

- 6.64 As set out in section 4, the Economic Needs Assessment (ENA) has included a detailed consideration of three sets of economic forecasts from two professional forecasting houses, in order to make direct comparisons between the scale and distribution of forecast growth and decline in different sectors across the area. These forecasts have formed the basis of an assessment of the level of employment growth that Central Lincolnshire is anticipated to experience over the next 20 years.
- 6.65 The identified indicative forecast levels of job growth identified within the ENA are considered within the modelling in this section in order to identify the supported level of population growth and therefore household growth required to support anticipated employment change based upon the scenarios recommended in the ENA.
- 6.66 In order to highlight the implications of differing levels of job growth, modelling has also been undertaken which considers the implied labour force growth required to support the higher level of job growth suggested within the September 2014 Experian forecast, which is also presented within the ENA. It is important to highlight, as set out in section 4, that the ENA does not consider this level of job growth to reflect the analysis of future

likely job growth potential based on a review of local evidence and a detailed analysis of historical performance.

6.67 In order to derive a modelled understanding of changing labour force and therefore supported job growth, Edge Analytics have applied a number of assumptions relating to economic activity rates, unemployment and commuting. Further details on these assumptions are set out in Appendix 1, with a summary included below:

- Commuting rates are based on the 2011 Census and held constant over the projection period;
- Economic activity rates are based on the 2011 Census and are held constant for those aged 16 – 60. Modifications have been to the economic activity rates for those aged 60 – 69 to take account of planned changes to the SPA; and
- With regards to unemployment⁷⁹ rates for the core scenarios presented a 'recession' average unemployment rate (2008 – 2012) is applied in 2012. The unemployment rate then decreases to a nine-year average (2004 – 2012) in 2018 (8.7% for Lincoln, 3.3% for North Kesteven and 6.0% for West Lindsey). After 2018 the unemployment rate is held constant. A variant set of employment-led scenarios has also been run which assumes a return to pre-recession unemployment rates (2004 – 2007⁸⁰) by 2020. This reflects, in particular for the adjusted employment forecasts, that the higher levels of job growth anticipated under these forecasts will have a more marked impact on drawing upon the existing labour-force and reducing unemployment in the future.

6.68 Prior to considering the outputs of the modelling constrained to these different forecasts of employment growth, the anticipated levels of job growth associated with the demographic scenarios presented above are presented. This forms an important context for understanding the scale and rationale behind any uplift or adjustment required to ensure alignment between forecast job growth and population growth.

Figure 6.21: Implied Supported Job Growth Demographic Scenarios

Scenario	Jobs per annum	Dwellings per annum
2012 SNPP	109	973
10 Year Past Growth ⁸¹	459	1,387

Source: Edge Analytics, 2015

6.69 It is apparent that the Edge Analytics modelling implies that under both the 2012 SNPP and the 10 Year Past Growth scenarios, a limited level of job growth could be supported. In the case of the 2012 SNPP scenario, this is only just over 100 jobs a year, which reflects the projected decline in the working age population identified earlier in the section (Figure 6.6).

⁷⁹ Unemployment rates are sourced from the Annual Population Survey

⁸⁰ The pre-recession unemployment rates used by Edge Analytics are: Lincoln 6.7%, North Kesteven 3.3% and West Lindsey 3.8%.

⁸¹ This iteration of the scenario includes UPC

- 6.70 The higher level of migration assumed within the 10 Year Past Growth scenario results in a population profile which would potentially support a higher level of job growth. As the ENA highlights, however, this level of implied supported job growth falls notably below recent historic levels of job growth. It also evidently falls short of supporting the range of forecast job growth identified within the ENA.
- 6.71 The following table presents the outputs of the Edge Analytics modelling to assess the scale of population, household and dwelling growth required to support the level of job growth forecast under each of the employment forecasts presented within the ENA. As set out in Section 4 the ENA concludes that the Oxford Economics baseline forecast and two developed variant forecasts are considered to represent a robust range of likely job growth for Central Lincolnshire. However, the associated modelling outputs associated with constraining growth to the higher level of job growth implied by the Experian Forecast considered within the ENA is also included for context. The modelling outputs are presented using both the 2012 SNHP household formation rates and the headship rate sensitivity.

Figure 6.22: Aligning Population and Household Growth Scenarios with Forecast Job Growth

Scenario	Change 2012 – 2036		Average per year		
	Population Change	Households Change	Net Migration	Dwellings	Jobs
2012 SNHP Headship Rates					
ENA Adjusted Scenario (Higher Growth)	82,439	39,569	3,082	1,727	936
ENA Adjusted Scenario (Lower Growth)	76,908	37,336	2,879	1,629	819
ENA Baseline	68,400	34,206	2,533	1,492	628
Employment-led (Experian Sept 2014)	92,543	43,925	3,414	1,921	1,158
2012 SNHP Sensitivity Headship Rates					
ENA Adjusted Scenario (Higher Growth)	82,439	40,762	3,082	1,780	936
ENA Adjusted Scenario (Lower Growth)	76,908	38,500	2,879	1,681	819
ENA Baseline	68,400	35,308	2,533	1,540	628
Employment-led (Experian Sept 2014)	92,543	45,179	3,414	1,977	1,158

Source: Edge Analytics, 2015

- 6.72 In order to support the ENA Adjusted Scenario (Higher Growth) job growth which the ENA considers is likely to represent a potential upper level of reasonable forecast job

growth— with no variation of current commuting rates⁸² – the modelling suggests that there will be a resultant need for approximately 1,730 dwellings per annum, using the 2012 SNHP headship rates. This represents an uplift of 25% above the 10 Year Past Growth Scenario. The application of the sensitivity around headship rates results in an associated need for 1,780 dwellings per annum.

- 6.73 The ENA Adjusted Scenario (Lower Growth) and the ENA (Oxford Economics) Baseline Scenario both suggest lower levels of implied dwelling need reflecting the lower job growth forecasts used as the constraint to align future population growth. Using the sensitivity adjustment to headship rates implies a level of dwelling need of between 1,540 and 1,681 dwellings per annum with the lower figure using the ENA Baseline scenario.
- 6.74 In this context, it is important to note that the Edge Analytics analysis applies prudent assumptions around factors balancing the labour force and supported job growth. The economic forecasting models considered within the ENA apply variant assumptions around factors such as commuting, activity rates and unemployment which will have a bearing on the applied level of housing required to support job growth. Given the generation of a bespoke job growth scenario within the ENA, the SHMA analysis has consistently applied the Edge Analytics modelling assumptions to ensure a level of transparency in understanding how implied job growth may translate into variant migration pressures and therefore population growth. This approach is considered as reasonable in the context of the analysis presented within the ENA.

Unemployment Rate – Variant Sensitivity

- 6.75 Recognising that the linkage between labour-force change and job growth is complex a variant iteration of the employment-led modelled scenarios has been run. These scenarios essentially assume that the proportion of the labour-force classified as unemployed falls to the lower rates seen prior to the recession (2004 – 2007) as a result of the creation of new employment opportunities. The modelling assumes that the pre-recession rate of unemployment is achieved by 2020 and thereafter maintained.
- 6.76 The outputs of the application of this variant assumption on the implied population and household change are shown below, with outputs only presented with the application of the household sensitivity adjustment.

⁸² It is noted that whilst the rates have been held constant the absolute number of commuters will change as the scale of employment and population grows.

Figure 6.23: Modelled outputs of the Unemployment Rate Sensitivity Scenarios

Scenario	Change 2012 – 2036		Average per year		
	Population Change	Households Change	Net Migration	Dwellings	Jobs
ENA Adjusted Scenario (Higher Growth)	77,719	38,760	2,920	1,692	936
ENA Adjusted Scenario (Lower Growth)	72,273	36,531	2,721	1,594	819
ENA Baseline	63,902	33,392	2,380	1,456	628
Employment-led (Experian Sept 2014)	87,530	43,063	3,243	1,883	1,158

Source: Edge Analytics, 2015

6.77 It is evident from the modelling outputs shown in Figure 6.23 that the application of this variant assumption to unemployment rate serves to reduce the scale of population growth when compared against the core modelled employment-led scenarios. This is as a result of the modelling assuming that migration levels are lower to reflect the fact that a greater proportion of employment growth is accommodated, in particular up to 2020, by a return to work of a greater number of working age people in Central Lincolnshire.

6.78 The development of the Adjusted scenarios within the ENA included a ‘smoothing’ out of employment growth from that suggested within the Baseline Economic Forecast presented over the projection period. The result of this economic adjustment of the forecasts was that short-term job growth was less optimistic with these jobs anticipated to be created more gradually through the plan period. In this context, whilst unemployment rates are continuing to improve, some caution needs to be given when considering the adjustment of unemployment rates presented here against the more cautious assumption applied within the core scenarios shown in Figure 6.22.

Considering the Implied Uplift in Population Growth

6.79 In order to consider the implications of the implied uplift associated with supporting the level of job growth identified within the ENA, this sub-section sets the implied population growth in the context of recent historical population growth.

6.80 The analysis of the demographic projections highlighted that the 2012 SNPP and the Edge Analytics 10 Year Past Growth Scenario both projected a level of population growth that was below that seen over the period since 2001, largely resulting from the treatment of migration within the modelling.

6.81 The following table compares the implied required net migration per annum under the core employment-led scenarios with a further demographic scenario developed by Edge Analytics. This demographic scenario assumes a fixed *count* rather the application of *rates* for internal migration flows as well as international migration, using a 10 year historical period.

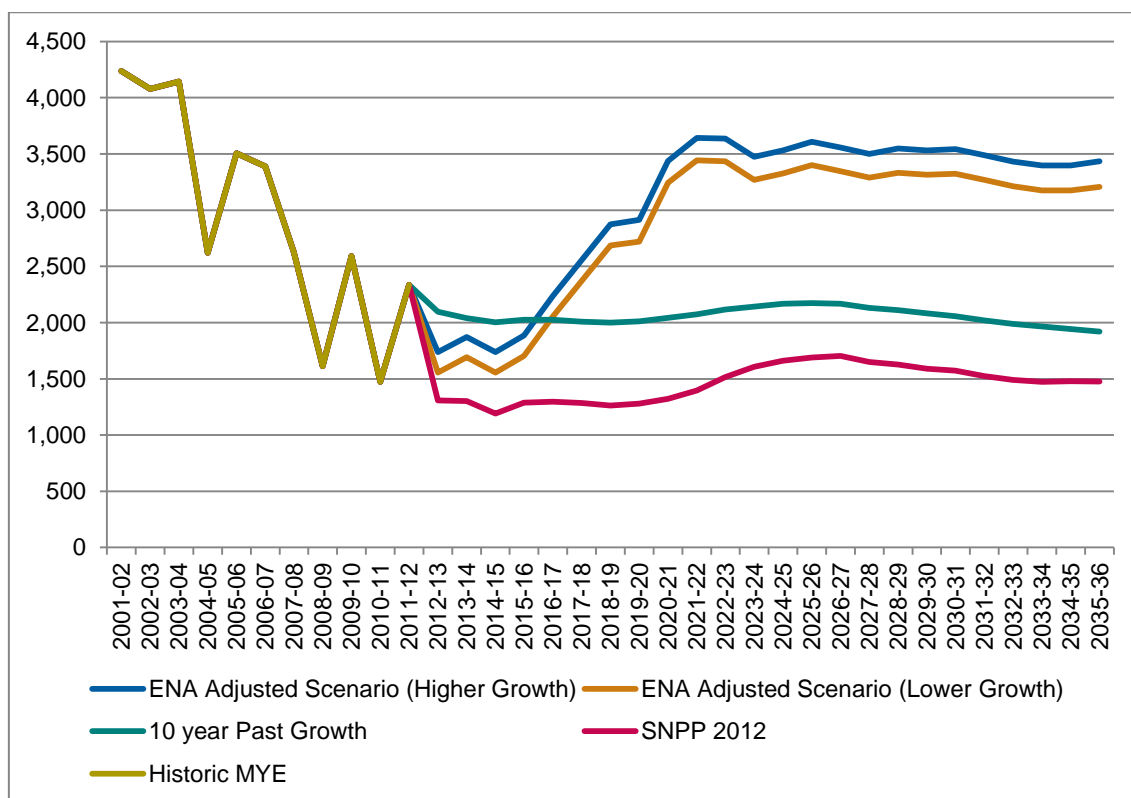
Figure 6.24: Contrasting implied net migration levels under the employment-led scenarios with historic levels (2012 – 2036)

Scenario	Average Annual Net Migration
10 Year Past Growth (Fixed Migration Counts)	2,458
ENA Adjusted Scenario (Higher Growth)	3,082
ENA Adjusted Scenario (Lower Growth)	2,879
ENA Baseline	2,533
Employment-led (Experian Sept 2014)	3,414

Source: Edge Analytics, 2015

- 6.82 This illustrates that the scale of migration associated with the ENA Baseline scenario aligns relatively closely with the absolute historic average migration levels seen between 2002 and 2012.
- 6.83 The ENA Adjusted Scenarios assume a level of migration which is higher than that seen historically on average. However, they do not exceed the average migration level seen prior to the recession (Figure 4.8), with this period evidently associated with stronger levels of job growth which is reflected in these scenarios.
- 6.84 Therefore, whilst the overall levels of projected population growth implied by the scenarios aligned with the Adjusted ENA forecasts are notably higher than that projected under the 2012 SNPP – which forms the ‘starting point’ of the assessment of need under the PPG – they do not therefore imply a level of growth which could be seen as unreasonable in the context of comparatively recent historic growth levels in the area (i.e. pre-recession). This is further illustrated in the following chart, which compares the modelled net migration levels under the ENA Adjusted scenarios with the other demographic scenarios. Historic migration levels are included to provide context.

Figure 6.25: Comparing Projected and Historic Migration Levels

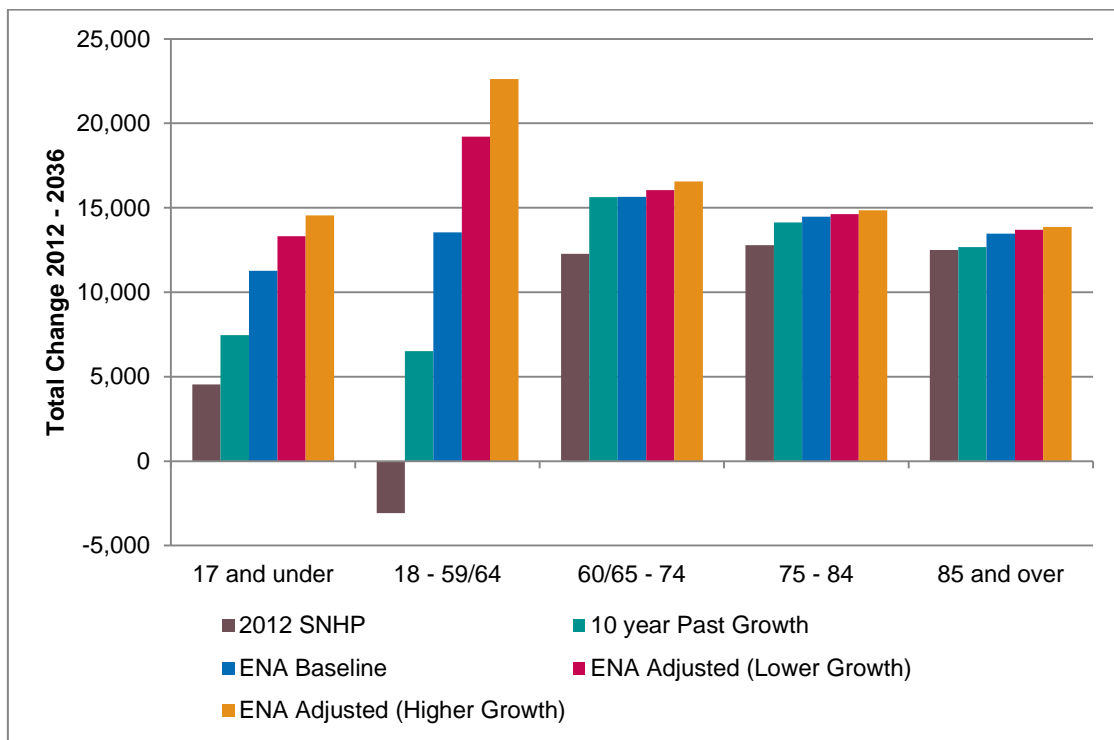


Source: Edge Analytics, Turley, 2015

- 6.85 This shows that even under the ENA Adjusted (Higher Growth) scenario the scale of implied net migration suggests a recovery to levels seen prior to the recession, towards the middle and end periods of the plan period. This reflects the anticipated scale of job growth and the increasing impact of the ageing population in the area.
- 6.86 This is illustrated further in the following graph, which compares the projected change in age profile of the 2012 SNPP (shown previously in Figure 6.6), 10 Year Past Growth and the two Adjusted Economic Forecast scenarios over the projection period 2012 - 2036. This shows that all scenarios project growth in older age groups, but the employment-led scenarios project the greatest growth in the working age population⁸³.

⁸³ Working age population (18 – 59/64) is consistent with ONS definitions for retirement, which are set at 60 for females and 65 for males

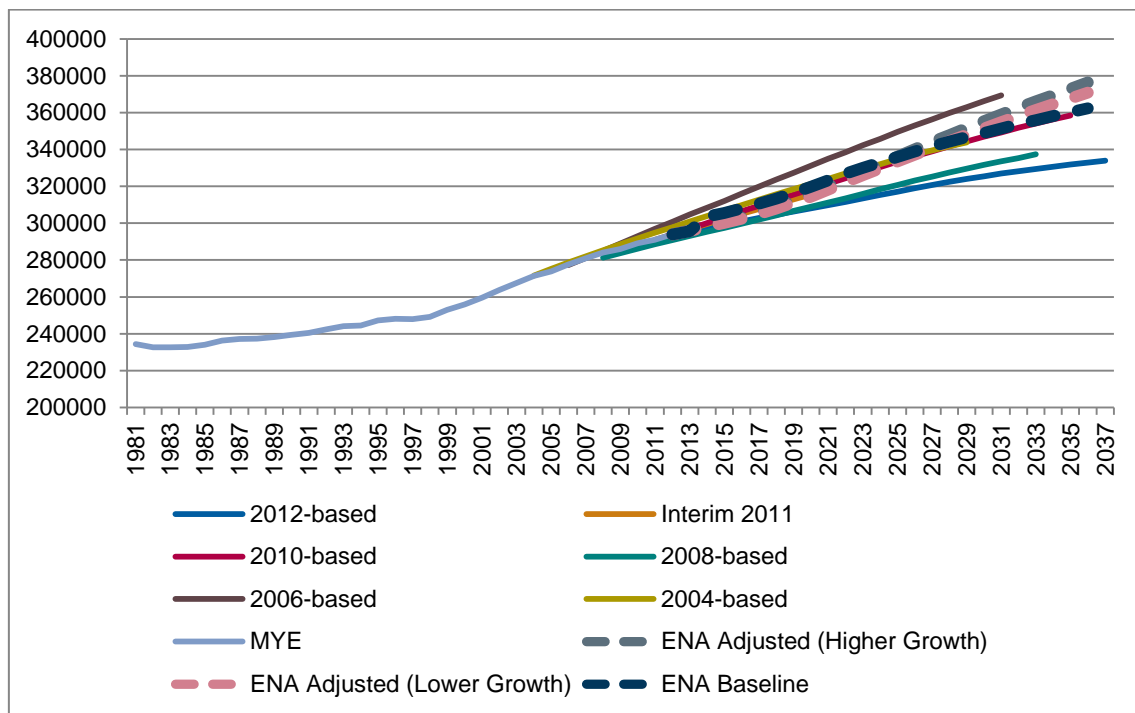
Figure 6.26: 2012 – 2036 Projected Changes to the Age Profile of the Population – Various Scenarios



Source: Edge Analytics, 2015

- 6.87 A further check can be undertaken by comparing the implied level of population growth under the scenario against historic ONS projections of population growth for Central Lincolnshire. This is illustrated in the following chart.

Figure 6.27: Contrasting the projected population growth under the ENA Economic scenarios against historic ONS SNPP datasets



Source: Edge Analytics, Turley, 2015

- 6.88 Again, whilst the scale of population growth implied by the employment-led scenarios are stronger than the demographic scenarios modelled in this section, even under the Adjusted (Higher Growth) scenario it does not significantly exceed levels of projected population growth previously modelled by the ONS, sitting above the 2010 SNPP dataset and below the 2006-based dataset. This further highlights that the scale of growth can be considered as reasonable in the context of historic projections of growth, based on the application of different methodologies, historical trend periods and migration assumptions.

Local Authority Distribution – ENA Employment Scenarios

- 6.89 The ENA includes a local distribution of the anticipated job growth between the three authorities under the variant economic forecasts presented. It is recognised that the spatial distribution of employment land provision and infrastructure investment may have an impact on the distribution of job growth below the Central Lincolnshire level. However, in order to provide consistency with the information presented for the demographic scenarios, the following table presents the implied level of associated housing need associated with the implied job growth implied by the three economic forecasts used in the ENA to identify future land requirements. It should be noted that this applies the household formation sensitivity assumptions in the derivation of implied housing need.

Figure 6.28: ENA Employment Scenarios – Implied Housing Need by Authority

Spatial Area	Adjusted (Higher Growth)	Adjusted (Lower Growth)	Baseline
Lincoln	498	449	374
North Kesteven	695	668	634
West Lindsey	587	564	532
Central Lincolnshire	1,780	1,681	1,540

Source: Edge Analytics, 2015

- 6.90 The above implied distribution of need is presented for information only to inform the development of planning policies within the emerging Joint Local Plan. They should not be viewed as direct housing requirements / targets for individual authorities.

Housing Need by Size

- 6.91 The modelling undertaken by Edge Analytics includes a breakdown by household type, allowing a further understanding of the types of households likely to form over the projection period. This can be analysed to establish the size of property likely to be required to accommodate the changing household profile of Central Lincolnshire.
- 6.92 The 2008-based and interim 2011-based household projections include a full breakdown of household type into 17 different typologies. However, the 2012-based household projections provide less detail on household typologies, with households only broken down into three groups – single, couple and previously married – which does not allow an understanding of the size of housing required. It is understood that a further breakdown will be provided in a subsequent data release later this year.
- 6.93 In the absence of this detailed breakdown of household type, the analysis in this section is based on assumptions on the type of households projected to form in the 2008-based and 2011-based projections, applied proportionately to the 2012-based projections. This is considered to be appropriate given that the analysis in section 6 has shown household formation assumptions under the 2012-based projections to largely sit between those in the previous 2008-based and 2011-based datasets.
- 6.94 The scale of projected change in households of different types is illustrated in charts in Appendix 4. This shows a similar profile of growth between the three scenarios analysed – 10 year Past Growth, ENA Baseline and ENA Adjusted (Higher Growth) – with the greatest difference seen in the overall scale of growth. There is also variation between different headship rate assumptions, with the 2008-based headship rates suggesting a significant growth in one person and couple households with no dependent children. This is moderated under the 2011-based headship rates, with increases in the projected formation of couples and lone parents with children.
- 6.95 This will evidently have an implication for the size of housing required in Central Lincolnshire under these scenarios, although matching changing household composition profiles with the sizes and types of housing required is challenging. Whilst households

within affordable housing tenures are matched to housing based on a strict application of bedroom standards, the same is not true of market housing. Therefore, a simplistic matching of the number of persons in a household to a size of property is not appropriate, and fails to take account of market choice or household aspirations. This is reflected in the relatively high levels of under-occupation of stock in Central Lincolnshire.

- 6.96 The English Housing Survey provides a useful indication of the characteristics of different types of household, including the size of property they live in based on their total useable floorspace⁸⁴. The range of floorspaces within the survey are summarised below, attributed to broad property descriptions based upon our own experience and analysis of comparables.

Figure 6.29: Useable Floorspace Categories and Associated Property Types

Useable floorspace	Less than 50sqm	50 to 69sqm	70 to 89sqm	90 to 109sqm	Over 110sqm
Broad associated property description	Studio or small 1 bedroom apartment	2 bedroom flat or small mews house	2 or 3 bedroom family house, either mews or semi-detached	3 or 4 bedroom family semi-detached home or small 4 bedroom detached house	Larger 4+ family detached house

Source: English Housing Survey, 2013; Turley, 2015

- 6.97 The English Housing Survey provides a further breakdown of the different types of households that occupy property of these sizes across England. As comparable data is not available at local authority level, this is replicated in the table below, with the national benchmark providing a useful comparator if it is assumed that – at this macro level – household aspirations are relatively matched with supply, and not disproportionately influenced by local supply.

⁸⁴ This data is not available in the latest English Household Survey, and therefore 2012/13 data continues to be used

Figure 6.30: Household Type by Useable Floorspace

Household type	Less than 50sqm	50 to 69sqm	70 to 89sqm	90 to 109sqm	Over 110sqm
Couple with no dependent child(ren)	7.5%	18.9%	27.9%	15.9%	29.8%
Couple with dependent child(ren)	2.8%	19.3%	28.8%	17.8%	31.3%
Lone parent with dependent child(ren)	7.8%	37.3%	35.5%	11.5%	7.9%
Other multi-person households	4.6%	24.8%	37.8%	14.4%	18.4%
One person	26.2%	30.6%	23.0%	9.9%	10.3%

Source: English Housing Survey, 2013

- 6.98 Taking this profile enables a comparison to the modelling of projected household types – set out in Appendix 4 – providing an indication of the sizes of property likely to be required across Central Lincolnshire over the projection period. This is done by establishing the proportionate split of the size of property required, based on alignment of household type and the English Housing Survey evidence.
- 6.99 This is presented in the following table, with analysis of the two variant headship rate scenarios – in the absence of detailed data on household typologies from the 2012-based household projections – generating a derived average figure. It is considered appropriate to apply this average figure to the 2012-based projections, given that the assumptions on household formation in the latest dataset broadly fall between the 2008 and 2011 projections.

Figure 6.31: Estimated Size of Property Required – Modelled Household Change

Variant	Less than 50sqm	50 to 69sqm	70 to 89sqm	90 to 109sqm	Over 110sqm
10 Year Past Growth					
2011 headship rates	11.5%	27.4%	29.9%	13.4%	17.8%
2008 headship rates	17.7%	27.1%	25.9%	12.2%	17.1%
Average	14.6%	27.2%	27.9%	12.8%	17.4%
ENA Baseline					
2011 headship rates	11.4%	27.3%	29.9%	13.4%	18.0%
2008 headship rates	17.3%	27.0%	26.1%	12.3%	17.3%
Average	14.4%	27.1%	28.0%	12.9%	17.7%
ENA Adjusted (Higher Growth)					
2011 headship rates	11.3%	27.0%	29.8%	13.5%	18.3%
2008 headship rates	16.6%	26.8%	26.4%	12.5%	17.6%
Average	14.0%	26.9%	28.1%	13.0%	18.0%

Source: Turley, 2015

- 6.100 The analysis suggests that there is a need for property of all sizes in Central Lincolnshire under both of the scenarios considered above, and all of the scenarios show a similar size profile in terms of housing required. The greatest requirement under all of the scenarios, however, is for property of between 50 and 89 sqm, which – as per Figure 6.29 – generally relates to 2 or 3 bedroom flats, mews or semi-detached homes.
- 6.101 The importance of comparing the type of housing required with the existing housing stock is stated in the PPG:
- “Plan makers should look at the household types, tenure and size in the current stock and in recent supply, and assess whether continuation of these trends would meet future needs”⁸⁵*
- 6.102 Section 3 of this report includes an analysis of the current housing stock in Central Lincolnshire, and this showed that the area as a whole is characterised by larger stock, with around two thirds of household spaces containing three bedrooms or more. Lincoln has a greater concentration of smaller stock, with 45% of household spaces containing two bedrooms or fewer, and the city has seen a sizeable growth in the number of flats over recent years.
- 6.103 At Central Lincolnshire level, however, around half of additional household spaces recorded by the Census in 2011 compared to 2001 were detached, and – while this is not directly comparable with the analysis above, given that the amount of useable

⁸⁵ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_021

floorspace is not recorded in the Census – it will be important to ensure that sufficient smaller accommodation is provided to meet evident needs in Central Lincolnshire.

Bringing the Evidence Together

- 6.104 The analysis in this section has presented a range of variant population and household projections which are subsequently translated into dwelling requirements. This approach follows the methodology set out within the PPG.
- 6.105 The analysis initially presents the 2012 SNHP, which represent the 'starting point' for understanding housing need in the area. This dataset implies a need for approximately 970 dwellings per annum across Central Lincolnshire over the period from 2012 to 2036.
- 6.106 The analysis highlights that the 2012 SNPP, which underpins the 2012 SNHP, projects forward a level of population growth and migration which falls below that seen over recent years. Analysis of the underpinning components of change suggests that this is based on an assumed projected increase in the out-migration of persons to other parts of the UK from Central Lincolnshire, above that seen both before and after the recession.
- 6.107 On this basis a variant demographic scenario has been modelled by Edge Analytics. This takes a longer ten year period from which to extrapolate forward future projected population growth. In addition, a further sensitivity has been modelled by Edge Analytics which takes into account the local issue associated with a population under-count between the two Census years indicated by a positive UPC, as set out in section 4. The inclusion of the UPC only has a marginal upward adjustment on the population growth, but – in the context of the evidence available – is considered appropriate to apply. This results in an updated demographic projection of need which indicates a need for in the region of 1,400 dwellings per annum. This represents an uplift of approximately 42% against the implied dwelling requirement under the 2012 SNHP, or approximately 400 additional dwellings per annum.
- 6.108 Comparison of the 2012 SNHP household formation rates and implied average household size against the previous DCLG 2011 Interim and 2008 SNHP datasets reveals that the 2012 SNHP suggests a continued fall in household size at a greater rate than the 2011 SNHP but a lower rate than the 2008 SNHP. It is suggested that this implies an assumed level of improvement in terms of household formation to that suggested within the Interim dataset, and provides a suitable benchmark from which to assess future need.
- 6.109 Recognising the implications of the analysis of other market signals in section 5 – including evidence of slightly worsening affordability issues – analysis has also been undertaken of the implied household formation rates under the 2012 SNHP dataset. It has been identified that for younger age groups (20 – 39 years), an age group in which households are likely to be particularly impacted by the affordability of housing, the dataset shows that formation rates have fallen between the Census years, with the 2012 SNHP not suggesting a recovery from this position over the projection period. Recognising that there is a need to seek to address affordability issues in the area in accordance with the PPG, a sensitivity has been run which assumes that formation rates recover to levels seen in 2001 for this age group. This results in a further moderate

uplift to the projected level of household growth under the demographic scenario. Coupled with the adjustment to the population change, this results in an uplift of around 47% from the 2012 SNHP and results in an associated per annum average dwelling requirement of 1,432.

- 6.110 Further modelled scenarios have been run which highlight the implied level of population growth required to support the scale of job growth identified under the various economic forecasts recommended within the ENA. For context, this modelling also considers the Experian (September 2014) forecast presented within the ENA, although it is acknowledged that the ENA does not consider this to be representative of likely future job growth in the area.
- 6.111 In order to support the different forecast levels of job growth, the modelling suggests that the population will need to grow at a greater level than implied through the demographic modelling, without assumptions around the changing rates of commuting in and out of the area. The modelling identifies that population growth to enable labour-force changes to support the ENA Baseline scenario implies a need for 1,492 dwellings per annum using the 2012 SNHP household formation rates. The application of the headship sensitivity for the younger age groups elevates this assessed need to 1,540 dwellings per annum. The higher levels of job growth implied in the ENA Adjusted scenarios imply a higher level of need with the modelling assuming a higher level of net migration into the HMA. The projection which aligns the ENA Adjusted scenario (Higher Growth) with the changing labour force implies a need for approximately 1,730 dwellings per annum using the 2012 SNHP household formation rates, and 1,780 dwellings per annum with the headship sensitivity for the younger groups applied. The ENA Adjusted (Lower Growth) scenario, as would be expected suggests a level of need between these two scenarios, with needs identified for 1,629 to 1,681 dwellings per annum, with the latter applying the headship sensitivity assumptions.
- 6.112 The implied level of job growth to support the Experian forecast is approximately 1,920 dwellings per annum using the 2012 SNHP rate assumptions and 1,980 using the headship sensitivity.
- 6.113 The scale of population growth and in particular migration resulting from the alignment with the employment-led scenarios has been considered in the context of the historic population evidence. It is apparent that the scale of migration implied under the ENA Baseline scenario aligns comparatively closely with that seen over the last ten years (prior to the projections). Even at the upper end, illustrated by the ENA Adjusted (Higher Growth) scenario the levels of implied migration identified are evidently reasonable in the context of historic levels of migration, recognising that the scenario assumes a return to levels of net migration annually seen prior to the recession midway through the Plan period. .
- 6.114 The analysis of housing need by size suggests that there is a need for property of all sizes in Central Lincolnshire under both the demographic and employment-led scenarios. The greatest requirement under all of the scenarios, however, is for property of between 50 and 89 sqm, which generally relates to 2 or 3 bedroom flats, mews or semi-detached homes. In the context of the HMA as a whole having a comparatively high representation of detached properties, this suggests the need for new stock to

contribute positively to the overall balance through the provision of smaller family sized housing. This, however, will need to be balanced against the provision of all types and sizes of housing.

7. Affordable Housing Need

7.1 The ability of households to access housing that they are able to afford is fundamental to ensuring that an authority's stated housing objectives are met, and affordability has become a well-recognised challenge to the operation of the national housing market.

7.2 The NPPF requires local authorities to assess the number of affordable homes that are evidenced as being required. Affordable housing is defined within the NPPF:

*"Social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market. Eligibility is determined with regard to local incomes and local house prices. Affordable housing should include provisions to remain at an affordable price for future eligible households or for the subsidy to be recycled for alternative housing provision"*⁸⁶

7.3 Delivery of housing is recognised as a core strand of the NPPF, with a number of expectations of local authorities, including:

*"Where they have identified that affordable housing is needed, set policies for meeting this need on site, unless off-site provision or a financial contribution of broadly equivalent value can be robustly justified (for example to improve or make more effective use of the existing housing stock) and the agreed approach contributes to the objective of creating mixed and balanced communities. Such policies should be sufficiently flexible to take account of changing market conditions over time"*⁸⁷

7.4 The PPG provides guidance on the approach to be adopted in the calculation of affordable housing needs, noting that:

"Plan makers working with relevant colleagues within their local authority (eg housing, health and social care departments) will need to estimate the number of households and projected households who lack their own housing and who cannot afford to meet their housing needs in the market"

*"This calculation involves adding together the current unmet housing need and the projected future housing need and then subtracting this from the current supply of affordable housing stock"*⁸⁸

7.5 The outcome of this assessment should be a calculation of the total net need for affordable housing – subtracting the total available stock from the total gross need – with the resultant need converted into an annual flow.

Context

7.6 As shown earlier in this report, around 14% of households in Central Lincolnshire are socially renting. The Central Lincolnshire authorities provide a joint choice-based lettings scheme, in order to manage applications for social housing – both Council and housing

⁸⁶ DCLG (2012) National Planning Policy Framework (p50, Annex 2)

⁸⁷ DCLG (2012) National Planning Policy Framework (para 50)

⁸⁸ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_022

association owned – in Lincoln, North Kesteven and West Lindsey, although the latter do not own any stock.

- 7.7 The following table summarises average rents for Council-owned stock, based on data sourced from Local Authority Housing Statistics (LAHS) covering the period from 2012 to 2013. Annual rent has been calculated by multiplying out the average weekly rent.

Figure 7.1: Average Annual Social Rent – Council-owned Stock

Authority	Number of Bedrooms			
	1	2	3	4+
Lincoln	£3,096	£3,509	£3,833	£4,091
North Kesteven	£3,006	£3,479	£3,869	£4,243

Source: LAHS, 2013

- 7.8 It is also important to understand the cost of socially renting housing from stock owned and managed by Registered Social Housing Providers (RSL) or Registered Providers (RP), through the Homes and Communities Agency (HCA) Statistical Data Return 2013. This has been obtained for all authorities in Central Lincolnshire, as shown below.

Figure 7.2: Average Annual Social Rent – RSL

Authority	Number of Bedrooms			
	1	2	3	4+
Lincoln	£3,399	£3,995	£4,375	£4,997
North Kesteven	£3,493	£4,022	£4,460	£5,090
West Lindsey	£3,701	£3,865	£3,936	£4,066

Source: HCA, 2013

- 7.9 The cost of social renting in Central Lincolnshire is considerably lower than the cost of privately renting – considered in further detail earlier in this report – although, when establishing the need for affordable housing, it is important to be aware of the changing political and market context. This will evidently have an impact on the number of households identified as in need.
- 7.10 There is currently a national programme of welfare reform, which is expected to continue to influence the levels of affordable housing need, particularly where households are claiming housing benefit, as it has included a number of reforms regarding eligibility and the classification of households in need. The Government is currently implementing changes to address the complexity of the existing system, with an aim to make the benefit system fairer and more affordable, while reducing poverty, worklessness and welfare dependency⁸⁹.

⁸⁹ <https://www.gov.uk/government/policies/simplifying-the-welfare-system-and-making-sure-work-pays>

- 7.11 This should continue to be monitored by the Councils as further data becomes available regarding the impact of reforms, in order to record the impacts on households registering and being classified as in need of affordable housing. A number of specific policies are outlined below.

Benefit Cap

- 7.12 From July 2013, the Government introduced a limit on how much any one household can receive in state benefits, as part of wider welfare reforms. The benefit cap is set at £500 per week for couples or single parents, and £350 a week for single households. This equates roughly to the average pay of £26,000 per year, with the stated intention that households claiming benefits should be no better off than the average family in work. Pensioners will not be subject to this limit, with the cap covering only those of working age.
- 7.13 Housing benefit is one of the benefits that will be subject to the benefit cap, although there are a number of benefits which do not count towards the capped limit and there are some exemptions. Housing benefit is seen as a mechanism through which the cap can be implemented, with households losing some of their housing benefit if total benefits received surpass the designated limit. This is likely to have the greatest impact on larger families, who require larger homes which typically demand higher rents.
- 7.14 A Government review of the impact of the benefit cap after its first year of operation⁹⁰ highlights that the impact of the cap on housing has been limited, with the greatest effect seeing capped claimants moving into or towards employment. Some such households have, however, faced barriers in accessing employment, including childcare issues and a shortage of language skills or qualifications. It is notable that the majority of claimants have not built up rent arrears, with very few moving house due to the benefit cap. Instead, households have adjusted through other means, such as finding employment or adjusting budgets.

Shared Accommodation Rate

- 7.15 Within the October 2010 Spending Review, the government confirmed that the age at which the Shared Accommodation Rate (SAR) applies would be extended from single persons up to 25 years to cover single persons under the age of 35 from April 2012. This was implemented in January 2012.
- 7.16 The SAR limits the amount of housing benefit a claimant can receive to the average local reference rent, or the local housing allowance. This measure now means that single claimants under the age of 35 making claims to housing benefit are entitled to the shared accommodation rate, rather than the one-bedroom self-contained rate.

Spare Room Subsidy

- 7.17 Under reforms implemented in April 2013 and introduced in the Welfare Reform Act 2012, if households are deemed to have a spare bedroom in their Council or Housing Association home, the amount of benefit received will be reduced.

⁹⁰ DWP (2014) The benefit cap: a review of the first year

7.18 In the social rented sector, the measure will restrict housing benefit to a rate that allows for one bedroom for each person or couple living as part of the household, with the following exceptions:

- Two children under 16 of the same gender are expected to share a bedroom, thereby reducing the number of bedrooms that the household is eligible for;
- Two children under 10 are expected to share a bedroom regardless of gender;
- Disabled tenants or partners requiring a non-resident overnight carer will be allowed an extra bedroom;
- Approved foster carers will be allowed an additional room if they have fostered a child, or became an approved foster carer in the last 12 months; and
- Adult children in the Armed Forces will be treated as continuing to live at home when deployed on operations.

7.19 Where claimants have one or more spare bedrooms in their home, the amount of benefit they receive will be reduced by a fixed percentage of the eligible rent. The government has stated that this is set at 14% for one extra bedroom and 25% for two or more extra bedrooms. An assessment prepared by the government estimates that those affected by the measures in Central Lincolnshire will incur an average reduction of £12 - £14 per week⁹¹.

7.20 Data published by the Department for Work and Pensions (DWP) indicates that – in August 2014 – 9% of Housing Benefit claimants had a reduction due to spare bedrooms, with this representing a slight fall from 9.5% in August 2013. This indicates that fewer claimants in the authorities are seeing their housing benefit reduced due to the spare room subsidy, potentially suggesting that the utilisation of stock is becoming more efficient.

7.21 Research by the BBC in March 2014, however, suggested that while the policy was introduced to encourage under-occupying tenants to move, only about 6% of affected social housing tenants nationally have moved home⁹². This suggests that affected households have largely assumed the additional cost, with 28% of those affected falling into rent arrears for the first time⁹³.

Affordable Housing Need Calculation

7.22 The calculation of the overall need for affordable housing is intended to provide an estimate of the volume of affordable housing required on an annual basis to meet need. This is based on data supplied by the Councils – relating to the Housing Register and lettings – and secondary datasets identified through this process.

7.23 This calculation has been undertaken in conformity with the PPG, which – as noted earlier – confirms that need should be calculated by adding together current unmet

⁹¹ DCLG (2014) Housing Benefit caseload statistics: data to November 2014

⁹² BBC News (March 2014) Housing benefits: changes 'see 6% of tenants move'

⁹³ *Ibid*

housing need and the projected future housing need, with the current supply of affordable housing stock subtracted from the resultant figure.

- 7.24 The PPG provides guidance on the inputs and analysis required under each stage of the calculation, as well as identifying potential data sources. This largely retains the stepped process introduced in previous guidance⁹⁴.
- 7.25 Each stage of the calculation is summarised and explained sequentially below.

Current Unmet Gross Need

- 7.26 At the current point in time, as a result of sustained affordability issues across the country over a number of years, the majority of areas have an existing unmet need for affordable housing, with a backlog of households classified as in need. This backlog can be considered to be made up of a range of types of household in need, from those in urgent need of housing – without a current permanent home – to those who are living in overcrowded or substandard homes, but are already housed. This also covers those who have an aspiration to live in non-market housing, but are not in urgent need of re-housing. This component of the calculation consists of three stages, introduced and presented below.

Stage 1 – Current Housing Need (Gross Backlog)

- 7.27 This stage outlines the number of households currently classified as in need of affordable housing, drawing upon analysis of the current Lincs Homefinder Housing Register, which covers Lincoln, North Kesteven and West Lindsey and is regularly updated and cleaned. For the purposes of this assessment, those classified within Band 4 are discounted from the calculation, given that they have a very low level of housing need and are considered to be adequately housed by one of the partner organisations.
- 7.28 Transfers are removed at this stage of the calculation, due to the net nil effect such households have when they move from one affordable property to another. The affordable homes vacated will be released to accommodate another household when the tenant transfers to the next affordable home to meet their needs.

⁹⁴ DCLG (2007) Strategic housing market assessments: practice guidance

Figure 7.3: Stage 1 – Current Housing Need

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
1.1 Number of homeless households and those in temporary accommodation	Housing Register	252	42	101	395
1.2 Number of overcrowded and concealed households	Housing Register – Bands 1 – 3, excluding those identified at step 1.1 to avoid double-counting	1,456	555	756	2,767
1.3a Other groups on Housing Register					
1.3b Transfer tenants	Housing Register - Transfers in Bands 1 - 3	444	226	94	764
1.4 Total current housing need (gross)	(1.1 + 1.2 + 1.3a) - 1.3b	1,264	371	763	2,398

7.29 Overall, this stage of the calculation shows that there are 2,398 households in Central Lincolnshire who are currently in need of affordable housing, which – according to the 2011 Census – is around 1.9% of all households in the area. This is variable within Central Lincolnshire, however, with 3.2% of households in Lincoln in need, 0.8% in North Kesteven and 2.0% in West Lindsey.

7.30 Importantly, the above figures are based solely on households identifying themselves as in need by registering for affordable housing via the waiting list. A range of other data sources can also be considered to understand the extent to which households' needs are not being met. However, the PPG notes the importance of avoiding double-counting:

“Care should be taken to avoid double-counting, which may be brought about with the same households being identified on more than one transfer list, and to include only those households who cannot afford to access suitable housing in the market”⁹⁵

7.31 This stage therefore assumes that all households in need – including homeless, overcrowded and concealed households – are currently registered on the waiting list. This is considered appropriate given that the waiting list contains a range of households in need, including homeless and overcrowded households, although it is important to note that these figures solely relate to households identifying themselves as in need of affordable housing. A range of other data sources can also be considered to understand the extent to which there are other households whose needs are potentially not being met.

⁹⁵ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_024

- 7.32 Within the analysis of market signals in section 5, data from the 2011 Census has been used to consider the changing number of families identified as concealed, and those who are currently living in overcrowded circumstances. While this data cannot be directly compared to the waiting list data presented within this section, it is nevertheless important to establish whether there are likely to be further households that could be viewed as living in unsuitable housing but may not have registered as being in need of affordable housing.
- 7.33 The following table summarises the total number of overcrowded households and concealed families in each authority, drawn from the 2011 Census.

Figure 7.4: Concealed Families and Overcrowded Households 2011

	Concealed families	Overcrowded households
Lincoln	319	1,429
North Kesteven	309	521
West Lindsey	264	477
Central Lincolnshire	892	2,427

Source: Census 2011

- 7.34 The Census evidently highlights a number of households and families who are currently living in unsuitable accommodation or concealed conditions, although it is important to note that the Census was undertaken over four years ago and some of these households may no longer be in unsuitable accommodation. Nevertheless, it is clear that there is some alignment between the 2,427 overcrowded households identified in the 2011 Census and the 2,767 households identified at Step 1.2 and 1.3a in Stage 1 of the affordable housing need calculation. On this basis, and recognising the importance of avoiding double-counting of households, it is considered that the housing register information provides a sufficiently robust assessment of the backlog of households classified as in need of affordable housing at the current point in time.

Stage 2 – Affordable Housing Supply

- 7.35 At the current point in time, there is an estimated amount of affordable housing available to address this backlog. This includes vacant stock which could be brought back into use, which is offset by a known amount of stock which will be taken out of the supply. As per the PPG⁹⁶, this has been factored in to the calculation through the:
- Identification of long-term vacant surplus stock in Central Lincolnshire based on information provided by the Councils (Step 2.2);
 - Quantification of the committed supply of new affordable housing over the next five years as at December 2014, based on data supplied by the Councils. This includes section 106 and other affordable units with planning permission, affordable units completed since April 2014 and those on site at the end of December 2014 (Step 2.3); and

⁹⁶ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_029

- Identification of any units planned to be taken out of management through demolition or stock removal. No data has been provided on demolitions and planned removals, and the calculation therefore assumes that no stock will be taken out of management (Step 2.4).

Figure 7.5: Stage 2 – Affordable Housing Supply

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
2.1 Affordable dwellings occupied by households in need	Figure relates to number of households identified in 1.3b which are transfers	Accounted for at Step 1.3b			
2.2 Surplus stock	Long-term vacant (ie 6 months plus)	10	6	7	23
2.3 Committed supply of new affordable housing	Commitments for next five years	106	589	503	1,198
2.4 Units to be taken out of management	Planned demolitions and stock removal	0	0	0	0
2.5 Total affordable housing stock available	2.1 + 2.2 + 2.3 - 2.4	116	595	510	1,221

7.36 There is a pipeline supply of affordable housing in Central Lincolnshire which will become available early in the plan period to meet the backlog need. This is mostly through the planned development of a committed supply of new affordable housing – most notably in North Kesteven and West Lindsey – while the potential return to use of long-term vacant stock can also make a contribution towards meeting needs.

Stage 3 – Shortfall in Affordable Housing to Meet Current ‘Backlog’ Housing Need

7.37 The output from Stage 1 is subtracted from Stage 2 to provide a total backlog need, which is divided by five to translate into an annual figure that would address backlog early in the plan period. This reflects the guidance in the PPG, which states that:

“Local authorities should aim to deal with any undersupply within the first 5 years of the plan period where possible. Where this cannot be met in the first 5 years, local planning authorities will need to work with neighbouring authorities under the Duty to Co-operate”⁹⁷

⁹⁷ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-land-availability-assessment/stage-5-final-evidence-base/#paragraph_035

Figure 7.6: Stage 3 – Historically Accumulated ‘Backlog’ Need (Net Annual)

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
3.1 Shortfall in affordable housing to meet current ‘backlog’ housing need (annual)	(1.4 - 2.5) / 5	230	-45	51	236

7.38 The calculation indicates that, overall, there is a need to provide an additional 236 affordable homes per annum across Central Lincolnshire for the first five years of the plan period to meet the shortfall and clear the existing backlog. Much of this is attributable to Lincoln, where there is the greatest current need and the smallest committed supply. There is a smaller imbalance between need and supply in West Lindsey, although there is evidently sufficient planned supply in North Kesteven to clear the backlog and generate a small potential surplus over the initial five years of the plan period.

7.39 It is important to recognise that this calculation assumes that the backlog of need is addressed in full early in the plan period. This will need to be carefully monitored and considered in the context of the likely potential to deliver this level of stock, recognising delivery mechanisms and the availability of finance and funding.

7.40 It is also important to recognise that this backlog cannot be directly factored in to the objective assessment of need – or the demographic modelling presented in section 6 – given the relationship between market and affordable housing. With some households on the waiting list currently occupying market housing, the provision of new affordable housing to clear the backlog can free up market stock.

Calculating Annual Net New Need

7.41 As with market housing, there is an underlying level of demand as new households form and require a property. In the context of the current economy and the housing market, a significant proportion of these newly forming households face significant challenges in gaining entry to market housing, subsequently driving demand for affordable housing. In addition to new households, existing households also fall into affordable housing need as household circumstances change, resulting in their current housing situation no longer being appropriate and a requirement for affordable housing arising. This needs to be balanced against the supply of affordable housing available in an area to meet these needs. Again, a stepped approach is required, as set out below.

Stage 4 – Future Housing Need

7.42 A projected gross annual household formation rate is input, based on the 10 year migration-led scenario modelled by Edge Analytics⁹⁸. This provides a demographic projection of gross household formation based on recent longer term trends. This also

⁹⁸ Average annual gross household formation rate 2012 to 2032 with 2012 headship rates, limited to households aged 15 to 44

provides a more robust demographic starting point than the 2012 SNPP scenario which – as noted in section 6 – sustains a trend of lower levels of migration seen subsequent to the onset of recession and is therefore likely to be less representative of longer term trends. The scenario outputs relating to gross household formation rates are compared in Figure 7.7.

- 7.43 This also includes the ENA Adjusted (Higher Growth Scenario). It is considered that given that the higher population growth and migration associated with this scenario is driven by an increase in people attracted to stay or move into the area as a result of employment opportunities that these additional persons would be less likely to represent an additional need for affordable housing.

Figure 7.7: Gross Annual Household Formation (15 – 44) 2012 – 2032

Scenario	Lincoln	North Kesteven	West Lindsey
SNPP 2012	510	764	589
Migration-led 10 year	588	842	658
ENA Adjusted (Higher Growth)	598	891	721

Source: Edge Analytics, 2015

- 7.44 The proportion of these households who are unable to afford market housing is estimated based on the application of affordability benchmarks. This is primarily drawn from the income profile of Central Lincolnshire residents, given that this is an important factor in determining the ability of households to exercise choice and realise their housing aspirations. 2013 CACI data has been used to determine income levels in each authority, with the following table showing the mean household income and confirming that households in North Kesteven have a higher average income.

Figure 7.8: Average Household Income

Authority	Average Income
Lincoln	£30,395
North Kesteven	£36,023
West Lindsey	£34,972

Source: CACI, 2013

- 7.45 CACI data also provides a breakdown of the proportion of households within difference income bands, which allows an estimation of the proportion of households who are unable to afford the cost of housing⁹⁹. This is based on the standard assumption that a household can spend 3.5 times income on the cost of purchasing a home – minus a 5% deposit – or spends 25% of their income on private rent.

⁹⁹ CACI income brackets use £5,000 denominations, and therefore the cost of purchase or rent is rounded to the nearest £5,000

Figure 7.9: Affordability Benchmarking

Authority	Purchase an entry-level home			Privately rent 2-bed dwelling		
	Lower quartile house price ¹⁰⁰	Income required	% of households unable to afford	Annual lower quartile rent ¹⁰¹	Income required	% of households unable to afford
Lincoln	£101,375	£27,516	61%	£5,580	£22,320	43%
North Kesteven	£125,000	£33,929	60%	£5,280	£21,120	35%
West Lindsey	£113,625	£30,841	54%	£5,136	£20,544	37%

Source: CACI, 2013; Turley, 2015

- 7.46 The analysis shows that the private rented sector represents a more affordable tenure for households in all authorities, with a smaller proportion of households unable to afford this tenure compared to owner occupation. Step 4.2 of the calculation presented below that newly forming households who cannot afford the cost of private renting will require affordable housing, assuming that those who can afford private rent will meet their needs through this tenure. This results in an estimation of the number of newly forming households in need.
- 7.47 In addition to these newly forming households, a number of households fall into need from other tenures, and require affordable housing on an annual basis. These are labelled as 'existing households falling into need', and in order to estimate the total number of such households annually, two components are identified:
- Number of lettings between April 2013 and March 2014 to households from other tenures¹⁰², with this representing all those who have had their affordable housing need met within this period; and
 - Number of households who remain on the Housing Register having registered as being in priority need during the same period, indicating that they did not receive a letting and therefore their need was not met during this time.
- 7.48 Adding the above components together results in an annual flow of households who have fallen into affordable housing need from other tenures, irrespective of their receiving a letting or not.

¹⁰⁰ Land Registry Price Paid data – 2014

¹⁰¹ VOA Private Rental Market Statistics

¹⁰² All tenures with exception of housing association tenant, Lincoln or North Kesteven Council tenant, no fixed address or lodging with friends, parents, partner, relatives, resident landlord or others

Figure 7.10: Stage 4 – Future Housing Need (Annual)

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
4.1 New household formation (annual)	Household projections (gross formation – 10yr Past Growth)	588	842	658	2,088
4.2 Newly forming households in need (annualised)	Proportion of households unable to afford to purchase or rent in the open market (assuming LQ purchase or rent)	43%	35%	37%	–
	Number of households unable to afford to purchase or rent in the open market (assuming LQ purchase or rent)	255	297	243	795
4.3 Existing households falling into need	Households registering (Bands 1 – 3) from other tenures in 2013/14 and either receiving a letting or joining the Housing Register	447	300	326	1,073
4.4 Total newly arising need (gross per year)	(4.1 x 4.2) + 4.3	702	597	569	1,868

Stage 5 – Affordable Housing Supply

- 7.49 Using lettings data supplied by the Councils, the annual amount of affordable housing anticipated to be made available each year is estimated based on all lettings – from all Housing Register bands – over the past three years, excluding transfers.
- 7.50 An estimate has also been made of the number of intermediate units likely to become available each year. Given the relatively small size of this tenure and its immaturity as a tenure option, there is an absence of comprehensive data on the role of intermediate housing, and therefore a proxy calculation has been used to forecast future supply. First, the turnover rate for general social rented stock has been calculated, by dividing the number of lettings in 2013/14 by the total number of households socially renting from the 2011 Census. For the purposes of this assessment, we have made a reasonable assumption that the turnover rate for intermediate stock is half that in the social rented sector. This turnover rate has been applied to the total number of shared ownership households recorded in the 2011 Census.

Figure 7.11: Stage 5 – Affordable Housing Supply (Annual)

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
5.1 Annual supply of social re-lets (annual net)	Lettings excluding transfers (2013/14)	536	252	370	1,158
5.2 Annual supply of intermediate affordable housing available for re-let or resale at sub market levels	Estimated annual supply of available intermediate stock	8	8	18	34
5.3 Annual supply of affordable housing	5.1 + 5.2	544	260	388	1,192

7.51 There is evidently a supply of social re-lets available annually in Central Lincolnshire, although it is important to note that this level of lettings does not take account of factors such as Right to Buy – which should not be taken into account in affordable housing needs assessments, as this will meet needs and will not require rehousing – which may potentially reduce supply over the long-term.

7.52 This should therefore be monitored by the Councils, as should the contribution or growth of intermediate housing options in Central Lincolnshire.

Stage 6 – Annual Net New Need

7.53 The output of Stage 5 is subtracted from Stage 4 to produce an estimate of the number of households likely to have unmet needs for affordable housing, which – unless sufficient new stock is available to meet annual calculated needs in full – will add to the backlog position annually.

Figure 7.12: Stage 6 – Annual Net New Need

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
6.1 Net new need (annual)	4.4 - 5.3	158	337	181	676

Total Affordable Housing Need

7.54 The final element of the calculation is the identification of the total affordable housing need on a net annual basis, which is calculated by adding the two components introduced above together to derive the net annual need.

7.55 Recognising the importance of seeking to address the backlog within a reasonable timeframe, and following the guidance in the PPG, the analysis in this section assumes that the backlog is cleared within a five year time horizon. On this basis, a five year affordable need figure is presented, alongside a longer term net affordable need figure.

- 7.56 This shows an estimated extrapolation of projected need once the backlog has been cleared, although it is important to note that this is based on information at a fixed point in time, and does not take account of future changes to the housing market. The longer term net need over the plan period therefore assumes that future need is simply associated with the annual net new need for the remainder of the plan period.

Figure 7.13: Stage 7 – Total Affordable Housing Need (Net Annual)

Step	Methodology / Source	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
7.1 Shortfall in affordable housing to meet current 'backlog' housing need (annual)	3.1	230	-45	51	236
7.2 Newly arising (future) need (net annual)	6.1	158	337	181	676
7.3 Net annual affordable housing need	3.1 + 6.1 (annual)	388	292	231	911

- 7.57 The calculation indicates that, across Central Lincolnshire, there is a net need for **911 affordable homes per annum over the next five years**, in order to clear the existing backlog and meet future newly arising household need. Once the backlog is cleared, only newly arising need will need to be met, requiring **676 affordable units annually for the remainder of the plan period**.
- 7.58 This need can be broken down by local authority area, indicating that there is a sizeable backlog in Lincoln which will need to be addressed through the provision of 388 affordable homes per annum over the next five years, lowering to 158 per annum for the remainder of the plan period to meet newly arising future need once the backlog is cleared.
- 7.59 The available supply of affordable housing in North Kesteven is sufficient to clear the backlog within the next five years, although there will continue to be newly arising need throughout this period which will require 292 affordable homes per annum. This can potentially play a role in clearing the backlog across Central Lincolnshire. After this initial five years, however, the need increases to 337 affordable homes per annum.
- 7.60 In West Lindsey, the majority of affordable housing need is driven by newly arising future need, and clearing the backlog while meeting this need will require 231 affordable homes annually over the next five years. Once the backlog is cleared, 181 affordable homes will need to be provided each year for the remainder of the plan period.

Size of Affordable Housing Required

- 7.61 In order to estimate relative pressure on property of different sizes, the affordable housing assessment can be broken down by size. This analysis will help to further

understand how policy should be structured to assist in alleviating the current backlog of housing need, while providing a profile of affordable housing which responds to future need over the short-term.

7.62 This follows the guidance within the PPG:

“Plan makers should look at the house size in the current stock and assess whether these match current and future needs”¹⁰³

7.63 In order to arrive at this estimate, the housing needs assessment model has been replicated in a slightly altered format, with analysis broken down by dwelling size using the number of bedrooms. This is presented for Central Lincolnshire as a whole.

7.64 It is important to note, however, that the absence of detailed household typologies from the recently released 2012-based household projections creates challenges in understanding the number of bedrooms required by newly forming households in need of affordable housing. It is understood that a subsequent data release by DCLG – expected later this year – will provide further detail on household typologies, allowing a more detailed understanding of size requirements. In the absence of this detail, data from the 2011 Census which breaks down social renting households by the number of bedrooms has been applied. This therefore assumes that newly forming households in need will have a size requirement that reflects the existing profile. This should, however, be reviewed by the Councils upon release of more detailed household projections later this year.

¹⁰³ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_028

Figure 7.14: Affordable Housing Need by Size – Central Lincolnshire

Step	Number of bedrooms				Total
	1	2	3	4+	
Housing Register	1,957	810	317	78	3,162
Transfers	355	225	151	33	764
Current housing need	1,602	585	166	45	2,398
Surplus stock	5	13	5	0	23
Committed supply	377	610	205	5	1,198
Taken out of management	0	0	0	0	0
Affordable housing available	382	623	210	5	1,221
Shortfall to meet current 'backlog' need (annual) (5 years)	244	-8	-9	8	235
Newly forming households	188	341	241	24	794
Existing households falling into need	349	562	146	16	1,073
Total newly arising need (gross per year)	536	903	387	40	1,867
Annual supply of affordable housing	426	560	198	7	1,192
Net new need (annual)	111	343	188	32	676
Net annual affordable housing need	355	335	179	40	911
% of need	39%	37%	20%	4%	–

Source: Turley, 2015

- 7.65 The assessment suggests that there is a need for property of all sizes, with a particular need for smaller properties with one or two bedrooms. This accounts for almost three quarters of all need, with a further 20% of households requiring three bedrooms. There is a smaller need for larger properties, although it is notable that this represents an area of short-term need required to clear the backlog. The majority of current backlog need does, however, relate to need for only one bedroom.

Role of Intermediate Housing

- 7.66 Intermediate housing products can play an important role in bridging the gap between social renting and owner occupation, allowing households to move towards owner occupation by renting whilst acquiring equity in their property. As a result, the type of housing tenure can provide an important step on the housing ladder, which particularly appeals to first-time buyers and households with lower incomes.
- 7.67 The NPPF includes a definition of intermediate housing:

“Intermediate housing is homes for sale and rent provided at a cost above social rent, but below market levels subject to the criteria in the Affordable Housing definition above. These can include shared equity (shared ownership and equity loans), other low cost homes for sale and intermediate rent, but not affordable rented housing”¹⁰⁴

- 7.68 It is important to note, therefore, that intermediate products do not include affordable rent, nor homes provided by private sector bodies or provided without grant funding.

Affordability of Intermediate Dwellings

- 7.69 This section considers the potential role of intermediate housing in meeting affordable housing need, through analysis of demand for intermediate products and the relative affordability of such products in Central Lincolnshire. It is recognised that wider factors constrain the ability of households in need to access intermediate homes, including the viability of delivery of this tenure in low value location and the requirements for obtaining a deposit and mortgage.
- 7.70 The shared ownership and shared equity market is now largely split between two separate products that deal with different markets. The traditional shared ownership model allows purchasers who meet low income criteria to typically buy between 25 – 40% of the equity, paying rent on the rest. A second product relates to Help to Buy shared equity, where purchasers with higher incomes pay 75% of the purchase price and pay no rent. This product allows people to buy a property that is bigger, better or newer than what they could already afford, stimulating the new build construction market but remaining unaffordable to those on low incomes.
- 7.71 This analysis draws upon the income tests utilised within the affordable housing needs assessment to establish the number – and proportion – of households in need of affordable housing that are likely to be able to afford an intermediate housing product, and those for which only social rented housing is affordable.
- 7.72 The income required to access different tenures is based on the standard assumption that a house is purchased at the lower quartile, with a 5% deposit and spending the equivalent of 3.5 times income.
- 7.73 To reflect the traditional shared ownership model, the lower limit was firstly set at the income required to afford a 40% equity share in a house at the lower quartile price, plus the cost of annual rent, within Central Lincolnshire. This has been set at an interest rate of 2.5% of the value of the unsold equity, and set to allow for a 40% equity purchase.
- 7.74 Secondly, to reflect the shared equity model, an additional scenario was tested to examine the impact of setting the income required to purchase at 75% of the purchase price of a house at the lower quartile price within each authority.
- 7.75 The lower quartile house price is utilised as a threshold for consistency with the affordable housing needs assessment, although it is important to note that this is based on new build sales only. This recognises that current shared ownership models are only available for new build homes, and evidently differs from the cost of open market housing, which includes both new build and resale properties.

¹⁰⁴ DCLG (2012) National Planning Policy Framework (p50, Annex 2)

7.76 The following table illustrates the income required to access intermediate housing products in each authority, compared to the income required to access open market housing.

Figure 7.15: Income Required to Access Intermediate Housing in Lincoln

	Cost of purchase	Income required	Annual rent	Income required
Lincoln				
Open market purchase ¹⁰⁵	£101,375	£27,516	–	£27,516
40% shared purchase, plus annual rent	£45,980	£12,480	£1,724	£14,205
75% shared equity	£86,213	£23,401	–	£23,401
North Kesteven				
Open market purchase ¹⁰⁶	£125,000	£33,929	–	£33,929
40% shared purchase, plus annual rent	£55,400	£15,037	£2,078	£17,115
75% shared equity	£112,496	£30,535	–	£30,535
West Lindsey				
Open market purchase ¹⁰⁷	£113,625	£30,841	–	£30,841
40% shared purchase, plus annual rent	£51,989	£14,111	£1,950	£16,061
75% shared equity	£112,496	£30,535	–	£30,535

Source: Turley, 2015

7.77 A notably lower income is required to access housing through a 40% shared equity purchase across Central Lincolnshire, relative to the cost of purchasing an open market home. A 75% shared equity purchase requires a higher upfront cost, although this remains slightly lower than the cost of open market housing.

7.78 Utilising the thresholds set out in this table, the following table summarises the proportion of households in each authority who can afford to access different intermediate products, through analysis of CACI data¹⁰⁸.

¹⁰⁵ Includes new build and re-sales

¹⁰⁶ Includes new build and re-sales

¹⁰⁷ Includes new build and re-sales

¹⁰⁸ CACI data provides proportion of households in £5k income brackets, and income required has therefore been rounded to the nearest £5,000

Figure 7.16: Proportion of Households Able to Access Different Intermediate Products

	Income required	% of households able to access
Lincoln		
Open market purchase ¹⁰⁹	£27,516	39%
40% shared purchase, plus annual rent	£14,205	69%
75% shared equity	£23,401	47%
North Kesteven		
Open market purchase ¹¹⁰	£33,929	40%
40% shared purchase, plus annual rent	£17,115	76%
75% shared equity	£30,535	48%
West Lindsey		
Open market purchase ¹¹¹	£30,841	46%
40% shared purchase, plus annual rent	£16,061	74%
75% shared equity	£30,535	46%

Source: Turley, 2015

- 7.79 Evidently, 40% shared equity purchase represents a significantly more affordable option for many households in Central Lincolnshire, compared to open market housing, although 75% shared equity purchase largely only represents a slightly more affordable option. This is due to the requirement to purchase a new build property to obtain this product, which results in higher upfront housing costs.

Implications for Affordable Housing Need

- 7.80 The affordable housing calculation presented within this section assumes – at Step 4.2 – that any newly forming household unable to afford the cost of a lower quartile purchase or rent will require affordable housing. This is based on the application of affordability benchmarks introduced in section 5, and is largely driven by the cost of private rented housing as set out earlier in the section.
- 7.81 It is important to note that some of those households unable to afford market housing – either through purchase or rent – could meet their needs through intermediate housing, particularly given the lower financial requirements associated with this tenure. The following table therefore illustrates the number of newly forming households who cannot afford open market housing but can afford the cost of different intermediate products.

¹⁰⁹ Includes new build and re-sales

¹¹⁰ Includes new build and re-sales

¹¹¹ Includes new build and re-sales

Figure 7.17: Role of Intermediate Housing in Meeting Newly Arising Housing Need

	Lincoln	North Kesteven	West Lindsey
New household formation (annual)	588	842	658
% unable to afford 75% shared equity purchase	53%	52%	54%
Newly forming households unable to afford 75% shared equity purchase	312	438	355
% unable to afford LQ purchase or rent	43%	35%	37%
Newly forming households unable to afford market housing	253	295	243
% unable to afford 40% shared equity plus annual rent	31%	24%	26%
Newly forming households unable to afford 40% shared equity	182	202	171
Number of newly forming households in need of affordable housing and able to afford 40% shared equity plus annual rent (annual)	71	93	72

Source: Turley, 2015

- 7.82 In Central Lincolnshire, a total of 1,105 newly forming households annually are unable to afford the cost of 75% shared equity purchase. Notably, this exceeds the 791 households who are unable to afford market housing, due to the relative affordability of the private rented sector, which is factored in to the calculation at Step 4.2. This tenure cannot therefore be considered to represent a more affordable option than market housing for the purposes of the assessment, although – as noted in the analysis above – this option is broadly more affordable than the cost of open market purchase.
- 7.83 However, only 555 newly forming households annually – or around one in four – cannot afford the cost of a 40% shared equity purchase with annual rent. This indicates that 236 households annually cannot afford the cost of open market housing – and are therefore considered as in need of affordable housing in the calculation – but can afford a 40% shared equity purchase plus annual rent. This could therefore lower the net future need for affordable housing, highlighting that intermediate products can play a role in meeting future needs in Central Lincolnshire.
- 7.84 It should also be recognised that some existing households registered on the waiting list and in need of affordable housing may be able to have their needs met through intermediate housing. However, it is not possible – using the available data – to consider this in further detail, and the potential future role of this sector in clearing the backlog should be monitored by the Councils.

Role of the Private Rented Sector

- 7.85 The private rented sector is not formally recognised as affordable housing, and therefore available guidance does not take account of the role of the private rented sector in

meeting affordable housing need. Furthermore, the definition of affordable housing presented earlier in this section excludes the private rented sector.

- 7.86 However, the private rented sector has seen significant growth – both nationally and within Central Lincolnshire – with many households likely to have been meeting their affordable housing needs through this sector as it has grown in scale.
- 7.87 The extent to which households with affordable housing needs occupy housing in the private rented sector can be estimated using the latest data release from the Department for Work and Pensions, with a base date of August 2014. This shows the number of local housing allowance (LHA) recipients residing in households within the private rented sector in each of the Central Lincolnshire authorities, with England also presented for comparison.

Figure 7.18: Rented Tenure of LHA Claimants

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire	England
Social rented	70.2%	62.1%	53.2%	63.2%	66.0%
Private rented	29.8%	37.9%	46.8%	36.8%	34.0%
Total LHA claimants	9,490	5,154	6,059	20,703	4,213,674

Source: DWP, 2014

- 7.88 Overall, in Central Lincolnshire, LHA claimants are more likely to access housing through the private rented sector, compared to the national picture. It is, however, important to note that this is partially driven by West Lindsey, where just under half of claimants are renting privately, with claimants in Lincoln – in contrast – showing a greater reliance upon the social rented sector.
- 7.89 Evidently, therefore, the private rented sector plays a role in meeting affordable housing needs in all three authorities, and it is helpful to understand the profile of private renters in each authority and identify how many claim LHA. This relates the total number of residents privately renting from the 2011 Census with the total number of LHA claimants in the private rented sector, from the DWP data presented above.

Figure 7.19: Proportion of Private Renting Residents Claiming LHA

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
Total number of residents privately renting	19,503	14,599	11,885	45,987
Total LHA claimants in private rented sector	2,827	1,953	2,838	7,618
Proportion of private rented residents claiming LHA	14.5%	13.4%	23.9%	16.6%

Source: Census 2011; DWP, 2014

- 7.90 This analysis indicates that around 17% of residents in Central Lincolnshire who privately rent their home are currently claiming LHA, with this ranging from around 13% in North Kesteven to almost one in four in West Lindsey. This broadly aligns with the national average of 16%.
- 7.91 Further insight can be gained by estimating the number of lettings made each year to tenants claiming LHA. The turnover of housing stock can be estimated from English Housing Survey returns, which – for 2012/13 – suggests that approximately 11% of private rented households are new lettings which either originate from other tenures or are newly formed¹¹². This benchmark removes transfers between private rented stock, allowing an estimate to be made of the number of new lettings per annum in Central Lincolnshire. This can be compared against the number of households privately renting in the authorities from the 2011 Census – notably differing from that presented above, which was people-based – to determine the number of new lettings arising from LHA claimants. It is important to note, however, that this figure does not take account of multiple LHA claimants sharing households.

Figure 7.20: Number of Private Rented Lettings to LHA Claimants

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
Total private rented households	8,345	6,184	5,253	19,782
New lettings per annum (11%)	918	680	578	2,176
Proportion of LHA claimants in private rented sector	14.5%	13.4%	23.9%	16.6%
Number of private rented households claiming LHA	133	91	138	362

Source: Census 2011; English Housing Survey, 2014; DWP, 2014

- 7.92 The assessment estimates that the private rented sector provides for around 360 households per year in Central Lincolnshire, of which around 135 are in Lincoln and West Lindsey with the remaining 90 in North Kesteven. It is clear, therefore, that the private rented sector plays a considerable role in meeting housing need across the housing market area, and given the increasing size of this tenure, it is likely that this role has grown over recent years.
- 7.93 Whilst it is apparent that private rented stock represents an important component of the housing market and currently plays an important role in accommodating those in housing need, it is also clear that there are issues associated with the quality of stock demonstrated by the number of households in the tenure seeking traditional affordable housing. The future role of the private rented stock in meeting an evidenced future need for affordable housing will need to be carefully considered by the Councils. The role of the tenure in meeting need will need to be considered as a potential policy intervention

¹¹² English Housing Survey Headline Report 2012/13 – Table 5 (Previous tenure by current tenure, 2012-13) indicates that, nationally, 448,000 private rented households were previously in another tenure. Over the same period, there were 3,956,000 private rented households (Table 1 – Demographic and economic characteristics by tenure, 2012-13). This suggests that approximately 11% of private rented households are new lettings

issue, recognising that the private rented tenure is not included within the NPPF as an 'affordable housing' tenure product.

Bringing the Evidence Together

- 7.94 This section has considered the need for affordable housing in Central Lincolnshire, following the methodology in the PPG by identifying the backlog of households currently in need and the number of future households who may be in need of affordable housing, balanced with supply.
- 7.95 The calculation indicates that across Central Lincolnshire, there is a net need for 911 affordable homes per annum over the next five years, in order to clear the existing backlog and meet future newly arising household need. Once the backlog is cleared, only newly arising need will need to be met, requiring 676 affordable units annually for the remainder of the plan period.
- 7.96 There is a particularly sizeable backlog in Lincoln, which will need to be addressed through an uplifted provision of affordable housing over the initial years of the plan, with West Lindsey also requiring an albeit smaller uplift. North Kesteven, however, has a sufficient available supply – when including committed developments – to clear the backlog, and can potentially make a contribution towards clearing the backlog across the joint plan area. Once the backlog is cleared, there is a sizeable newly arising need, particularly in North Kesteven. The assessment can also be broken down by size, with the evidence suggesting a significant need for one and two bedroom properties in Central Lincolnshire, although there is a need for property of all sizes across the area.
- 7.97 It is also important to recognise the role of intermediate housing in meeting affordable housing need in Central Lincolnshire, particularly in meeting the needs of future newly forming households who are unable to afford the cost of open market housing. A 40% shared equity purchase, with an annual rent, is a particularly affordable option which could lower the number of households who require affordable housing. This could also provide an alternative option for households on the waiting list, resulting in a smaller backlog of need.
- 7.98 The private rented sector can also play a significant role in meeting needs, although this is not formally recognised within the available guidance. The assessment indicates that the private rented sector has been providing for around 360 households per year in Central Lincolnshire, and given the growth in this tenure over recent years, it is likely that this role has grown over recent years. The future role of the private rented stock in meeting an evidenced future need for affordable housing will need to be carefully considered by the Councils. The role of the tenure in meeting need will need to be considered as a potential policy intervention issue, recognising that the private rented tenure is not included within the NPPF as an 'affordable housing' tenure product.

8. Housing Requirements of Specific Groups

- 8.1 This report has set out the projected changes in the Central Lincolnshire housing market over the plan period to help inform the development of planning policy and housing strategy. The analysis has clearly shown that the demographic and economic profile is likely to change over this period, and the housing market will react to these changes. However, different social groups will be affected by these changes in different ways.
- 8.2 This section, therefore, considers particular groups that may have specific housing requirements, which require careful consideration when developing a housing strategy. The NPPF notes that this report does not need to assess every group in detail, but specific policy or service provision requirements of groups represented in Central Lincolnshire.
- 8.3 This section draws together existing research and provides updated analysis, and should be read alongside more detailed studies cited throughout.
- 8.4 It is important to note that some of the population in the specific groups referenced in this section are classified as the 'communal population', meaning that they are not within the private household population which is converted to households by DCLG and Edge Analytics.
- 8.5 Instead, the communal population live in communal establishments, which can include¹¹³:
- Sheltered accommodation units where fewer than 50 per cent of the units in the establishment have their own cooking facilities, or similar accommodation where residents have their own rooms, but the main meal is provided. If half or more possess their own facilities for cooking – regardless of use – all units in the whole establishment are treated as separate households;
 - Small hotels, guest houses, bed and breakfasts and inns and pubs with residential accommodation, with room for 10 or more guests excluding the owner or manager and family;
 - All accommodation provided solely for students, during term-time. This includes university-owned cluster flats, houses and apartments located within student villages, and similar accommodation owned by a private company and provided solely for students. University-owned student houses that were difficult to identify and not clearly located with other student residents are treated as households, and houses rented to students by private landlords are also treated as households. Accommodation available only to students may include a small number of caretaking or maintenance staff, or academic staff; and
 - Accommodation available only to nurses, including cluster flats and similar accommodation. Nurses' accommodation on a hospital site that does not also

¹¹³ ONS (2014) 2011 Census Glossary of Terms (p11)

contain patients is treated as a separate communal establishment from the hospital and not categorised as a hospital, so that nurses are treated as residents and not resident staff or patients. This ensures consistency with similar nurses' accommodation not on a residential site.

- 8.6 DCLG also provide a further definition of communal establishments:

“Communal establishments, ie establishments providing managed residential accommodation, are not counted in overall supply statistics (however, all student accommodation, whether it consists of communal halls of residence or self-contained dwellings, and whether or not it is on campus, can be included towards the housing provision in local development plans). These cover university and college student, hospital staff accommodation, hostels/homes, hotels/holiday complexes, defence establishments (not married quarters) and prisons. However, purpose-built (separate) homes (eg self-contained flats clustered into units with 4 to 6 bedrooms for students) should be included. Each self-contained unit should be counted as a dwelling”¹¹⁴

Older Persons

- 8.7 Older persons require suitable housing which can enable them to live independently at home for as long as possible. It may also be necessary to provide a range of more specialised older persons accommodation, in order to meet specific identified needs.

- 8.8 The PPG states that:

“The need to provide housing for older people is critical given the projected increase in the number of households aged 65 and over accounts for over half of the new households (DCLG Household Projections 2013)...Plan makers will need to consider the size, location and quality of dwellings needed in the future for older people in order to allow them to live independently and safely in their own home for as long as possible, or to move to more suitable accommodation if they so wish. Supporting independent living can help to reduce costs to health and social services, and providing more options for older people to move could also free up houses that are under occupied”¹¹⁵

- 8.9 As the following table shows, Central Lincolnshire has seen a considerable growth in older persons between 2001 and 2011, particularly in West Lindsey and North Kesteven where the number of residents aged 65 and over has grown by around 30%. Lincoln has seen a notably lower level of growth, however.

¹¹⁴ <https://www.gov.uk/definitions-of-general-housing-terms>

¹¹⁵ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_021

Figure 8.1: Change in Older Persons 2001 – 2011

	65 – 74	75 – 84	85+	Total 65+	% growth
Lincoln	160	-584	573	149	1.1%
North Kesteven	3,100	1,294	968	5,362	31.3%
West Lindsey	2,490	1,069	572	4,131	28.5%
Central Lincolnshire	5,750	1,779	2,113	9,642	21.5%

Source: Census 2001; Census 2011

- 8.10 The Census also provides information on the number of older residents who live in households, and the number who live in communal establishments. This is summarised in the following table.

Figure 8.2: Residence Type of Residents Aged 65+ 2011

	All usual residents 65+	Lives in a household	Lives in a communal establishment	% in communal establishment
Lincoln	13,326	12,571	755	5.7%
North Kesteven	22,492	21,719	773	3.4%
West Lindsey	18,629	17,868	761	4.1%
Central Lincolnshire	54,447	52,158	2,289	4.2%

Source: Census 2011

- 8.11 At the 2011 Census, 2,289 residents aged 65 and over lived in communal establishments in Central Lincolnshire, with this representing 4.2% of all residents within this age group. While this is slightly higher than the national figure of 3.7%, this nevertheless shows that a clear majority of residents of this age group continue to live in private households, as recognised within the PPG:

“Many older people may not want or need specialist accommodation or care and may wish to stay or move to general housing that is already suitable, such as bungalows, or homes which can be adapted to meet a change in their needs”¹¹⁶

- 8.12 Indeed, at the 2011 Census, 35,516 households had a household reference person (HRP) aged 65 or over, representing around 29% of all households. Of this total, 45% – or around 16,000 households – live alone, with the remainder containing two or more persons.
- 8.13 While the PPG recognises that many older people are able to and prefer to live independently, it is important – in line with the PPG – to consider the level of need for residential institutions within Use Class C2. Within this context, it is important to

¹¹⁶ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_021

recognise that a proportion of the occupants of this type of accommodation are not included within the private household population which forms the basis of the household projections developed by Edge Analytics. They are therefore not included within the resulting modelled levels of housing needed, as set out in section 6.

Specialist Accommodation

8.14 As recognised within the PPG, older people typically occupy a broad range of accommodation, including market housing and more specialist accommodation. Prior to considering the implications for future need and its relationship to the overall dwelling requirement, therefore, it is important to introduce a number of key terms relating to older persons accommodation, and its classification within modelling outputs.

8.15 Looking specifically at broad typologies of more specialist older persons accommodation, the following can be considered as broadly representative of the majority of types. Definitional text is drawn from the Age UK¹¹⁷ and NHS¹¹⁸ websites:

- **Sheltered housing** – there are many different types of sheltered housing schemes, although as a minimum they should provide 24 hour emergency help through an alarms system and there may also be an on-site scheme manager. Importantly, schemes are generally comprised of self-contained flats or bungalows – typically with between 20 to 40 units – with communal areas often on site. In planning terms, this type of housing is usually categorised as C3 housing, and is not classified as communal establishments;
- **Extra care housing** – this is sometimes referred to as very sheltered housing, or housing with care. This is considered as an intermediate form of accommodation between sheltered and care home housing, and may include converted properties and purpose-built accommodation, such as retirement villages, apartments and bungalows. They can also be large-scale villages with up to 300 properties. Importantly, accommodation is not limited only to older persons, but can accommodate people with disabilities regardless of age. Extra care housing is aimed at providing people with the opportunity to live independently in a home of their own, but with other services on hand if they need them. Accommodation is usually provided in the form of self-contained flats, but meals are provided and individual personal care may also be provided. This suggests that housing of this nature will largely be classified as C3 housing, and will not fall within the definition of communal establishments; and
- **Care homes** – staffed 24 hours a day with meals provided, and often referred to as either residential homes or nursing homes, with the categorisation dependent on the level of nursing care provided. Within this category, it is important to note therefore that the nature of accommodation – and degree of independence – will vary considerably, with the most profound needs met through nursing care. This accommodation type may well be categorised as communal establishments, due to lower levels of self-containment and independence of households, and could therefore fall within the C2 definition. This will depend, however, upon the

¹¹⁷ <http://ageuk.org.uk>

¹¹⁸ <http://nhs.uk>

proportion of accommodation within any particular care home which has its own cooking facilities, as per the ONS definition.

- 8.16 The 2011 Census highlights the number of residents living in communal establishments, broken down by age group. This shows that there were 8,430 people in Central Lincolnshire who were living as residents in communal establishments in 2011, of which 2,062 were aged 65 and over. The following table summarises the type of communal establishments occupied by these residents, which shows that the majority are living in care homes.

Figure 8.3: Communal Establishment Residents (65+) by Type 2011

	Lincoln	North Kesteven	West Lindsey
All usual residents in communal establishments	716	733	613
Medical and care establishments – NHS	2	0	0
Medical and care establishments – local authority	2	0	2
Medical and care establishments – RSL/HA	12	0	0
Medical and care establishments – care home with nursing	320	316	308
Medical and care establishments – care home without nursing	355	382	295
Medical and care establishments – other	10	31	0
Other establishments or not stated	15	4	8

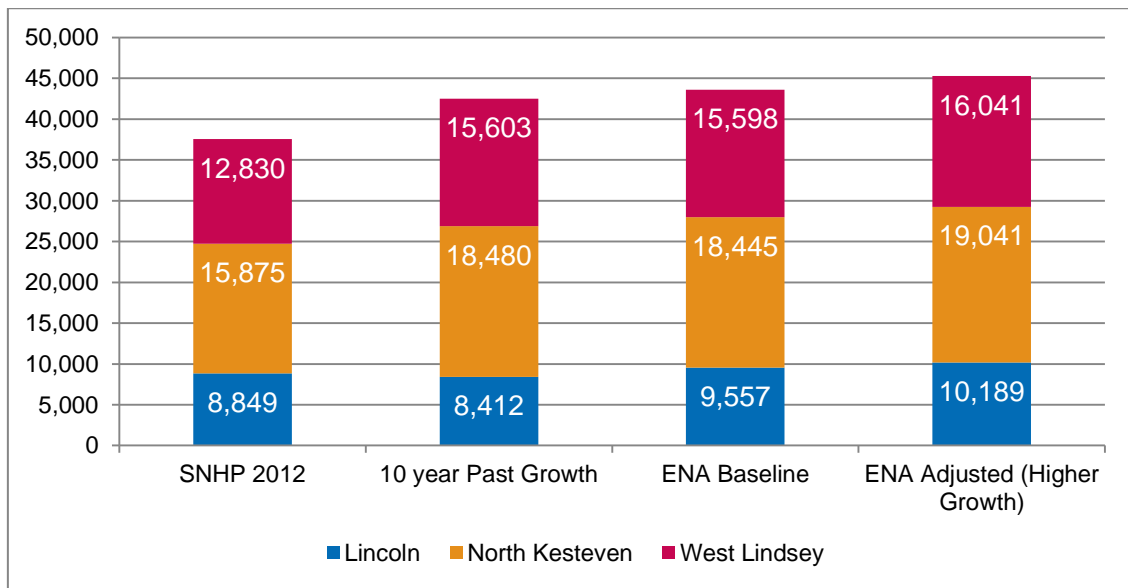
Source: Census 2011

Future Need for Older Persons Accommodation

- 8.17 The population modelling undertaken by Edge Analytics – presented in section 6 – includes people of all ages, including older persons. The following chart therefore illustrates the modelled change in the older persons population¹¹⁹ under each of the modelled scenarios for Central Lincolnshire.

¹¹⁹ The modelling undertaken by Edge Analytics includes a breakdown of males aged 65 and over and females aged 60 and over, reflecting official ONS datasets

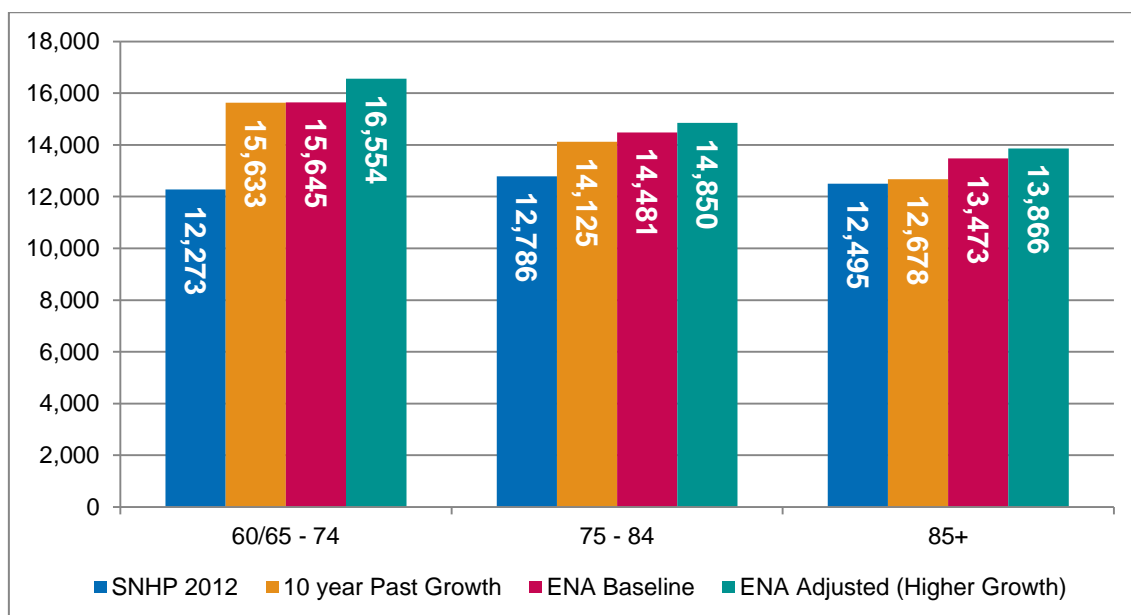
Figure 8.4: Modelled Change in Older Persons (60/65+) 2012 – 2036



Source: Edge Analytics, 2015

- 8.18 Evidently, considerable growth is expected in older age groups over the projection period, with particularly high levels of growth under the ENA Likely Job Growth scenario. Even under the SNPP 2012 scenario, a significant growth of around 37,500 is projected, rising to over 45,000 under the ENA Adjusted (Higher Growth) scenario.
- 8.19 The following table provides additional detail regarding the age profile of the older persons population, showing projected growth by age bands for Central Lincolnshire as a whole. This shows that a significant growth is expected under all scenarios, with greater growth in the employment-led scenarios due to an assumed higher level of overall population growth. This growth could result in increased pressures on the housing market, and will have implications for the types and location of housing provided.

Figure 8.5: Modelled Change in Older Persons (60/65+) by Age Group 2012 – 2036



Source: Edge Analytics, 2015

Need for Additional Care Home (C2) Accommodation

- 8.20 In considering the housing needs of the older population, it is important to recognise that the communal establishment population are not included within the population converted to households by DCLG¹²⁰. This population is therefore not included within the private household population modelled by Edge Analytics which is used to assess housing need.
- 8.21 When treating the communal population, Edge Analytics adopt an approach which is consistent with DCLG, specifically:
- For all ages up to 74, the number of people in each age group that are not in households is recorded at the start of the projection period¹²¹; and
 - For ages 75 and over, the *proportion* of the population that are not in households is recorded as a percentage. Therefore, the population that are not in households in these age groups varies across the forecast period, depending on the size of the population.
- 8.22 Consequently, modelled growth in the communal population will be made up entirely of older age groups aged 75 and over, with the younger age component fixed. The following table shows the projected change in the communal population under a number of the selected scenarios modelled by Edge Analytics between 2012 and 2036.

¹²⁰ For the official 2012-based household projections, the assumption is made that the institutional population stays constant at 2011 levels of age, sex and marital status for the under 75s and that the share of the institutional population stays at 2011 levels by age, sex and relationship status for the over 75s. The rationale here is that ageing population will lead to greater level of population aged over 75 in residential care homes that would not be picked up if levels were held fixed but holding the ratio fixed will (DCLG 2012 SNHP Methodological Report, March 2015)

¹²¹ Sourced directly from household projections, referred to as the 'institutional population' and taken from the 2011 Census

Figure 8.6: Modelled Change in Communal Population 2012 – 2036

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
SNPP 2012	616	870	738	2,224
10 year Past Growth ¹²²	535	931	821	2,287
ENA Baseline	643	956	835	2,434
ENA Adjusted Scenario (Higher Growth)	680	980	855	2,515

Source: Edge Analytics, 2015

- 8.23 All of the scenarios presented show a considerable growth in the communal population, which is entirely attributable to older persons aged 75 and over. This increase in need relates to individual persons, and therefore this suggests an increased need for bedspaces in communal establishments over the plan period.
- 8.24 The earlier review of definitions notes that the approach to classify supply may require a translation into dwellings or establishments. There is no specific methodology for doing this, however, and this will therefore need to be considered in the context of individual care home proposals. The following table does, though, show the number of residents per care home in Central Lincolnshire, based on the 2011 Census. This can be used to quantify the number of establishments required to accommodate the growing communal population.

Figure 8.7: Residents per Care Home Establishment 2011¹²³

	Care home with nursing	Care home without nursing
Lincoln	29	22
North Kesteven	27	15
West Lindsey	23	16
Central Lincolnshire	26	17

Source: Census 2011

Students

- 8.25 As highlighted earlier in this report, there is a sizeable and growing younger population in areas of Central Lincolnshire, particularly in Lincoln. It is likely that this significant increase is influenced by the inflow of students to higher and further education institutions, including the University of Lincoln and Bishop Grosseteste University. These are recognised to have a significant impact on the social profile and housing market of

¹²² Including UPC

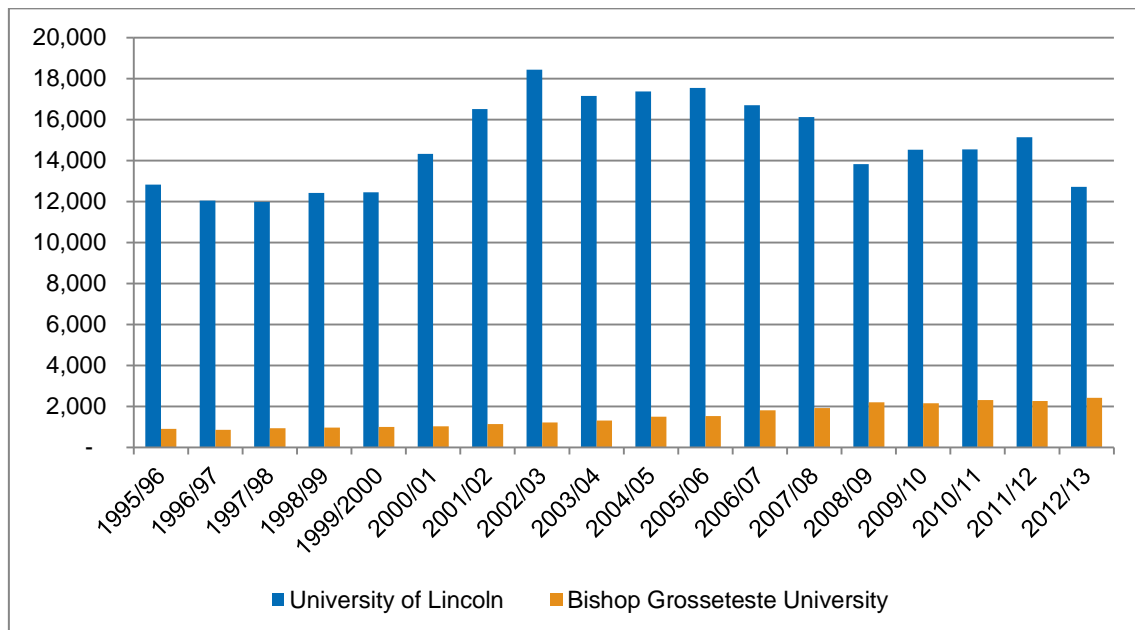
¹²³ Based on all communal establishment residents, and therefore should not be directly compared to Figure 8.3 which only summarises residents aged 65 and over

neighbouring areas. It is therefore important to understand the specific characteristics and needs of the student population, in line with guidance in the PPG.

Student Population

- 8.26 Focusing on Central Lincolnshire's two Universities, statistics published by the Higher Education Statistics Agency (HESA) show how the number of students at both the University of Lincoln and Bishop Grosseteste University have changed since 1995.

Figure 8.8: Change in Student Numbers 1995 – 2013

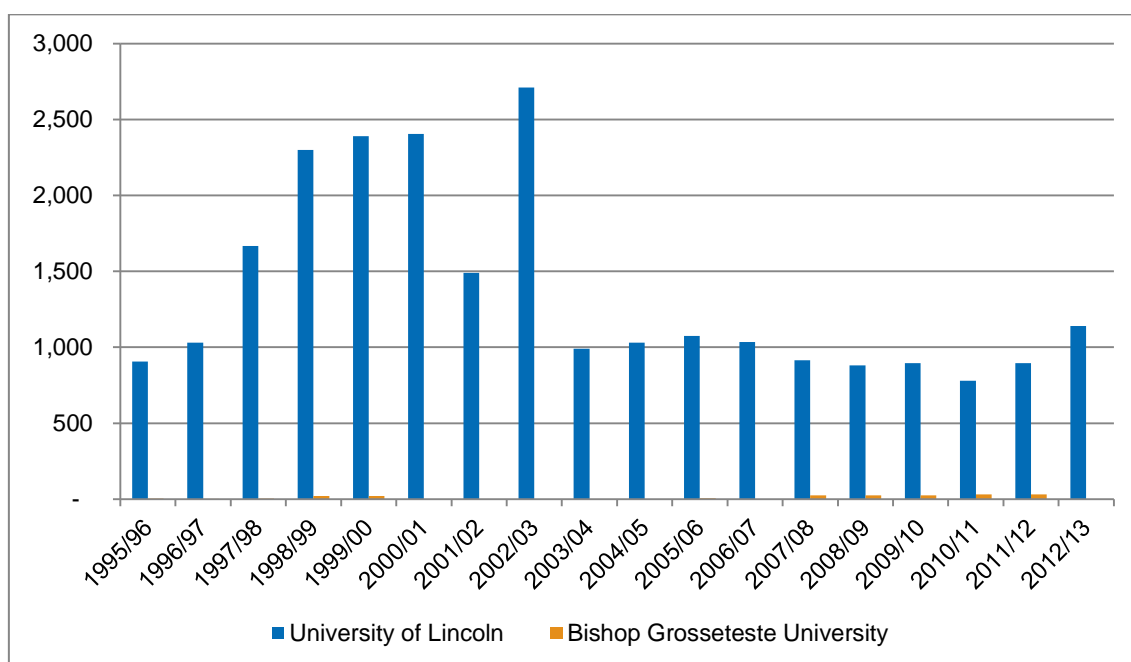


Source: HESA, 2014

- 8.27 Evidently, the number of students at the University of Lincoln has seen some variation over this period, with notable year-on-year increases in the early 2000s and – more recently – a slight fall in the number of students. It is, however, important to note that engagement with the University of Lincoln indicated that the drop in the number of students suggested by HESA figures is not necessarily fully representative of the number of students requiring accommodation, as the statistics generally cover full-time equivalent (FTE) students only.
- 8.28 Bishop Grosseteste University has seen some growth in the number of students, increasing from under 1,000 before 2000 to surpass 2,000 from 2008. As the graph shows, the University has seen sustained periods of year-on-year growth, which is reflective of the University's ambition – set out within their strategy – to continue to grow the student base.
- 8.29 When assessing the need for housing, it is important to recognise that forward projections are influenced by demographic trends, with students – and their moves to Lincoln – evidently influencing these historic trends. It is clear from the analysis that the historic period from which projections are derived has been characterised by a period of limited change in student numbers overall, and therefore the forward projections will not factor in any significant departure from this historic picture.

8.30 As further analysed later, only a proportion of the total number of students are likely to require student accommodation, with a proportion living with parents, for example. However, it is beneficial to understand how the total number of international students has changed at both Universities, given that the accommodation options for such students are limited, with no option to live with parents. HESA statistics allow an analysis of how the total number of international students has changed.

Figure 8.9: Change in Number of International Students 1995 – 2013



Source: HESA, 2014

8.31 As shown, the number of international students at the University of Lincoln has been variable throughout the period shown, with a significant growth in international students in the late 1990s and early 2000s. When compared with the earlier graph, this indicates that the growth in international students was a key driver in increasing the total number studying at the University, accounting for just under 20% of all students in 1999/2000. Over more recent years, however, the number of international students has significantly fallen, accounting for around 1,000 students per year. There has, however, been some short-term growth, with the number of international students in 2012/13 the highest for ten years, driven by a significant increase in the number of non-EU students. Taking a ten year picture, however, the position has been relatively stable with regards to the number of international students.

8.32 The number of international students at Bishop Grosseteste University is significantly lower, with HESA recording no more than 30 international students in any of the years shown.

8.33 It is also important to recognise the influence of recent graduates in the local market for HMOs, with younger people more likely to privately rent and live in multi-adult households and therefore potentially sustaining demand for HMOs. Indeed, the 2011 Census shows that around 56% of households in Central Lincolnshire with

households¹²⁴ aged under 24 and one in three households aged 25 to 34 are privately renting from a landlord or agency, compared to only 14% for all age groups. Furthermore, younger people aged 16 to 34 in Central Lincolnshire are over twice as likely to live in 'other' households¹²⁵ compared to all residents, with this typically associated with unrelated adults sharing a house. These trends suggest that HMOs can continue to be attractive to recent graduates, given the ability to privately rent and share with other adults.

Student Accommodation

- 8.34 The following table provides an indication of the type of accommodation occupied by students in Central Lincolnshire, sourced from the 2011 Census.

Figure 8.10: Student Accommodation by Type 2011

Type	Lincoln		North Kesteven		West Lindsey	
	Total	%	Total	%	Total	%
Living with parents	2,689	24.0%	3,536	82.2%	3,090	80.8%
Living in a communal establishment	4,018	35.9%	44	1.0%	193	5.0%
Living in all student household	2,961	26.5%	111	2.6%	76	2.0%
Student living alone	329	2.9%	56	1.3%	44	1.2%
Other household type	1,196	10.7%	556	12.9%	421	11.0%
Total	11,193	–	4,303	–	3,824	–

Source: Census 2011

- 8.35 There is evidently considerable variation in the accommodation occupied by students in Central Lincolnshire. In Lincoln – where the majority of students live – just over a third of students live in communal establishments such as University accommodation. Furthermore, around one in four students in Lincoln live with parents, while a similar amount live in all student households such as HMOs.
- 8.36 In North Kesteven and West Lindsey, however, the majority of students live with parents, with fewer living in communal establishments or all student households. This could also include a number of students who live with parents in North Kesteven and West Lindsey but travel to study at the Universities in Lincoln.
- 8.37 Recognising the range of accommodation types occupied by students in Lincoln, it is beneficial to fully understand the accommodation options for students at both the University of Lincoln and Bishop Grosseteste University. These are summarised below:
- The Student Village at the University of Lincoln was opened in 1999, and provides 1,037 bedspaces which are primarily targeted at first year students;
 - Bishop Grosseteste University provide around 300 bedspaces, mainly at Constance Stewart Hall and Wickham Hall;

¹²⁴ Based on age of household reference person (HRP)

¹²⁵ Excluding those with dependent children, all full-time students and all aged 65 and over

- This is supplemented by off-campus halls of residence, which provide over 3,500 bedspaces. This includes recent developments at Saul House and St Marks House, as well as larger student accommodation at The Pavilions and The Junxion; and
- Approximately 800 additional student bedspaces are currently in the planning and development phase in Lincoln, with the largest development – at the Gateway – containing 519 bedspaces.

8.38 This indicates that there are a total of approximately 4,800 bedspaces in student accommodation in Lincoln, with potential to increase to around 5,600 should planned development come forward. Given that around 15,000 students were collectively registered at the University of Lincoln and Bishop Grosseteste University in 2012/13, this suggests that approximately 10,000 students are currently living in other forms of accommodation, either living with parents, on their own or in HMOs. Given the trends analysed above, it is likely that the majority of remaining students are accommodated in HMOs.

8.39 Council Tax data supplied by the Councils highlights that there are a total of around 6,700 households exempt from paying Council Tax in Central Lincolnshire due to students occupying the property. 6,546 of these properties – or almost 98% – are located in Lincoln, where 14.8% of all properties are student exemptions. This reflects the concentration of students within Lincoln, with particular concentrations in the wards of Boultham and Carholme where half of Lincoln's student exemptions are located. In particular, a number of areas were highlighted as particularly popular locations for students and HMOs¹²⁶:

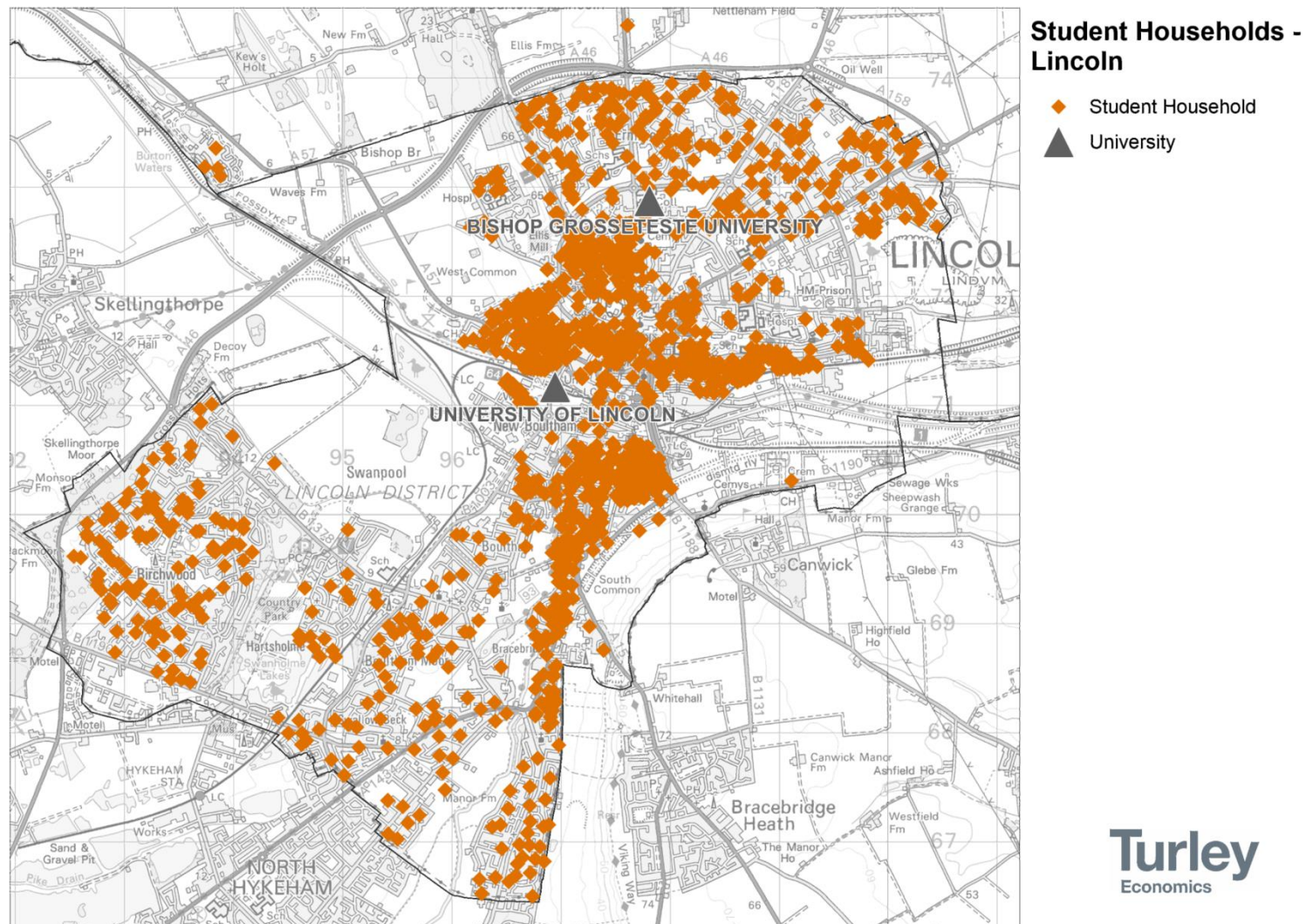
- **West End** – including Carholme Road, West Parade, Yarborough Road and their side streets;
- **Monks Road** – a one mile stretch of road, with many side streets of terraced houses; and
- **Lower High Street** – including High Street, Dixon Street, Portland Street and their side streets.

8.40 These areas are popular for student accommodation given their close proximity to both Universities and the city centre, allowing students easy access to shops, facilities, nightlife and entertainment. The housing in these areas is predominantly larger, older properties with terraced housing, which is favourable for conversion to HMOs and attractive to many students who want to live with other adults. There is also good provision of bus links in these areas, further enabling access to the centre of Lincoln for students who may live slightly further away.

8.41 The location of student exemptions in Lincoln is illustrated in the following map.

¹²⁶ <http://www.lincoln.gov.uk/housing/private-housing/student-accommodation/finding-student-accommodation/111040.article>

Figure 8.11: Location of Student Exempted Properties



Source: City of Lincoln Council, 2014

Future Need

- 8.42 In understanding the future need for student accommodation in Central Lincolnshire, it is important to firstly understand how the number of students in the area will change. This section therefore provides a summary of future strategic developments at the main institutions in Central Lincolnshire.

University of Lincoln

- 8.43 The University of Lincoln is the largest university in the Central Lincolnshire area, with around 12,500 students¹²⁷. Brayford Pool is the main University campus – located in the centre of Lincoln – and includes a student village which accommodates over 1,000 students. This is primarily targeted at first year students.
- 8.44 The University's current Strategic Plan covers a five year period to 2016¹²⁸, and highlights an ambition to grow and diversify, potentially increasing the scope and capacity of the University. There is a particular ambition to increase the number of postgraduate and international students by 2016.
- 8.45 Engagement with the University highlighted that future development – including new accommodation – is linked to wider trends in higher education funding. Additional bedspaces are planned to be delivered at the Gateway development, which will not be owned by the University but is subject to a partnership with the private sector. It was noted that the delivery of additional accommodation could see students move from shared housing to purpose-built student accommodation, although this is dependent on other factors such as location and cost. It was suggested that new developments can have an impact upon the number of vacant HMOs in Lincoln.
- 8.46 The University also recognise that the future development of academic facilities to the south of the campus may change the level of demand for houses in multiple occupation (HMO) in areas that are located some distance from the new facilities. This reflects the general preferences of students to live close to University facilities, subject to cost.
- 8.47 It was also noted through engagement with the University that relatively poor public transport across areas of Lincolnshire results in a relatively small number of students living with parents. Typically, the University expects around 90% of applicants each year to require accommodation, although this can change annually and between different types of students. Postgraduates, for example, may be willing to travel further to study, while many undergraduates wish to live away from home irrespective of where their parents live.
- 8.48 Regarding change in student need, it was suggested that there has been an overall increase in the number of students requiring accommodation, although this was largely linked to the increase seen in 2011 before the raising of tuition fees. Given that this group has now largely graduated, the University has reverted to standard targets of accommodating approximately 3,000 students per year. This has been relatively static historically.

¹²⁷ Higher Education Statistics Agency – 2012/13

¹²⁸ University of Lincoln (2011) Strategic Plan 2011 – 2016

Bishop Grosseteste University

- 8.49 Around 2,500 students study at Bishop Grosseteste University in Lincoln, with on-campus accommodation recently undergoing refurbishment. This is prioritised for first year and international students, with prices ranging from £95 to £122 per week. The University has also worked in partnership to develop off-campus accommodation.
- 8.50 The University's refreshed Corporate Plan¹²⁹ highlights that the University has recently seen major investments in campus facilities, including an enlarged library and new teaching and learning facilities as well as new student accommodation. This provides capacity for further growth, allowing the University to develop its contribution locally, nationally and internationally.
- 8.51 Indeed, the University's latest Five Year Strategy¹³⁰ was published recently, and includes an ambition to increase the number of students at the University to around 4,500 by 2019. This will be achieved by developing the academic portfolio and expanding research areas of strength, as well as improving access to courses for both local and international prospective students. Engagement with the University indicates that there are no current plans to increase the supply of on-campus accommodation, until there is evidence of an increased demand from students. Growth in the University can therefore be considered to be demand-led, rather than a supply-led approach.

Lincoln College

- 8.52 Lincoln College is the largest further education provider in Lincolnshire, with three campuses – at Lincoln, Gainsborough and Newark – accommodating over 9,000 students, of which 3,000 are full time. The college is open to both school leavers and other adults, and can therefore attract mature students.
- 8.53 The Lincoln campus is both the administrative centre and largest site of the college, and has recently undergone considerable development. However, the college does not provide accommodation, with students requiring accommodation reliant on private providers. Lincoln College state that there is sufficient provision in the Lincoln area to accommodate this demand.

Implications

- 8.54 Based on the strategies introduced above, it is likely that the number of students in Central Lincolnshire will grow, particularly driven by the planned growth in Bishop Grosseteste University and the continued ambitions of the University of Lincoln. This picture departs to an extent from that seen historically and will therefore potentially serve to contribute to stronger levels of population growth than projected on the basis of historic demographic trends (as considered in section 6).
- 8.55 As noted earlier, the 2012 SNPP projects forward growth based on recent demographic trends, and this dataset is unlikely to be projecting forward considerable growth in student numbers given the little growth seen over the period from which the projections are derived. However, taking a longer-term migration trend – which includes periods of growth for both Universities – would be more likely to include an associated increase in student numbers. Furthermore, the retention of students post qualification in the area is

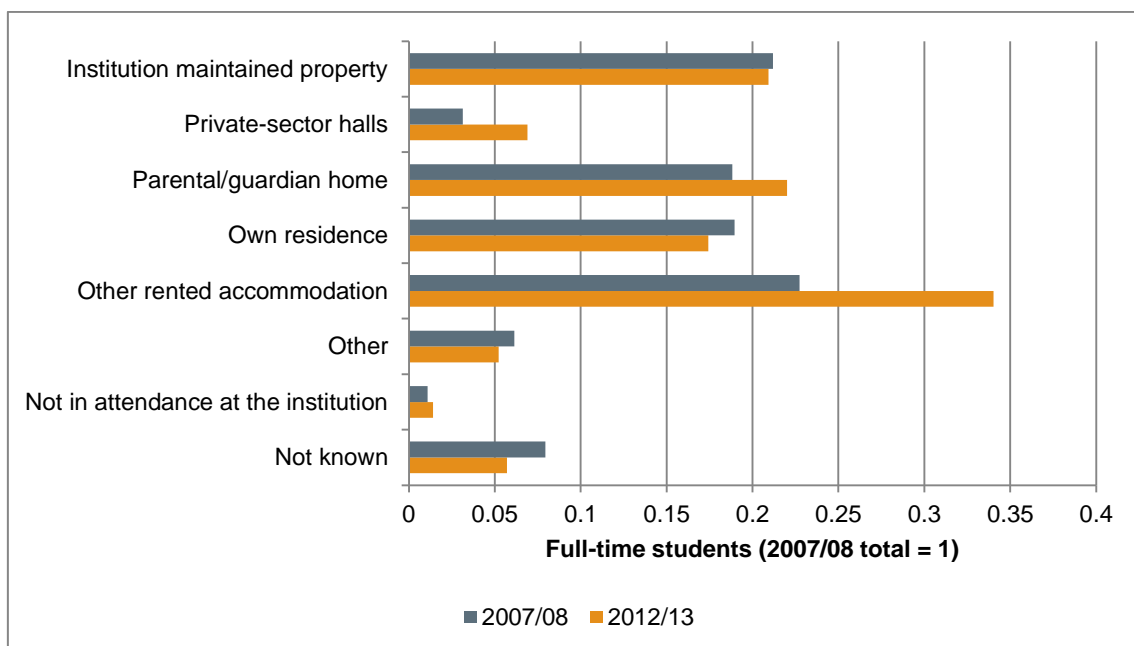
¹²⁹ Bishop Grosseteste University (2013) Corporate Plan Refresh

¹³⁰ Bishop Grosseteste University (2014) Five Year Strategy 2014 – 2019

also likely to be linked to the anticipated increase in employment opportunities, as outlined in the Economic Needs Assessment.

- 8.56 It is important to note, however, that no additional accommodation is planned to be delivered by the Universities to support this growth in student population, with an expectation that existing supply can accommodate a growing number of students. While there is a pipeline of planned and permitted student accommodation developments – potentially increasing the number of bedspaces by approximately 800 – there will remain a gap between the number of students requiring accommodation and the number of bedspaces in student accommodation in Lincoln. HMOs are therefore likely to continue to play a significant role in accommodating students, with the exception of first year students who are typically housed on-campus.
- 8.57 There is, therefore, an expectation that the private sector can continue to accommodate growth in student numbers, as has been seen nationally over recent years. Research by Savills¹³¹ utilises HESA statistics to show that the private sector has absorbed a significant amount of growth nationally, as shown in the following graph. This indexes the number of students against 2007/08, and shows how private sector halls and other rented accommodation have seen the greatest growth in the number of students accommodated over the period shown. There has also interestingly been an increase in the number of students living in their parental or guardian home.

Figure 8.12: Accommodating a Growing Student Population Nationally



Source: Savills, 2014; HESA, 2014

- 8.58 It is also important to recognise that the future development of Universities can shape demand for different types of student accommodation, including HMOs. Engagement with the University of Lincoln suggested that the delivery of new accommodation can see students move from shared housing to purpose-built student accommodation.

¹³¹ Savills (2014) Spotlight – UK Student Housing

However, areas within close proximity to campus facilities – with good transport links and an existing student community – are more likely to retain demand. There is, though, potential for vacancies in less popular areas, although price and location are important shaping factors.

- 8.59 The future need for student accommodation is directly linked to future change in student numbers, and the development strategies of Universities. An increase in the number of students – without a supply response – would be likely to increase demand for HMOs in Lincoln, while an increase in supply without an increase in the student population would likely reduce demand for HMOs. This reflects the role of HMOs in particular as a mechanism for relieving demand for student accommodation where there is an imbalance between supply and demand. This stems from the immediacy of supply, with potential for supply to increase with little or no construction period. This can provide an immediate supply response to an increase in population. This contrasts with purpose-built accommodation, where there is an inherent time lag before additional supply comes onto the market, requiring an element of forecasting of future student numbers.

HMOs therefore play a critical role in meeting and balancing any shortfall between the supply and demand for student accommodation. However, the delivery of purpose-built accommodation – of high quality, in attractive locations and at reasonable costs – can be a more attractive option for students, and this can subsequently reduce demand for HMOs if delivered. Cost and location is, however, an important factor, with HMOs in accessible, established student communities likely to remain popular irrespective of additional supply.

- 8.60 Understanding the broad number of households with support, special and/or specific needs – and the breadth of their individual challenges – is crucial to determining where and how much purpose-built or adapted housing is required.
- 8.61 Carrying out adaptations to an existing home is one approach to addressing need, in order to modify the home environment to enable or restore independent living, dignity, confidence or privacy for individuals and their families. Home Adaptations for Disabled People¹³², published by the Home Adaptations Consortium in 2013, provides a useful starting point in considering adaptations, and suggests that demand has accelerated with social policy changes and medical advances, allowing people with disabilities and complex needs to lead more independent lives.
- 8.62 Data has been provided by the Councils regarding the number of applications for adaptation through the Disabled Facilities Grant (DFG). This indicates that:
- In Lincoln, there have been an average of 59 applications per annum over the past five years (2009/10 – 2013/14), of which the majority resulted in adaptations to bathrooms or installation of stairlifts;

¹³² Home Adaptations Consortium (2013) Home Adaptations for Disabled People – a detailed guide to related legislation, guidance and good practice

- 78 applications have been made annually on average in North Kesteven over the past three years (2011/12 – 2013/14), again with the majority relating to installation of level access showers or improving access to properties; and
- An average of 77 applications have been made each year in West Lindsey between 2012/13 and 2014/15.

8.63 The 2011 Census provides a further indicator of health and disability in Central Lincolnshire. This shows that there are a total of 25,064 people in Central Lincolnshire whose day-to-day activities are limited a lot by their long-term health problem or disability, of which around 10,300 – or 41% – are aged 16 to 64. The Census further shows that 2,735 people in Central Lincolnshire are residents within a medical or care establishment, of which 700 – or around one in four – are aged 65 or under.

8.64 Overall, this suggests that the majority of those whose day-to-day activities are limited a lot by their long-term health or disability do not live in communal establishments, suggesting that many live at home or with relatives, friends or carers. This suggests an ongoing need to ensure that there is a sufficient supply of adapted homes. The provision of Lifetime Homes¹³³ can also represent a potential solution to ensuring that future household needs are met in a flexible manner, thereby reducing the need for adaptations. Further monitoring will be necessary to ensure that specific arising needs are met through the provision of appropriate stock.

Black and Minority Ethnic

8.65 The following table establishes the ethnic composition of Central Lincolnshire, using data from the 2011 Census. England is also included as a comparator.

¹³³ Lifetime Homes incorporate design criteria to ensure that changing needs of individuals and families can be supported at different stages of life, allowing flexibility and adaptability. The Lifetime Homes Design Guide (2011) sets out these design requirements

Figure 8.13: Ethnic Groups 2011

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire	England
White British	89.4%	95.9%	96.3%	93.9%	79.8%
White Irish*	0.9%	0.5%	0.6%	0.7%	1.1%
White Other	5.3%	1.8%	1.2%	2.7%	4.6%
Mixed Ethnicity	1.3%	0.7%	0.7%	0.9%	2.3%
Asian or Asian British**	1.9%	0.7%	0.8%	1.1%	7.8%
Black or Black British	0.8%	0.2%	0.3%	0.4%	3.5%
Other Ethnic Group	0.4%	0.1%	0.1%	0.2%	1.0%

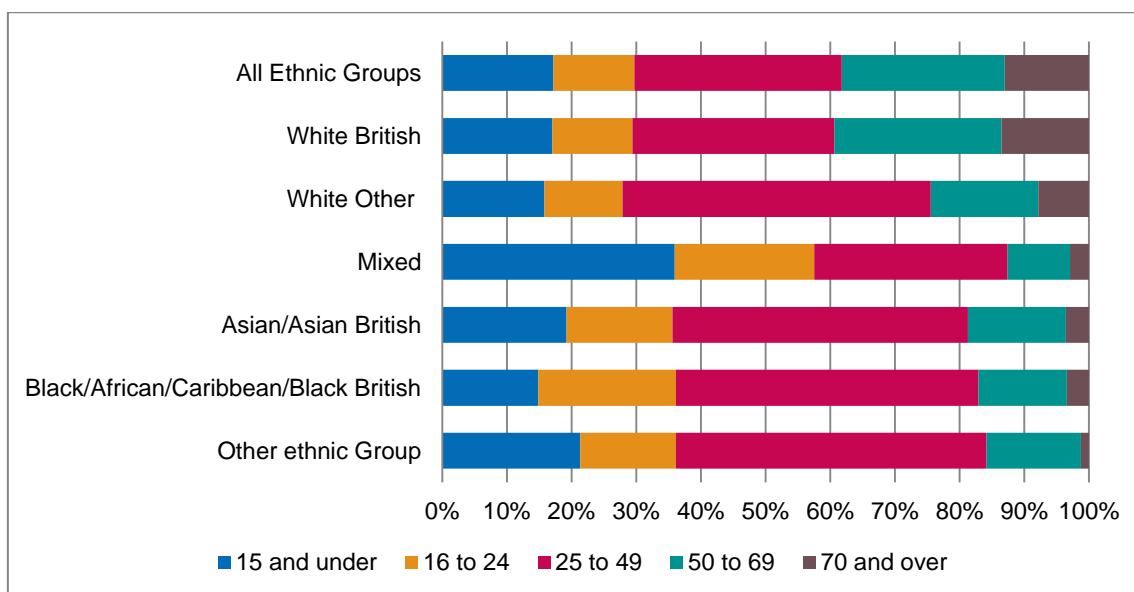
* Including Gypsy or Irish Traveller

** Pakistani, Bangladeshi, Indian, other Asian

Source: Census 2011

- 8.66 Each of the authorities making up Central Lincolnshire contain a higher than average proportion of white British residents, at 93.9% of residents overall in Central Lincolnshire, compared to the national figure of 79.8% of residents being white British. Most other ethnic groups are proportionally under-represented, despite the sizeable white other population in Lincoln, with further analysis showing that there are a relatively high proportion of Polish residents.
- 8.67 It is also useful to understand the age profile of different ethnic groups in Central Lincolnshire, as shown in the graph below. This shows that there is a sizeable older population in white British groups, with other ethnic groups – and particularly mixed ethnic groups – characterised by a younger demographic.

Figure 8.14: Ethnic Group by Age 2011



Source: Census 2011

- 8.68 Census data also allows an assessment of the tenure of choice for different ethnic groups, with this information presented in the following table. As shown, owner occupation is particularly common for White British and Asian ethnic groups in Central Lincolnshire, with the latter notably having a relatively low reliance upon the social rented sector. In contrast, the social rented sector is particularly important for Black and other ethnic groups in Central Lincolnshire. Whilst social renting is also relatively high for these groups, this tenure is most popular with the white other ethnic group, with almost half of white other ethnic people in Central Lincolnshire residing in this tenure, and the level of home ownership amongst this group being relatively low.

Figure 8.15: Tenure by Ethnic Group 2011

Ethnic Group	Owned or shared ownership	Social rented	Private rented or living rent free
All groups	69.3%	13.2%	17.5%
White British	70.8%	13.2%	16.1%
White Other	38.3%	12.9%	48.8%
Mixed	52.4%	17.7%	30.0%
Asian/Asian British	62.5%	7.2%	30.3%
Black/African/Caribbean/Black British	50.3%	18.4%	31.4%
Other ethnic group	48.3%	18.6%	33.1%

Source: Census 2011

- 8.69 Overcrowding is a further indicator that can vary by ethnic group. The following table shows the proportion of the population within each ethnic group who are considered,

based on the bedroom standard, to be overcrowding or under-occupying their home. It should be noted that the analysis in this table is not directly comparable with the overcrowding analysis introduced in section 3, which was based on households rather than all residents as below.

Figure 8.16: Overcrowding and Under-Occupation by Ethnic Group 2011

Ethnic Group	Proportion of residents overcrowded	Proportion of residents under-occupying
All groups	3.7%	74.1%
White British	3.3%	75.0%
White Other	11.2%	55.9%
Mixed	6.5%	62.5%
Asian/Asian British	9.2%	66.0%
Black/African/Caribbean/Black British	10.6%	61.7%
Other ethnic group	9.9%	57.4%

Source: Census 2011

8.70 As shown, under-occupancy is most common amongst white British residents in Central Lincolnshire, with overcrowding generally more frequent in other ethnic groups. This is particularly notable for white other and Black/African/Caribbean/Black British residents, of which over one in ten have one or more fewer bedrooms than required, based on the bedroom standard.

8.71 It is evident that housing characteristics and preferences vary in Central Lincolnshire between ethnic groups, and it will be important to plan for a range of types, sizes and tenures of housing to ensure that the specific needs of different ethnic groups are met.

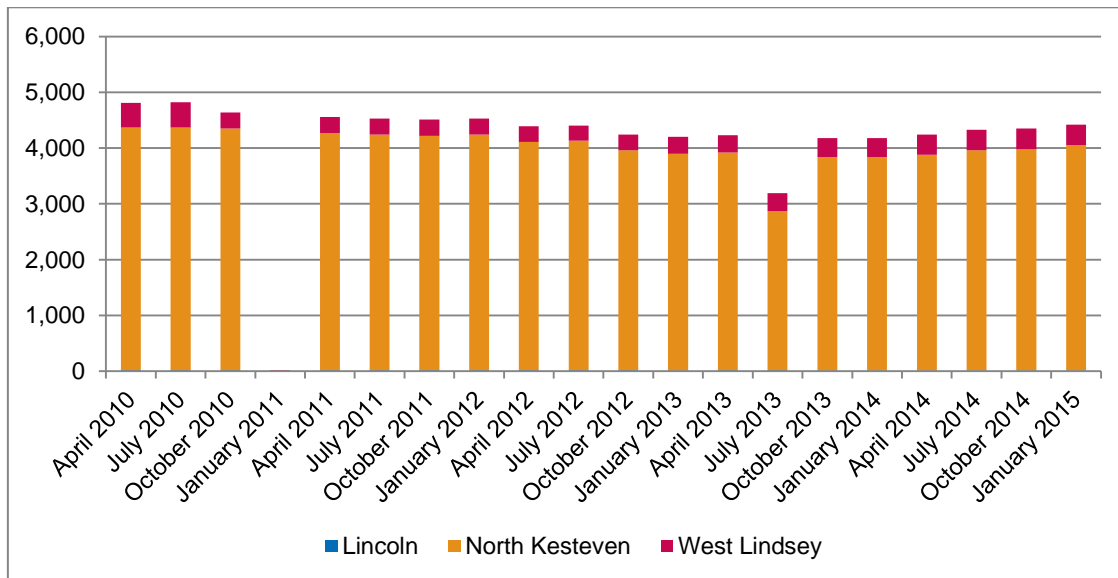
Ministry of Defence

8.72 Lincolnshire has a longstanding association with the military, with the Royal Air Force (RAF) in particular having a strong presence in the county. Within Central Lincolnshire, there are several bases, including RAF Waddington which – with around 3,500 people – is one of the largest bases in the country. RAF Cranwell in North Kesteven houses the Royal Air Force College and acts as headquarters for several parts of the Ministry of Defence, and contains around 2,500 people, including 1,300 military staff. There are also significant bases in Scampton and Waddington, while RAF Digby is also located in North Kesteven.

8.73 Data is available to show how the number of stationed personnel has changed in Central Lincolnshire over recent years. This is sourced from the Lincolnshire Research Observatory, and shows that – in January 2015 – there were 4,420 stationed personnel based in Central Lincolnshire. The majority – 4,040 – were based in North Kesteven, with 370 based in West Lindsey and only 10 based in Lincoln. As shown in the following

graph, this has remained consistent over the past 5 years, with the exception of January 2011 – which is likely to represent a data error – and July 2013, when the number of personnel fell to around 3,000.

Figure 8.17: Change in Stationed Personnel 2010 – 2015



Source: Lincolnshire Research Observatory, 2015

- 8.74 The 2011 Census also provides a position on the number of residents employed in the Armed Forces at the date of the Census, which includes a breakdown between the number of people living in a household or communal establishment. This is summarised in the following table, which shows that many of those identified live in private households¹³⁴.

Figure 8.18: Armed Forces 2011

	Total	Lives in a household	Lives in communal establishment
Lincoln	501	496	5
North Kesteven	2,714	2,278	439
West Lindsey	440	439	1
Central Lincolnshire	3,655	3,213	442

Source: Census 2011

- 8.75 Discussions were held with a representative from RAF Cranwell to gain a further understanding of the number of people based on site and the associated accommodation requirements of the personnel.

¹³⁴ There is a significant disparity between the number of residents living in a communal establishment and the number of bedspaces at RAF bases in Central Lincolnshire, and this could be attributable to data collection issues associated with communal residents

- 8.76 Focusing on RAF Cranwell, regular military largely live on site, although there is an expectation that a percentage will live in the local community. Trainees – of which there are around 300 to 400 – live on the base, while reservists do not live on site. There are also a number of civil servants and contractors working at the base.
- 8.77 There are a number of houses on site, of various sizes, and some of these help to meet unmet need from other bases. There are also around 1,600 bedspaces on the base, with this remaining relatively fixed and not seeing considerable change over recent years. As noted earlier, many personnel are not accommodated on the base, and choose to live in the local community, where there are often clusters of military personnel in local villages. This is likely to have an impact on local housing markets within Central Lincolnshire, particularly in areas within close proximity of the RAF bases, and it was suggested that – given Lincolnshire's longstanding association with the RAF – it is likely that a higher proportion of personnel live in local communities compared to the standard national benchmark, which has historically been around 20%.
- 8.78 Across Lincolnshire, higher proportions generally buy houses and live in the local community, particularly as the housing is seen as good value. Around 20% of the RAF are based in Lincolnshire, and personnel are posted every two to three years, although it was noted that – even where personnel are posted to bases outside Lincolnshire – there are instances where people continue to live in the county.
- 8.79 It was noted that the accommodation requirements associated with the area's RAF bases could be influenced by their future potential expansion, although there is no further detail on these plans at the time of writing. It is therefore not possible to confirm how the changing military population in Central Lincolnshire will impact on the overall population and household growth. As noted under the analysis of older persons, it is, however, important to recognise that when converting the population to households and dwellings, Edge Analytics remove the communal population as they do not live in a private household with this including the military population residing on base. The modelling also assumes that the communal population aged 74 and under remains fixed, based on the levels recorded in the 2011 Census. The modelling undertaken therefore does not assume growth in the number of people based in communal establishments, such as military bases, with the exception of residents aged 75 and over which are likely to be associated with a requirement for C2 accommodation.

Self-Build

- 8.80 The NPPF, in expecting authorities to have a clear understanding of housing needs in their area, states that need should be addressed for all types of housing, including people wishing to build their own homes. Two approaches to building your own home are recognised – self-build covers instances where a person directly organises the design and construction of their own home, while custom build is where a person works with a specialist developer to deliver their own home¹³⁵.
- 8.81 'Laying the Foundations: a Housing Strategy for England' provides useful national context in relation to both self-build and custom build¹³⁶. The strategy states that, in

¹³⁵ The Self Build Portal – <http://www.selfbuildportal.org.uk>

¹³⁶ HMGovernment (2011) Laying the Foundations: a housing strategy for England

2011, over 100,000 UK residents were looking for building plots across the country, with around one in ten new homes custom built. This is considerably lower than in many other European countries, and recent figures suggest that, while there is demand, there are relatively few self-built homes in the UK, with just 8,235 delivered in 2013 – a fall of 22% since 2010¹³⁷. However, as many as half of people nationally would consider building their own home if they were able to¹³⁸.

- 8.82 This suggests that, despite suggested demand, there are a number of challenges holding back the potential of this sector, including limited finance and mortgage products, restrictive regulation, a lack of impartial evidence and, crucially, land. A lack of available land means that self-building often involves knocking down properties and rebuilding, with custom build therefore not increasing the housing stock as much as they could¹³⁹.
- 8.83 In response to this, the Budget 2014 outlined the Government's intention to consult on a new 'Right to Build', giving custom builders a right to a plot from local authorities, with a £150 million repayable fund made available to help provide up to 10,000 serviced plots for custom build¹⁴⁰.
- 8.84 In September 2014, West Lindsey was announced as one of eleven local authorities that have been selected to become a Right to Build Vanguard. The Council will therefore be a forerunner in the Right to Build programme, with the opportunity to provide evidence and examples of how the Right to Build could work in different circumstances
- 8.85 West Lindsey could therefore see an increase in the contribution of self-build development, linked to this programme. As it is in its infancy, however, it is unclear the extent to which needs can be met through this type of development, and indeed the role of this type of housing in the other authorities in the HMA is also unclear. This should therefore continue to be monitored by the Councils, recognising the absence of specific information or data on the need for self-build and custom-build housing.

Gypsy and Travellers

- 8.86 The accommodation and housing related support needs of Gypsies and Travellers in Central Lincolnshire over the plan period are considered in the Gypsy and Traveller Accommodation Assessment (GTAA), published in November 2013¹⁴¹. Overall, this highlighted that the East Midlands contains relatively few caravans compared to other English regions, with the count in Lincolnshire one of the lowest in the region.
- 8.87 There was a recognised preference for smaller privately owned sites of between four and five pitches, due to the difficulties in managing larger sites. The total requirement for accommodation in Central Lincolnshire over the 20 year period considered is for 72 residential pitches – of which the majority are required in North Kesteven and West Lindsey – with 4 emergency stopping places and 1 Travelling Showpeople yard. It is,

¹³⁷ Based on number of people claiming VAT relief on self-build homes – Parliamentary Answer to Hilary Benn MP, May 2014

¹³⁸ HMGovernment (2011) Laying the Foundations: a housing strategy for England

¹³⁹ <http://www.self-build.co.uk/blog/more-plots-required-self-building>

¹⁴⁰ HMGovernment (2014) Budget

¹⁴¹ RRR Consultancy Ltd (2013) Central Lincolnshire Gypsy and Traveller Accommodation Assessment 2013

however, noted that need does not have to be met where it arises, and it could be met elsewhere in Central Lincolnshire.

Bringing the Evidence Together

- 8.88 National guidance highlights the importance of considering the specific housing requirements of different groups, as set out throughout this section. This requires careful consideration when developing housing strategies and policies, and should continue to be monitored by the Councils where appropriate.
- 8.89 The PPG recognises that the need to provide housing for older people is critical, with plan makers required to consider the type of dwellings needed to enable independent living for as long as possible, or provide the opportunity to move into suitable accommodation if required. Central Lincolnshire has seen significant growth in older persons between 2001 and 2012, particularly in North Kesteven and West Lindsey, although it is notable that a clear majority of residents aged 65 and over continue to live in private households, rather than communal establishments. Where older persons do live in communal establishments, these are mainly care homes, either with or without nursing.
- 8.90 In line with the PPG, it is important to consider the level of need for residential institutions within Use Class C2. The modelling undertaken by Edge Analytics projects a considerable increase in the older population under all scenarios, although – when converted to households, and subsequently dwellings – the communal population is removed, given that they do not live in private households and therefore do not require dwellings. Edge Analytics adopt an approach which is consistent with DCLG, meaning that modelled growth in the communal population in Central Lincolnshire is entirely attributable to older age groups aged 75 and over. All scenarios show a considerable growth in the communal population, which is likely to suggest an increased need for bedspaces in communal establishments over the plan period.
- 8.91 It is also important to consider the needs of students, particularly given the sizeable student population in Lincoln linked to the city's two Universities. Official statistics suggest that the number of students has varied at the University of Lincoln, although it is noted following engagement that this is not necessarily reflective of the number of students requiring accommodation, which has generally remained relatively fixed. Bishop Grosseteste has, though, seen significant growth, more than doubling the student population between 2000 and 2008. This reflects the University's ambition to continue to grow the student base. .
- 8.92 There is a significant supply of student bedspaces in Lincoln, with potential to grow this supply should planned developments come forward. There is, however, a requirement for around 10,000 students to live in other forms of accommodation, either living with parents, on their own or in HMOs. Around 15% of all properties in Lincoln are student exemptions, with particular concentrations in popular areas such as the West End, Monks Road and Lower High Street.
- 8.93 Based on a review of future growth strategies, there is a clear ambition from the area's Universities to grow the number of students in Central Lincolnshire. Given this variable level of growth over the past decade, the population growth implied by the 2012 SNPP

is unlikely to reflect any assumption around higher student numbers. The longer-term past growth demographic projections presented in section 6 include periods of growth in student numbers and are on this basis more likely to factor these elements in to a greater extent, although they would be unlikely to represent a significant growth in numbers. The extent to which the Universities achieve aspired levels of growth in student numbers above recent historic levels will need to be carefully monitored.,

- 8.94 It is notable that no additional accommodation is currently planned to be delivered by the Universities to support this growth in numbers. An increase in the number of students – without a supply response – would be likely to increase demand for HMOs in Lincoln, while an increase in supply without an increase in student population would likely reduce demand for HMOs. It is understood that the Council is currently undertaking further work regarding the number of HMOs in the city, linked to the proposed expansion of the Article 4 Directive on HMOs.
- 8.95 There is also a recognised need to ensuring that people with disabilities can have their needs met, with the Census showing that the majority of those whose day-to-day activities are limited a lot by their long-term health problem or disability do not live in communal establishments, suggesting that they live at home or with relatives, friends or carers. This suggests an on-going need to ensure that there is a sufficient supply of adapted homes, with applications historically made regarding the Disabled Facilities Grant to improve access or adapt bathrooms.
- 8.96 Central Lincolnshire contains a relatively high proportion of White British residents, with most other ethnic groups proportionally under-represented. There is, however, variation between the City of Lincoln – where there is a notably high proportion of White Other residents – and the districts of North Kesteven and West Lindsey. It is, though, notable that residents in other ethnic groups – particularly mixed ethnic groups – are largely characterised by a younger demographic compared to White British, with a greater reliance upon the private rented sector to access housing. Overcrowding is also more frequent in ethnic groups other than White British. This variation in housing preferences and characteristics will require a range of housing types, sizes and tenures to be planned for to meet the needs of all ethnic groups in Central Lincolnshire.
- 8.97 Lincolnshire has a long-standing association with the military, and particularly the Royal Air Force, with several bases located in Central Lincolnshire. The number of stationed personnel in the area has remained relatively steady historically, with some personnel living on site but others living in the local community. In Lincolnshire, it was noted through engagement that there are often clusters of military personnel in local villages, given the area's strong association with the military. Future accommodation requirements could be influenced by potential future expansion, however, and this should continue to be monitored by the Councils given that it is not possible at the time of writing to determine how the military population is likely to change over the plan period. Therefore, any growth in the military population has not been factored in to the modelling undertaken by Edge Analytics.
- 8.98 It will also be important for the Council to monitor the potential for self-build homes to meet specific needs, particularly recognising the increased Government focus on this type of development and the deficiency of reliable data on the need for such forms of

housing. The needs of Gypsies and Travellers will also need to be considered, as set out within the separate Gypsy and Traveller Accommodation Assessment.

9. Study Conclusions and the Objective Assessment of Need

- 9.1 This section seeks to draw together the evidence presented within this report in order to objectively assess the need for housing in Central Lincolnshire over the plan period from 2012 to 2036. This includes a full and objective assessment of housing needs for market and affordable housing.
- 9.2 The approach adopted aligns with guidance in the NPPF and PPG, which require Local Plans to meet full needs for market and affordable housing based on a demographic starting point that may require adjustment to take account of local circumstances and more up-to-date demographic evidence. The PPG also suggests that alignment with other factors – such as likely jobs growth and market signals – is important to consider, potentially justifying an adjustment to demographic-based assessments of need.
- 9.3 This section also provides a clear indication as to the size of property required and the specific requirements of a number of identified groups summarising the analysis within the SHMA.

Housing Market Area

- 9.4 The PPG highlights the importance of considering housing needs across housing market area geographies, recognising that this often extends beyond local authority boundaries. Section 2 of this report includes analysis of a range of spatial indicators – as per the PPG – to determine the extent to which Lincoln, North Kesteven and West Lindsey can be considered as a single housing market area.
- 9.5 The analysis clearly highlights the strong relationship between the three authorities, with a high proportion of moves self-contained within this area, common house price characteristics – and limited overlap with prices in neighbouring areas – and a strong containment of labour, with Lincoln playing a significant role as an employment centre. This is recognised within the Economic Needs Assessment, which considers the three authorities to comprise a functional economic market area (FEMA).
- 9.6 The evidence therefore suggests that Lincoln, North Kesteven and West Lindsey function as a single housing market area. This supports the long-standing identification of a Lincoln-centred housing market area, which extends to West Lindsey and North Kesteven. The remainder of this section therefore objectively assesses the need for housing across the Central Lincolnshire housing market area. It will, however, be important for the Councils to maintain discussions through the Duty to Co-operate to ensure that housing needs are met in full at a strategic level, particularly where there are identified relationships with neighbouring authorities.

Objectively Assessed Need – PPG Methodology

- 9.7 As set out in section 1 of the SHMA, the objective assessment of need should follow a recognised stepped methodology, in compliance with the NPPF and PPG. The PPG identifies the latest up-to-date household projections, the recently published 2012

SNHP, as the 'starting point' for the estimate of overall housing need. The level of projected housing need suggested by these projections following the PPG methodology should however be adjusted to reflect:

- local demographic factors and evidence recognising that the household projections may require adjustment to reflect factors affecting local demography and household formation;
- the need to take into account appropriate market signals, including market indicators of the balance between the demand for and supply of dwellings; and
- the need to support economic growth based upon an assessment of likely future job growth.

9.8 Drawing upon the analysis presented in the preceding sections in the SHMA, this methodological stepped process is applied to derive an evidenced position as to the likely OAN for Central Lincolnshire.

The Demographic 'Starting Point'

9.9 Described as the starting point for assessing housing need in the PPG, the DCLG published household projections provide a demographic position of how the population – and the number of households – could change if recent trends continue:

*"The household projections are trend based, ie they provide the household levels and structures that would result if the assumptions based on previous demographic trends in the population and rates of household formation were to be realised in practice. They do not attempt to predict the impact that future government policies, changing economic circumstances or other factors might have on demographic behaviour"*¹⁴²

9.10 The modelling in section 6 confirms that the 2012 SNHP implies a projected need to provide approximately **970 dwellings per annum** in order to accommodate the projected level of population and household growth in the DCLG dataset.

9.11 Recognising the trend-based nature of these projections, however, it is important to understand whether the latest dataset has been influenced or unduly constrained by historic market circumstances. The PPG states:

*"The household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends. For example, formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under delivery of housing. As household projections do not reflect unmet housing need, local planning authorities should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply."*¹⁴³

¹⁴² http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

¹⁴³ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_015

- 9.12 Historic under delivery of housing and the recent drop in housing completions associated with the recessionary period can impact not only on household formation rates but also the movement of people. As the analysis in the SHMA has identified, the 2012 SNPP makes assumptions on migration flows between local authorities – the internal migration component – based on flow rates in the period between 2007 and 2012. This period was defined by the severe national recession that occurred. This has had an impact on net migration flows for many parts of the country over this period, subsequently affecting the scale of projected population change modelled within the population projections.
- 9.13 The analysis in section 6 has highlighted that the 2012 SNPP projections of population change, and in particular the migration component, represent a notable departure from historic trends¹⁴⁴, even recognising the implications of the recent market context. The projections imply a significantly lower projection of growth than that implied by shorter and longer term extrapolations of historic trends¹⁴⁵. The analysis has identified that an important contributing factor to this lower projection of population growth is an assumption around increased outflows of people to other parts of the UK within the ONS projection beyond that seen over those years following the recession. Based on the analysis of historic population change in this report, this suggests a departure from historic trends, and therefore on the basis of the local evidence around historic population growth – and the analysis of market signals – a number of alternative demographic trend-based projections have been modelled by Edge Analytics.
- 9.14 In relation to the underpinning population change this includes a 10 year past growth scenario, which extrapolates forward future projected growth on the basis of the longer term ten year period back to 2002, therefore encompassing pre and post-recession conditions. In addition recognising the under-count in population in Central Lincolnshire by the ONS between the Census years the modelling has also taken into account a modest uplift associated with the UPC component in the historic MYE datasets. Application of the 2012 household formation rates to this variant population projection and consistent vacancy rates suggests an increased demographically derived housing need of approximately 1,400 dwellings per annum on average. This reflects a higher level of assumed population growth and migration but it is noted does not suggest a sustained return to the longer-term absolute levels of net migration growth seen in the early years of the last decade¹⁴⁶.
- 9.15 This level of implied need is considered to represent a more appropriate projection of future need associated with demographic need than that represented through the 2012 SNPP taking into account the analysis of local historic demographic data and an appreciation of local market factors in the recent past.

Taking Account of Market Signals

- 9.16 As identified previously, historic completions levels can potentially impact upon both population growth and household formation rates.

¹⁴⁴ This is shown in Figure 6.2

¹⁴⁵ As shown in Figure 6.3

¹⁴⁶ Figure 6.9 identifies that this scenario assumes an average per annum net migration of 2,086 persons per annum. This average figure is higher than that seen in the last ONS MYE dataset available when the analysis was undertaken which showed a net migration of approximately 1,800 (2013 MYE).

- 9.17 The analysis in section 6 has considered the implications of applying a range of different headship rate assumptions to the demographic projections of need. The analysis confirmed that the 2012 SNHP household formation rates represent an assumed continuation of falling household size which is more pronounced than projected under the previous 2011 SNHP Interim dataset but less so than the 2008 SNHP. The PPG requires that adjustments should be made to household formation rates where there is evidence that rates reflect the impact of constrained supply – and therefore the creation of unmet need.
- 9.18 The PPG contains guidance on responding to market signals:
- “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”¹⁴⁷*
- 9.19 Further guidance is included regarding the scale of upward adjustment recommended:
- “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 (eg the differential between land prices), the larger the improvement in affordability needed and, therefore, the larger the additional supply response should be”¹⁴⁸*
- 9.20 Market signals have been analysed in detail within section 5 of the SHMA, which includes a review of key indicators suggested in the PPG and an overview matrix to compare the Central Lincolnshire authorities to their neighbours and the national profile.
- 9.21 It is apparent that there is some evidence of a slight worsening of conditions against a number of market signals (although not all). It is concluded that this justifies consideration of only a modest uplift above that implied by household projections alone.
- 9.22 It is important to reflect, in the context of any further adjustment, the uplift already applied in relation to projected population growth, taking into account at least in part the implication of past undersupply which will have contributed to the creation of ‘unmet need’¹⁴⁹.
- 9.23 The modelling in section 6 of the SHMA recognised that younger age groups have seen household formation rates fall between the Census years in Central Lincolnshire. A sensitivity test was run by Edge Analytics on household formation rates to assess the impact of a return or recovery to rates seen in 2001 for those identified age groups. This

¹⁴⁷ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_020

¹⁴⁸ *Ibid*

¹⁴⁹ It is important to note that the adjusted demographic projection, which results in a need for 1,400 dpa represents a 42% uplift against the 2012 SNHP, or an additional 400 dwellings per annum. This more than accommodates any historic past under delivery of housing against planned targets which has been identified through the review of market signals as representing approximately 150 per annum if taken over the whole projected plan period

is considered to be a period in which house prices and affordability were more in line with longer term national trends.

- 9.24 The modelling suggested that this results in a further uplift to the implied housing need. This translates into a suggested longer-term demographic need for **1,432 dwellings per annum**. The adjustment to headship rates in response to the analysis of market signals represents an uplift of 3% from the adjusted demographic projection using the 2012 SNHP headship rates. This level of uplift is considered, combined with the uplift associated with population growth, to form a reasonable basis for understanding the scale of need implied by demographic factors and taking into account the evidence presented in relation to market signals.
- 9.25 The implied levels of need under the demographic scenario represent only a modest boost to past supply with long-term delivery rates of 1,400 per annum achieved in Central Lincolnshire between 1996/97 and 2013/14.

Taking Account of Likely Change in Job Numbers and Growth of the Labour Force

- 9.26 The NPPF expects local authorities to ensure an alignment between housing and employment policy. The PPG states that this should be considered when establishing an OAN by ensuring that the growth in labour force required to support likely job growth can be accommodated through the growth of the population and associated housing needs:

“Plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area”¹⁵⁰

- 9.27 The PPG recognises the potential implications of imbalance between labour force growth and job growth:

“Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems”¹⁵¹

- 9.28 The Central Lincolnshire authorities commissioned the Central Lincolnshire Economic Needs Assessment¹⁵² (ENA) which has been undertaken in parallel with the SHMA.
- 9.29 The ENA has included a detailed consideration of three sets of economic forecasts from leading forecasting houses, in order to make direct comparisons between the scale and distribution of forecast growth and decline in different business sectors across the area. These forecasts have formed the basis of an assessment of the level of employment growth that in Central Lincolnshire over the next 20+ years.

¹⁵⁰ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

¹⁵¹ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_018

¹⁵² Turley/Ekosgen (2015) Central Lincolnshire Economic Needs Assessment

- 9.30 Section 6 has included modelling of the scale of labour-force growth and implied housing need associated with a number of the economic forecasts considered within the ENA.
- 9.31 The ENA recommends the Oxford Economics forecast as an appropriate baseline level of likely forecast employment growth. The ENA recognises the limitations associated with forecasting long-term employment growth and the level of uncertainty which is highlighted by differences in the baseline economic forecasts that have been considered. On this basis the ENA also presents two variant forecasts, both of which forecast higher levels of job growth than the Oxford Economics baseline forecast, following a detailed consideration of trends over the most recent historic growth period – between 1998 and 2008 – as well as more recent economic trends and local intelligence gathered through consultation with key employers and local partners.
- 9.32 The Oxford Economics baseline forecast and the two variant adjusted economic scenarios have therefore been used within the SHMA to consider whether there is an implied need to consider an uplift to the demographic trend-based scenario, in accordance with the PPG, to support anticipated employment growth.
- 9.33 It is evident from the modelling presented within section 6 that an uplift to the projected growth in Central Lincolnshire population – from that assumed within the demographic projection – is reasonable to support such forecast levels of job growth.
- 9.34 Under the baseline forecast scenario, the modelling indicates that around **1,540 dwellings per annum**¹⁵³ would enable a larger growth of the labour force in the area to match the anticipated scale of job growth across Central Lincolnshire. This recognises the ageing of the current workforce and suggests a slightly higher level of migration into the area than implied under the demographic trend-based projections.
- 9.35 The modelling indicates that in order to support and realise the higher levels of job growth implied by the adjusted economic scenarios presented within the ENA, a higher level of labour-force growth would be required. This in turn implies a higher level of net migration per annum and therefore population growth. In order to support the economic prospects represented by the two adjusted ENA scenarios (Lower and Higher Growth rates), there is potentially a need to provide for between **1,681 and 1,780 dwellings per annum**.
- 9.36 The assessed level of need under the employment-led scenarios evidently represents an upward adjustment from the demographic based projection of need, representing an increase of between approximately 7.5% and 24%.
- 9.37 The implied levels of need under the employment-led scenarios would represent a higher level of provision than average long-term delivery rates and a significant boost to housing supply in accordance with the NPPF.
- 9.38 Importantly, however, whilst representing a notable uplift against long term delivery rates the analysis in section 6 highlights that the implied associated population growth and migration associated with this level of need does not represent a significant uplift on

¹⁵³ This also includes an uplift to allow for an adjustment to household formation rates for younger age groups, as set out in Figure 6.22

absolute levels of migration and growth seen in the area since 2001. Indeed supporting this level of need suggests a recovery to levels of growth seen prior to the recession by the end of the plan period. On this basis this is considered to represent a reasonable basis upon which to consider potential need in the context of historic levels of growth of both jobs and population.

- 9.39 It is apparent from both the ENA and the evidence within section 6 that the potential alignment between job growth and housing need is complex and underpinned by a number of uncertainties regarding future job prospects and labour-force assumptions.
- 9.40 In the context of the assessment of implied housing need the future scale of job growth will need to be carefully monitored. The balancing of employment and housing also needs to be considered through the Duty to Co-operate with surrounding authorities where growth in employment is also projected.

Conclusions on Overall Housing Need

- 9.41 The analysis in the SHMA has confirmed that whilst the 2012 SNHP form the starting point for assessing housing need they are not considered to represent the full assessment of need for housing across Central Lincolnshire over the plan period.
- 9.42 It is apparent that the ONS published 2012 Sub National Population Projections (SNPP), which are an important factor in the projected level of need assume a level of future population growth which is lower than that seen over a recent historical period. In particular it is apparent that the projections imply a sustained level of net migration into Central Lincolnshire which falls below both recent and longer-term historical levels. An assumed high sustained level of out-migrants to other parts of the UK within the dataset sits in contrast to historic evidence and the wider understanding of the operation of the housing market. The reduction in the levels of housing completed in the HMA following the onset of the recession as well as the reduction in employment opportunities are both likely to have contributed to changing levels of population growth by impacting on the rate at which people have migrated in and out of the area and the capacity of households to form.
- 9.43 Analysis of local historic demographic data and the running of alternative demographic projections using longer historic periods to build trends – and a recognition of the implications of under-estimation of population growth between the Census years (unattributable population change component) – have been used to derive a more robust demographic assessment of housing need.
- 9.44 A detailed review of market signals evidence also suggests that the extent to which households are assumed to be able to form (household formation rates) reflects a partially constrained position in the DCLG published 2012 SNHP. The application of adjustments to household formation rates is therefore considered appropriate to reflect a return to more positive rates of formation for younger household groups. This recognises the justification for a moderate uplift associated with the other market signals analysis.
- 9.45 The SHMA identifies a demographic derived need for **1,432 dwellings per annum**. This assessed level of need factors in a 3% uplift associated with the adjustments to

household formation rates to reflect the evidenced assessment of market signals. The use of a longer-term period from which to derive projections of need also ensures that the impact of historic undersupply is reflected in an assumed higher level of future migration within the projections reflecting both pre and post-recession periods. This represents an uplift of approximately 47% above the assessment of need derived directly from the 2012 SNHP, with this uplift largely a result of more positive assumptions around levels of population growth and migration levels.

- 9.46 The modelling undertaken by Edge Analytics suggests that the above recommended demographic scenario will support approximately 460 jobs per annum¹⁵⁴. Analysis presented within the ENA, however, suggests that Central Lincolnshire has the potential to see a stronger level of job growth, with the level of job growth attributed to the adjusted demographic scenario falling slightly below recent historic averages¹⁵⁵. The modelling undertaken by Edge Analytics, which includes the adoption of a series of prudent economic assumptions, implies that a further uplift in population growth and therefore housing need will be required to support the implied stronger baseline level of job growth (approximately 630 jobs per annum¹⁵⁶). The modelling suggests a need for a minimum of **1,540 dwellings per annum** to support this baseline level of job growth identified within the ENA.
- 9.47 The ENA identifies that local analysis suggests that there exists a potential stronger level of job growth beyond the recommended baseline forecast in Central Lincolnshire. The Adjusted scenarios within the ENA suggest the potential to realise between approximately 820 and 940 jobs per annum (Lower and Higher Adjusted scenarios respectively) to 2036. These levels of job growth are more closely aligned to that seen in the ten years preceding the recession in 2008. The Edge Analytics modelling suggests that supporting these stronger levels of job growth would generate a need for up to **1,780 dwellings per annum**. It is noted that the modelling underpinning this assessment is subject to sensitivities in the economic assumptions used and, more generally, the performance of the local economy will need to be monitored in the future.
- 9.48 Application of the PPG methodology therefore suggests that **the OAN for the Central Lincolnshire HMA falls within a range of 1,432 dwellings per annum to 1,780 dwellings per annum** over the period 2012 – 2036.
- 9.49 This range of implied need should be considered as the OAN for the HMA where there are no identified development constraints. The bottom end of this range takes full account of adjustments for local evidenced longer-term demographic projections and an adjustment to household formation rates for younger households to respond to market signals. This level of need represents only a modest boosting of long-term housing supply levels. The implied level of population growth at the lower end of the range will support the growth of the economy, albeit at a level which falls slightly below the scale of job growth seen on average pre and post-recession.

¹⁵⁴ The exact figures are included at Figure 6.21

¹⁵⁵ The ENA identifies that between 1998 and 2008 Central Lincolnshire saw an average growth of 870 jobs per annum (ABI). However, between 2009 and 2012 the area saw a fall in 1,540 jobs on average per annum (BRES). Whilst the sources of data are different across the two periods this suggests an average job growth of approximately 500.

¹⁵⁶ Extrapolated job growth forecasts are presented in Figure 4.26

- 9.50 In order to support higher levels of job growth, responding to the assessment of potential likely change in numbers concluded within the ENA, a larger growth in the labour-force is likely to be required, which in turn results in a higher need for housing. Responding to the assessment of likely job growth in the ENA suggests an uplift to the range to provide for between **1,540 and 1,780 dwellings per annum** over the period 2012 – 2036. The implied higher level of provision would also represent a more significant boost to housing numbers representing a return to development levels seen briefly prior to the recession and a return to the stronger profile of net migration into the HMA in this period.

Taking Forward the OAN into Policy Development

- 9.51 The assessment of need, as established within the analysis set out in section 8, does not include those elements of the population classified as living in communal accommodation (i.e. not forming part of the defined private household population) with these needs considered as additional. The modelling also does not seek to directly take into account any resulting uplift in needs associated with MoD plans, which have the potential to result in directly associated needs linked to increased personnel numbers. As set out in section 8, this will need to be carefully monitored during implementation of the Local Plan. Conclusions around the needs of specific groups are included at the end of this section.
- 9.52 It is important to recognise that the above OAN is based upon a detailed consideration of the need and demand for housing. It does not, however, seek to apply any planning or policy judgements as to the implications for the Local Plan housing requirement. The analysis within this report, as set out in the methodology in section 1, represents a first stage for consideration by the Central Lincolnshire authorities to derive a housing requirement which takes account of all the relevant factors through the Local Plan process.
- 9.53 It will be important that the analysis presented within this report and drawn upon within this chapter continues to be monitored and updated to reflect the latest datasets available. This may have a bearing on the resultant assessed level of need which will need to be considered in the establishing of policy.

Considering Affordable Housing Need

- 9.54 In relation to the calculated affordable housing need within the SHMA the PPG states:

“The total affordable housing need should then be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.”¹⁵⁷

- 9.55 It is considered that the application of any uplift associated with delivering affordable housing should be considered separate to the implications of market signals with these elements kept separate within the PPG and by implication separate from the OAN. As

¹⁵⁷ http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/methodology-assessing-housing-need/#paragraph_029

set out in the PPG the assertion is that any adjustment should be applied to the housing requirement in the Local Plan as opposed to the OAN in this context.

- 9.56 Section 7 of the SHMA included a calculation of affordable housing need across Central Lincolnshire following the PPG methodology. The output of this modelling is considered below. Whilst this considers the extent to which this level of need could be met through the overall projection of household growth it is important to recognise that the different methodological approaches applied means that caution should be given to directly comparing the two outputs. In particular it is important to recognise that the calculation of affordable housing need includes households for whom if their need was met through the provision of affordable housing would 'free up' a property for another household to occupy.
- 9.57 The comparison of the level of housing required to assist in delivering the scale of identified affordable housing need does, however, provide an important further indicator as to the justification for uplifting assessment of need beyond the demographic starting point.
- 9.58 The modelling in section 7 identified a need to provide around 676 affordable units per annum to meet newly arising need in the future, which will require an uplift – to 911 units per annum – over the short-term (5 years 2014 – 2019) to meet the existing backlog of households on the housing register. This relates to property of all sizes, with a particular need for affordable homes with one and two bedrooms.
- 9.59 The calculated need for 911 affordable units per annum, as noted above, seeks to address the entire backlog over just five years. Whilst this would evidently require a significant increase in the provision of affordable stock over this period, if achieved, the removal of the backlog would mean that affordable housing need would be limited to meeting only newly arising needs for the remainder of the plan period.
- 9.60 Taking these figures together, this would suggest a need for 17,400 affordable homes over the 24 year period from 2012 to 2036, equivalent to approximately 725 affordable dwellings annually. This is calculated based upon provision of 911 affordable units per annum for five years, and the subsequent provision of 676 affordable units over the remaining 21 years.
- 9.61 The provision of this level of affordable housing would represent 51% of the implied need under the Past Growth Scenario. The higher levels of provision implied by the various ENA aligned employment-led scenarios would potentially reduce the proportion of housing represented by affordable housing to between 40% and 47%. These would evidently represent challenging levels of provision across Central Lincolnshire on the basis of historic rates of development.
- 9.62 In the context of the above figures it is important to recognise, as set out in section 7, that the assessed need for affordable housing should not be directly compared in this manner given that it includes steps in the calculation in which the provision of affordable housing would directly result in existing housing being freed up for other households.
- 9.63 In addition, in reality, the varying importance of different drivers – such as the relationship between house prices and incomes – over this period will fundamentally

impact on the overall need for affordable housing, and this should therefore continue to be monitored by the Councils. It is also important to recognise that many of those classified as in need of housing and whose needs would be met by the provision of affordable housing are already occupying housing within Central Lincolnshire. As set out in section 7 assuming these needs are met in another property this would result in the return of a property to the wider housing market.

- 9.64 The consideration of the need to deliver an uplift in affordable housing does, however, add further weight to the importance of planning for an uplifted level of provision above that suggested by the 'starting point' household projections. It is considered that the scale of uplift implied by the adjustments to reflect historic levels of growth and market signals and the alignment of likely job growth and housing provision – some 47% to 83% above the 2012 SNHP – represents a sufficient uplift with higher levels of implied need leading to a potential over-provision of market housing beyond that implied as needed to support economic and demographic factors. No further uplift to the OAN is therefore considered as necessary in the context of the affordable housing need evidence. The extent to which affordable housing needs can be met should, however, form an important consideration in the establishment of housing requirement policies within the emerging Joint Local Plan.

Housing Need by Size

- 9.65 The analysis in section 3 provides a profile of the existing housing stock, showing prevalent trends regarding housing tenure, type, condition and size. The latter is particularly important to consider in the context of the implied housing need identified above recognising that this has already considered demand by different tenures.
- 9.66 It is clear that Central Lincolnshire is generally characterised by larger housing stock, with around two thirds of household spaces containing at least three bedrooms. This is particularly pronounced in West Lindsey and North Kesteven, with Lincoln containing a greater concentration of smaller stock. This could be driven by the significant growth in flats over the decade to 2011 – which typically contain fewer bedrooms – although the city does also have higher amounts of terraced housing.
- 9.67 The analysis of housing need by size suggests that there is a need for property of all sizes in Central Lincolnshire under both the demographic and employment-led scenarios. The greatest requirement under all of the scenarios, however, is for property of between 50 and 89 sqm, which generally relates to 2 or 3 bedroom flats, mews or semi-detached homes. In the context of the HMA as a whole having a comparatively high representation of detached properties this suggests the need for new stock to contribute positively to the overall balance through the provision of smaller family sized housing. This, however, will need to be balanced against the provision of all types and sizes of housing.

Specific Housing Requirements of Selected Groups

- 9.68 Section 8 of this report has also considered the specific needs of different groups, as required by national guidance. The report has specifically focused on the needs of

several groups, noting that the NPPF does not require every group to be assessed in detail:

- **Older persons** – Central Lincolnshire has seen significant growth in older persons, which is expected to continue under all of the scenarios modelled by Edge Analytics. It is notable, however, that a clear majority of residents aged 65 and over continue to live in private households, rather than communal establishments such as care homes, although the PPG does require specific consideration to be given to the level of need for residential institutions within Use Class C2. All modelled scenarios project growth in the communal population, which – in line with national datasets – is entirely attributable to people aged 75 and over. The modelling therefore includes an additional need for bedspaces within communal establishments to accommodate those persons who do not live in private households;
- **Students** – there is a significant student population in Lincoln, driven by the presence of the University of Lincoln and Bishop Grosseteste University, although student numbers in the former have not seen significant growth over recent years. The demographic scenarios modelled by Edge Analytics, therefore, are not based on trends during which significant growth in student numbers has occurred. Should the student population grow significantly in the future, this could result in a greater level of population growth in Central Lincolnshire, particularly compared to the demographic migration-led scenarios. This would evidently have implications for the future need for student accommodation within the housing market, although this is also dependent on the planned supply response of Universities;
- **People with disabilities** – the Census shows that the majority of residents in Central Lincolnshire whose day-to-day activities are limited a lot by their long-term health problem or disability do not live in communal establishments, suggesting that they live at home or with relatives, friends or carers. This suggests an on going need to ensure that there is a sufficient supply of adapted homes, through the Disabled Facilities Grant or other initiatives;
- **Black and Minority Ethnic** – Central Lincolnshire contains a relatively high proportion of White British residents, although it is important to note that other ethnic groups – particularly mixed ethnic groups – are largely characterised by a **younger** demographic. Other ethnic groups also have a greater reliance upon the private rented sector, with overcrowding more frequent;
- **Ministry of Defence** – Lincolnshire has a long-standing association with the military, with several RAF bases located in Central Lincolnshire. The number of stationed personnel in the area has remained relatively steady historically, with the military population living either on bases or clustered in local communities. Bases could expand in the future, although it is unclear at the time of writing the impact that this could have on the total military population and the local housing market. Therefore, any growth in the military population has not been factored in to the modelling undertaken by Edge Analytics, and should be considered by the Councils through continuing discussions with the RAF; and

- It will also be important for the Councils to consider the potential for **self-build homes** to meet specific needs, particularly recognising the Government's ambition to increase the contribution of this type of development. The needs of Gypsies and Travellers will also need to be considered, as detailed in the separate Gypsy and Traveller Accommodation Assessment.

Appendix 1: Edge Analytics – Data Inputs, Assumptions and Methodology

Central Lincolnshire

Demographic forecasts

Data inputs, assumptions & methodology

June 2014

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Acknowledgements

Demographic statistics used in this report have been derived from data from the Office for National Statistics licensed under the Open Government Licence v.1.0.

The authors of this report do not accept liability for any costs or consequential loss involved following the use of the data and analysis referred to here, which is entirely the responsibility of the users of the information presented in this report.

1. POPGROUP Methodology

Forecasting Methodology

- 1.1 Demographic forecasts have been developed using the POPGROUP suite of products. POPGROUP is a family of demographic models that enables forecasts to be derived for population, households and the labour force, for areas and social groups. The main POPGROUP model (Figure 1) is a cohort component model, which enables the development of population forecasts based on births, deaths and migration inputs and assumptions.
- 1.2 The Derived Forecast (DF) model (Figure 2) sits alongside the population model, providing a headship rate model for household projections and an economic activity rate model for labour-force projections.
- 1.3 The latest development in the POPGROUP suite of demographic models is POPGROUP v.4, which was released in January 2014. A number of changes have been made to the POPGROUP model to improve its operation and to ensure greater consistency with ONS forecasting methods.
- 1.4 The most significant methodological change relates to the handling of internal migration in the POPGROUP forecasting model. The level of internal in-migration to an area is now calculated as a rate of migration relative to a defined 'reference population' (by default the UK population), rather than as a rate of migration relative to the population of the area itself (as in POPGROUP v3.1). This approach ensures a closer alignment with the 'multi-regional' approach to modelling migration that is used by ONS.
- 1.5 For more detail on the POPGROUP methodology, please refer to the POPGROUP v.4 user manual, which can be found at the POPGROUP website: <http://www.ccsr.ac.uk/popgroup/index.html>

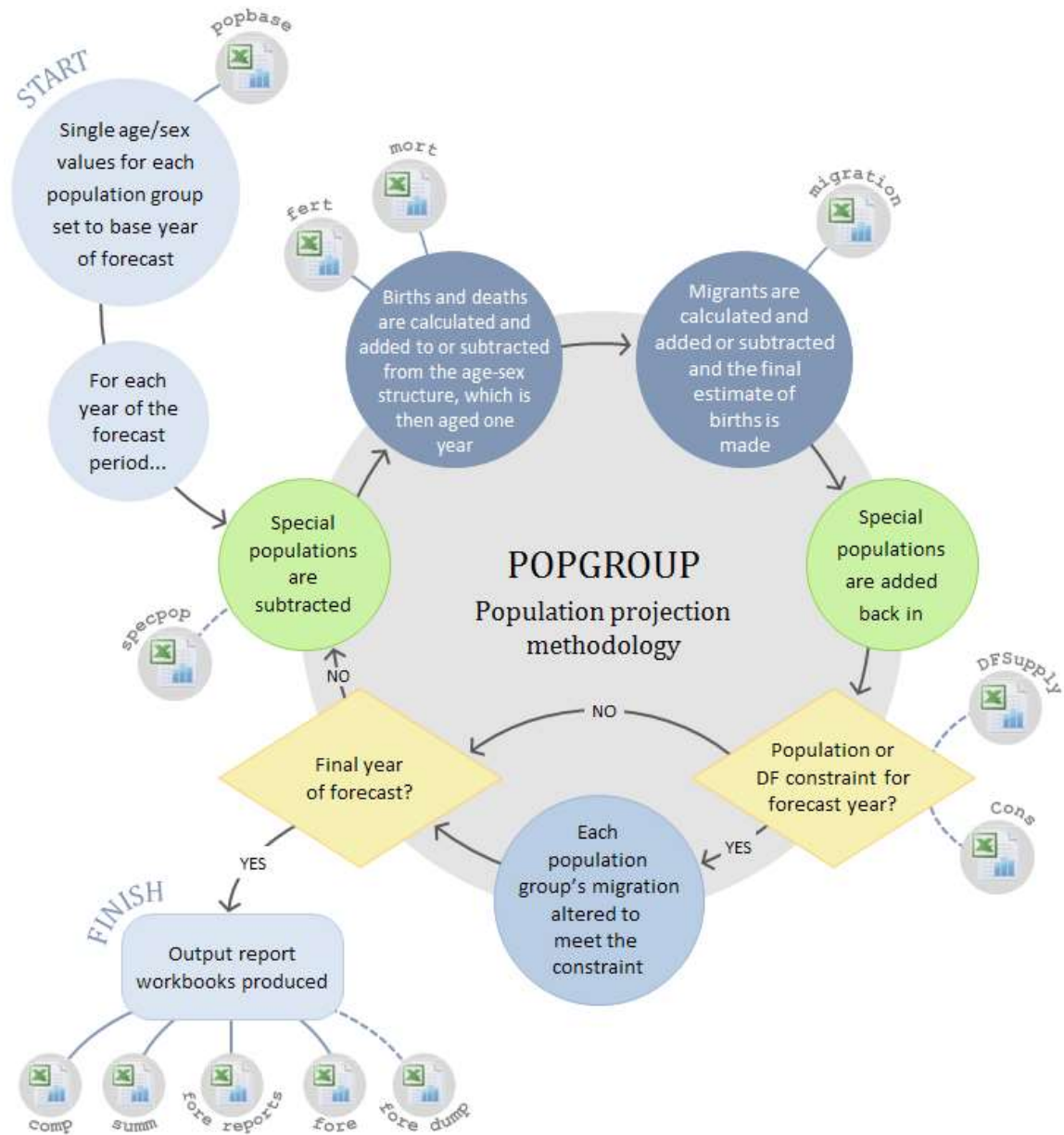


Figure 1: POPGROUP population projection methodology.

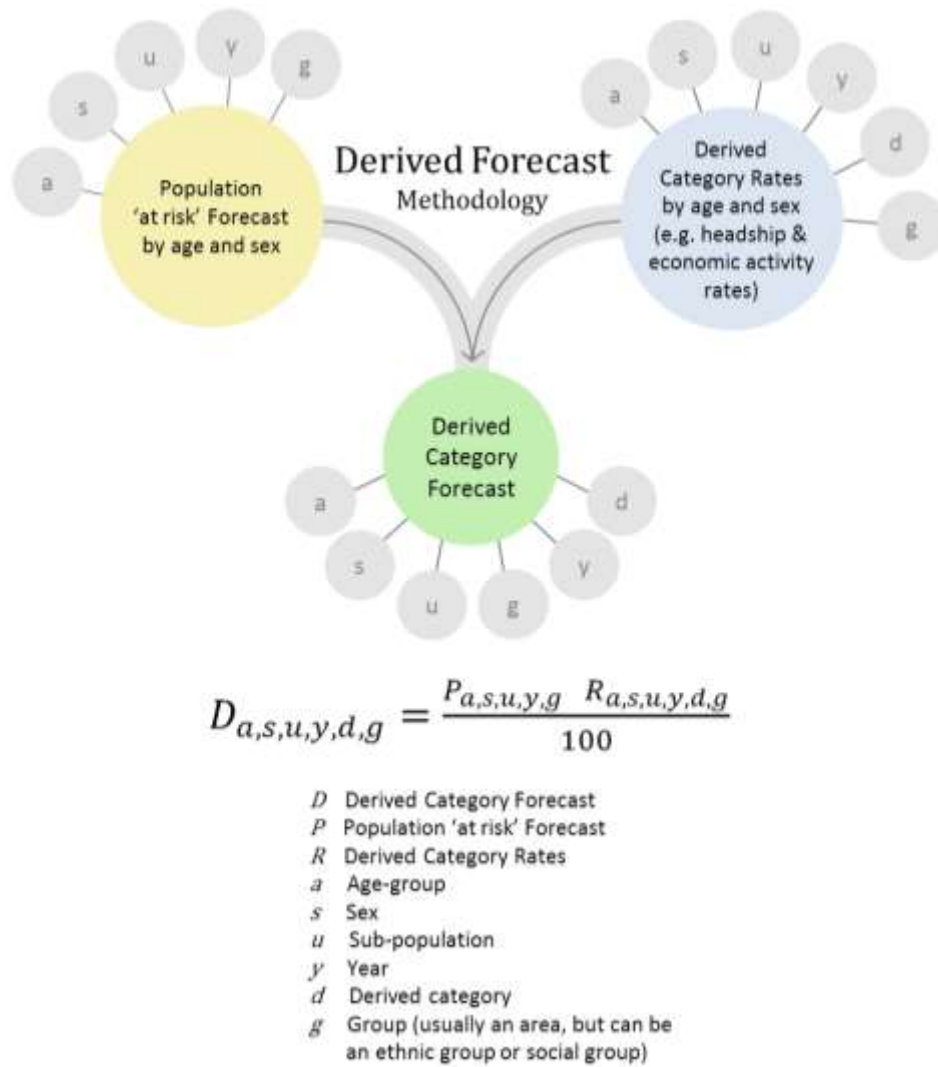


Figure 2: Derived Forecast (DF) methodology

2. Data Inputs & Assumptions

Introduction

- 2.1 Edge Analytics has developed a suite of demographic scenarios using POPGROUP.
- 2.2 The POPGROUP model draws data from a number of sources, building an historical picture of population, households, fertility, mortality and migration on which to base its scenario forecasts. Using the historical data evidence for 2001–2012, in conjunction with information from ONS national projections, a series of assumptions have been derived which drive the scenario forecasts.
- 2.3 In the following sections, a narrative on the data inputs and assumptions underpinning the scenarios is presented.

Population, Births & Deaths

Population

- 2.4 In each scenario, historical population statistics are provided by the mid-year population estimates for 2001–2012, with all data recorded by single-year of age and sex. These data include the revised mid-year population estimates for 2002–2010, which were released by the ONS in May 2013. The revised mid-year population estimates provide consistency in the measurement of the components of change (i.e. births, deaths, internal migration and international migration) between the 2001 and 2011 Censuses.
- 2.5 In the ‘SNPP-2012’ scenario, future population counts are provided by single-year of age and sex to ensure consistency with the trajectory of the official 2012-based sub-national population projection.

Births & Fertility

- 2.6 In each scenario, historical mid-year to mid-year counts of births by sex from 2001/02 to 2011/12 have been sourced from ONS Vital Statistics.
- 2.7 In the 'SNPP-2012' scenario, future counts of births are specified to ensure consistency with the official forecasts.
- 2.8 In the other scenarios, a 'local' (i.e. area-specific) age-specific fertility rate (ASFR) schedule, which measures the expected fertility rates by age and sex in 2013/14, is included in the POPGROUP model assumptions. This is derived from the ONS 2012-based sub-national population projection.
- 2.9 Long-term assumptions on changes in age-specific fertility rates are taken from the ONS 2012-based sub-national population projection.
- 2.10 In combination with the 'population-at-risk' (i.e. all women between the ages of 15–49), the area-specific ASFR and future fertility rate assumptions provide the basis for the calculation of births in each year of the forecast period.

Deaths & Mortality

- 2.11 In each scenario, historical mid-year to mid-year counts of deaths by age and sex from 2001/02 to 2011/12 have been sourced from ONS Vital Statistics.
- 2.12 In the 'SNPP-2012' scenario, future counts of deaths are specified to ensure consistency with the official forecasts.
- 2.13 In the other scenarios, a 'local' (i.e. area-specific) age-specific mortality rate (ASMR) schedule, which measures the expected mortality rates by age and sex in 2013/14 is included the POPGROUP model assumptions. This is derived from the ONS 2012-based sub-national population projection.
- 2.14 Long-term assumptions on changes in age-specific mortality rates are taken from the ONS 2012-based sub-national population projection.
- 2.15 In combination with the 'population-at-risk' (i.e. the total population), the area-specific ASMR and future mortality rate assumptions provide the basis for the calculation of deaths in each year of the forecast period.

Migration

Internal Migration

- 2.16 In all scenarios, historical mid-year to mid-year counts of in- and out-migration by five year age group and sex from 2001/02 to 2011/12 have been sourced from the ‘components of change’ files that underpin the ONS mid-year population estimates. The original source of these internal migration statistics is the Patient Register Data Service (PRDS), which captures the movement of patients as they register with a GP. This data provides an accurate representation of inter-area flows, albeit with some issues with regard to potential under-registration in certain age groups (young males in particular).
- 2.17 In the ‘SNPP-2012’ scenario, future counts of internal migrants are specified, to ensure consistency with the official forecasts.
- 2.18 In the alternative trend-based scenarios, age-specific migration rate (ASMigR) schedules are derived from the area-specific historical migration data. In the ‘10 year Past Growth including UPC’ and ‘10 year Past Growth’ scenarios, a ten year internal migration history is used (2002/03–2011/12).
- 2.19 The jobs-led scenario calculates its own internal migration assumptions to ensure an appropriate balance between the population and the target number of jobs that is defined in each year of the forecast period. A higher level of net internal migration will occur if there is insufficient population and resident labour force to meet the forecast number of jobs. In the jobs-led scenarios, the profile of internal migrants is defined by an ASMigR schedule derived from the ONS 2012-based sub-national population projection.
- 2.20 Rather than the schedule of rates being applied to the area-specific population – as is the case with the other components (i.e. births, deaths and international migration) – in the case of internal in-migration the ASMigR schedule of rates is applied to an external ‘reference’ population (i.e. the population ‘at-risk’ of migrating into the area). The reference population here refers to the East Midlands population.

International Migration

- 2.21 Historical mid-year to mid-year counts of total immigration and emigration from 2001/02 to 2011/12 have been sourced from the 'components of change' files that underpin the ONS mid-year population estimates. Any 'adjustments' made to the mid-year population estimates to account for asylum cases are included in the international migration balance.
- 2.22 Implied within the international migration component of change in all scenarios (apart from the '10 year Past Growth' scenario) is an 'unattributable population change' (UPC) figure, which ONS identified within its latest mid-year estimate revisions. The POPGROUP model has assigned the UPC to international migration as it is the component with the greatest uncertainty associated with its estimation. In the '10 year Past Growth' scenario, the UPC is not considered when calculating the migration assumptions.
- 2.23 In all scenarios, future international migration assumptions are defined as 'counts' of migration.
- 2.24 In the 'SNPP-2012' scenario, the international in- and out-migration counts are drawn directly from the official projections.
- 2.25 In the alternative trend-based scenarios, the international in- and out-migration counts are derived from the area-specific historical migration data. In the '10 year Past Growth including UPC' and '10 year Past Growth' scenarios, a ten year international migration history is used (2002/03–2011/12). An ASMigR schedule of rates is derived from a ten year migration history and is used to distribute future counts by single year of age.
- 2.26 In the jobs-led scenario, international migration counts are taken from the ONS 2012-based sub-national population projection (i.e. counts are consistent with the 'SNPP-2012' scenario). An ASMigR schedule of rates from the ONS 2012-based sub-national population projection is used to distribute future counts by single year of age.

Household & Dwellings

- 2.27 The 2011 Census defines a household as:

“one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area.”¹

- 2.28 A dwelling is defined as a unit of accommodation which may comprise one or more household spaces (a household space is the accommodation used or available for use by an individual household).
- 2.29 For each scenario, the household and dwelling implications of the population growth trajectory have been evaluated through the application of headship rate statistics, communal population statistics and a dwelling vacancy rate. These data assumptions have been sourced from the 2001 and 2011 Censuses and the 2008-based and 2011-based household projection models from the DCLG.

Household Headship Rates

- 2.30 Household headship rates define the likelihood of a particular household type being formed in a particular year, given the age-sex profile of the population in that year. Household-types are modelled within a 17-fold classification (Table 1).

¹ <http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-user-guide/glossary/index.html>

Table 1: Household type classification

ONS Code	DF Label	Household Type
OPM	OPMAL	One person households: Male
OPF	OPFEM	One person households: Female
OCZZP	FAMC0	One family and no others: Couple: No dependent children
OC1P	FAMC1	One family and no others: Couple: 1 dependent child
OC2P	FAMC2	One family and no others: Couple: 2 dependent children
OC3P	FAMC3	One family and no others: Couple: 3+ dependent children
OL1P	FAML1	One family and no others: Lone parent: 1 dependent child
OL2P	FAML2	One family and no others: Lone parent: 2 dependent children
OL3P	FAML3	One family and no others: Lone parent: 3+ dependent children
MCZDP	MIX C0	A couple and one or more other adults: No dependent children
MC1P	MIX C1	A couple and one or more other adults: 1 dependent child
MC2P	MIX C2	A couple and one or more other adults: 2 dependent children
MC3P	MIX C3	A couple and one or more other adults: 3+ dependent children
ML1P	MIX L1	A lone parent and one or more other adults: 1 dependent child
ML2P	MIX L2	A lone parent and one or more other adults: 2 dependent children
ML3P	MIX L3	A lone parent and one or more other adults: 3+ dependent children
OTAP	OTHHH	Other households
TOT	TOTHH	Total

2.31 The household headship rates used in the POPGROUP modelling have been taken from the DCLG 2008-based and 2011-based household projections. The 2011-based household projections were released for local authority districts in England in April 2013, superseding the 2008-based model. However, as the 2011-based household model is underpinned by the 2011-based SNPP, the headship rate assumptions have only been published for the 2011–2021 period. Therefore, the headship rates have been trended after 2021 to extend the rates to the end of the forecast period.

2.32 Edge Analytics assesses household growth using both the 2008-based and the 2011-based headship rates, in recognition of the uncertainties surrounding future rates of household formation.

2.33 Both the 2008-based and 2011-based headship rates have been applied, producing two alternative outcomes for each scenario:

- ‘Option A’: DCLG 2011-based headship rates, with the 2011–2021 trend continued after 2021.
- ‘Option B’: DCLG 2008-based headship rates, scaled to be consistent with the 2011 DCLG household total, but following the original trend thereafter.

Communal Population

2.34 Household projections in POPGROUP exclude the ‘population-not-in-households’ (i.e. the communal or institutional population). This data has been drawn from the DCLG 2011-based household projection, which uses statistics from the 2011 Census. Examples of communal establishments include prisons, residential care homes and student halls of residence.

Vacancy Rate

2.35 The relationship between households and dwellings is modelled using a ‘vacancy rate’, sourced from the 2011 Census.

2.36 Vacancy rates of 6.4% (for Lincoln), 3.3% (for North Kesteven) and 4.5% (for West Lindsey) have been applied, fixed throughout the forecast period.

2.37 Using these vacancy rates, the ‘dwelling requirement’ of each household growth trajectory (‘Option A’ and ‘Option B’, see paragraph 2.33) has been calculated. This is then averaged to provide a dwelling requirement for each scenario.

Labour Force & Jobs

2.38 For each scenario (excluding the jobs-led scenario), the labour force and jobs implications of the population growth trajectory have been evaluated through the application of three key data items: economic activity rates, a commuting ratio and an unemployment rate.

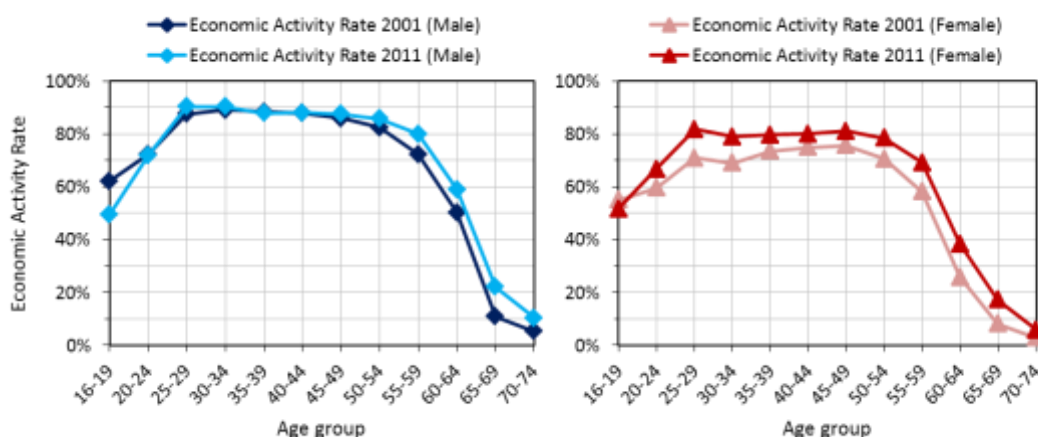
2.39 In the jobs-led scenario, these three data items are used to determine the population growth required by a jobs growth trajectory.

Economic Activity Rates

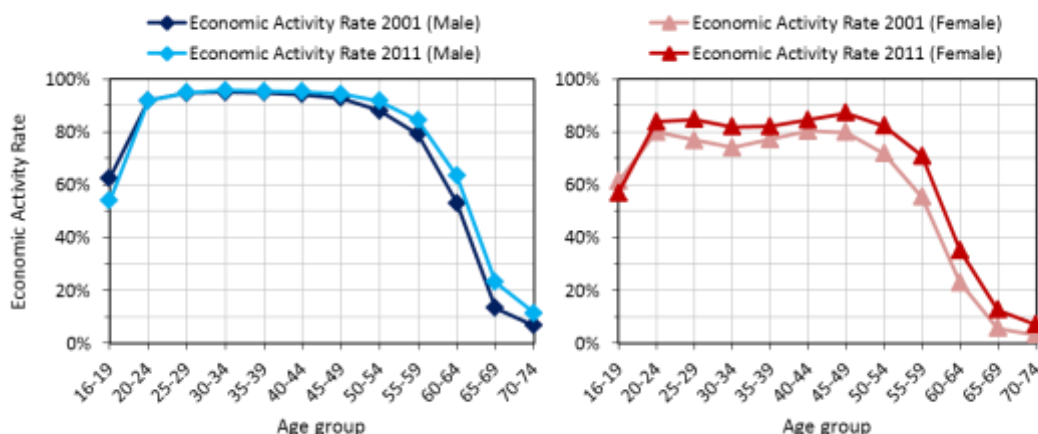
2.40 Economic activity rates by five year age group (ages 16-74) and sex have been derived from 2001 and 2011 Census statistics. The 2011 Census statistics include an open-ended 65+ age category, so economic activity rates for the 65–69 and 70–74 age groups have been estimated using a combination of Census 2011 tables, disaggregated using evidence from the 2001 Census. Between 2001 and 2011, the rates are linearly interpolated.

2.41 For Lincoln, North Kesteven and West Lindsey, rates of economic activity increased for all age groups between 20-74 between the 2001 and 2011 Censuses (Figure 3), most noticeably for women.

Lincoln



North Kesteven



West Lindsey

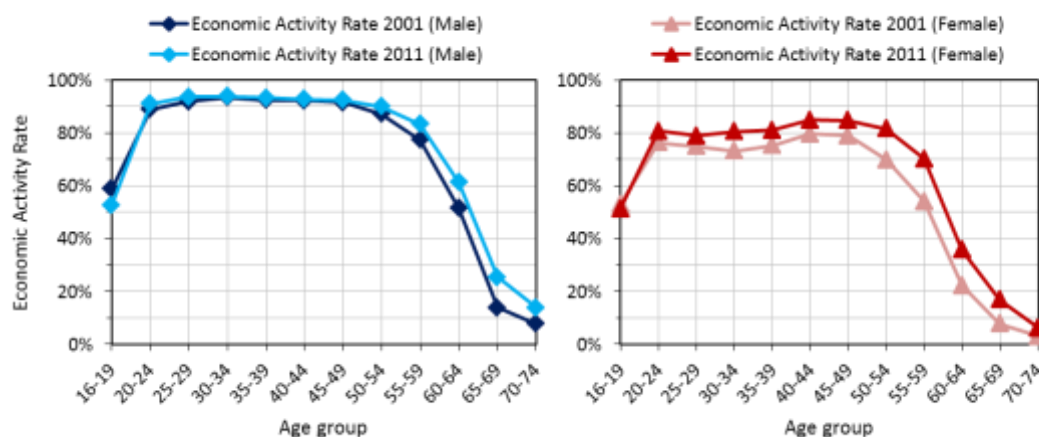


Figure 3: Economic activity rates: 2001 and 2011 Census comparison (source: ONS)

- 2.42 In all scenarios, Edge Analytics has made changes to the age-sex specific economic activity rates to take account of changes to the State Pension Age (SPA) and to accommodate potential changes in economic participation which might result from an ageing but healthier population in the older labour-force age-groups.
- 2.43 The SPA for women is increasing from 60 to 65 by 2018, bringing it in line with that for men. Between December 2018 and April 2020, the SPA for both men and women will then rise to 66. Under current legislation, the SPA will be increased to 67 between 2034 and 2036 and 68 between 2044 and 2046. It has been proposed that the rise in the SPA to 67 is brought forward to 2026–2028².
- 2.44 ONS published its last set of economic activity rate forecasts from a 2006 base³. These incorporated an increase in SPA for women to 65 by 2020 but this has since been altered to an accelerated transition by 2018 plus a further extension to 66 by 2020. Over the 2011–2020 period, the ONS forecasts suggested that male economic activity rates would rise by 5.6% and 11.9% in the 60-64 and 65-69 age groups respectively. Corresponding female rates would rise by 33.4% and 16.3% (Figure 4).

² <https://www.gov.uk/changes-state-pension>

³ ONS January 2006, Projections of the UK labour force, 2006 to 2020
<http://www.ons.gov.uk/ons/rel/lms/labour-market-trends--discontinued-/volume-114--no--1/projections-of-the-uk-labour-force--2006-to-2020.pdf>

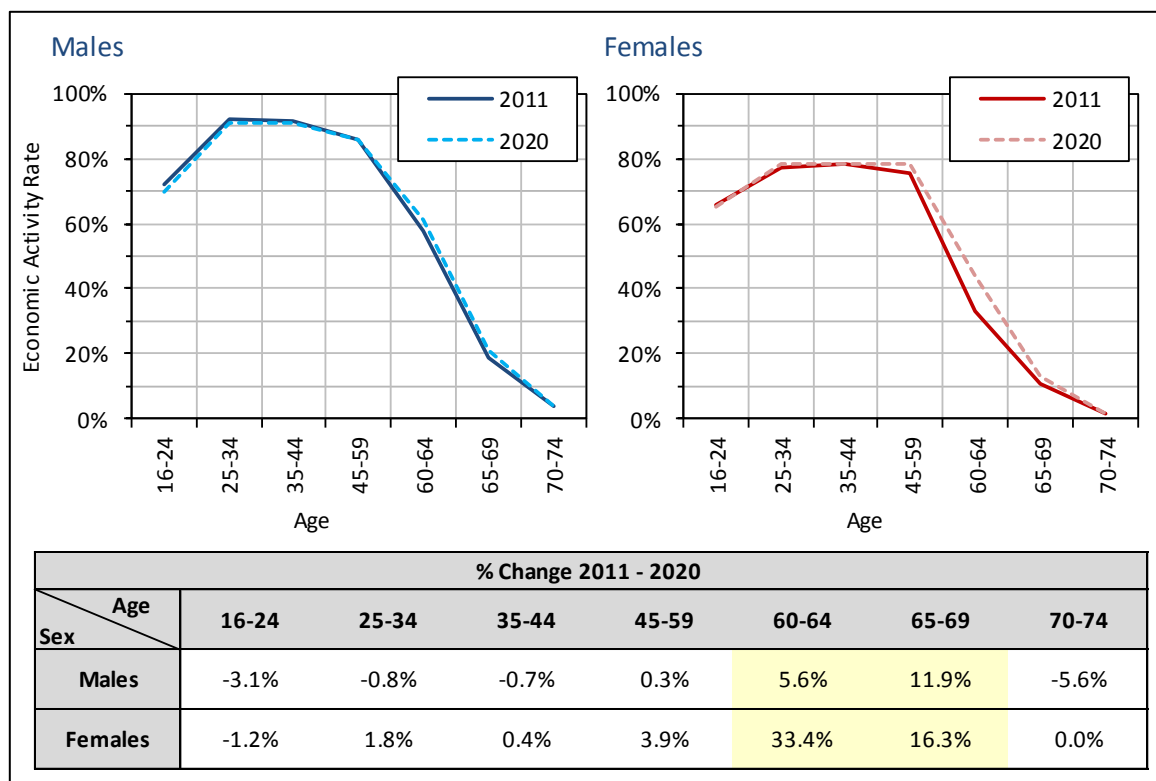


Figure 4: ONS Labour Force Projection 2006 – Economic Activity Rates 2011–2020. Source: ONS

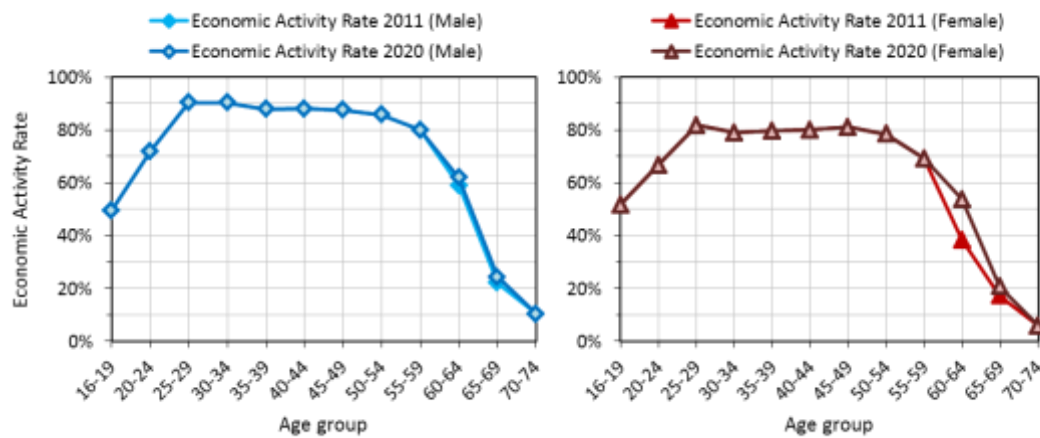
2.45 To take account of planned changes to the SPA, the following modifications have been made to the Edge Analytics economic activity rates:

- Women aged 60-64: 40% increase from 2011 to 2020.
- Women aged 65-69: 20% increase from 2011 to 2020.
- Men aged 60-64: 5% increase from 2011 to 2020.
- Men aged 65-69: 10% increase from 2011 to 2020

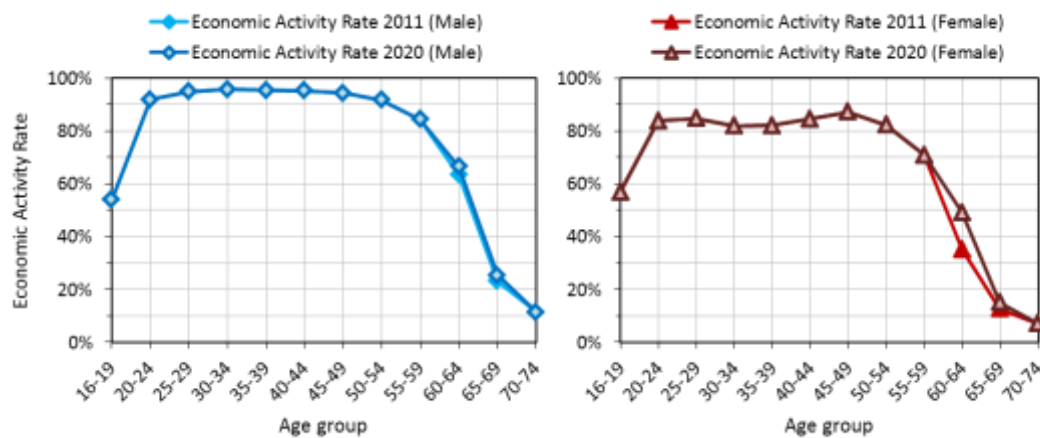
2.46 Note that the rates for women in the 60–64 age and 65–69 age-groups are higher than the original ONS figures (Figure 4), accounting for the accelerated pace of change in the SPA. No changes have been applied to other age-groups. In addition, no changes have been applied to economic activity rates beyond 2020. This is an appropriately prudent approach given the uncertainty associated with forecasting future rates of economic participation.

2.47 Given the accelerated pace of change in the female SPA and the clear trends for increased female labour force participation across all age-groups in the last decade, these 2011–2020 rate increases (Figure 5) would appear to be relatively conservative assumptions.

Lincoln



North Kesteven



West Lindsey

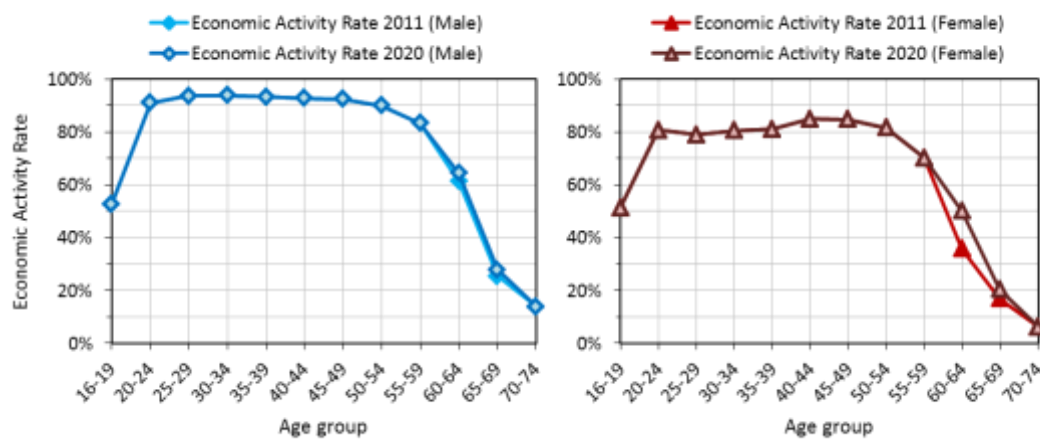


Figure 5: Edge Analytics economic activity rate profiles, 2011 and 2020 comparison.

Commuting Ratio

- 2.48 The commuting ratio, together with the unemployment rate, controls the balance between the number of workers living in a district (i.e. the resident labour force) and the number of jobs available in the district.
- 2.49 A commuting ratio greater than 1.00 indicates that the size of the resident workforce exceeds the number of jobs available in the district, resulting in a net out-commute. A commuting ratio less than 1.00 indicates that the number of jobs in the district exceeds the size of the labour force, resulting in a net in-commute.
- 2.50 Information on commuting from the 2011 Census has not yet been published. Using a combination of statistics from the 2011 Census (including 'Workday Population' statistics), commuting ratios of 0.80 (for Lincoln), 1.15 (for North Kesteven) and 1.37 (for West Lindsey) have been derived by Edge Analytics (Table 2). The derived 2011 commuting ratios are shown below, presented alongside the 2001 commuting ratios for comparison.

Table 2: Commuting ratio comparison

Lincoln		2001 Census	2011 Census
Workers	a	37,604	40,981
Workday Population			104,020
Jobs	b	47,767	51,460
Commuting Ratio	a/b	0.79	0.80

North Kesteven		2001 Census	2011 Census
Workers	a	45,398	50,921
Workday Population			101,183
Jobs	b	38,999	44,338
Commuting Ratio	a/b	1.16	1.15

West Lindsey		2001 Census	2011 Census
Workers	a	36,260	40,734
Workday Population			78,316
Jobs	b	26,682	29,800
Commuting Ratio	a/b	1.36	1.37

Note: In the case of the 2001 Census commuting ratio, 'workers' and 'jobs' are both derived from aggregating the travel-to-work statistics. The number of workers includes all economically active residents (i.e. all residents aged 16–74). For the 2011 commuting ratio, the number of jobs has been calculated by subtracting the number of residents not in employment and the number of residents aged 0–15 and those aged 75+ from the district's workday population.

Unemployment Rate

- 2.51 The unemployment rate, together with the commuting ratio, controls the balance between the size of the labour force and the number of jobs available within an area.
- 2.52 For Lincoln, North Kesteven and West Lindsey a 'recession' average unemployment rate (2008–2012) is applied in 2012 (10.4 for Lincoln, 3.3 for North Kesteven and 7.2 for West Lindsey). The unemployment rate then decreases to a nine-year average (2004–2012) in 2018 (8.7 for Lincoln, 3.3 for North Kesteven and 6.0 for West Lindsey). After 2018, the unemployment rate is held constant.

Appendix 2: Objectively Assessed Need in Neighbouring Authorities

The following table audits the evidence base of neighbouring authorities to establish a wider context of housing need, highlighting any potential implications for Central Lincolnshire.

The table derives an average annual household formation rate for each authority from the latest 2012-based household projections – the ‘starting point’ identified within the PPG – before reviewing the evidence base and identifying, where available, the objectively assessed need for housing. The status of the Local Plan is also summarised, highlighting the emerging or adopted housing target, and any evidence of a relationship with Central Lincolnshire is also noted.

This table has been constructed based on a review of available evidence produced by neighbouring local authorities.

Authority	2012 SNHP (2012 – 2037)	Objectively Assessed Need Evidence base	OAN	Local Plan Stage	Average housing requirement	Relationship with Central Lincolnshire
Bassetlaw	299	<p>Latest SHMA for North Derbyshire and Bassetlaw final report completed November 2013.</p> <p>The SHMA draws on a range of data sources, including official statistics, results from the 2011 Census and a household survey undertaken in summer 2013 to inform the SHMA.</p>	<p>The Council consider than an objectively assessed housing need of between 435 and 500 homes per annum in Bassetlaw. The lower end of the range reflects the demographic projections and the higher end of the projection range is based on seeking to ensure that labour supply does not constrain economic growth.</p>	<p>Core Strategy adopted in December 2011 is the current policy document for referral – there is currently work on going regarding Site Allocations DPD.</p>	<p>Core Strategy Policy sets a target of 350 dwellings per annum (stated on page 21)</p>	<p>The SHMA highlights that some very eastern wards in Bassetlaw have a Lincoln-focussed housing market. It also identifies a commuter relationship with West Lindsey – statistics show an increase in Bassetlaw residents commuting to West Lindsey from 2.5% in 2001 to 2.9% in 2008.</p> <p>The Local Plan states that Bassetlaw is well connected with Lincoln and some settlements rely on West Lindsey for major retail and other services.</p>
Boston	268	<p>A SHMA was published in July 2015 for the authority. This uses the latest 2012 SNHP and has been undertaken to comply with the PPG.</p>	<p>302 dpa (7,500 over the 2011 – 36 period)</p>	<p>Boston Borough Local Plan adopted April 1999 is the current local plan. However, the authority is developing a local plan with South Holland – South East</p>	<p>Option A - 226 dpa from 2011-2031 (derived from 2008 SNHP drawn from previous SHMA)</p>	<p>The 2015 SHMA identifies Boston as representing a relatively self-contained HMA on the basis of 2011 Census data. It identifies the strongest market linkages exist with South Holland and</p>

	<p>The SHMA includes modelling of population and household projections as well as a separate calculation of affordable housing need.</p> <p>The SHMA identifies the OAN on the basis of the 2012 SNHP with an uplift (7%) associated with adjusting the headship rates of those aged 25-34 to return to levels projected under the 2008 SNHP.</p>		<p>Lincolnshire Local Plan – with targeted adoption in August 2016.</p> <p>The emerging Local Plan has progressed as far as the Preferred Options stage (May 2013) which states that Option A is the preferred option because it is considered deliverable when compared with historic building rates.</p>		East Lindsey..
East Lindsey 399	<p>Latest SHMA for Coastal Lincolnshire from September 2012.</p> <p>The main body of this document was produced while PPS3 was the relevant planning policy document until it was revoked following the release of the NPPF in March 2012. Therefore, parts of the text refer to PPS3 where relevant, but all definitions used relate to the NPPF.</p> <p>The projections for housing</p>	<p>Requirement across all tenures of 595 per annum – based on RSS dwelling delivery</p> <p>And requirement of 948 based on CLG 2008 projections (stated on Page 124 of SHMA)</p>	<p>Draft core strategy released for consultation in November 2012. The Council went out to consultation with the Core Strategy Topic Paper – The proposed housing target and preferred option for growth in May 2014.</p> <p>The Plan splits the target for the District in to two – Inland East Lindsey and Coastal</p>	<p>Sets targets for the delivery of 765 dwellings per annum across the District. It sets a target for Inland East Lindsey of 672 dpa and 93dpa for Coastal East Lindsey.</p>	<p>The SHMA for the Coastal Lincolnshire sub-region was undertaken alongside a parallel exercise for Central Lincolnshire – the dominant local housing market in Lincoln has a significant impact on East Lindsey.</p>

		delivery are focused on two scenarios, one based upon the RSS dwelling delivery and another based upon CLG 2008 based household projections.		East Lindsey. The housing projections are benchmarked on ONS (2010) sub-national population projections and based on modelling produced by Edge Analytics.		
Newark & Sherwood	364	<p>A SHMA for the Nottingham Outer area, which includes the districts Ashfield, Mansfield and Newark and Sherwood, was published in June 2015.</p> <p>A range of projections are included including adjusted demographic scenarios and modelling to assess the implications of aligning with employment growth.</p> <p>The SHMA identifies an OAN across the HMA of 1,310 dpa (2013 – 2033). This is based upon an adjusted demographic projection and represents an uplift from the 2012 SNHP. This includes an identified need for 454 dpa in Newark and Sherwood.</p>	Net annual need across all tenures of 454 homes (stated on page 221 of SHMA)	Core Strategy adopted March 2011 is one of the planning policy documents making up the Local Development Framework which replaces the previous Local Plan.	Overall housing requirement of 740 dwellings per annum (stated on page 114).	The SHMA highlights a strong level of containment within the authorities making up the Nottingham Outer HMA. Strong linkages are recognised with Bolsover and the City of Nottingham. However, there is little evidence, of migration and travel to work patterns between Central Lincolnshire and Newark and Sherwood.

North East Lincolnshire	220	<p>North East Lincolnshire SHMA published in May 2013 replaces the 2010 SHMA Update which covered North East Lincolnshire and North Lincolnshire.</p> <p>The SHMA identifies a need for between 298 and 510 dwellings per annum and suggests that the upper end scenario – associated with forecast employment growth – should be used to inform future policy.</p> <p>The council intend to carry out a full objective assessment of need to inform the preparation of the local plan. This will take account of the council's economic growth strategy.</p>	<p>Net annual need for 508 new homes (stated on page 121 of SHMA)</p>	<p>The North East Lincolnshire Local Plan adopted in 2003 is still the starting point for local planning policy; however a new Local Plan is underway to update this 'old style' plan.</p> <p>In the Interim the council has assessed the housing supply against the lower trend based annual housing requirement of 298 dwellings per year as identified in the SHMA.</p>	<p>5 year housing land supply calculated on basis of 298 dpa until full objective assessment of need undertaken.</p>	<p>The SHMA highlights that North East Lincolnshire housing market has strong linkages with the West Lindsey housing markets and shows trends of commuting to West Lindsey. The SHMA acknowledges it is important to monitor the housing evidence and economic growth plans of the influential neighbouring West Lindsey.</p>
North Lincolnshire	457	<p>The latest SHMA for North Lincolnshire completed in October 2012 updates the 2010 SHMA for North and North East Lincolnshire.</p> <p>The SHMA has been produced in compliance with</p>	<p>Requirement of 711 per year (stated in Figure 5.14 of the SHMA)</p>	<p>The Core Strategy adopted in June 2011 is the most important document of the North Lincolnshire Local Development Framework – replacing</p>	<p>Requirement for 822 new dwellings per year (stated on page 11 of the Housing and Employment Land Allocations</p>	<p>North Lincolnshire housing market has strong linkages with the housing market of West Lindsey. The SHMA shows commuter linkages with Lincoln and West Lindsey being two of the top ten locations for migration</p>

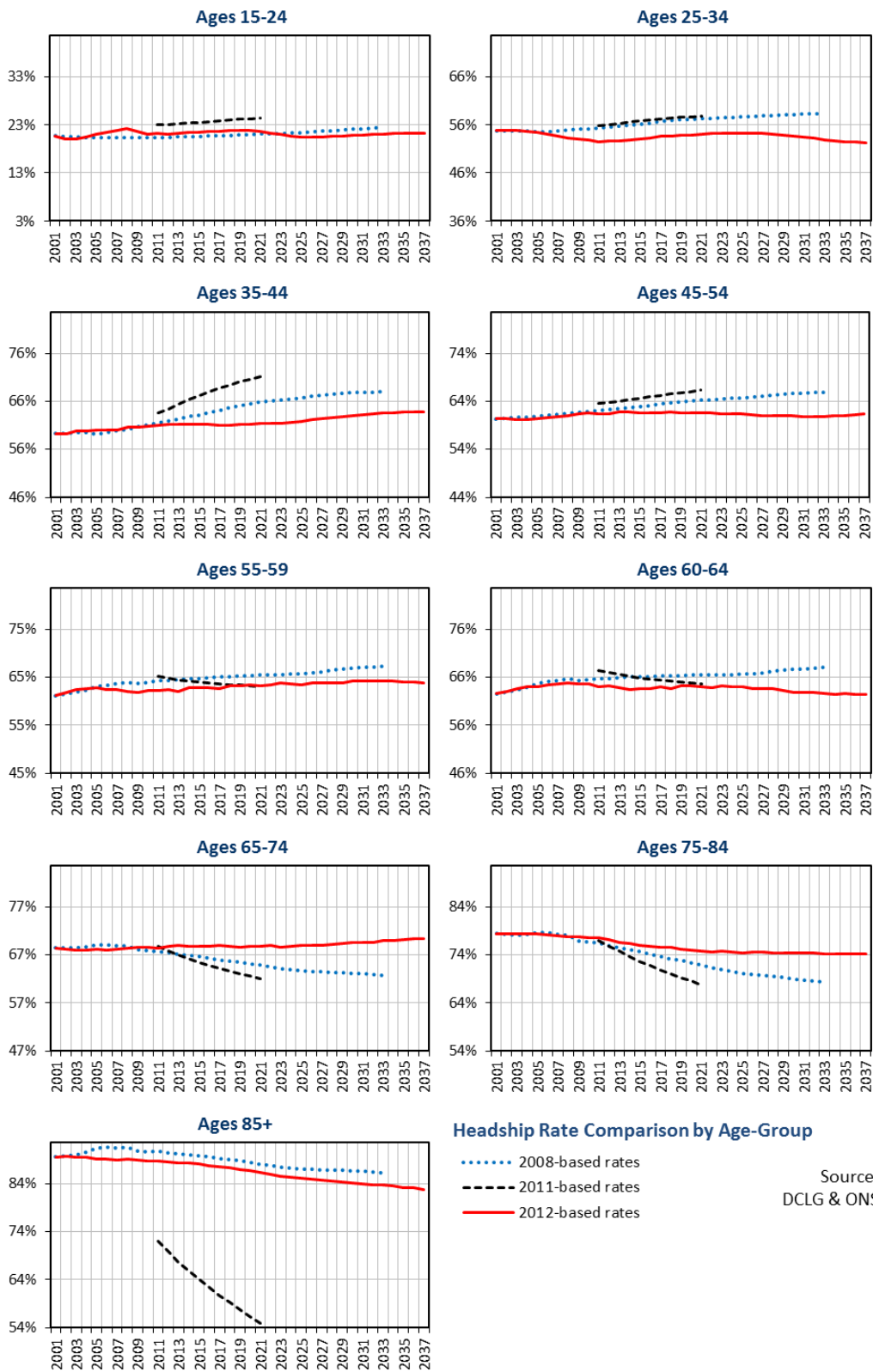
		<p>the NPPF and DCLG SHMA Guidance (2007)</p> <p>Objectively assessed need figure set out in the SHMA is based on a Baseline Employment – Constrained Scenario covering a 16 year period.</p>		<p>the previous local plan. DPD).</p> <p>NLC published in April 2014 the LDF Housing and Employment Land Allocations DPD, which has updated the annual housing requirement in accordance with objectively assessed needs.</p>		<p>flows in and out of North Lincolnshire.</p>
South Holland	416	<p>The latest SHMA for South Holland is the Peterborough Sub-Region SHMA published in July 2014, which is an update of the 2007 and 2010 SHMAs for the area. The Objectively assessed need in the SHMA considers the SNPP Updated Projection (PROJ 2A) to be the most robust projection based on the demographic evidence (p104). The modelling uses a mid-point position between 2011 and 2008 headship rates.</p> <p>It is understood that a further update is planned of the SHMA to take account of the release of the 2012 SNHP.</p>	<p>Total net annual need of 558 homes (stated on page104 and 108 of the SHMA).</p>	<p>The current South Holland Local Plan adopted in 2006 will be replaced by the emerging South East Lincolnshire Local Plan for South Holland and Boston Borough when adopted in August 2016. The Plan aimed to provide an average of 400 dpa.</p> <p>The emerging South East Lincolnshire Local Plan's Preferred Options Document (May 2013) states that Option A is the preferred option for housing targets</p>	<p>The total net annual housing need according to Option A is 475 dpa.</p>	<p>Little/no evidence of a strong relationship with Central Lincolnshire.</p>

				because it is considered deliverable when compared with historic building rates.		
South Kesteven	527	<p>The latest SHMA for South Holland is the Peterborough Sub-Region SHMA published in July 2014, which is an update of the 2007 and 2010 SHMAs for the area. The Objectively assessed need in the SHMA considers the SNPP Updated Projection (PROJ 2A) to be the most robust projection based on the demographic evidence (p104). The modelling uses a mid-point position between 2011 and 2008 headship rates.</p> <p>It is understood that a further update is planned of the SHMA to take account of the release of the 2012 SNHP.</p>	Total net annual need of 659 homes (stated on page 104 and 108 of the SHMA).	<p>South Kesteven Core Strategy adopted July 2010.</p> <p>Core Strategy housing targets are informed by the RSS.</p>	<p>RSS requirement of 680 dpa – Core Strategy calculates an expected annual build rate of 656 dpa (stated on page 50 – H1 – Residential Development).</p>	<p>Little/no evidence of a relationship with Central Lincolnshire despite the acknowledgement of a major transport link from South Kesteven to Lincoln in the Local Plan.</p>

Appendix 3: DCLG SNHP Headship Rate Analysis

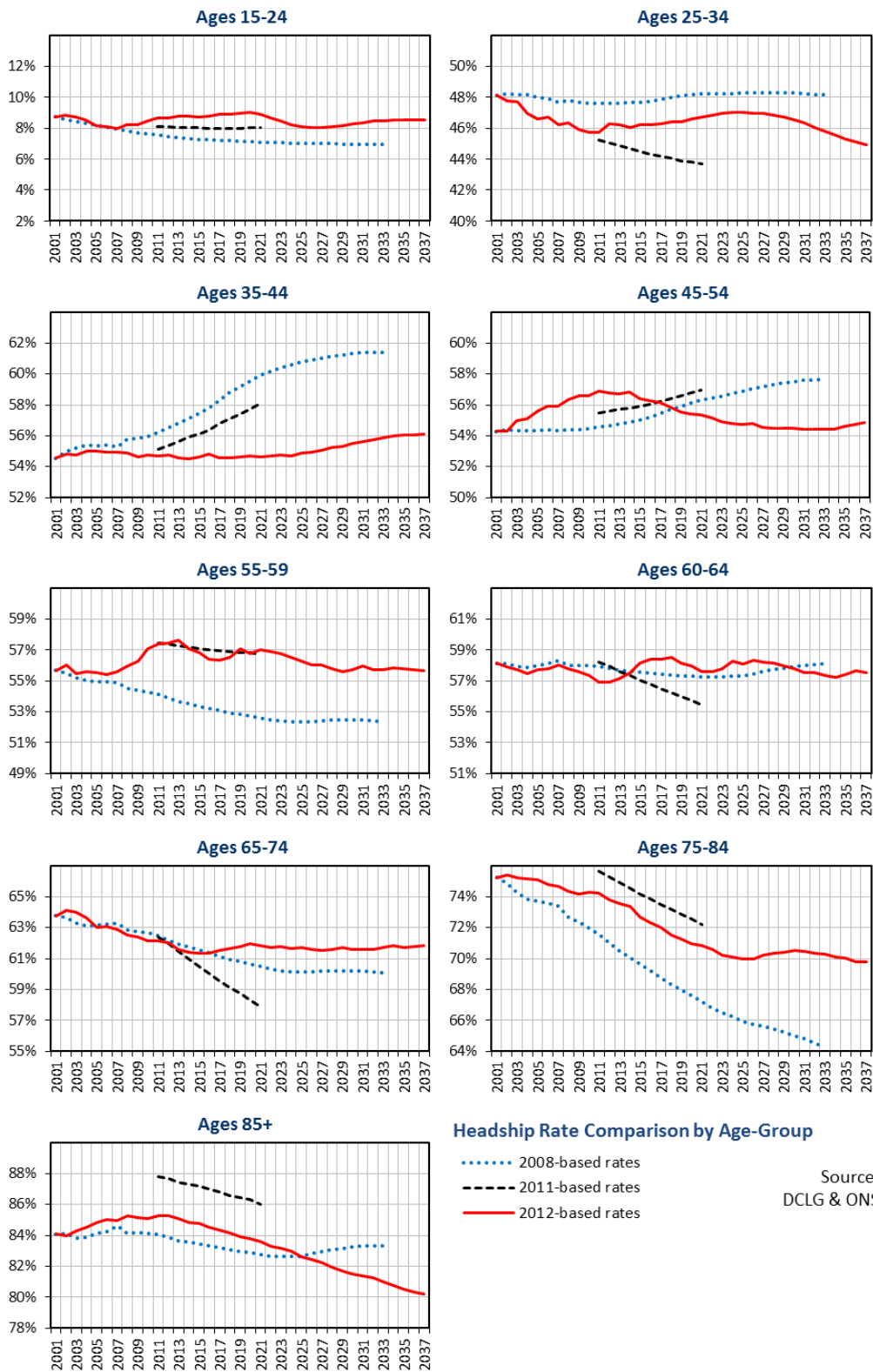
A series of charts are presented for each of the authorities, comparing the household representative rates projected under each of the last three DCLG SNHP models broken down by age groupings.

Figure 3.1 Lincoln Headship Rate Comparison by Age-Group



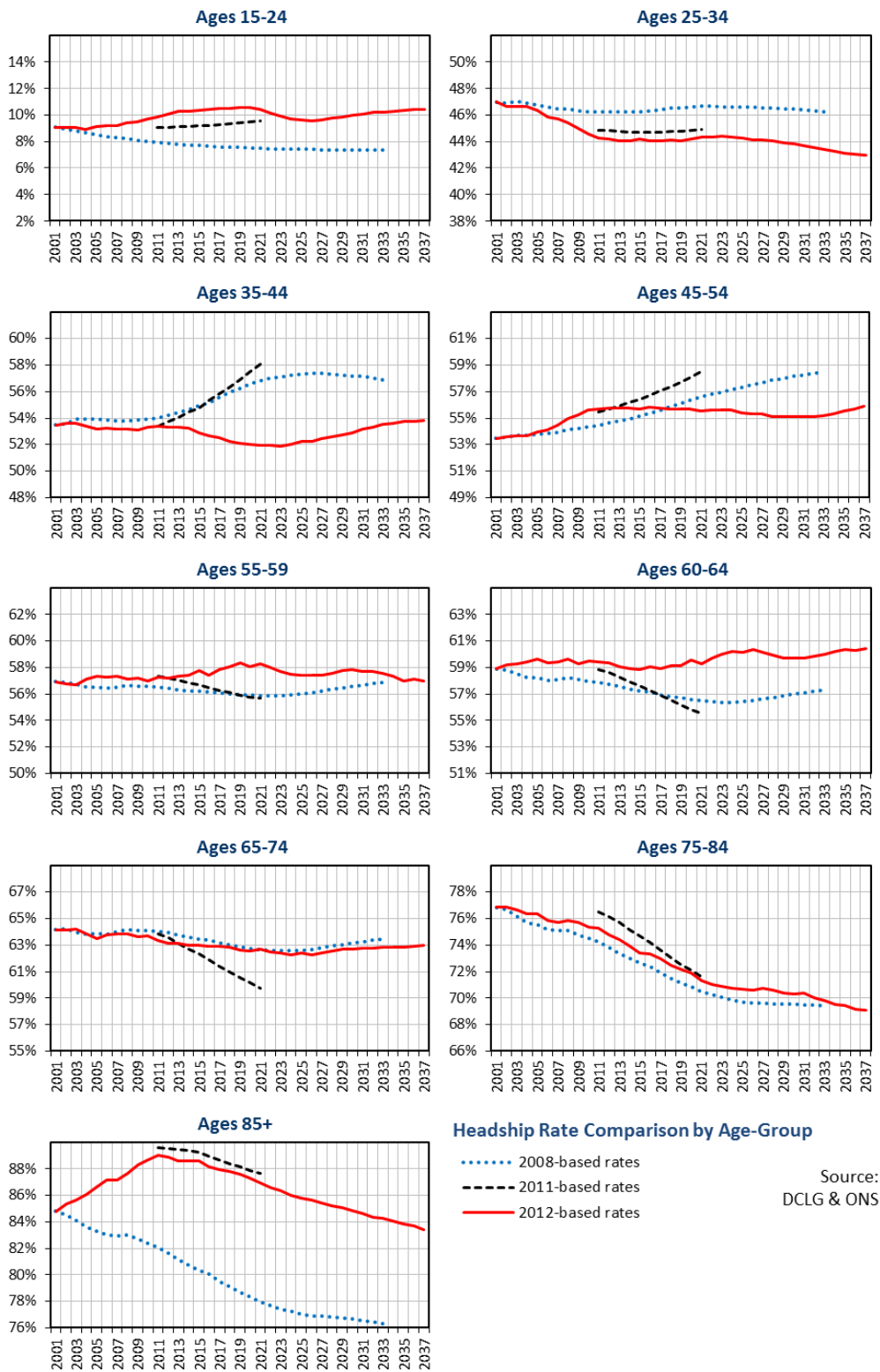
Source: Edge Analytics, DCLG & ONS

Figure 3.2 North Kesteven Headship Rate Comparison by Age-Group



Source: Edge Analytics, DCLG & ONS

Figure 3.3 West Lindsey Headship Rate Comparison by Age Group



Source: Edge Analytics, DCLG & ONS

9.69 In many cases, it is apparent from the charts that there are notable differences in the projected change to household formation rates between different projections. The 2011 SNHP dataset in particular stands out in terms of presenting a notable variation of trend to the other two datasets in a number of examples.

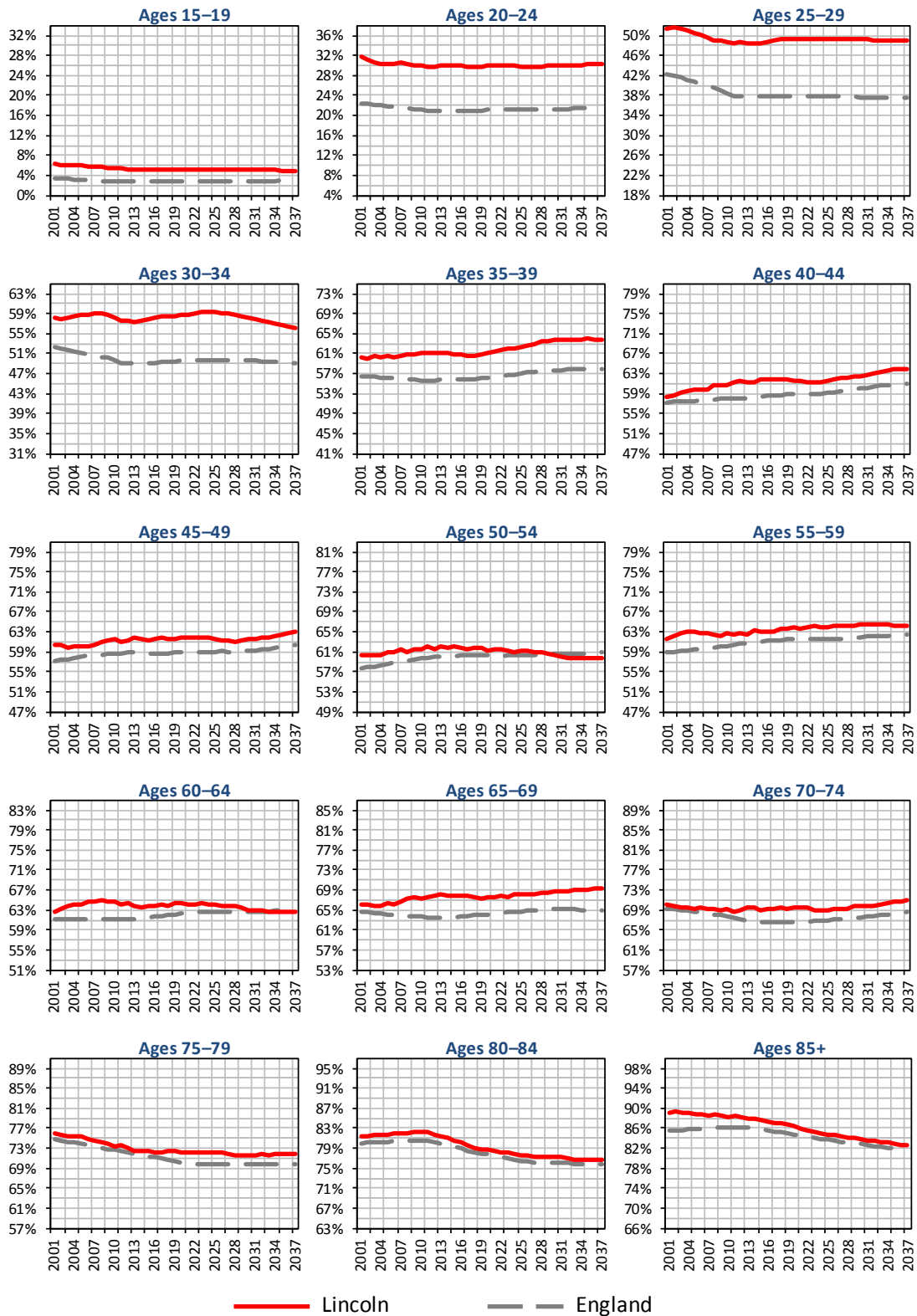
9.70 It is possible to pick out a number of important apparent differences and trends:

- **Younger age groups** – the age group 15 – 24 appears to show a more positive set of assumptions around household formation under the 2012 SNHP than the other two datasets on the whole, with the exception of Lincoln and in particular in relation to the 2011 SNHP. This would appear to represent a positive assumption around the ability of these younger households to form, with rates in 2036 close to or exceeding those seen in 2001. The age group 25 – 34 stands out as showing a reduction in the household formation rate between 2001 and 2011 across the three authorities. This contrasts significantly with the anticipated trend in the 2008 SNHP, which either assumed a growth from the 2001 level – in the case of Lincoln – or a fairly steady rate of formation for the other two authorities from a 2001 level. In the case of North Kesteven and West Lindsey, the 2012 SNHP suggests that rates will decline further by 2036, indicating that this age group will continue to struggle to form at a rate previously seen in 2001.
- **More mature households** – the age group 35 – 44 appears to have seen a relatively static level of household formation between the two Census years, a picture largely aligned between the 2008 and 2012 datasets. However, the 2008 dataset suggests a slightly higher projected improvement in household formation rates in this age group than the 2012 dataset. The same is also true of the age group 45 – 54, although the historical data suggests that this age group has seen formation rates levels increase more notably with the 2012 SNHP suggesting either a decline or stabilisation. These age groups are less likely to be affected by affordability issues, in terms of their ability to form, and it could be reasonable to assume that it is more likely that other factors – including changing relationship status trends – are shaping future projections. It is also important to note that the 2012 SNHP projections consistently assume an increase in formation rates, although marginal in a number of cases, from 2001 levels.
- **Older households** – for the majority of the older age groups, the 2012 SNHP suggests that household formation rates will be higher than the other datasets. Again, it is considered that these age groups are less likely to be directly affected by affordability issues as a factor in constraining their ability to form, and it is noted that for the majority of the older groups, the projections assume a fall in rates from 2001 levels with other factors such as the continued ageing of the population an important factor.

Further charts are presented below to show how household formation rates in each Central Lincolnshire authority compares with the assumed national rate.

Figure 9.1: Lincoln and England: DCLG 2012-based Headship Rates

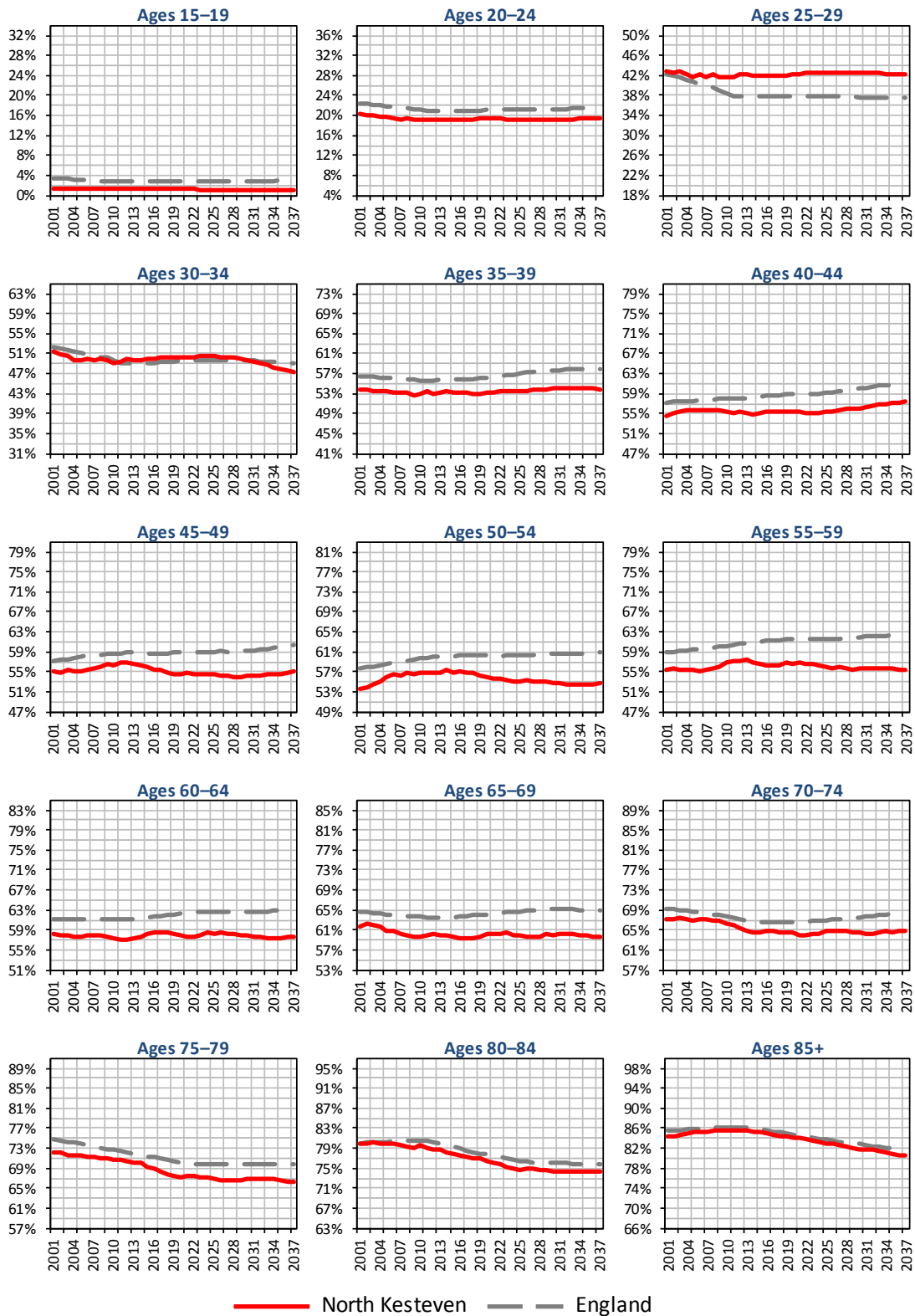
Lincoln and England: DCLG 2012-based Headship Rates



Source: DCLG, Edge Analytics 2015

Figure 9.2: North Kesteven and England: DCLG 2012-based Headship Rates

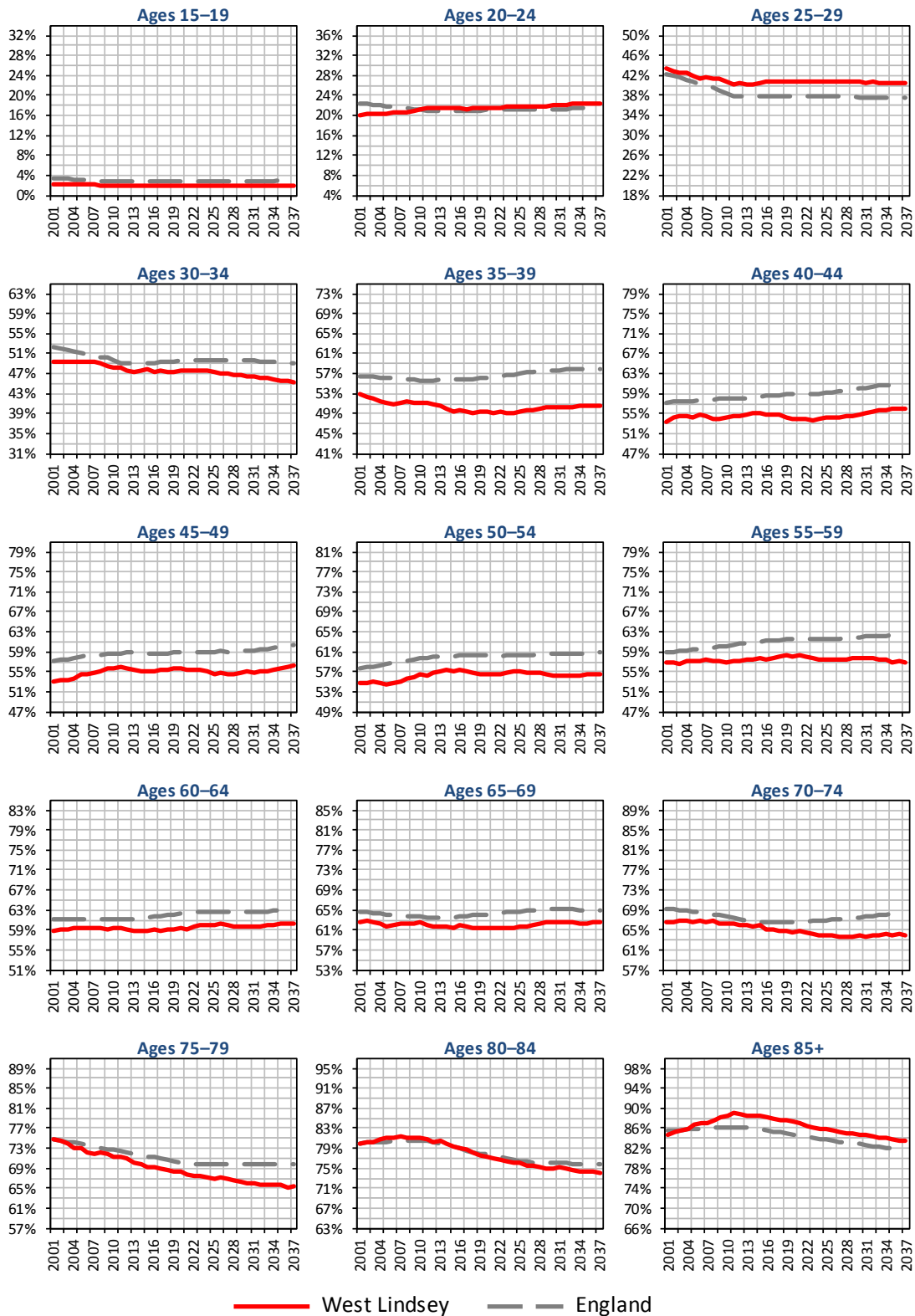
North Kesteven and England: DCLG 2012-based Headship Rates



Source: DCLG, Edge Analytics 2015

Figure 9.3: West Lindsey and England: DCLG 2012-based Headship Rates

West Lindsey and England: DCLG 2012-based Headship Rates



Source: DCLG, Edge Analytics 2015

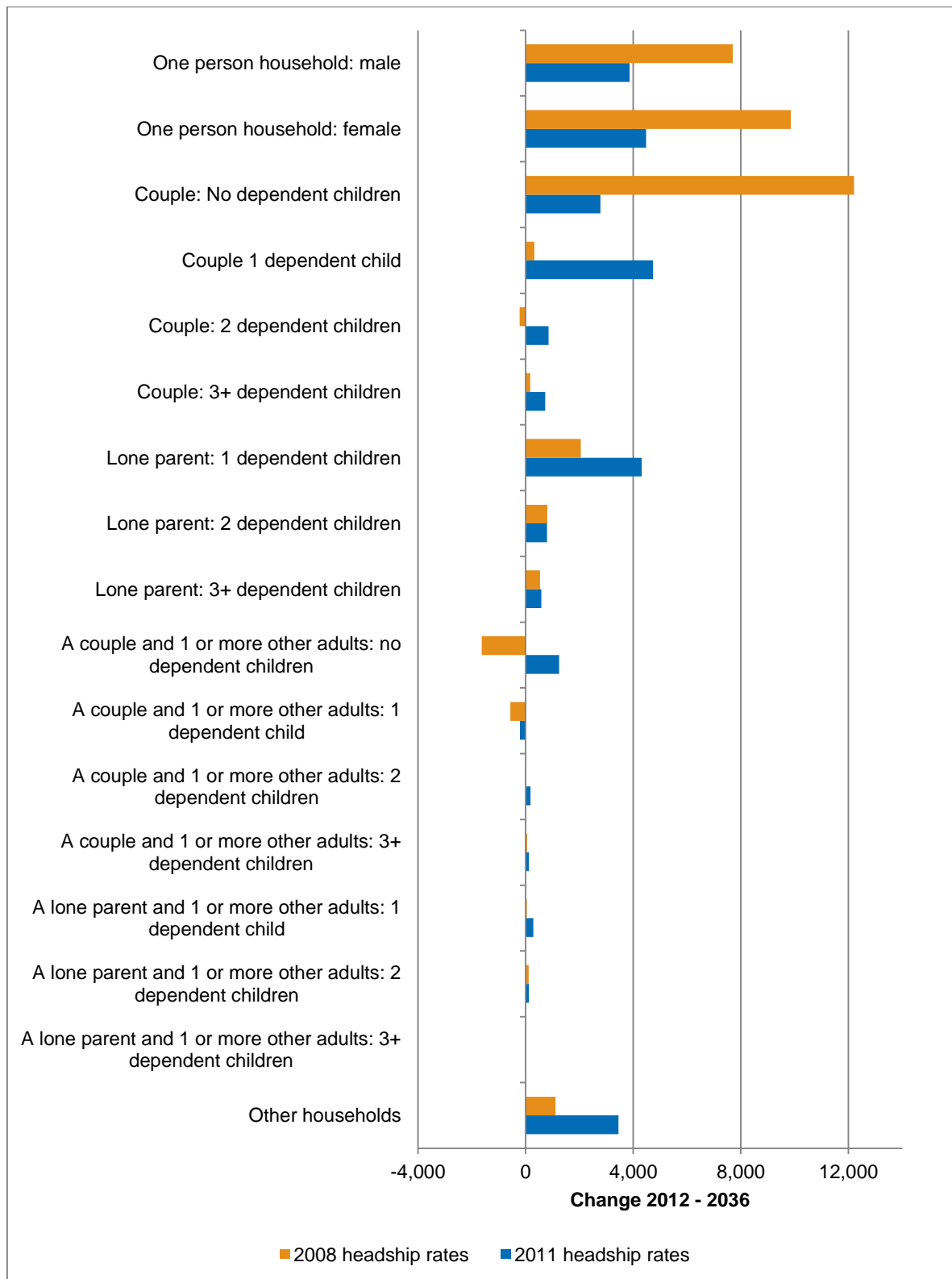
Appendix 4: Modelled Change in Households by Size

As detailed in section 6, in the absence of a detailed breakdown of household type in the 2012-based household projections, assumptions on the type of households projected to form in the 2008-based and 2011-based projections have been applied proportionately to the 2012-based projections. This is considered to be appropriate given that the analysis in section 6 has shown household formation assumptions under the 2012-based projections to largely sit between those in the previous 2008-based and 2011-based datasets.

The scale of change in different household types under the 2008-based and interim 2011-based projections are summarised in the following charts for Central Lincolnshire as a whole. Analysis is presented for three scenarios:

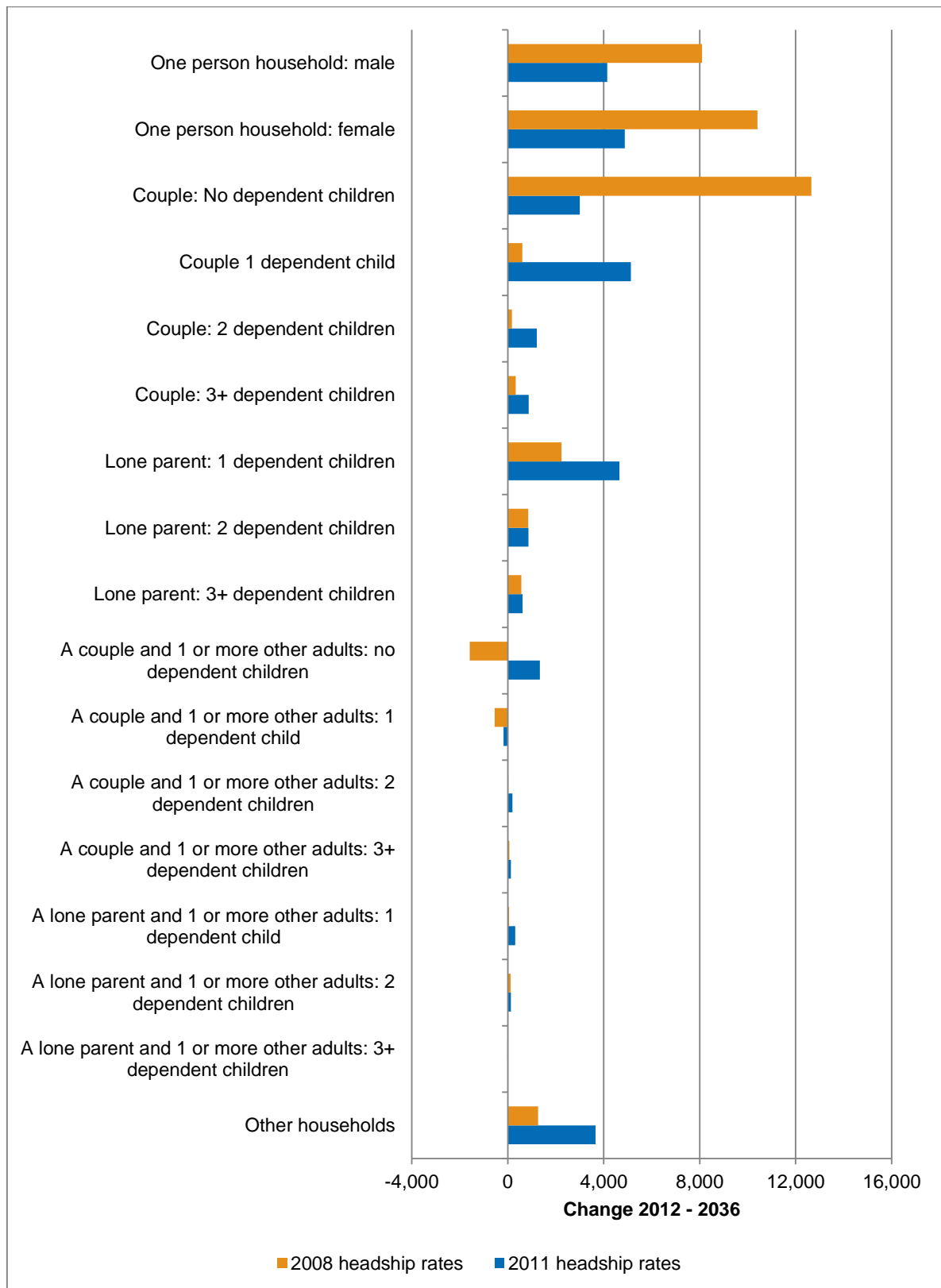
- **10 Year Past Growth**, providing a longer-term demographic migration-led profile of household change;
- **ENA Baseline**, indicates the types of households likely to see growth to show a closer alignment to the baseline level of job growth identified within the ENA; and
- **ENA Adjusted (Higher Growth)**, showing the types of households likely to see the stronger levels of employment growth forecast under this scenario developed within the ENA.

Figure 4.1 Change in Household Types 2012 – 2036 – 10 year Past Growth



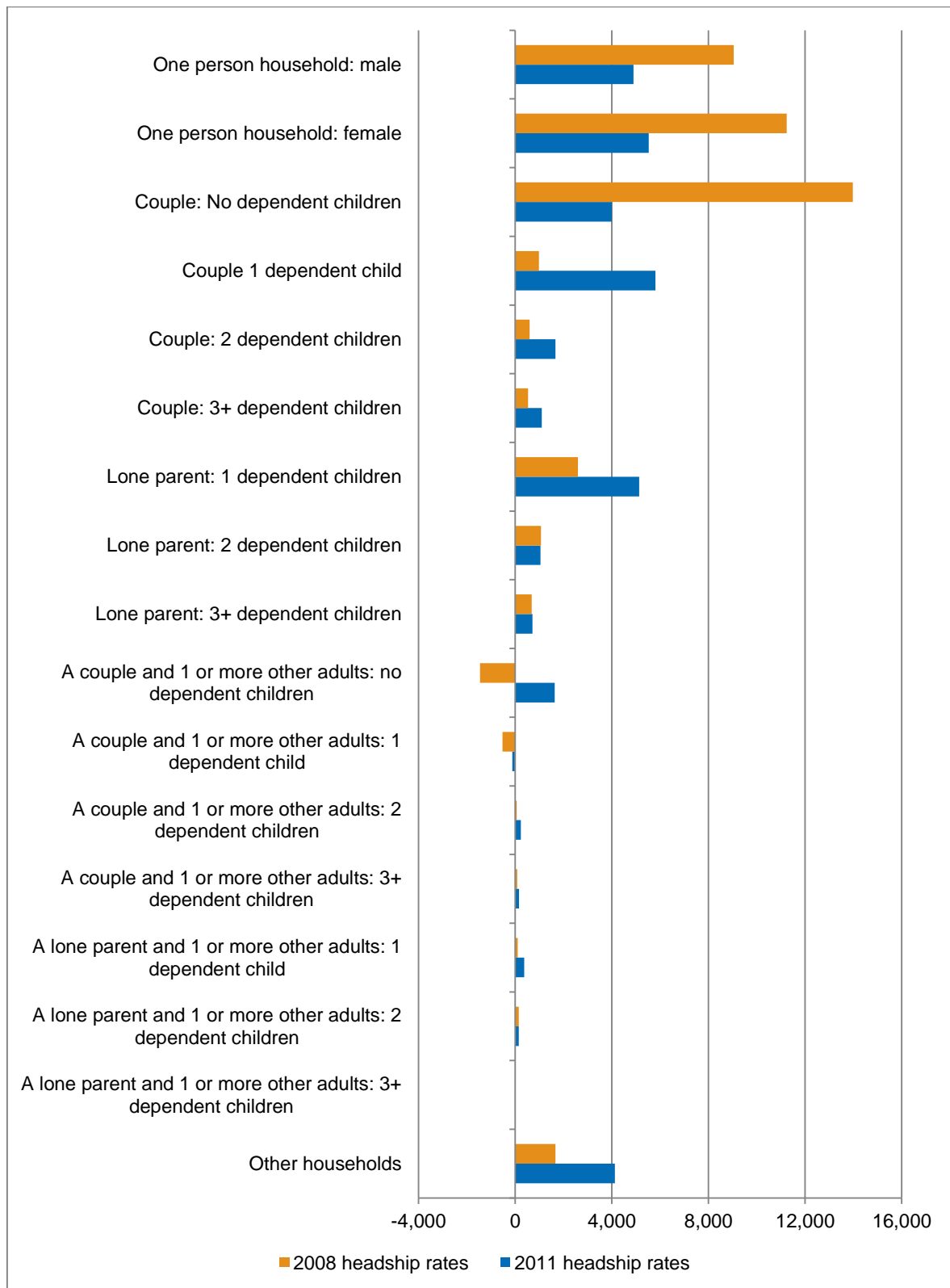
Source: Edge Analytics

Figure 4.2 Change in Household Types 2012 – 2036 – ENA Baseline



Source: Edge Analytics

Figure 4.3 Change in Household Types 2012 – 2036 – ENA Adjusted (Higher Growth)



Source: Edge Analytics

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