Strategic Housing Market Assessment Update

Stoke-on-Trent City Council and Newcastle-under-Lyme Borough Council

June 2017

Turley
Economics

Contents

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Executive Summary

1. Turley and Edge Analytics were appointed by Newcastle-under-Lyme Borough Council and Stoke-on-Trent City Council ('the Councils') to prepare a Strategic Housing Market Assessment (SHMA) which objectively assessed the need for housing across the two authorities. The final report[1] was issued in July 2015 and published prior to the issues consultation to inform the Councils' emerging Joint Local Plan, which ran from February to March 2016.

2. The SHMA identified the importance of continuing to take account of newly published evidence throughout the preparation of the Joint Local Plan. In particular, the SHMA acknowledged that its conclusions will require review following completion of the Councils' Employment Land Review[2] (ELR), which was finalised in December 2015.

3. The release of new 2014-based sub-national population and household projections in May and July 2016 respectively also provides a new set of data which forms an updated demographic 'starting point' for the assessment of housing needs. While Planning Practice Guidance (PPG) clearly states that housing needs assessments are not automatically rendered out of date when new projections are issued[3], the Planning Inspectorate (PINS) in practice typically require local authorities to demonstrate an awareness and appreciation of updated evidence released throughout the plan-making process, particularly where a '*meaningful change in the housing situation*'[4] is implied.

4. Collectively, the availability of the findings from the ELR and the release of new 2014-based population and household projections justify a review of the SHMA which considers the implications of this newly published evidence on the objectively assessed need (OAN) for housing in Stoke-on-Trent and Newcastle-under-Lyme.

5. This follows the guidance and methodology set out in the PPG as well as its recent interpretation through Inspectors' decisions. This remains the latest available official guidance on calculating housing needs, pending the planned consultation on an updated standard methodology intended to apply from April 2018[5]. In the absence of any guidance on a preferred methodology at the current point in time – and to maintain the Councils' ongoing progress in developing the Joint Local Plan, in line with the Government's expectation that all areas are covered by an up-to-date plan – this is considered a reasonable, consistent and appropriate basis through which this updated position can be robustly established. However, the implications of any alternative methodology will need to be considered by the Councils in the future.

6. The updated analysis presented in this report indicates that there is **an objectively assessed need (OAN) for 1,390 dwellings per annum** in the Newcastle-under-Lyme and Stoke-on-Trent housing market area (HMA) over the period from 2013 to 2039. This sits within the range previously concluded in the 2015 SHMA (1,177 – 1,504 dwellings per annum).

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[1] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment
[2] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent Joint Employment Land Review
[3] PPG Reference ID 2a-016-20150227
[4] Ibid
[5] DCLG (2017) Fixing our Broken Housing Market

7. In following the stepped methodology prescribed by the PPG, this recognises that the demographic 'starting point' of 805 dwellings per annum across the HMA – based on the 2014-based sub-national household projections (SNHP) – requires adjustment. The SHMA identified that more recently lower levels of housing development were likely to have impacted on the growth of the area's population and the ability of households to form. In considering the latest data available, this update confirms in this context that it remains appropriate to use a longer-term historic period (2001 to 2015) to project forward projections of population and household growth. This ensures that the trend-based projection captures periods of strong market activity as well as the more recent period of lower development levels thereby presenting a more balanced historic period and associated projection of growth.

8. The preferred demographic scenario also incorporates an adjustment to allow for a return to higher levels of household formation amongst younger people (aged 15 – 34 in Newcastle-under-Lyme and 25 – 34 in Stoke-on-Trent), recognising the underlying assumption within the official projections that local household formation amongst these younger age groups will remain suppressed. This continues a local decline which has been seen since 2001, linked to deteriorating affordability in the housing market which has been consistently recognised as a fundamental issue by Government. An adjustment to household formation rates which allows for a short-term return to higher levels of household formation for younger age groups where not already projected has been applied. This results in an increase in the formation of younger households over the assessment period.

9. In combination, these demographic adjustments indicate a need for 1,064 dwellings per annum across the HMA, uplifting the demographic 'starting point' projection by 32%.

10. Furthermore, it is considered that a small adjustment to the demographic trend-based projection is justified in response to market signals in Newcastle-under-Lyme, which are considered to be indicative of an imbalance between supply and demand. This recognises the worsening trend in house prices and rents – and the impact that this has had on affordability – while acknowledging that, in absolute terms, rents, house prices and affordability rank relatively positively when compared to neighbouring and similar authorities. Reflecting on Inspectors' conclusions on the scale of adjustment necessary to respond to market signals, it is considered that an uplift of 5% is an appropriate, proportionate and reasonable response to this limited worsening observed in Newcastle-under-Lyme. No uplift is considered to be required in Stoke-on-Trent, given the low cost of housing and evidence of a less acute affordability pressure. Applying these adjustments as necessary indicates a slightly higher need for 1,084 dwellings per annum across the HMA.

11. Following the PPG methodology, the analysis also suggests that there is a need for a further uplift to grow the labour force and support the '*positive…but realistic uplift on past [employment] trends*' concluded as likely within the Councils' joint ELR. Based on prudent assumptions on the behaviour of the labour force, a continuation of recent demographic trends would support a modest growth in employment across the HMA. However, it is recognised that this would fall someway short of providing the labour required to support the creation of the identified 22,584 additional jobs across the HMA identified in the ELR over the period assessed in this report (2013 – 2039), inclusive of

17,372 jobs within the Councils' plan period (2013 – 2033). Supporting this notably higher level of job growth in the area would require either a substantial change in labour force behaviour or a further growth in the labour force. Accommodating the higher level of population growth required to support likely job growth will generate a greater need for housing than implied by the demographic projection, requiring **1,390 dwellings per annum** when simultaneously allowing for a return to higher levels of household formation for younger households. This enables stronger growth in the working age population (16 – 64) through an allowance for higher – but not unprecedented – levels of net migration to the area.

12.   This represents an uplift of 73% above the 'starting point' and 31% above the adjusted demographic projection, and evidently captures and surpasses the adjustment considered necessary to provide a supply response to the moderate worsening of market signals in Newcastle-under-Lyme. Provision of this scale would also almost double the average rate of development over the past fifteen years, significantly boosting the supply of housing in line with the objectives of the NPPF. The update also confirms that it is reasonable to assume that this level of provision would also facilitate the delivery of the updated calculation of affordable housing needed. This recognises an updated calculated annual need for 453 affordable homes over the next five years and 265 affordable homes per annum thereafter recognising the clearing of the existing backlog of need across the HMA.

13.   The updated position on the OAN for housing has implications for the different sizes and types of housing estimated as being needed over the assessment period. The modelling indicates that growth in the older population will increase the number of residents living in communal establishments, requiring circa 1,450 bedspaces over the period to 2039 which is additional to the OAN. The updated analysis also highlights the continued demand for housing of all sizes, but suggests that growth in the number of households typically occupying housing with two or three bedrooms is likely to generate increased demand for housing of this size over the period to 2039. There also, however, remains a need for smaller properties with only one bedroom, and larger homes with at least four bedrooms. The outputs of this modelling exercise should only be used for guidance, however, and it is recommended that policies are not overly prescriptive in directly basing requirements for individual sites on the illustrative mix presented in the evidence given that the profile of housing delivered will need to respond to the market.

1. Introduction

1.1   Turley and Edge Analytics were appointed by Newcastle-under-Lyme Borough Council and Stoke-on-Trent City Council ('the Councils') to prepare a Strategic Housing Market Assessment (SHMA) which objectively assessed the need for housing across the two authorities. The final report[6] was issued in July 2015 and published prior to the issues consultation to inform the Councils' emerging Joint Local Plan, which ran from February to March 2016.

1.2   The SHMA identified the importance of continuing to take account of newly published evidence throughout the preparation of the Joint Local Plan. In particular, the SHMA acknowledged that its conclusions will require review following completion of the Councils' Employment Land Review[7] (ELR), which was finalised in December 2015.

1.3   The release of new 2014-based sub-national population and household projections in May and July 2016 respectively also provides a new set of data which forms an updated demographic 'starting point' for the assessment of housing needs. While Planning Practice Guidance (PPG) clearly states that housing needs assessments are not automatically rendered out of date when new projections are issued[8], the Planning Inspectorate (PINS) in practice typically require local authorities to demonstrate an awareness and appreciation of updated evidence released throughout the plan-making process, particularly where a '*meaningful change in the housing situation*'[9] is implied.

1.4   Collectively, the availability of the findings from the ELR and the release of new 2014-based population and household projections justify a review of the SHMA which considers the implications of this newly published evidence on the objectively assessed need (OAN) for housing in Stoke-on-Trent and Newcastle-under-Lyme.

1.5   This follows the guidance and methodology set out in the PPG as well as its recent interpretation through Inspectors' decisions. This remains the latest available official guidance on calculating housing needs, pending the planned consultation on an updated standard methodology intended to apply from April 2018[10]. In the absence of any guidance on a preferred methodology at the current point in time – and to maintain the Councils' ongoing progress in developing the Joint Local Plan, in line with the Government's expectation that all areas are covered by an up-to-date plan – this is considered a reasonable, consistent and appropriate basis through which this updated position can be robustly established. However, the implications of any alternative methodology will need to be considered by the Councils in the future.

Wider Context

1.6   While this update makes reference to updated local evidence shaping the need for housing in Stoke-on-Trent and Newcastle-under-Lyme, it also recognises the changing national context.

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[6] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment
[7] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent Joint Employment Land Review
[8] PPG Reference ID 2a-016-20150227
[9] Ibid
[10] DCLG (2017) Fixing our Broken Housing Market

1.7   The Housing and Planning Act received Royal Ascent in May 2016, introducing a range of measures which will impact upon the provision of housing. The Act makes provision to broaden the definition of affordable housing to include all people whose needs are not adequately served by the commercial housing market, inferring that sub-market housing may now be included. Starter Homes are also included in the definition of affordable housing, although secondary legislation is awaited to provide clarification on how Starter Homes are defined and implemented. This is considered further in section 6 of this report.

1.8   In June 2016, the UK voted to leave the European Union (EU) following a national referendum. Migration was central to the referendum debate, and is a key element of future population growth projections and therefore housing need. The decision to leave is expected to result in changes to existing international migration trends at a national level. However, the exact nature and scale of change remains unknown, pending the outcome of two years of formal negotiations which commenced when the Prime Minister triggered Article 50 in March 2017[11]. Further consideration is given to the projected scale of international migration in Stoke-on-Trent and Newcastle-under-Lyme in section 2 of this report.

1.9   The outcome of the referendum could also have long-term implications for the UK economy, creating some long-term uncertainty[12]. The potential economic impact of Brexit in Stoke-on-Trent and Newcastle-under-Lyme falls outside of the scope of this report and is therefore not considered, with economic inputs to the study directly referenced from the Councils' published ELR.

Consultation Responses

1.10   This update seeks to address comments received by the Councils during the issues consultation to inform the Joint Local Plan in February to March 2016. A review of comments has identified a number of recurring and common areas of observation regarding the conclusions of the 2015 SHMA and the methodological approach applied, including:

•   The importance of taking account of newly released official population and household projections to inform the ongoing development of the Joint Local Plan;

•   A suggestion that the implications of more up-to-date mid-year population estimates should be considered, through the development of alternative scenarios based on longer term migration trends, for example;

•   Acknowledgement that worsening trends in household formation amongst younger age cohorts should be adjusted where assumed to persist within official projections. It was noted that this should take account of the release of the more detailed Stage 2 household formation rate outputs within the official projections and consider in more detail the adjustments made to individual age groups;

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[11] Prime Minister's Letter to Donald Tusk triggering Article 50, 29 March 2017
[12] Speech by Mark Carney, Governor of the Bank of England – Uncertainty, the economy and policy (30 June 2016)

- The need to respond to worsening market signals, particularly the historic decline in the rate of housing development relative to targets. There was, however, acknowledgement that some market signals are less severe in Stoke-on-Trent and Newcastle-under-Lyme than neighbouring authorities and the national position, with this position particularly the case in Stoke-on-Trent;

- Suggestion that a higher level of housing provision may be needed to support forecast economic growth, albeit with some uncertainty noted about the level of job growth which could occur over the plan period. A further interrogation of the employment forecasts presented in the SHMA was recommended to justify an appropriate level of job growth to plan for, and the importance of taking account of the findings of the ELR is therefore clear;

- In developing employment-led growth scenarios, there was an acknowledgement that some allowance should be made for change in future labour force behaviour, reflecting national forecast change in economic participation, for example; and

- The importance of considering the housing needs of different groups was confirmed with the suggestion that there was a need for further consideration of the role and need for accommodation suitable for older cohorts. In this context it was suggested that an element of future need which may have previously been accommodated through institutional C2 accommodation may be more appropriately accommodated in suitable C3 extra care housing.

Structure

1.11 As noted above, the release of new data and the publication of the ELR collectively justify a review of the SHMA and an update to the key outputs including the OAN. Recognising that this forms a review of the SHMA, however, rather than a full replacement reference is made where appropriate throughout this update to the analysis presented in the 2015 SHMA, which is not fully replicated herein. In particular, the update does not reconsider the definition of the housing market area (HMA), with no significant new information available which would suggest that the definition should be amended. Equally, this update does not seek to provide the same level of analysis of baseline conditions below authority level, instead focusing on the wider HMA and the two authorities to reflect the evolving nature of policies below local authority level. The 2015 SHMA is considered to continue to represent a substantial source of the latest available baseline information at a sub-authority level. These specific elements of the 2015 SHMA should therefore continue to be read alongside this update. Outside of these aspects, the SHMA update represents a full update to the objective assessment of housing need (OAN), in accordance with the PPG.

1.12 This report is structured as follows:

- **Section 2 – Updated Demographic Projections of Housing Need** – the latest 2014-based population and household projections are introduced and compared with alternative trend-based demographic projections. The need for adjustment to this 'starting point' is considered through a detailed interrogation of its underpinning assumptions, reflecting on the historic demographic picture. An updated sensitivity testing of variant projections of need is presented to show the

impact of alternative demographic assumptions, including the latest published population estimates and adjustments to household formation rates;

- **Section 3 – Market Signals** – an updated analysis of market signals of the balance between housing supply and demand in Newcastle-under-Lyme and Stoke-on-Trent, in the context of trends seen in comparator areas;

- **Section 4 – Likely Change in Job Numbers and Implications for Housing Need** – drawing upon the conclusions of the ELR, the scale of labour force growth required to support likely job creation is considered, with the implications for housing need established;

- **Section 5 – Affordable Housing Need** – an updated assessment of the need for affordable housing in Stoke-on-Trent and Newcastle-under-Lyme, following the separate calculation process set out in the PPG. This integrates additional evidence where available to that used in the 2015 SHMA and considers the potential implications of the Housing and Planning Act;

- **Section 6 – Updated Objective Assessment of Need** – the evidence presented in preceding sections is evaluated and drawn together to objectively assess the need for housing in Stoke-on-Trent and Newcastle-under-Lyme. This considers the need for adjustments to the 'starting point' to take account of demographic factors, likely economic growth, market signals and the separately calculated affordable housing need;

- **Section 7 – Need for Different Sizes and Types of Housing** – following the guidance in the PPG, the size and type of households projected to form under the recommended OAN scenario are identified, with the implications for housing need considered; and

- **Section 8 – Conclusions** – a concise summary of this report and its implications for the conclusions of the SHMA.

2. Updated Demographic Projections of Housing Need

2.1   Following the guidance in the PPG[13], the SHMA referenced the then-latest 2012-based sub-national population projections (SNPP) and sister 2012-based sub-national household projections (SNHP) as the 'starting point' for the assessment of housing needs in Stoke-on-Trent and Newcastle-under-Lyme.

2.2   The SHMA acknowledged that these projections largely based trends on a short-term five year period (2007 – 2012) which was characterised by a severe national economic downturn. In the case of Stoke-on-Trent and Newcastle-under-Lyme, this was found to have impacted upon population growth and migration flows when compared with longer term trends.

2.3   On this basis, the SHMA presented a number of alternative trend-based demographic projections which drew upon and extrapolated population trends recorded over a longer term period (2003 – 2013) prior to and following the recession, concluding that:

"In the context of the complex factors which have potentially influenced population growth across the HMA, this is considered to represent a more appropriate demographic starting point for considering housing need than the 2012 SNPP dataset"[14]

2.4   Subsequent to the publication of the SHMA, the 2014-based SNPP were released by the Office for National Statistics (ONS) on 25 May 2016. This updated population growth projection underpinned the 2014-based SNHP later released by the Department for Communities and Local Government (DCLG) on 12 July 2016. While the demographic assessment in the SHMA is not automatically rendered out of date by these new datasets, the PPG requires local authorities to consider any '*meaningful change*' to ensure that housing needs assessments are informed by the latest available information[15].

2.5   This section introduces the new 2014-based projections and their underpinning assumptions, drawing comparisons with the scale of growth implied under each of the demographic scenarios presented in the SHMA. Recognising that a demographic adjustment was previously considered necessary, the section looks to establish whether a comparable adjustment to the 2014-based projections is required to provide an appropriate demographic projection of housing need. This is based on the development of updated sensitivity testing, which draws upon longer term trends and takes account of the latest available mid-year population estimates (MYE) produced by ONS, of which the latest (2015) was published in June 2016.

2.6   The section also considers the justification for an adjustment to the household formation rates within the official 2014-based SNHP dataset. This recognises that an adjustment was made to the household formation rates of younger households in the SHMA using the 2012-based SNHP.

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[13] PPG Reference ID 2a-015-20140306

[14] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (para 9.13)

[15] PPG Reference ID 2a-016-20150227

A New 'Starting Point'

2.7 The following table shows the projected change in population and households in Stoke-on-Trent and Newcastle-under-Lyme, based on the latest 2014-based projections. Household growth is converted to dwellings using a vacancy rate derived from the latest 2015 Council Tax Base statistics published by DCLG[16]. For consistency with the SHMA – and for alignment with the base date of the emerging Local Plan period (2013 – 2033) – change is presented over the period from 2013 to 2039.

Table 2.1:   2014-based Population and Household Projections 2013 – 2039

	Change 2013 – 2039				Average per year	
	Population	%	Hholds	%	Net migration	Dwellings
Newcastle-under-Lyme	12,674	10.1%	7,950	15.0%	506	315
Stoke-on-Trent	18,186	7.3%	12,280	11.4%	-422	490
HMA	**30,860**	**8.2%**	**20,230**	**12.6%**	**84**	**805**

Source: DCLG; ONS; Edge Analytics

2.8 The 2014-based SNHP suggest that over 20,000 new households will form in Stoke-on-Trent and Newcastle-under-Lyme over the period to 2039, driven by population growth of approximately 8%. This falls notably below the 17% population growth projected nationally over the same period. Proportionately, the strongest growth is expected in Newcastle-under-Lyme, with a net inflow of people projected. This contrasts with Stoke-on-Trent, where a net outflow of migrants is anticipated over the assessment period under the official datasets produced by ONS and DCLG.

2.9 Based on the application of a vacancy rate, the projected growth in households is expected to generate a need for 805 dwellings per annum across the HMA, with 490 homes needed annually in Stoke-on-Trent and 315 homes needed annually in Newcastle-under-Lyme.

2.10 The implied annual housing need under this scenario can be directly compared with the demographic scenarios previously presented in section 6 of the SHMA, which draw upon earlier population evidence and official projections and apply slightly different vacancy rates drawn from the 2011 Census. No adjustment to headship rates has been applied in any of the scenarios presented in Table 2.2.

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[16] DCLG (2015) Council Taxbase 2015 in England – 2.9% of all dwellings in Newcastle-under-Lyme are second homes or empty homes and 3.6% in Stoke-on-Trent. This relatively closely aligns with the 2011 Census vacancy rates used in the SHMA (3.0% and 3.8% respectively) but provides an updated position

**Table 2.2:   Comparing Implied Annual Housing Need 2013 – 2039**

	Newcastle-under-Lyme	Stoke-on-Trent	HMA
10 year Past Growth including UPC*	303	749	1,052
10 year Past Growth*	329	600	929
2012-based SNPP*	239	452	691
2014-based SNPP	**315**	**490**	**805**

* 2015 SHMA scenario
Source: Edge Analytics (2015 and 2016)

2.11   It is evident that the 2014-based projections suggest a greater need for housing in both authorities when compared to the previous official 2012-based projections, although the overall scale of implied need within the new dataset continues to fall below the longer term 10 year trend-based scenarios developed in the 2015 SHMA.

2.12   The following chart shows the overall trajectory of population growth in Stoke-on-Trent and Newcastle-under-Lyme under the latest 2014-based SNPP and preceding 2012-based dataset. This shows that the 2014-based SNPP projects a higher level of population growth over the period to 2039, continuing the comparatively strong population growth trend seen over more recent years.

Figure 2.1:   Historic and Projected Population Growth in the HMA
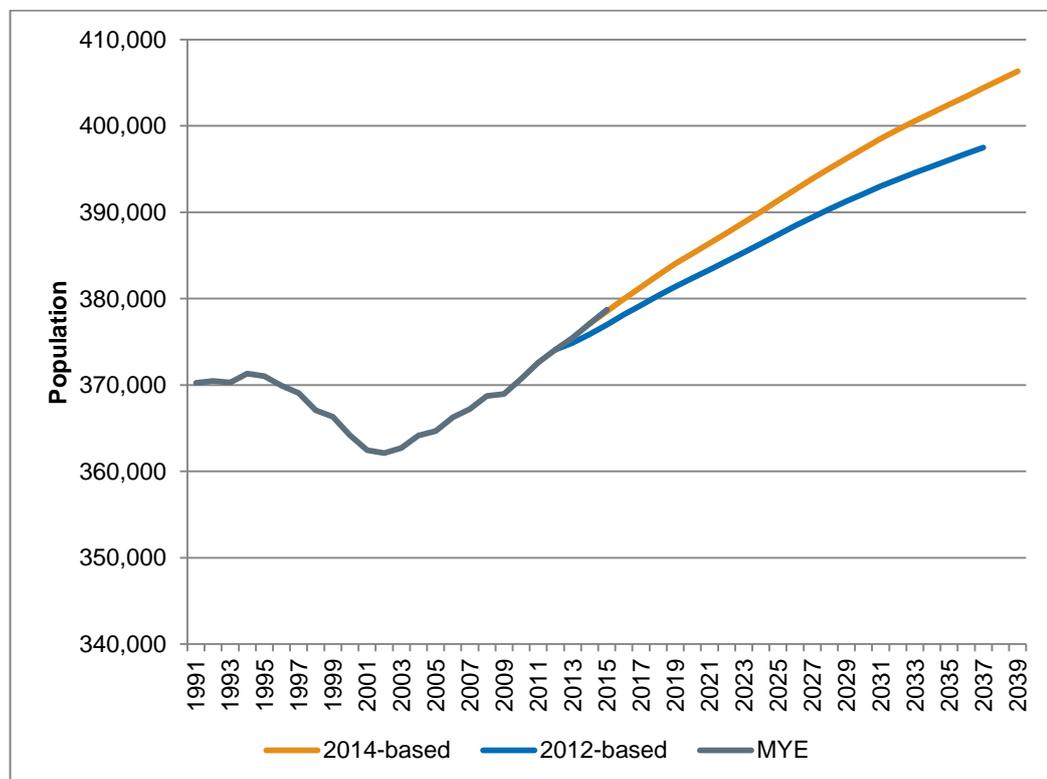
Source: ONS

2.13   When considering the projections for each authority separately, it is evident that Newcastle-under-Lyme has seen the greatest increase in its projected population growth, with the projection for Stoke-on-Trent broadly consistent albeit slightly higher towards the end of the projection period.

Figure 2.2:   Historic and Projected Population Growth by Local Authority
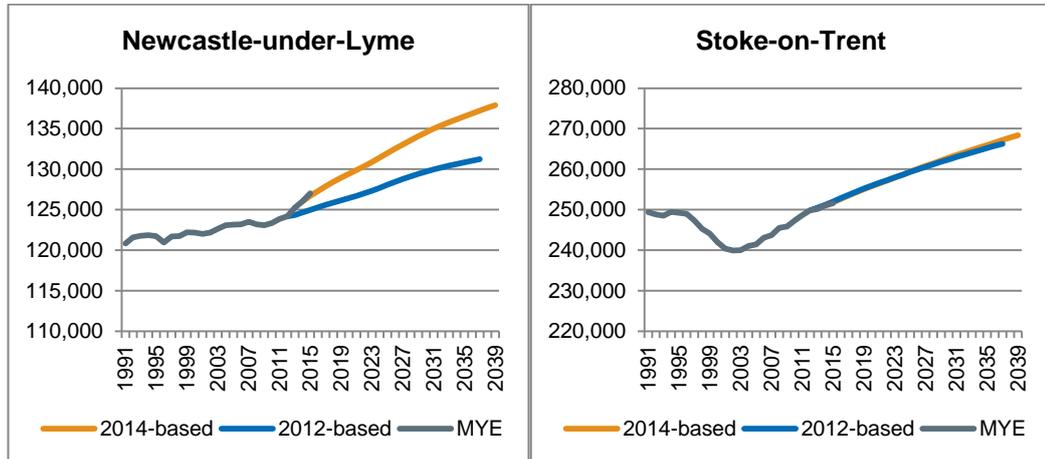
Source: ONS

2.14   On this basis, Newcastle-under-Lyme is projected to accommodate population growth over the period to 2039 which is some 75% higher than suggested by the previous dataset[17]. A more modest uplift of circa 8% is suggested for Stoke-on-Trent, reflecting the limited change in the projection for the authority. This is illustrated in the following chart.

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[17] Given that 2012-based SNPP runs only to 2037, this analysis is based on the extrapolation to 2039 presented in the 2015 SHMA

Figure 2.3:   Comparing Projected Population Growth 2013 – 2039
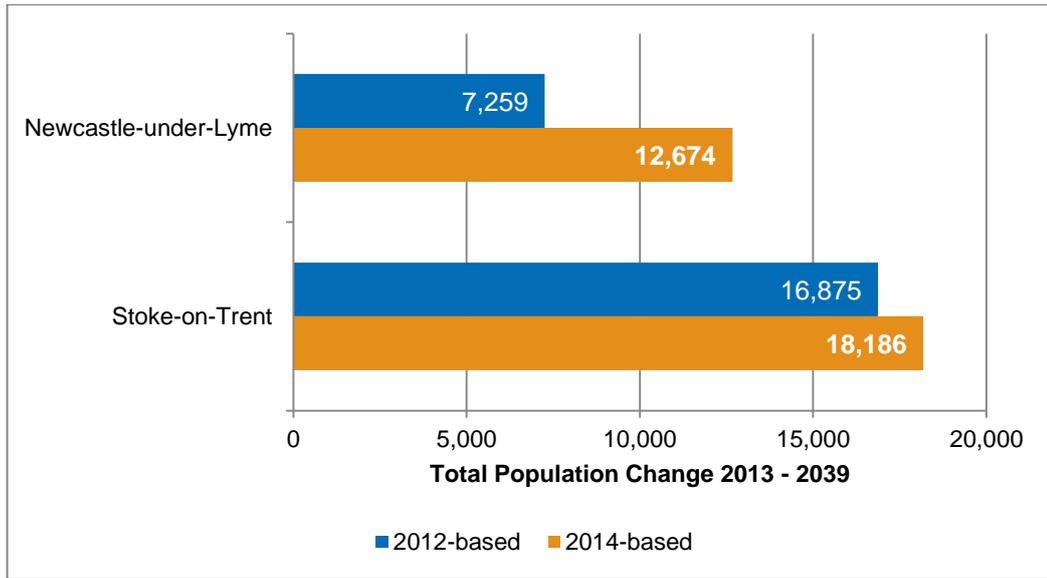
Source: ONS

2.15   This is driven by variation in the projected role of migration, births and deaths in driving change in the population over the assessment period. The following chart shows the total net migration flow projected under both the 2014-based and preceding 2012-based SNPP, and the projected net balance between births and deaths ('natural change').

Figure 2.4:   Comparing Projected Components of Change 2013 – 2039
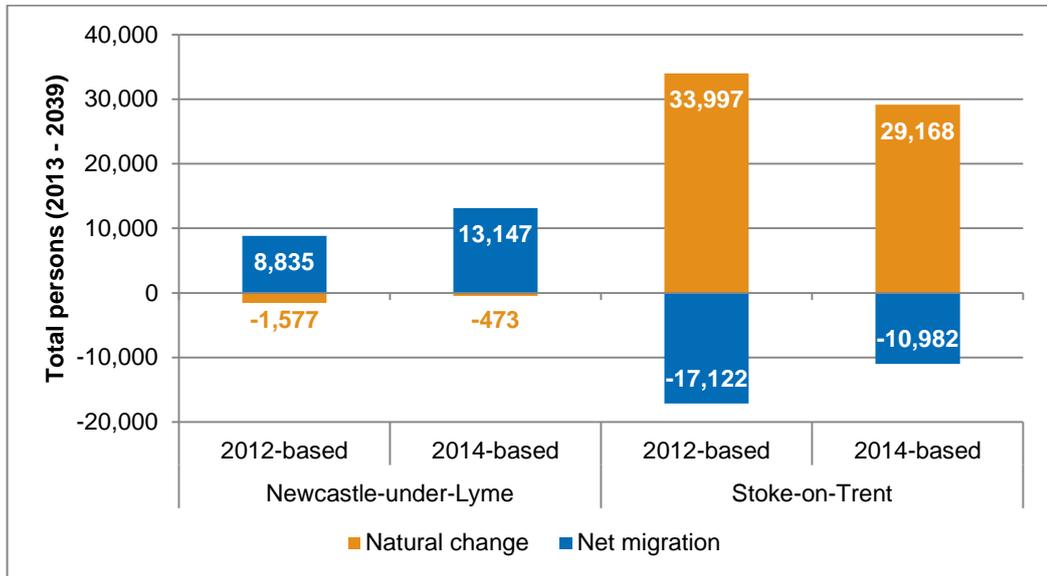
Source: ONS

2.16   In Newcastle-under-Lyme, the net inflow of migrants assumed under the 2014-based SNPP is larger in scale than that assumed previously. This represents the main area of difference between the two projections, although a smaller reduction in the population

as a result of natural change is anticipated which suggests that births and deaths will be more balanced than previously projected.

2.17 For Stoke-on-Trent, the 2014-based SNPP assumes a smaller net outflow of migrants over the period to 2039, albeit those moving out will continue to substantially outnumber those moving to the city. Natural change therefore remains the principal positive driver of growth in the population, although a slightly smaller level of growth is attributable to this component relative to the 2012-based SNPP.

Considering the Implications of Historic Population Evidence

2.18 The above analysis can be further contextualised through an appraisal of the historic demographic profile of Stoke-on-Trent and Newcastle-under-Lyme, based on the latest official mid-year population estimates (MYE) published by ONS. Following preparation of the SHMA – which based its analysis on demographic trends to 2013 – two additional years of population data have been published, enabling an understanding of population trends to mid-2015.

2.19 In mid-2015, there were an estimated 251,648 residents in Stoke-on-Trent and 127,045 residents in Newcastle-under-Lyme. Across the HMA, the mid-2015 population is therefore estimated as 378,693, having increased by circa 3,227 persons since 2013.

2.20 While it is recognised that this dataset provides only an estimate of the population – given that the Census provides the most comprehensive and accurate count of the population on a decennial basis – the published Quality Assurance data[18] released by ONS enables a further validation of the estimated population and recent change since the 2011 Census. The following table shows how the MYE and NHS Patient Register[19] have changed since 2011.

Table 2.3:   Change in MYE and Patient Register 2011 – 2015

|	Newcastle-under-Lyme	Stoke-on-Trent
MYE 2011	123,920	248,770
MYE 2015	127,040	251,670
Change 2011 – 2015	**3,120**	**2,900**
% change 2011 – 2015	2.5%	1.2%
Patient Register 2011	126,020	259,560
Patient Register 2015	128,890	266,790
Change 2011 – 2015	**2,870**	**7,230**
% change 2011 – 2015	2.3%	2.8%

Source: ONS

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[18] ONS (2016) Population Estimates Quality Tools – 2015 Mid-year estimate QA pack (version 2)

[19] The NHS Patient Register records details about a patient when they register with a GP in England and Wales, which provides an estimate of resident population

2.21   For Newcastle-under-Lyme, this shows that growth in the Patient Register has broadly aligned with the MYE data since 2011. However, the data suggests that the Patient Register in Stoke-on-Trent has grown to a considerably larger extent than implied by the MYE. Given that the population of Stoke-on-Trent has previously been underestimated by ONS[20] – before the findings of the 2011 Census were known and previous estimates were upwardly adjusted – this suggests that population growth to 2015 in the city may have surpassed the levels suggested by the MYE datasets, with the ONS MYE dataset continuing to underestimate growth. While it is not suggested that the Patient Register should be used in preference to the official MYE dataset – noting that this dataset has known issues relating to its timeliness and coverage[21] – it nevertheless provides context in interpreting the level of growth implied by the MYE in Stoke-on-Trent in particular.

2.22   The scale of growth implied by the MYE since 2013 can also be benchmarked against the demographic scenarios presented in the SHMA. Comparison can also be made with the 2014-based SNPP, albeit this projection integrates the 2014 MYE and therefore includes only one year of projected data. This is illustrated in the following chart.

Figure 2.5:   Projected and Estimated Population Change 2013 – 2015
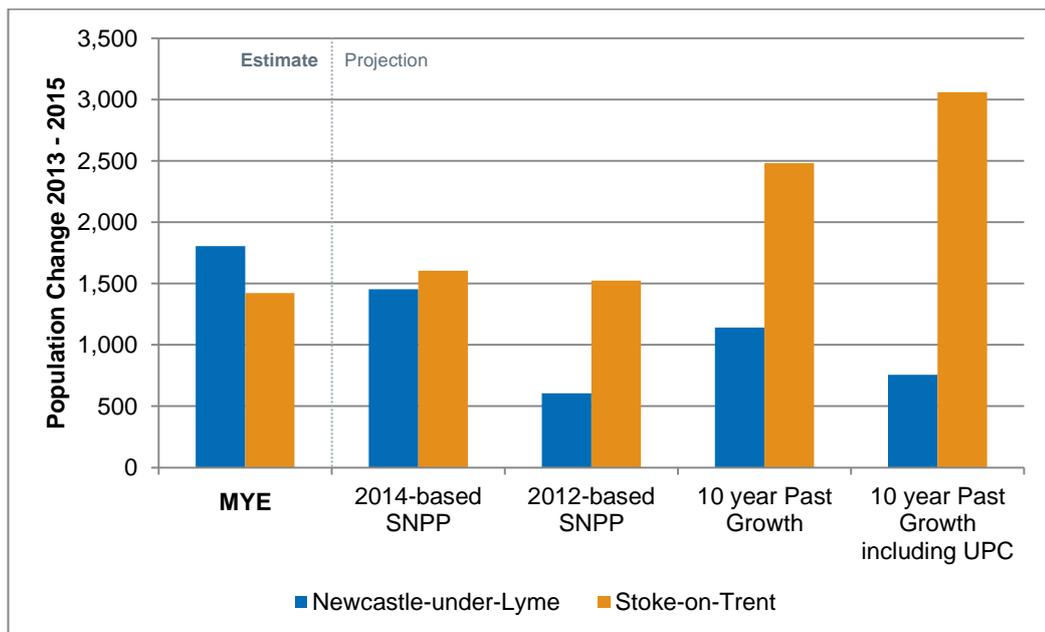
Source: ONS; Edge Analytics

2.23   It is evident that estimated population growth (MYE) in Newcastle-under-Lyme over the period from 2013 to 2015 has surpassed the level of growth anticipated within both official projections and alternative trend-based projections developed within the SHMA. Conversely, change in the population of Stoke-on-Trent has broadly been in line with that projected by both the 2014-based and preceding 2012-based SNPP, albeit falling below the growth implied by the alternative longer term demographic trend-based scenarios. As set out above, however, a consideration of other demographic datasets

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[20] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (para 6.48)
[21] ONS (2016) Information Paper – Quality and Methodology Information, Annual Mid-Year Population Estimates

suggests that the population of Stoke-on-Trent may well have grown by a greater level than implied by the ONS MYE.

2.24   The following table summarises the estimated components of population change over this period, highlighting commonality and divergence from the projections for each authority.

Table 2.4:   Projected and Estimated Components of Population Change 2013 – 2015

	MYE	2014-based SNPP	2015 SHMA scenario		
			2012-based SNPP	10 year Past Growth	10 year Past Growth including UPC
Newcastle-under-Lyme					
Natural change	**35**	31	132	209	204
Net internal migration	**545**	183	-105	338	373
Net international migration[22]	**1,226**	1,240	579	593	179
Stoke-on-Trent					
Natural change	**2,246**	2,367	2,895	2,896	2,904
Net internal migration	**-2,418**	-2,176	-2,625	-2,181	-2,188
Net international migration[23]	**1,593**	1,412	1,255	1,765	2,343

Source: ONS; Edge Analytics

2.25   In Newcastle-under-Lyme, it is evident that the higher levels of population growth recorded over recent years have been primarily driven by higher levels of net internal migration, indicating that more people are moving to the borough from other parts of the UK than suggested by both official and alternative trend-based projections. Net international migration has also driven population growth, albeit this aligns closely with the 2014-based SNPP.

2.26   In Stoke-on-Trent, natural change has not grown the population to the extent anticipated over the period to 2015, although this remains the main driver of population growth in the city. There has been a larger net outflow of migrants to other parts of the UK than suggested by the 2014-based SNPP or indeed the alternative trend-based demographic projections, although the flow has been smaller than anticipated by the 2012-based SNPP. The net flow of international migrants, however, has exceeded the levels implied by both official projections, albeit falling below the longer-term demographic scenarios developed previously by Edge Analytics and used within the 2015 SHMA.

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[22] Includes other change
[23] Includes other change

2.27   With migration a key area of difference between demographic scenarios – and given the SHMA's acknowledgement of the sensitivity of migration to a range of factors in the HMA – it is particularly important to understand how the projected level of migration under the 2014-based SNPP compares with historic levels of migration on an annual basis.

2.28   In Newcastle-under-Lyme, the following chart shows that while the projected level of net migration to the borough has increased under the latest 2014-based SNPP – when an average over the full assessment period is calculated – higher levels of net migration have been frequently seen since 2001, including earlier in the last decade and over the past three years.

**Figure 2.6:   Historic and Projected Net Migration to Newcastle-under-Lyme**
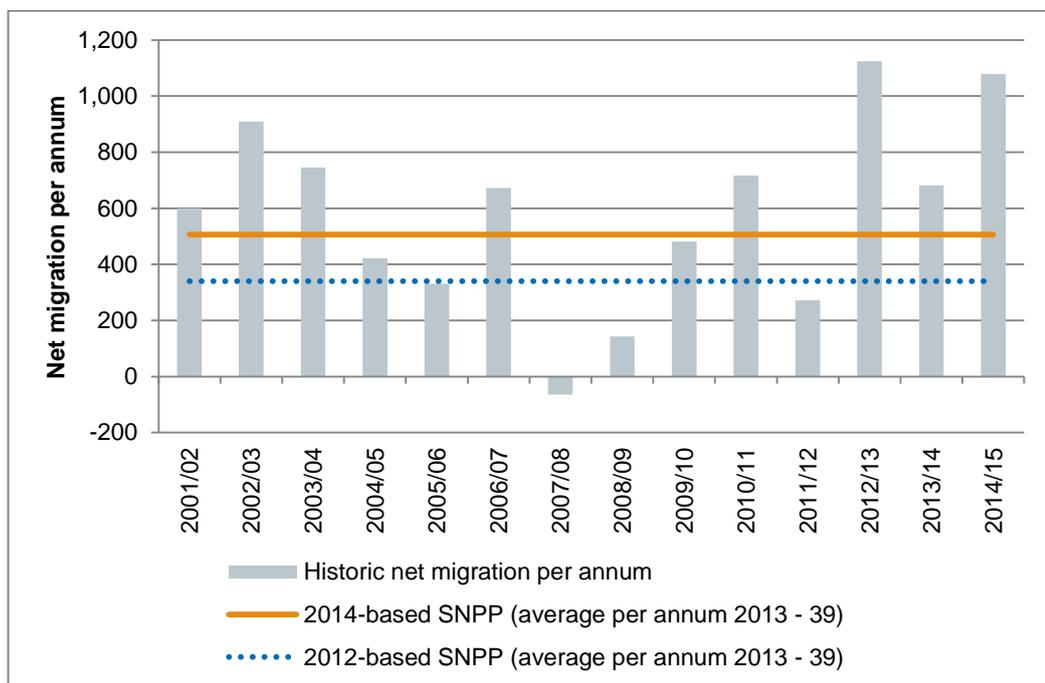
Source: ONS

2.29   In Stoke-on-Trent, it is similarly apparent that the net outflow of migrants from the city has historically been smaller than the 2014-based SNPP suggests will happen in the future on several occasions. It is, however, clear that migration levels have varied considerably on an annual basis over the period shown.

Figure 2.7: Historic and Projected Net Migration to Stoke-on-Trent
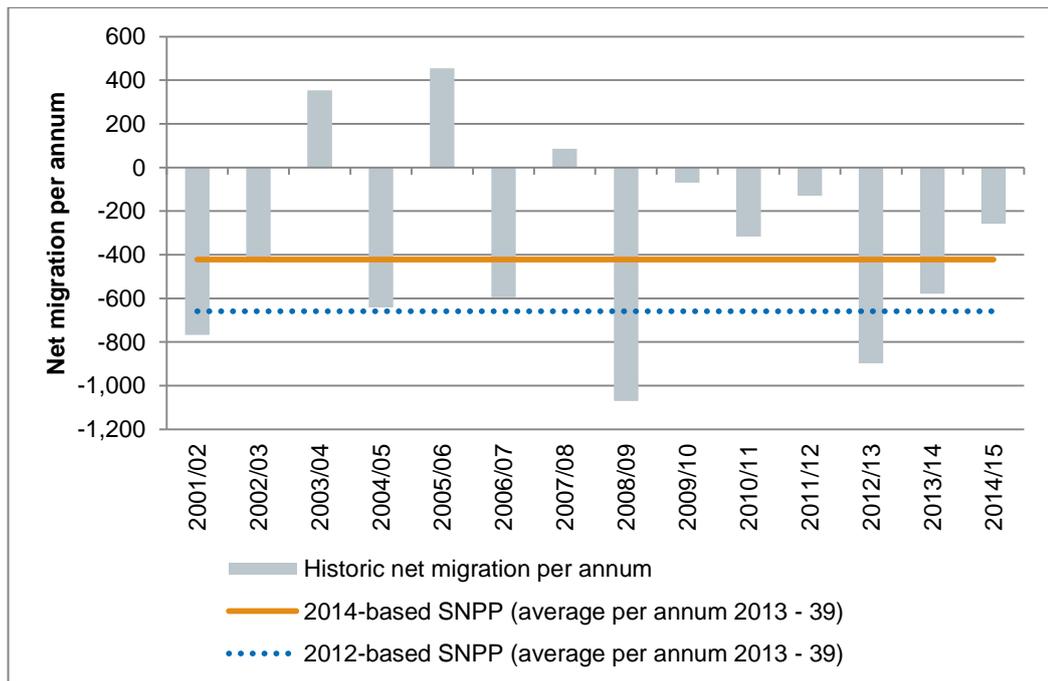
Source: ONS

2.30 Recognising the variation in historic levels of migration, it is important – in accordance with the PPG – to consider the extent to which the historic demographic profile has potentially been impacted by the variable rate of development in Stoke-on-Trent and Newcastle-under-Lyme, particularly in the context of evidenced under-delivery or undersupply.

2.31 The 2015 SHMA recognised that the movement of people can be constrained in areas with an undersupply of housing, and indeed there is evidence that the flow of people moving to Stoke-on-Trent and Newcastle-under-Lyme declined during the recession as the rate of new housing development slowed. The following chart shows how the rate of development in Stoke-on-Trent and Newcastle-under-Lyme has changed since 2001.

Figure 2.8:   Net Completions in Stoke-on-Trent and Newcastle-under-Lyme
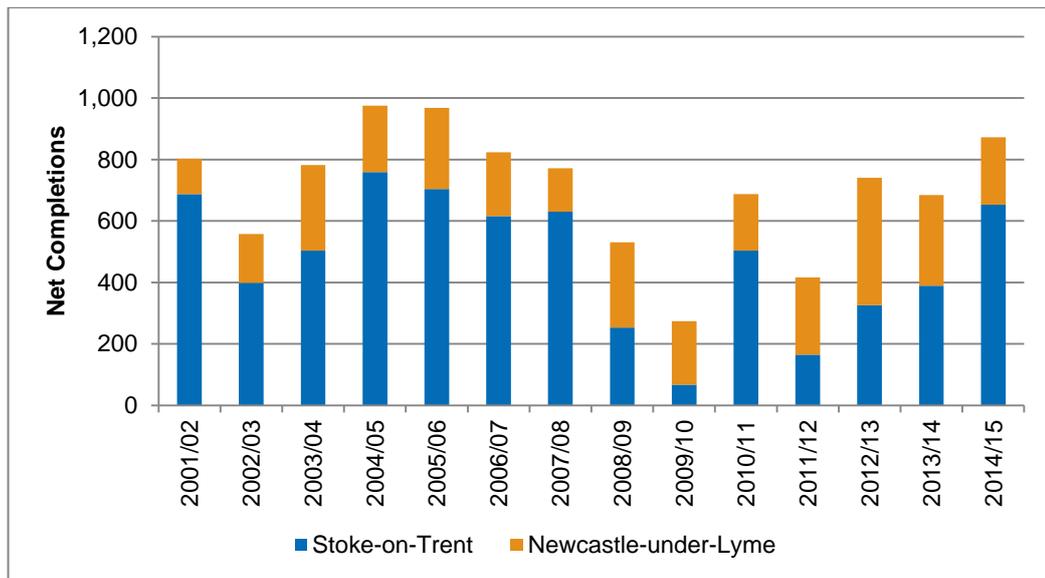
Source: Council monitoring

2.32   It is evident from Figure 2.8 that the rate of development fell considerably during the recession, particularly in Stoke-on-Trent, having remained at a relatively consistent level earlier in the decade. Furthermore, the analysis in the SHMA recognised the influence of the RENEW Housing Market Renewal initiative in potentially constraining historic housing development, and offsetting gross completions – particularly in Stoke-on-Trent – with relatively high levels of demolition. This was noted as an important defining feature of the housing market[24].

2.33   In the context of the HMA, it is important to consider the notably lower levels of housing development seen between 2008 and 2012 in particular when assessing the appropriateness of projecting forward future needs on the basis of a trend-based projection, which has been strongly influenced by this period of comparatively lower development. On this basis – as in the SHMA – it is considered important to understand the implications of drawing upon longer term demographic trends which are less likely to be influenced by this specific period of time and demographic picture when establishing the level of housing need which should be planned for. This is explored further later in this section.

International Migration

2.34   The analysis of 2011 Census data within the SHMA (Figure 8.20) indicated that Stoke-on-Trent and particularly Newcastle-under-Lyme contain a relatively high representation of White British residents, compared to the national profile. Furthermore, it found that net international migration has been a driver of population growth in the HMA over recent years, and the updated analysis presented earlier in this report shows that migration is projected to continue to be a significant driver of population change under the 2014-based SNPP, with a net inflow of migrants to Newcastle-under-Lyme and a net outflow from Stoke-on-Trent.

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[24] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (para 5.63 – 5.72)

2.35   The projection can be further disaggregated to understand the projected role of internal and international migration across the HMA, as summarised in the following chart. Both historic and projected net flows are presented, although the flow suggested by the 2015 MYE is also overlaid to provide context on change since the 2014 base date of the official projections.

Figure 2.9:   Historic and Projected Internal and International Migration (HMA)
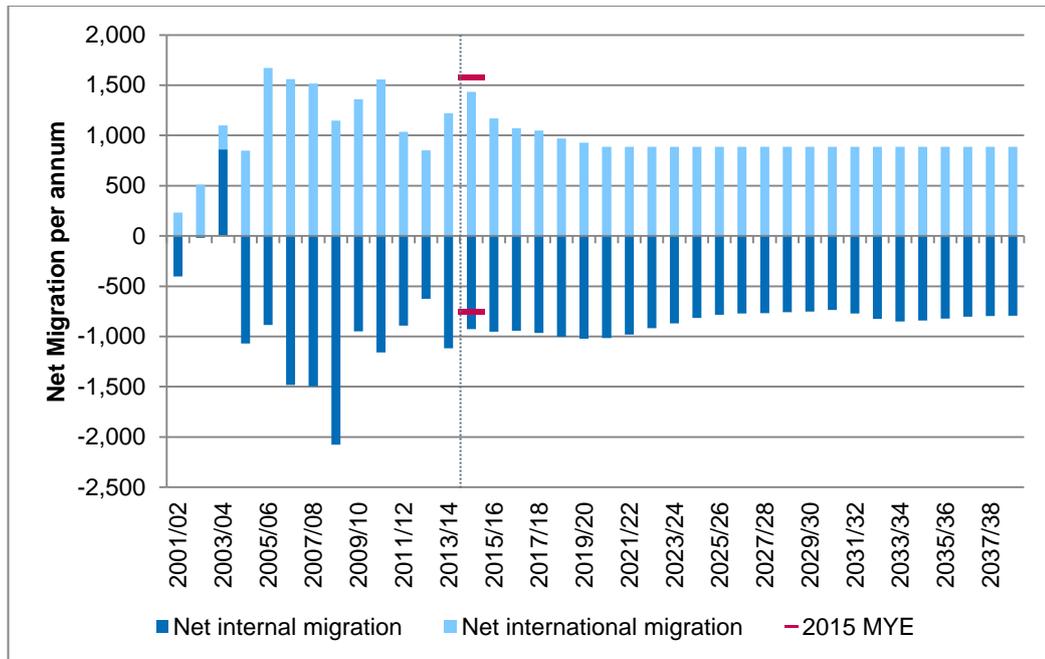
Source: ONS

2.36   The 2014-based SNPP follows the historic trend in projecting forward a net inflow of international migrants and a net outflow of internal migrants over the period to 2039, albeit the scale of flow is lower than recent peaks. The implied net flow of international migrants is also lower than the latest year of data suggests, indicating that the 2014-based SNPP is predicated upon a 44% reduction in current levels of net international migration to the HMA by 2020.

2.37   The official projection makes no assumption on the origin or nationality of future international migrants, as confirmed by the National Statistician and Chief Executive of the UK Statistics Authority:

"The migration assumptions are set in terms of in and out flows for the constituent countries of the UK by age and sex; they are not produced by nationality or country of last residence. Therefore ONS does not have an estimate of the number of immigrants from other EU and EEA member states who will (a) enter and (b) settle in the UK in each of the next five years"[25]

2.38   As noted within the introduction to this report, there is an expectation that the UK's decision to leave the EU will lead to a change in national immigration policy, although

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[25] Letter from John Pullinger CB CStat to William Wragg MP (29 April 2016)

this will not occur before 2019. This evidently creates some uncertainty when projecting forward international migration based on past trends.

2.39   While EU migrants cannot be isolated within official projections, the origin of past international migrants to Stoke-on-Trent and Newcastle-under-Lyme can be understood using National Insurance Number (NINo) data sourced from the Department for Work and Pensions, updating the data presented at Figure 4.11 and 4.12 of the SHMA. This groups migrants by world regions, but provides a measure of gross registrations and therefore only captures inward international migration rather than emigration. It therefore cannot be directly compared with net figures presented in this report.

Figure 2.10:   NINo Registrations to Adult Overseas Nationals Entering the UK (HMA)
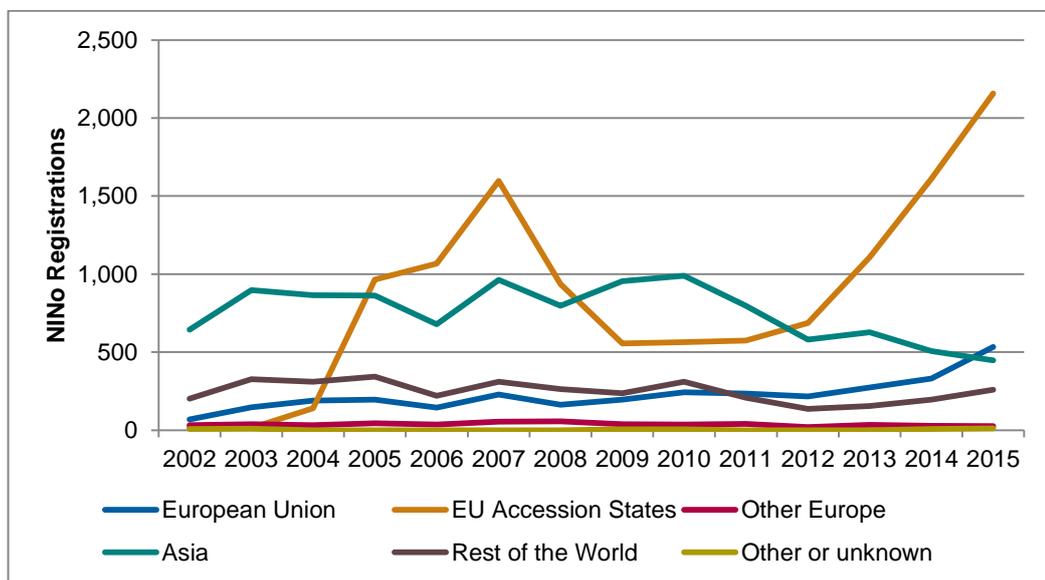
Source: DWP

2.40   The data suggests that the HMA has seen a strong inflow of international migrants from EU accession countries between 2003 and 2007, which fell over subsequent years before increasing significantly since 2012. EU nationals accounted for approximately half (51%) of NINo registrations in Stoke-on-Trent and Newcastle-under-Lyme over the period shown above, increasing to 72% over the past three years (2013 – 2015). This shows that a sizeable number of internationals migrating to the area in the past have originated from the EU.

2.41   Future change in immigration policy as the UK leaves the EU is likely to influence the scale of this inflow, which – at a national level – could be expected to reduce from its current level.

2.42   The latest migration data for the UK[26] shows that there was a net inflow of 248,000 international migrants over the year ending December 2016. This indicates that the net outflow of 60,000 British citizens was outnumbered by the inflow of 175,000 non-EU migrants and 133,000 from EU member states during this period. This represents a

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[26] ONS (2016) Migration Statistics Quarterly Report – May 2017

'*statistically significant*' fall from the recent peak, and is the lowest level of net migration recorded for over two years. The ONS has, however, previously cautioned that '*it is too early to say what effect the referendum result has had on long-term international migration*'[27].

2.43   Within this context, it is important to interrogate the latest 2014-based national population projections (NPP) in further detail, recognising that they underpin the 2014-based SNPP and therefore the official 'starting point' of the 2014-based household projections. While the methodological assumptions predate the outcome of the EU referendum, they equally do not seek to take account of political factors and instead extrapolate projections on the basis of historic trends. They are explicitly '*produced without trying to predict any potential impacts of unrealised factors*'[28].

2.44   Over the projection period to 2039, the 2014-based NPP projects a short-term reduction in the scale of international migration, reaching approximately 185,000 by 2020/21 and remaining at this level thereafter. This is illustrated in the following chart, with the latest statistics – covering the year ending December 2016 – also shown for context.

Figure 2.11:   Projected Net International Migration to UK – 2014-based NPP
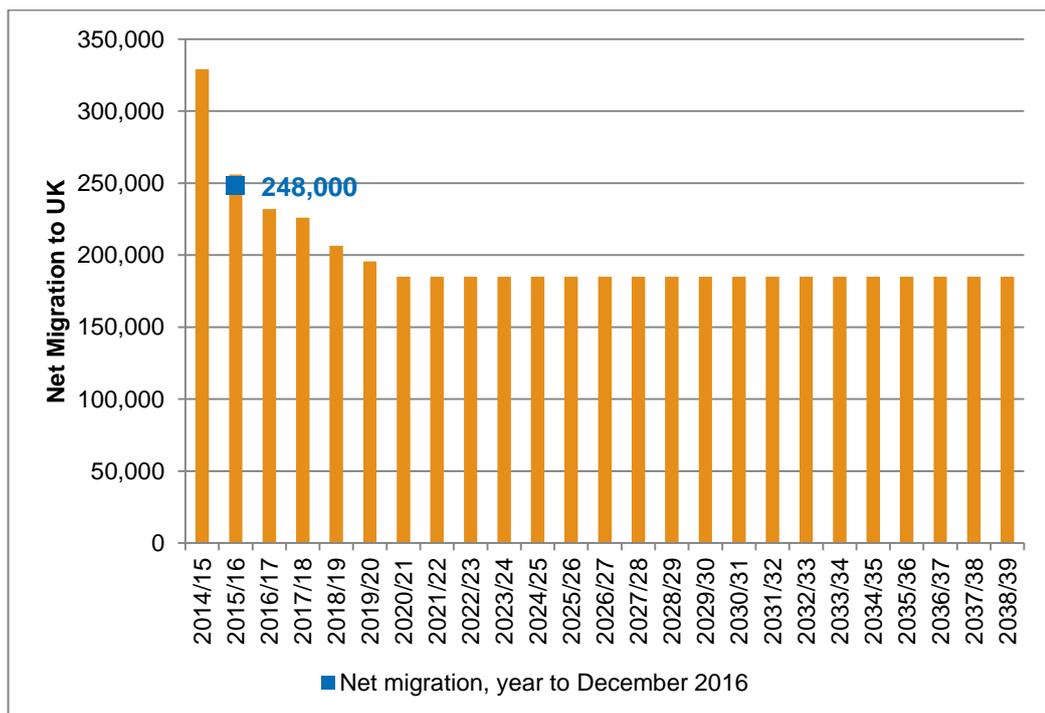
Source: ONS

2.45   The 2014-based NPP evidently does not maintain net international migration at current levels, and inherently assumes that international migration falls to around 185,000 per annum within five years. This represents a reduction of some 25% in the net inflow compared to the latest national statistics. Assuming that non-EU migration levels and

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[27] ONS (2017) Migration Statistics Quarterly Report – February 2017
[28] ONS (2016) Information Paper Quality and Methodology Information

the outflow of British nationals remain at their recent rates, this could only be achieved through a 47% reduction in the flow of migrants from the EU over the next five years.

2.46   On this basis, there is no evidenced justification for viewing the projections of population growth implied by the 2014-based NPP, SNPP and SNHP as an overestimate of future growth in the short term or indeed over a longer term plan period. It is understood that no further iterations of the official projections are planned for release in advance of the 2016-based dataset, which will not be published before late 2017 following the usual timetable. This will be the first set of official national projections to be published following the decision to leave the EU.

Variant Projections of Population Growth

2.47   As acknowledged earlier in this section, official projections are underpinned by short-term trends – primarily recorded between 2009 and 2014 for the latest release – which in the case of the HMA are unlikely to be representative of trends recorded over the long-term. In particular, there remains a risk that the comparatively low levels of development following the recession have suppressed demographic trends, particularly in relation to migration. Extending the period upon which trends are based therefore balances this suppressed market context with healthier market periods, providing a more balanced perspective on the level of population growth which could occur if past demographic trends continue.

2.48   Developing alternative trend-based demographic projections therefore provides important context in evaluating the 'starting point' and considering the need for adjustments, and indeed this formed a central component of the assessment of future housing need in the 2015 SHMA. However, as noted earlier in this section, an additional two years of population data – the 2014 and 2015 MYE – are now available since the SHMA was produced, and these years are therefore taken into account within the modelling presented below. However, to maintain consistency with the SHMA – and retain alignment with the base year of the plan period – change over the period from 2013 to 2039 is presented, with population estimates integrated to 2015 based on official MYE datasets and projections of change modelled thereafter.

2.49   Using the POPGROUP model, a series of demographic scenarios have been developed by Edge Analytics based on historic demographic evidence, detailed at Appendix 1. This effectively updates the longer-term demographic trend-based scenarios developed in the SHMA by integrating additional years of population data. The following scenarios have been developed:

•   **Past Growth 10 year** – internal migration rates and international migration counts based on trends recorded between 2005 and 2015; and

•   **Past Growth Long Term** – internal migration rates and international migration counts based on trends recorded between 2001 and 2015. This is the earliest period for which consistent and robust demographic data for local authorities is published by ONS.

2.50   The SHMA developed additional demographic sensitivities which tested the impact of including and excluding unattributable population change (UPC). This is associated with

an underestimation of the population of Stoke-on-Trent during the years preceding the 2011 Census, and a modest overestimation of Newcastle-under-Lyme's population. UPC is explicitly not included within the 2014-based SNPP produced by ONS. The sensitivity scenarios in the SHMA illustrated that if this component were included, projected population growth in Stoke-on-Trent would be elevated, with a small reduction in the projected growth of Newcastle-under-Lyme.

2.51   The scenarios presented in this section were developed by Edge Analytics and exclude UPC, for consistency with the methodology applied by ONS in developing official projections. It is recognised that the issue of UPC impacts upon historic demographic trends recorded between 2001 and 2011, which could result in future population growth in Stoke-on-Trent being underestimated. Within this context, it is noted that alternative data sources – such as the Patient Register – indicate that the population of Stoke-on-Trent has grown to a greater extent than implied by the ONS MYE datasets since 2011.

2.52   However, rather than align more closely with the Patient Register data or apply an adjustment to account for UPC – noting that this approach is not taken by the ONS and the different impact this would for the two authorities – it is considered appropriate to assess the implications of these factors in the context of other adjustments made in arriving at the OAN following the PPG methodology in section 6 of this report. This recognises that the SHMA applied an uplift in deriving the OAN which exceeded any impact of adjusting for UPC, due to the conclusion that an above-trend level of migration was required to support job growth with a higher population projection. For completeness, however, in order to understand its potential impact on demographic past growth trends and their extrapolation over the assessment period, Appendix 2 presents the outputs of scenarios developed by Edge Analytics to include UPC for Stoke-on-Trent.

2.53   The following table summarises the outputs of the scenarios developed by Edge Analytics, in a comparable format to Table 2.1.

Table 2.5:   Alternative Demographic Trend-based Projections

	Change 2013 – 2039				Average per year	
	Population	%	Hholds	%	Net migration	Dwellings
Past Growth 10 year						
Newcastle-under-Lyme	13,348	10.7%	8,464	15.9%	529	335
Stoke-on-Trent	23,445	9.4%	13,705	12.7%	-348	547
HMA	**36,793**	**9.8%**	**22,169**	**13.8%**	**181**	**882**
Past Growth Long Term						
Newcastle-under-Lyme	14,602	11.7%	8,821	16.6%	571	349
Stoke-on-Trent	23,539	9.4%	14,192	13.1%	-314	566
HMA	**38,141**	**10.2%**	**23,013**	**14.3%**	**257**	**915**

Source: Edge Analytics

2.54   The Past Growth Long Term scenario results in the highest level of population growth, driven in large part by the higher projected levels of net migration to the HMA over the assessment period. Notably, however, each of the scenarios presented suggests a higher level of population growth than projected under the 2014-based SNPP, as shown in the following charts.

Figure 2.12:   Historic and Projected Population Growth by Authority
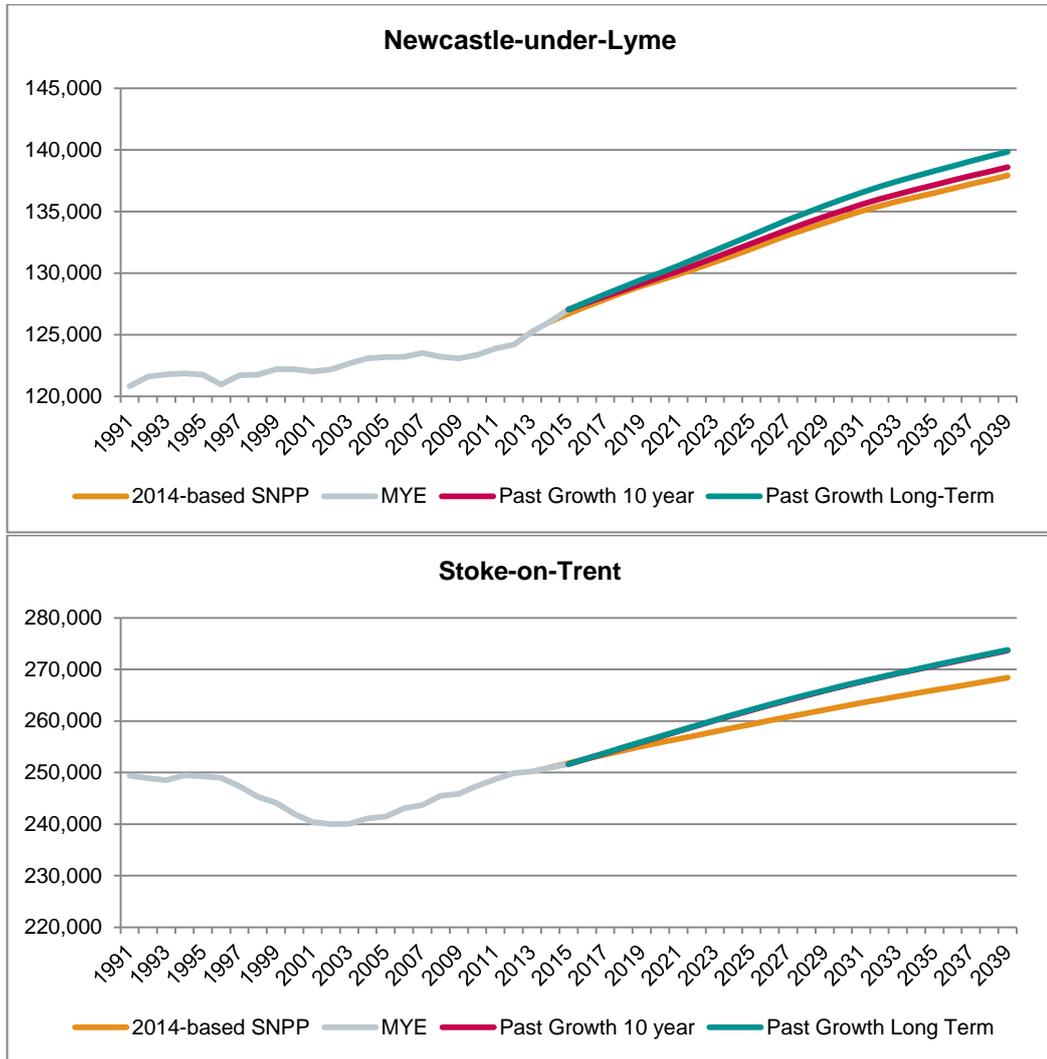
Source: ONS; Edge Analytics

2.55   The higher levels of net migration projected under each of these scenarios indicate that a continuation of longer-term demographic trends would grow the population of the HMA to a greater extent than envisaged under the 2014-based SNPP, which forms the 'starting point' for the assessment of housing need. This suggests that the need for housing may exceed that implied by the 'starting point' on the basis of adjustments to the demographic projections alone.

2.56   Recognising that the SHMA previously concluded that the then-latest official projections required adjustment to better reflect longer-term demographic trends, this suggests that a similar adjustment to the 2014-based SNPP continues to be appropriate and justified on the basis of the evidence presented.

Projecting Household Growth

2.57   As recognised within the SHMA, official population and household projections released by ONS and DCLG respectively are interlinked, with the latter derived from the

application of household formation rates ('headship rates') to the projected growth in population. This provides an estimate of the total number of households projected to form, representing the 'starting point' for the assessment of housing need.

2.58   The PPG specially references that household formation rates could require adjustment, recognising that they are largely trend-based and therefore do not take account of factors influencing local demography. The PPG notes that '*formation rates may have been suppressed historically by under-supply and worsening affordability of housing*'[29], for example.

2.59   The increased number of younger households unable to access the housing market has been consistently recognised as a fundamental issue by the Government. The explanatory notes[30] released with the Housing and Planning Act 2016 cite the one in four (26%) younger people aged 20 to 34 who were still living with parents in 2014, and young adults in this age group are more likely to be sharing a home with their parents than at any time since 1996[31]. The Redfern Review recently considered the implications and causes of these changes:

"The most obvious example of the hidden household in the context of this Review is young adults living at home with mum and dad because they cannot afford to move out – either to buy or to rent…It is difficult to believe that, all of a sudden, the preference for 25-34 year olds has changed so that they want to stay at home. Their decisions must be influenced by the changing availability of housing and the changing affordability constraints faced by this group"[32]

2.60   The SHMA concluded that the household formation rates underpinning the 2012-based SNHP required adjustment in Stoke-on-Trent and Newcastle-under-Lyme:

"It is considered that housing market factors, including affordability, are most likely to have impacted on younger households (ie those aged 20 – 39) with regards to their capacity and ability to form households…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 does not suggest a recovery to rates seen in 2001 but rather a continuation or marginal uplift"[33]

2.61   The SHMA presented a sensitivity scenario which adjusted headship rates for younger age groups to return to 2001 levels. This year was used as a benchmark on the basis that the housing market subsequently saw a significant period of growth from this point, with prices far exceeding rises in income. This approach to adjust household formation for younger groups has been recognised as an appropriate adjustment in objectively assessing the need for housing[34]. Inspectors have also recognised that:

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[29] PPG Reference ID 2a-015-20140306
[30] Explanatory Notes, Housing and Planning Act 2016
[31] ONS Digital (February 2016) Why are more young people living with their parents?
[32] Redfern Review (2016) The Redfern Review into the decline of home ownership
[33] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (paras 6.66 – 6.67)
[34] Report on the Examination into the Brighton and Hove City Plan Part One, February 2016 (para 21); Report on the Examination of the Tamworth Local Plan 2006 – 2031, February 2016

"Low household formation rates can and do have harmful social impacts, such as the creation of concealed households. Because of this I am not persuaded that the correct response is simply to reflect these projected rates in the OAN…rather than seeking to address and improve the situation"[35]

2.62   In order to assess the extent to which such an adjustment remains appropriate in relation to the 2014-based SNHP, a comparable exercise was undertaken to compare the historic and projected household formation rates in the dataset by age group for each of the authorities, set out at Figure 3 and Figure 4 of Appendix 1. This shows that the 2014-based SNHP applies similar household formation rate assumptions for younger age groups to its preceding 2012-based iteration.

2.63   Given the conclusions of the SHMA – and responding to the guidance in the PPG – it is therefore considered that a comparable adjustment to household formation rates is required. Allowing for this positive return to higher levels of household formation for those groups most affected by the worsening affordability of housing is considered important in ensuring that this suppressed market context does not form the basis for future plan-making. This reflects the guidance in the PPG and the conclusions reached in the SHMA in this regard, and equally aligns with the Government's recently stated intentions to '*create a more efficient housing market whose outcomes more closely match the needs and aspirations of all households and which supports wider economic prosperity*'[36]. Indeed, there is recent evidence that numerous factors – including Government initiatives – are currently supporting a recovery in the number of first-time buyers[37], but it is evidently important to ensure that sufficient housing is provided to sustain this recovery.

2.64   A similar adjustment has therefore been applied to the 2014-based headship rates, for those younger age groups[38] where household formation is not projected to recover to respective 2001 rates by 2024. For these age groups, an adjustment is applied to return to 2001 rates by 2024 before following the projected trend thereafter. The impact of this adjustment on the assumed household formation rate amongst these age groups is presented at Figure 5 and Figure 6 of Appendix 1. This illustrates the resultant increase in household formation amongst younger age groups when this positive adjustment is applied.

2.65   The impact of this adjustment on the implied number of homes needed annually under each of the demographic scenarios introduced in this chapter is summarised in the following table.

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[35] Appeal Ref APP/C3240/W/3025042

[36] DCLG (2017) Fixing our broken housing market (p16)

[37] Council of Mortgage Lenders (2017) Market Commentary May 2017

[38] Adjustment applied to 15 – 24 and 25 – 34 age groups in Newcastle-under-Lyme and 25 – 34 age group in Stoke-on-Trent, on the basis that no recovery to 2001 levels of household formation is projected for these age groups under the 2014-based SNHP. While the SHMA applied adjustments to headship rates for 5 year age groups (20 – 24, 25 – 29 and 30 – 34 in Newcastle-under-Lyme; 25 – 29 and 30 – 34 in Stoke-on-Trent), the publication of 'Stage 2' headship rates for the 2014-based SNHP instead provides headship rates for 10 year age groups

Table 2.6:   Impact of Headship Rate Return Sensitivity (dwellings per annum 2013 – 2039)

	Unadjusted 2014-based headship rates	Headship rate return sensitivity	% uplift
2014-based SNPP			
Newcastle-under-Lyme	315	364	16%
Stoke-on-Trent	490	590	20%
HMA	**805**	**954**	**19%**
Past Growth 10 year			
Newcastle-under-Lyme	335	383	14%
Stoke-on-Trent	547	648	18%
HMA	**882**	**1,031**	**17%**
Past Growth Long Term			
Newcastle-under-Lyme	349	398	14%
Stoke-on-Trent	566	666	18%
HMA	**915**	**1,064**	**16%**

Source: Edge Analytics

2.66   This adjustment uplifts the implied number of homes needed to support the growth in population projected under each scenario, as a direct result of the additional younger households assumed to form. Over the assessment period, this adjustment allows for the formation of approximately 3,700 younger households across the HMA who would otherwise be unable to form if the unadjusted 2014-based headship rates were applied. The formation of these households is supported and indeed enabled through the circa 14 – 20% increase in housing provision over the assessment period, as summarised in the table above.

2.67   The comparable adjustments made in the 2015 SHMA uplifted the implied need for dwellings generated by the demographic scenarios by circa 8 – 15%, as shown at Figures 6.19 and 6.20 of the SHMA. The level of adjustment made in the updated analysis above (14 – 20%) is evidently slightly more pronounced, This reflects a change in the methodological approach within the analysis to reflect the release of the Stage 2 household formation rates in the 2014-based SNHP alongside the Stage 1 rates.

2.68   The SHMA anticipated the release of a second stage of 2012-based household projections[39], and acknowledged that this would provide additional detail on the types of households forming. Stage 1 and Stage 2 of the 2014-based projections were released simultaneously, with the latter preferred by Edge Analytics in its updated modelling due to its more detailed breakdown of household size and type. This supports a more

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[39] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (p164)

detailed analysis of the size of housing required over the plan period in section 7 of this report, as required by the PPG[40].

2.69   It is recognised that there are a number of technical approaches which can be taken to adjust household formation rates, with this noted within responses to the Councils' Local Plan issues consultation. When these adjustments are modelled, they frequently result in different levels of household growth[41]. However, the rationale for each adjustment is common in that they seek to assume a recovery of the rates at which younger households are projected to form, and the technical merits of each therefore require a level of judgement in selecting a preferred approach.

2.70   In this case, further analysis by Edge Analytics has confirmed that assuming a return to the levels of household formation previously seen in 2001 based on both Stage 1 and Stage 2 rates produces comparable household growth outcomes when applied – with methodological consistency – to a single population scenario[42]. This suggests that the use of Stage 1 or Stage 2 headship rates does not fundamentally influence the modelling for Stoke-on-Trent and Newcastle-under-Lyme, and it is therefore – in the context of providing additional data relating to the changing profile of household types – appropriate to use the latter for the purposes of this update.

2.71   It is recognised that in using the Stage 1 household formation rates, variant adjustments are made by gender. The approach taken in the SHMA sought to apply adjustments based on persons rather than individually for males and females. In reviewing the 2014-based SNHP dataset, Edge Analytics has confirmed that it is only the male households who are assumed to see a continued fall in headship rates with the adjustment therefore potentially under-estimating what could be the full impact of seeing a return to 2001 rates. Edge Analytics has run a variant version of the Past Growth Long-Term projection in which positive adjustments are limited only to young male households. This indicates a comparative need for 1,098 homes per annum, compared to the 1,064 dwellings per annum set out in Table 2.6. This represents a difference of only 3% and is not considered to be of significance in this specific instance across the modelling developed for the HMA, particularly in the context of the more modest affordability issues evident in the HMA compared to the national picture (a point identified in the SHMA and re-considered in section 3 of this report).As with the issue related to the application of adjustments relating to UPC, it is considered that the potential for a 'range' of needs associated with varying technical assumptions related to household formation rates needs to be considered in the context of the overall stepped process of deriving the OAN as followed in section 6.

Demographic Projection of Need

2.72   The official 2014-based projections (SNPP and SNHP) represent the 'starting point' for assessing housing need in Stoke-on-Trent and Newcastle-under-Lyme, in accordance

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[40] PPG Reference ID 2a-021-20160401

[41] For example, sensitivity testing by Edge Analytics indicates that the uplift resulting from adjustments to Stage 1 rates ranges in Stoke-on-Trent and Newcastle-under-Lyme from 14 – 24% depending on whether adjustments are applied separately for males and females or aggregated

[42] Table 2.6 indicates that adjusting Stage 2 headship rates for the Past Growth Long Term scenario uplifts the implied housing need by 16% to 1,063 dpa. Applying and adjusting Stage 1 headship rates – replicating the approach taken in the 2015 SHMA – results in a 14% uplift from the unadjusted scenario indicating a need for 1,007 homes per annum.

with the PPG. This increases the scale of population and household growth projected over the assessment period (2013 – 2039) relative to the previous 2012-based dataset presented in the SHMA. However, it has been previously identified within the SHMA that the 2012-based projections risked underestimating future population growth in Stoke-on-Trent and Newcastle-under-Lyme, given that there is evidence that they appear to project forward trends which have been suppressed to a degree as a result of a comparatively lower levels of housing provision in the HMA following the recession. This represents a constrained position, which does not provide a reliable or appropriate basis for planning to meet housing needs or seek to address the demographic implications of past undersupply.

2.73   On this basis, the PPG is clear that demographic trend-based projections may require '*adjustment to reflect factors which are not captured in past trends*'[43]. The development of alternative longer-term demographic trend-based projections by Edge Analytics enables an understanding of how drawing upon a longer-term trend period impacts upon the level of demographic growth which could occur, and the implied scale of housing need. In Stoke-on-Trent and Newcastle-under-Lyme, this longer-term period is considered more representative of a balanced and positive market context, capturing a pre-recession period in which higher levels of development were achieved as well as the more suppressed market context subsequently seen. This provides a more balanced perspective on future growth, which is considered less likely to suppress the future demographic trends projecting the need for housing in the area.

2.74   Two alternative demographic scenarios have been developed by Edge Analytics, integrating the latest population estimates – with two additional years of data to 2015 now published compared to that available at the time that the SHMA was prepared – and drawing upon a ten year (2005 – 2015) and longer term (2001 – 2015) historic period. This suggests that population growth of up to 38,141 persons could occur over the assessment period (2013 – 2039) if longer term trends are sustained, surpassing the scale of growth projected under the 2014-based SNPP (30,860). This indicates that the 'starting point' household projection for the assessment of housing need could underestimate how the population will change over the assessment period if past growth trends continue.

2.75   Similarly, the analysis within this section and Appendix 1 has identified the underlying assumption within the 'starting point' of the 2014-based SNHP that household formation amongst younger people will continue to be suppressed. This continues a decline which has been seen since 2001, as affordability in the housing market has deteriorated at a national level which has been consistently recognised as a critical issue by Government. Recognising that the SHMA previously sought to apply an adjustment to household formation rates – in order to allow for a short-term return to higher levels of household formation for younger age groups, where this was not already projected – a similar adjustment has been applied by Edge Analytics to the demographic scenarios developed within this section.

2.76   This allows for the formation of approximately 3,700 younger households over the period to 2039, who would otherwise be unable to form. Allowing for a positive return to higher levels of household formation for those groups most affected by the worsening

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[43] PPG Reference ID 2a-015-20140306

affordability of housing is considered important in ensuring that this suppressed market context does not form the basis for future plan-making. The formation of these households is supported and indeed enabled through the circa 14 – 20% increase in housing provision over the assessment period relative to the unadjusted scenarios presented earlier in this report.

2.77 Applying improved household formation rates to a longer term trend-based demographic projection is considered the most appropriate demographic scenario for the future growth of Stoke-on-Trent and Newcastle-under-Lyme, given that such an approach will ensure that the negative consequences of recent under-provision – and the demographic impact of worsening affordability – do not form the basis for future plan-making. This therefore represents an important demographic adjustment to the 'starting point' of the 2014-based household projections.

2.78 Recognising that two alternative demographic trend-based scenarios were developed by Edge Analytics, it is considered that the Past Growth Long Term scenario forms the most appropriate basis for this adjustment. This scenario fully captures a period with healthier development rates prior to the recession, with this balanced against – and assisting in offsetting the demographic impact of – the more recent period during which the rate of development has slowed.

2.79 It is therefore concluded that there is an implied minimum need for 1,064 dwellings per annum under this adjusted demographic projection, uplifting the demographic 'starting point' of the 2014-based SNHP by 32% – or some 259 dwellings per annum – across the HMA. Within this total, there is an implied need for 398 dwellings per annum in Newcastle-under-Lyme (+26% from 'starting point') and 666 dwellings per annum in Stoke-on-Trent (+36%).

2.80 It is recognised that there is a level of uncertainty involved in projecting forward population and household growth on the basis of historic trends. The minimum level of need identified above has assumed that UPC is excluded, noting that this is consistent with the methodology adopted by the ONS, but potentially serves to underestimate the future scale of population growth in Stoke-on-Trent given that the population was previously underestimated in the years before the 2011 Census. Equally it is acknowledged that alternative technical adjustments to the household formation rates projected within the official DCLG projections can indicate higher or lower levels of associated household growth. These have been considered by Edge Analytics, but result in a limited scale of variation with regards to the overall projection of need. However, it is agreed that it is important to consider the implications of these factors in the context of other elements of the PPG methodology and adjustments made in arriving at the OAN. This is considered in section 6 of this report.

3. Market Signals

3.1 With the PPG highlighting the importance of considering the historic balance between housing supply and demand when assessing housing need[44], section 5 of the SHMA provided an overview of the market signals identified in the PPG, namely:

- **House prices** – assessing proportionate levels of inflation as an indicator of long-term imbalances between supply and demand;

- **Rents** – consideration of rental values as an indicator of long-term imbalances between supply and demand;

- **Affordability** – comparing house prices against residents' ability to pay;

- **Rate of development** – assessing the rate at which development has kept pace with planning targets, in order to establish whether a position of backlog or undersupply exists which should be addressed through future provision;

- **Overcrowding** – considering changing levels of overcrowding, concealed and shared households, homelessness and numbers in temporary accommodation as an indicator of undersupply; and

- **Land prices** – identifying price premiums symptomatic of a shortage of land in any locality for any particular use.

3.2 The quantitative analysis in the SHMA drew upon a range of secondary data sources, of which several have been updated since the analysis was undertaken. For the purposes of this update, it is therefore considered beneficial to take account of the latest available market evidence through an updated analysis of market signals[45]. This provides an indication of the balance between housing supply and demand in Stoke-on-Trent and Newcastle-under-Lyme. No further analysis of sub-authority trends is included in this section, however.

3.3 The PPG clearly states that '*appropriate comparisons*' should be made in analysing market signals, with evidence of a comparatively significant worsening trend in any indicator requiring a '*reasonable*' adjustment to '*planned housing numbers compared to ones based solely on household projections*'[46]. On this basis, this section subsequently compares trends in Stoke-on-Trent and Newcastle-under-Lyme with a range of appropriate comparator areas. This enables an assessment of the significance of market trends and establishes the scale of adjustment required as part of the objective assessment of need.

Market Signals

3.4 This section provides an updated analysis of market signals in Stoke-on-Trent and Newcastle-under-Lyme, drawing upon the latest information available as of October

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[44] PPG Reference ID 2a-019-20140306
[45] Given the absence of detailed and comparable evidence on land prices, this is not updated as part of this analysis
[46] PPG Reference ID 2a-020-20140306

2016. Comparisons are initially made with national trends, before wider comparisons with appropriate areas are made later in this section.

House Prices

3.1 Figure 5.1 of the SHMA illustrates the long-term increase in house prices in Stoke-on-Trent and Newcastle-under-Lyme, with prices increasing to 2007 before stabilising following the recession.

3.2 Data on the price paid for housing is published by the Land Registry, with 2015 the last full calendar year for which data is available. Understanding the price paid for housing in Stoke-on-Trent and Newcastle-under-Lyme in 2015 – and the rate of change since the national housing market began to deteriorate in 2001[47] – therefore provides a valuable update to the analysis in the SHMA, which considered longer term trends to 2013. The following table compares change in both mean and lower quartile house prices over this period, providing an indication of trends at mid-level and entry-level of the local housing market respectively.

Table 3.1:   Change in Lower Quartile and Mean House Prices 2001 – 2015

	Mean			Lower quartile		
	2001	2015	Change	2001	2015	Change
Newcastle-under-Lyme	£67,718	£152,920	126%	£38,000	£97,500	157%
Stoke-on-Trent	£46,154	£108,586	135%	£26,500	£67,500	155%
England	£121,768	£274,823	126%	£54,000	£137,000	154%

Source: Land Registry

3.3 House prices in both Stoke-on-Trent and Newcastle-under-Lyme are notably lower than the national averages, although there has evidently been significant growth in house prices over the period shown. Indeed, the analysis suggests that entry-level house prices in Stoke-on-Trent and Newcastle-under-Lyme have increased at a rate which slightly exceeds the national change, with mean house prices in Stoke-on-Trent also growing at a faster rate than seen nationally. This growth has, however, occurred from a significantly lower base, with the average house price in Stoke-on-Trent almost three times lower in 2001 than the national average.

Rents

3.4 The SHMA presented evidence published by the Valuation Office Agency (VOA) on the cost of privately renting in Stoke-on-Trent and Newcastle-under-Lyme, based on rents recorded between April 2013 and March 2014. This dataset has since been updated to cover the period from April 2015 to March 2016. The following chart summarises the monthly mean and lower quartile cost of privately renting in each authority based on the latest dataset, drawing comparison with the national profile.

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[47] Figure 6.18 of the SHMA shows that 2001 was the last point at which the ratio between house prices and earnings for first-time buyers in the UK was at the long-term average

Figure 3.1:   Lower Quartile and Mean Monthly Rents 2015/16
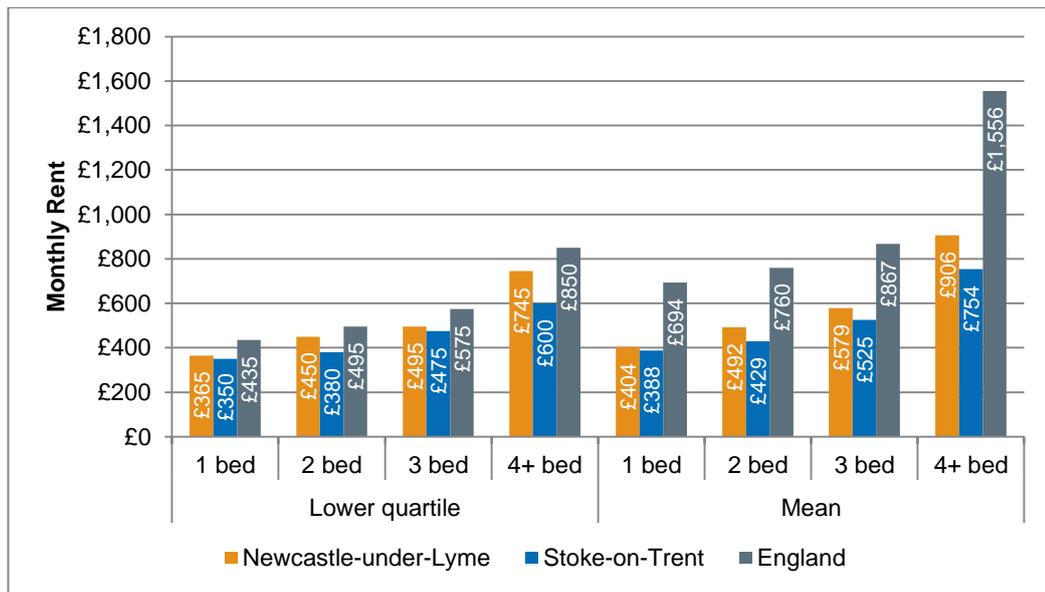
Source: VOA

3.5   Private rents in Stoke-on-Trent and Newcastle-under-Lyme are evidently lower than recorded nationally at both mean and lower quartile level, and indeed it is clear that rents in Stoke-on-Trent are lower than in Newcastle-under-Lyme for all sizes of property.

3.6   The rental values presented above can be directly compared with the earliest consistent dataset released by the VOA, which covers the period from July 2010 to June 2011. This is presented in the following table.

Table 3.2:   Change in Lower Quartile and Mean Rents 2010/11 – 2015/16

	Newcastle-under-Lyme		Stoke-on-Trent		England	
	Lower quartile	Mean	Lower quartile	Mean	Lower quartile	Mean
1 bed	4%	8%	8%	7%	9%	18%
2 beds	6%	6%	1%	3%	4%	15%
3 beds	4%	4%	6%	2%	5%	15%
4+ beds	15%	6%	3%	11%	7%	19%

Source: VOA

3.7   The data suggests that mean rents in Stoke-on-Trent and Newcastle-under-Lyme have grown at a slower rate than seen nationally for all sizes of property. Newcastle-under-Lyme has seen higher rates of growth in mean rents than Stoke-on-Trent, with the exception of larger properties. However, entry-level rents in Stoke-on-Trent have increased at a faster rate for properties with one or three bedrooms. Nevertheless, entry-level rents in each authority have broadly increased at a slower rate than seen nationally, with the exception of 2 bed and 4+ bed properties in Newcastle-under-Lyme.

Affordability

3.8 Figure 5.15 of the SHMA shows that the relationship between entry-level house prices and earnings in both Stoke-on-Trent and Newcastle-under-Lyme has worsened, reflecting the national trend but broadly remaining relatively affordable in the national context.

3.9 DCLG has since published newly calculated statistics[48] which show the relationship between lower quartile house prices and earnings ('affordability ratio') since 2013. This enables an understanding of short-term change in relative affordability, and the extent to which house price growth has aligned or otherwise with growth in earnings. The following chart shows the affordability ratio for lower quartile house prices and earnings.

Figure 3.2:   Lower Quartile Affordability Ratio 2013 – 2015
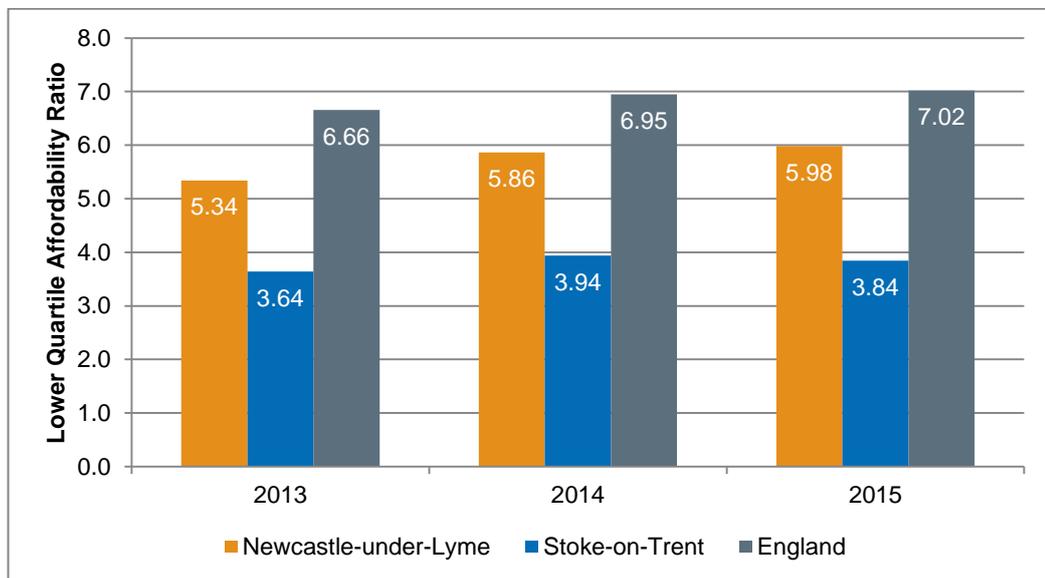
Source: DCLG

3.10 This reaffirms the SHMA's conclusions that Newcastle-under-Lyme and particularly Stoke-on-Trent are more affordable than the national profile at entry-level, although it is notable that the affordability ratio has worsened between 2013 and 2015. This indicates that households need to spend an increasing number of years' income on housing costs, and indeed the proportionate change in the affordability ratio in Newcastle-under-Lyme (12%) surpasses the increase seen in England (5%) and Stoke-on-Trent (5%).

3.11 Similar trends are evident when considering the median affordability ratio, with the following chart showing a year-on-year worsening since 2013. The proportionate increase in the affordability ratio in Newcastle-under-Lyme (14%) again surpasses the national increase (10%), with Stoke-on-Trent (11%) also slightly exceeding this national trend. However, the data suggests that housing in both authorities remains significantly more affordable than the national profile, particularly in Stoke-on-Trent.

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[48] DCLG Live Table 576/577

Figure 3.3:   Median Affordability Ratio 2013 – 2015
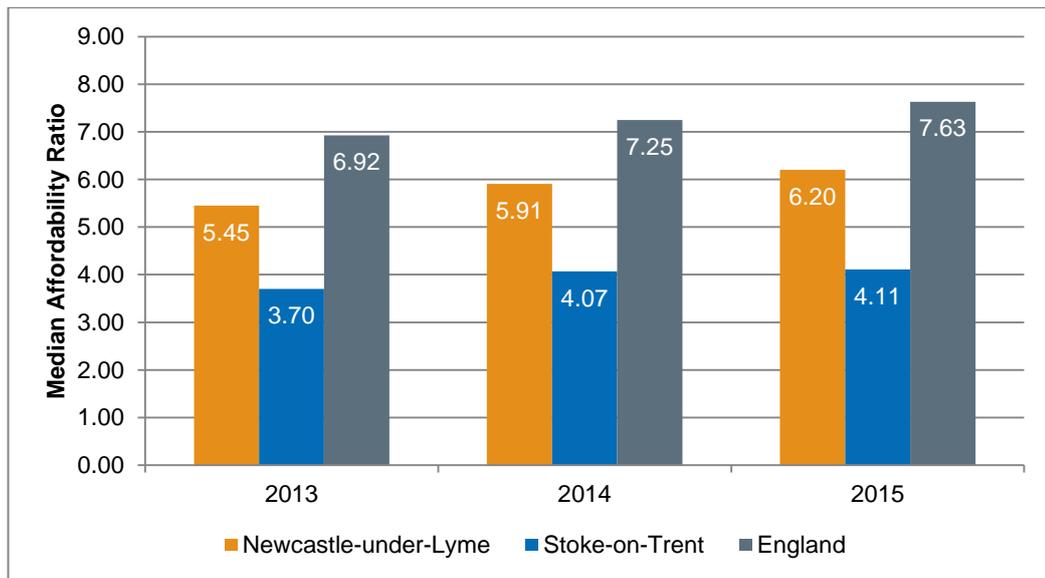
Source: DCLG

Rate of Development

3.12   The SHMA presented a range of development indicators in the context of planned supply, including gross completions, demolitions and extant planning permissions. This identified the specific impact of the RENEW Housing Market Renewal initiative. This analysis is not revisited in full within this report, but provides valuable context on the rate of development in Stoke-on-Trent and Newcastle-under-Lyme.

3.13   The PPG states that an analysis of the rate of development should consider the extent to which '*actual supply falls below planned supply*' over a '*meaningful*' historic period[49]. In Newcastle-under-Lyme, the SHMA noted that '*delivery rates fell below the net RSS target [285 dwellings per annum], following adoption of the Core Strategy, although this requirement has been approached or exceeded since 2010/11*'[50]. A larger undersupply relative to the planned target for 570 dwellings per annum was identified in Stoke-on-Trent.

3.14   These conclusions can be reviewed in the context of more recent levels of supply in each authority, based on Council monitoring data. The following chart shows net completions since 2000, with the latest adopted housing target – set by the Regional Spatial Strategy (RSS) – overlaid since 2006. This shows that the rate of development in Stoke-on-Trent has increased to a level not seen since prior to the recession (2005/06). Completions in Newcastle-under-Lyme have fallen since their peak in 2012/13, albeit the average annual level of development over the past five years (272 dwellings per annum) falls only slightly below the level previously planned (285 dwellings per annum).

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[49] PPG Reference ID 2a-019-20140306

[50] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (para 5.60)

Figure 3.4:   Net Completions 2000 – 2015
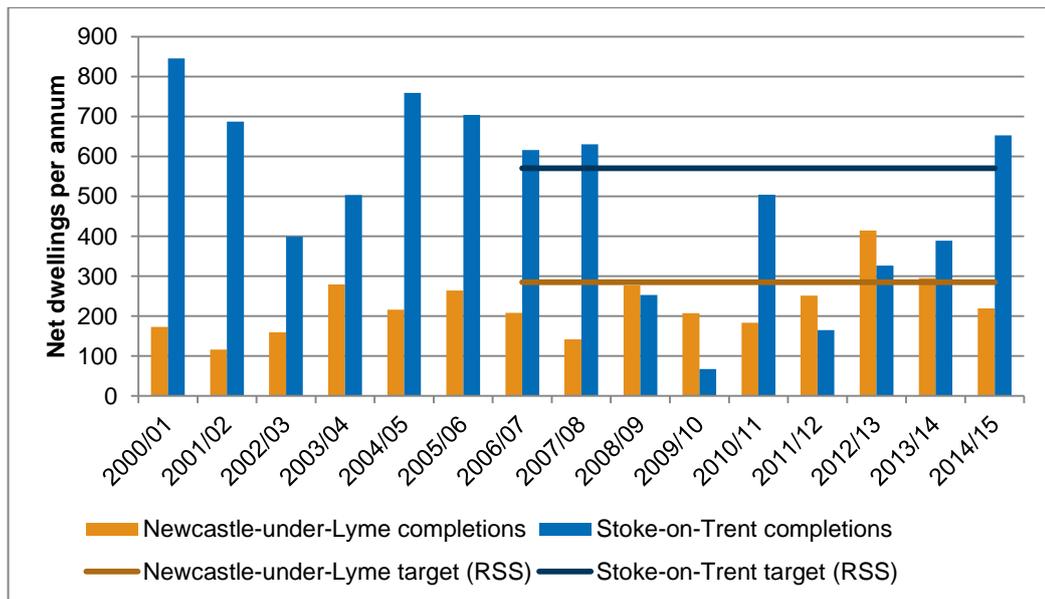
Source: Council monitoring

Overcrowding

3.15 With the PPG suggesting that overcrowding can be a signal of unmet need for housing, the SHMA sought to quantify the number of overcrowded households and concealed families in Stoke-on-Trent and Newcastle-under-Lyme, based on analysis of Census data[51]. Given that this data was drawn from the Census, no updated and consistent position is available to inform this update. The SHMA's conclusions on overcrowding and concealed families therefore remain of relevance, and are summarised below:

• A larger proportion of Stoke-on-Trent households were overcrowded in 2011 – with at least one fewer bedroom than required – relative to Newcastle-under-Lyme, although both fell below the national and regional averages;

• The number of households living in overcrowded conditions based on the room standard increased in both authorities between 2001 and 2011, albeit at a slower than national rate, particularly in Newcastle-under-Lyme;

• Comparatively few families in Stoke-on-Trent and Newcastle-under-Lyme are concealed compared to the national and regional position, with concealment particularly low amongst younger people aged under 34; and

• Both authorities saw a growth in the number of concealed families between 2001 and 2011, with Stoke-on-Trent seeing the greatest growth which nevertheless fell below the national rate.

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[51] Ibid (para 5.80 – 5.91)

Benchmarking Market Signals

3.16   The analysis above considers trends in Newcastle-under-Lyme and Stoke-on-Trent relative to the national picture, although – as noted earlier – the PPG is clear in expecting comparisons to be made with '*appropriate*' areas in order to determine the significance of any change in market signals[52]. The PPG suggests that comparisons should be made with the wider '*housing market area; similar demographic and economic areas; and nationally*'[53].

3.17   This section therefore benchmarks change in market signals in Stoke-on-Trent and Newcastle-under-Lyme against a range of comparator areas. Comparisons are again made with national trends, as well as neighbouring authorities[54]. In order to identify areas with similar demographic or economic characteristics, the ONS 2011 area classifications[55] have been used to identify the three authorities deemed most similar to Stoke-on-Trent and Newcastle-under-Lyme, with the following authorities subsequently included in this analysis:

- Rochdale, Bolton and Tameside as the authorities most similar to Stoke-on-Trent; and

- Stockton-on-Tees, Cheshire West and Chester and County Durham as the authorities most similar to Newcastle-under-Lyme.

3.18   Comparison has also been made with Eastleigh and Canterbury, given that the Inspector examining each of these Local Plans arrived at a clear position on an appropriate response to market signals evidence in each authority, as explored further in section 6 of this report. Understanding change in Stoke-on-Trent and Newcastle-under-Lyme relative to these authorities therefore provides valuable context on the local scale of market pressure, and the scale of adjustment required in response.

3.19   The following table ranks the following market signals for each of the areas introduced above, where consistent and comparable data is available for each area:

- Lower quartile **house prices** in 2015 and change since 2001, based on analysis of Land Registry price paid data;

- Lower quartile **private rents** in 2015/16 and change since 2010/11, based on published VOA data for 2 bedroom properties to enable direct comparison;

- Lower quartile **affordability ratio** in 2015 and change since 2013, as published by DCLG[56];

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[52] PPG Reference ID 2a-020-20140306
[53] Ibid
[54] Cheshire East, Shropshire, Stafford and Staffordshire Moorlands
[55] ONS (2015) 2011 Area Classification for Local Authorities – five most similar local authorities to each local authority by Squared Eucildean Distance value
[56] The release notes accompanying Live Tables 576 – 578 confirms that 2013 – 2015 ratios are calculated using different data sources to preceding years, and in this instance it is therefore considered inappropriate to directly compare the latest ratios with the earlier published datasets

- Change in the number of **overcrowded households** between 2001 and 2011, drawn from the respective Censuses and based on the room standard; and

- Change in the number of **concealed families** between the 2001 and 2011 Censuses.

3.20 For ease of interpretation, Stoke-on-Trent and Newcastle-under-Lyme are respectively highlighted in blue and orange. Eastleigh and Canterbury are italicised, with England emboldened.

Table 3.3:   Benchmarking Market Signals in Stoke-on-Trent and Newcastle-under-Lyme

	House prices		Rents		Affordability		Change in overcrowding 2001 – 11	Change in concealed families 2001 – 11
	2015 LQ	Change 2001 – 15	2015/16 LQ	Change 2010/11 – 2015/16	2015 LQ	Change 2013 – 15		
Greater significance	*Canterbury*	**Newcastle-u-L**	*Eastleigh*	*Eastleigh*	*Canterbury*	Staff Moorlands	Stafford	Stafford
	Eastleigh	**Stoke-on-Trent**	*Canterbury*	*Canterbury*	*Eastleigh*	*Canterbury*	*Eastleigh*	**England**
	Shropshire	**England**	CWAC	Stafford	Shropshire	**Newcastle-u-L**	**England**	Shropshire
	England	Bolton	Stafford	Bolton	Stafford	Stafford	*Canterbury*	*Canterbury*
	Stafford	Staff Moorlands	**England**	**Newcastle-u-L**	Staff Moorlands	Rochdale	Shropshire	Tameside
	Cheshire East	Rochdale	Cheshire East	Stockton-on-Tees	CWAC	Bolton	Bolton	Stockton-on-Tees
	CWAC	Tameside	Shropshire	Shropshire	**England**	CWAC	**Stoke-on-Trent**	Bolton
▲	Staff Moorlands	*Canterbury*	Stockton-on-Tees	CWAC	Cheshire East	**Stoke-on-Trent**	Cheshire East	Cheshire East
	Newcastle-u-L	Stafford	Tameside	Cheshire East	**Newcastle-u-L**	**England**	Rochdale	**Stoke-on-Trent**
	Stockton-on-Tees	Stockton-on-Tees	**Newcastle-u-L**	**England**	Stockton-on-Tees	Stockton-on-Tees	Staff Moorlands	*Eastleigh*
	Tameside	Cheshire East	Bolton	Tameside	Tameside	Tameside	CWAC	Rochdale
Limited significance	Rochdale	Shropshire	Rochdale	**Stoke-on-Trent**	Rochdale	Shropshire	**Newcastle-u-L**	County Durham
	Bolton	CWAC	Staff Moorlands	Staff Moorlands	Bolton	Cheshire East	Tameside	CWAC
	Stoke-on-Trent	*Eastleigh*	**Stoke-on-Trent**	Rochdale	**Stoke-on-Trent**	*Eastleigh*	Stockton-on-Tees	**Newcastle-u-L**
	County Durham	County Durham	County Durham	County Durham	County Durham	County Durham	County Durham	Staff Moorlands

Source: Turley

3.21   The analysis suggests that market signals in Stoke-on-Trent and Newcastle-under-Lyme largely compare favourably with the areas introduced, with house prices and rents comparatively low and affordability a less significant issue than seen in many other areas. Change in the number of overcrowded and concealed families has also been relatively limited, particularly in Newcastle-under-Lyme.

3.22   The change in house prices is relatively significant in both authorities, albeit both authorities – particularly Stoke-on-Trent – continue to be characterised by relatively low house prices even following a period of comparatively strong growth. This is illustrated in the following chart.

Figure 3.5:   Lower Quartile House Price 2015
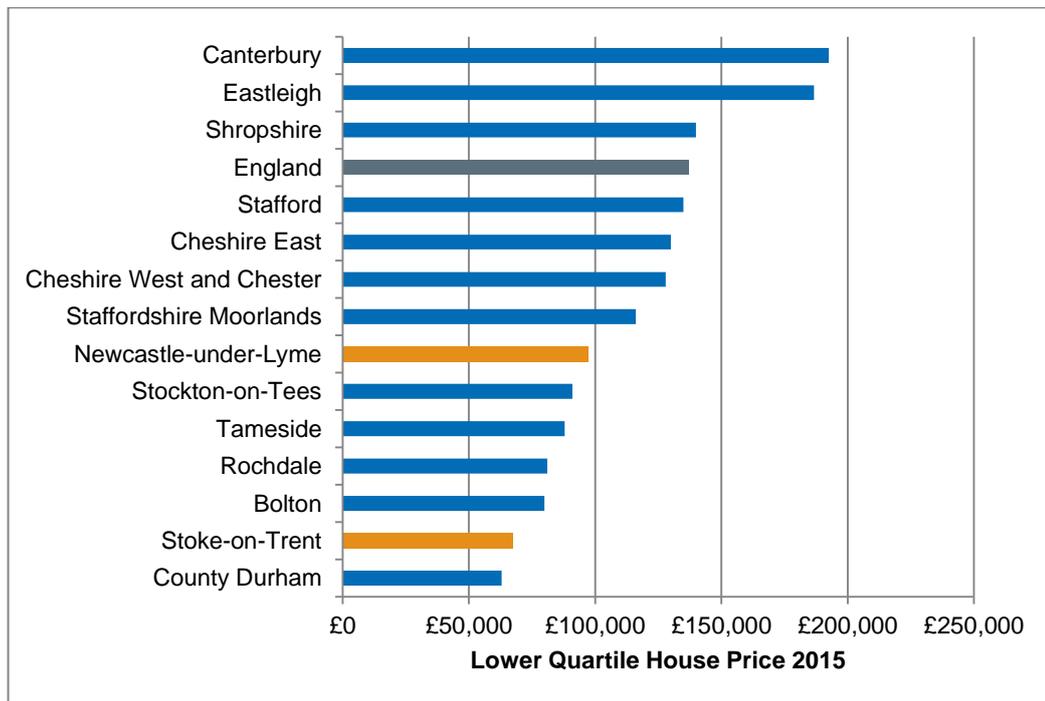
Source: Land Registry

3.23   Furthermore, there has been a relatively significant increase in rents in Newcastle-under-Lyme, with the affordability ratio increasing over recent years to suggest that house prices have increased at a faster rate than earnings. These are the only indicators which suggest that market signals have worsened to a greater extent than seen nationally, and indeed more broadly it can be observed that Newcastle-under-Lyme has seen the greatest worsening of the two authorities in the HMA.

An Appropriate Adjustment

3.24   The PPG states that any upward adjustment to housing supply in response to worsening market signals should be '*at a level which is reasonable*'[57]. No clarification is given regarding the precise scale of adjustment required, nor how this should be applied.

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[57] PPG Reference ID 2a-020-20140306

3.25 However, it is evident that the PPG expects the uplift in housing supply to address or alleviate recognised affordability issues, stemming from a longstanding national recognition of the need to elevate levels of supply[58].

3.26 Indeed, the recently published Redfern Review concludes that '*all long-term sustainable solutions to high house prices and availability depend on increasing long-term supply*'[59]. Modelling was undertaken to support the review, advancing the position that:

"In order for real house prices to rise in line with real earnings in the longer run, with current low interest rates, we would have to substantially 'out build' the growth in the number of households, assuming that in this scenario all the elasticities remain the same. With real earnings growing at 1.5% per year, real house price rises would be in the order of 3% annually, all other things being equal. This implies we would have to 'out build' the growth in households to trim the real house price rate increases back to anything near 1.5% – i.e. the same as real earnings growth – and so stabilise prices relative to earnings"[60]

3.27 The report confirms that '*boosting housing supply will have a material impact on house prices, but only if sustained over a long period*', and considers the '*very relevant*' implications for policymakers:

"Restrictions on new housing supply have not been the main culprit when it comes to price rises over the past 25 years, although they have constrained availability. But looking forward, if the number of households in the UK were to grow at around 200,000 per year, new supply of 300,000 dwellings per year over a decade would be expected to cut house price inflation by around 5% points (0.5 percentage points a year)"

3.28 Establishing an appropriate level of housing provision within a proactive development framework such as a Local Plan provides a vehicle to support the elevation of supply over the longer term in those areas where there is evidence of a high demand for housing. Whilst this may not stop or reverse house price growth, this can ensure that such growth is not unsustainable in scale.

3.29 Collectively, while the analysis within this section indicates that there has been some worsening in market signals in Stoke-on-Trent and Newcastle-under-Lyme, it does not suggest that there is a significant imbalance between supply and demand. It is therefore important to consider the scale and adjustment necessary and appropriate to respond to these market signals.

3.30 It is considered that a small adjustment to the demographic trend-based projection presented in section 2 is justified in Newcastle-under-Lyme in response to market signals. This recognises the worsening trend in house prices and rents – and the impact that this has had on affordability – while acknowledging that, in absolute terms, rents, house prices and affordability rank relatively positively when compared to neighbouring and similar authorities. Similarly, those indicators which suggest an unmet need for

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[58] Barker Review (2004) Delivering Stability: securing our future housing needs
[59] Redfern Review (2016) The Redfern Review into the Decline of Home Ownership
[60] Ibid (part 2, para 12)

housing – namely change in overcrowding and concealed families – do not imply a significant worsening in Newcastle-under-Lyme.

3.31   While Stoke-on-Trent has seen a high proportionate increase in house prices, it is evident that the city remains characterised by its low house prices which fall below those seen in all but one of the comparator areas presented in this section. This means that the affordability pressure in Stoke-on-Trent is less acute, and indeed the authority is amongst the most affordable of the authorities presented at Table 3.3, falling significantly below the national average. On this basis, no uplift is considered to be required to respond to market signals in Stoke-on-Trent.

3.32   These conclusions are advanced and further considered within the objective assessment of need, presented in section 6 of this report.

4. Likely Change in Job Numbers and Implications for Housing Need

4.1 The PPG clearly highlights the importance of taking employment trends into account when assessing housing need, in order to ensure that likely job growth can be supported by an economically active labour supply[61]. Although new guidance on a standard methodology is to be introduced by Government, it has continued to recognise that planning for '*the right homes in the right places...is critical to the success of our modern industrial strategy*' given that '*growing businesses need a skilled workforce living nearby, and employees should be able to move easily to where jobs are without being forced into long commutes*'[62]. Based on documentation published to date, it appears that the Government believes that a standardised approach provides a basis through which consistency with its modern Industrial Strategy can be established[63].

4.2 Following the methodology set out in the PPG and the approach adopted within the SHMA, this section considers how a continuation of recent demographic trends will change the size of the labour force in Stoke-on-Trent and Newcastle-under-Lyme over the period to 2039.

4.3 The analysis in this chapter also takes account of updated evidence on likely job growth in Stoke-on-Trent and Newcastle-under-Lyme. As set out in the introduction to this update, the joint Employment Land Review[64] (ELR) was commissioned by the Councils and published following completion of the SHMA. The ELR provides the evidence to inform economic policies in the emerging Joint Local Plan, and concludes on an appropriate forecast of employment growth in the HMA. This section therefore establishes the scale of labour force growth likely to be necessary to support forecast levels of job creation.

Projecting Labour Force Change

4.4 A continuation of historic demographic trends in Stoke-on-Trent and Newcastle-under-Lyme will lead to change in the labour force, as the demographic profile of the area changes. The following table shows how the working age (16 – 64), younger and older populations are projected to change over the period to 2039, based on the demographic scenarios introduced in section 2 of this report.

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[61] PPG Reference ID 2a-018-20140306
[62] DCLG (2017) Fixing our Broken Housing Market (p14)
[63] Ibid (para 1.12)
[64] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent Joint Employment Land Review

Table 4.1: Projected Demographic Population Change by Age 2013 – 2039

	15 and under	16 to 64	Over 65
2014-based SNPP			
Newcastle-under-Lyme	794	599	11,281
Stoke-on-Trent	1,762	-1,880	18,304
HMA	**2,556**	**-1,282**	**29,586**
Past Growth 10 year			
Newcastle-under-Lyme	1,066	884	11,399
Stoke-on-Trent	4,207	1,559	17,679
HMA	**5,273**	**2,443**	**29,078**
Past Growth Long Term			
Newcastle-under-Lyme	1,506	1,604	11,492
Stoke-on-Trent	3,662	1,660	18,217
HMA	**5,168**	**3,263**	**29,709**

Source: ONS; Edge Analytics

4.5   It is clear that a continuation of demographic trends in Stoke-on-Trent and Newcastle-under-Lyme would result in significant growth in the older population (65+), with more limited growth in the working age population. Indeed, the 2014-based SNPP projects a fall in the number of working age residents in Stoke-on-Trent.

4.6   The labour force implications of this changing population profile can be estimated through POPGROUP. In order to estimate the size of the labour force and the number of jobs which can be potentially supported, the model requires assumptions on a number of key factors, namely:

- **Unemployment** – for Stoke-on-Trent, held at 2015 rate (6.4%) until 2018 before incrementally returning to the pre-recession (2004 – 2007) average of 5.7% by 2023 and remaining at this rate thereafter. As the pre-recession average for Newcastle-under-Lyme (4.3%) is higher than the 2015 rate of 4.1%, the unemployment rate for the borough has been fixed at its 2015 rate throughout the modelling period;

- **Economic activity rates** – baseline economic activity rates by age group and sex derived from the 2011 Census, with all age groups then adjusted to change in line with forecasts produced by the Office for Budget Responsibility (OBR);

- **Commuting** – commuting ratio from the 2011 Census fixed throughout the forecast period; and

- **People holding more than one job ('double jobbing')** – allowing for a fixed proportion of employed people[65] to occupy more than one job, based on the long-term 10 year average recorded in each authority by the Annual Population Survey (APS).

4.7   The modelling previously undertaken by Edge Analytics to inform the SHMA similarly applied assumptions on how the labour force will behave over the assessment period, which – with the exception of commuting – slightly differ from those applied for this update. This reflects the views of Planning Inspectors, the changing economic context and the release of new data. The assumptions applied are considered reasonable within the current context on the basis that:

- The SHMA allowed for a short-term improvement in unemployment to move from recessionary to pre-recessionary trends between 2013 and 2018, and the review of unemployment rates in Appendix 1 of this report (Table 4) shows that an improvement has been seen. However, given the increased national economic uncertainty and the likelihood for a degree of economic volatility as the UK negotiates its exit from the EU and adjusts to new long-term global trading relationships[66], it is considered prudent to allow for a longer-term return to pre-recession conditions;

- The allowance for change in economic participation aligns with forecasts produced by OBR, which has been given weight in a recent appeal decision[67] and features within the recommendations of the Local Plans Expert Group[68]; and

- An allowance has been made for double jobbing, reflecting local evidence that a component of the labour force in Stoke-on-Trent and Newcastle-under-Lyme hold more than one job and an allowance for such factors within employment forecasts. Importantly, however, this is held at a fixed rate, with no suggestion that this group will make a disproportionate contribution towards supporting future job growth relative to their current role in the local economy.

4.8   The following table summarises the number of jobs which could be supported over the assessment period based on projected change in the labour force and the labour force behaviour assumptions outlined above.

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[65] 3.4% in Newcastle-under-Lyme; 2.9% in Stoke-on-Trent
[66] HM Treasury (2016) Autumn Statement
[67] Appeal Decision APP/V0728/W/15/3018546 (para 21)
[68] Local Plans Expert Group (2016) Local Plans Report to Government, Appendix 6

Table 4.2:   Jobs Supported by Demographic Change 2013 – 2039

	2014-based SNPP	Past Growth 10 year	Past Growth Long Term
Newcastle-under-Lyme	4,351	4,572	5,038
Stoke-on-Trent	8,034	10,411	10,499
HMA	**12,386**	**14,982**	**15,537**

Source: Edge Analytics

4.9   Each of the demographic scenarios presented in this report could support the creation of new jobs in each authority, albeit the number of jobs supported is variable. The shorter-term demographic trends underpinning the 2014-based SNPP, if sustained, would support approximately 12,400 additional jobs over the period to 2039, increasing to circa 15,500 additional jobs if long term demographic trends persist.

4.10   Given the limited projected growth in the working age population (Table 4.1), much of the additional labour force supply is attributable to changing behaviours amongst the existing population, primarily an increase in economic participation and employment rates resulting from the projected changes to different age groups and the assumed modest reduction in the unemployment rate over the longer term. This forms an important context in considering the justification for assuming a further uplift in the assessment of housing need when compared with forecast employment growth across the HMA.

Likely Job Growth – ELR

4.11   The ELR evaluates employment forecasts produced by Cambridge Econometrics and Experian – introduced in the SHMA – in further detail, and concludes that:

"Greater weight should be attached to the Cambridge Econometrics projections, given that (particularly for Stoke-on-Trent) they represent a positive, but nevertheless realistic, uplift on past trends, whilst growth appears more evenly spread across the various sectors. This is particularly the case when compared to the Experian forecasts, which feature very high levels of growth in a few isolated sectors in contrast to the other two projections"[69]

4.12   Cambridge Econometrics' Local Economic Forecasting Model (LEFM) presented in the ELR would result in the creation of 22,584 net additional jobs[70] in Stoke-on-Trent and Newcastle-under-Lyme, at an average rate of 869 jobs per annum. This represents an overall growth of around 13%, or 0.5% per annum on average. The forecast is summarised in the following table.

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[69] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent: Joint Employment Land Review (para 8.53)

[70] The Cambridge Econometrics forecast recommended by the ELR runs only to 2025 and therefore requires extrapolation to 2039. Although both the SHMA and ELR are based on the same forecast, the method of extrapolation differs slightly, and the extrapolated figure presented in the ELR therefore differs from the SHMA. The ELR extrapolated figure is used for this update to maintain consistency within the evidence base

Table 4.3: **Cambridge Econometrics Forecast Employment Growth 2013 – 2039**

	Change 2013 – 2039	Annual change
Newcastle-under-Lyme	9,898	381
Stoke-on-Trent	12,686	488
HMA	**22,584**	**869**

Source: Cambridge Econometrics

Policy On Scenario

4.13   While the ELR attributes the greatest weight to this scenario as a baseline position in Stoke-on-Trent and Newcastle-under-Lyme, it also forms the basis for an additional adjusted scenario – termed 'Policy On' – which is produced to reflect policy factors:

"Following discussions with Stoke-on-Trent City Council and Newcastle-under-Lyme Borough Council's Officers, individual detailed Standard Industrial Classifications used in the [Cambridge Econometrics] workforce projections were assessed to test whether there were any concrete policy justifications for modifying any of the categories"[71]

4.14   The adjustments applied are outlined within the ELR, and result in an elevated forecast of employment growth in Stoke-on-Trent and Newcastle-under-Lyme. Under this Policy On scenario, a total of 41,834 gross additional jobs would be created between 2013 and 2039, at a rate of 0.8% per annum. This evidently represents a significant increase (+85%) relative to the baseline – reflecting the assumed success of policy intervention – albeit recognising that this is a gross figure, unlike the net change forecast under the baseline.

4.15   Importantly, this scenario is inherently a 'policy on' position which moves beyond a baseline view of job growth which is likely to occur, which underpins the objective assessment of housing need. The importance of distinguishing between 'policy on' and 'policy off' employment growth scenarios has been previously recognised by the Planning Inspectorate[72].

4.16   On this basis, it is considered appropriate and important to establish the housing need implications of supporting the Cambridge Econometrics forecast, which is concluded within the ELR as a positive but realistic scenario of future economic growth. Any subsequent supporting of the higher levels of 'policy on' growth is considered a matter for the Councils to consider as the Joint Local Plan is developed. This will require a broader consideration of the wider policy interventions necessary to support this level of job growth. For illustrative purposes, however, Appendix 3 presents the outputs of modelling by Edge Analytics to illustrate the scale of labour force growth necessary to support 'policy on' employment forecasts, based on the prudent labour force assumptions set out within this section.

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[71] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent: Joint Employment Land Review (para 8.55)

[72] Elizabeth C. Ord (2015) Gloucester, Cheltenham and Tewkesbury Joint Core Strategy – Inspector's request for additional evidence arising from the Stage 1 hearings, focused on Objectively Assessed Housing Need, the Strategic Housing Market Assessment, Employment Requirements and Retail Need

Implications for Housing Need

4.17   At a headline level, it is evident that the scale of job growth supported by a continuation of demographic trends in Stoke-on-Trent and Newcastle-under-Lyme (Table 4.2) is unlikely to support the level of job growth forecast by Cambridge Econometrics. Supporting this level of job growth in the area would therefore require either a substantial change in labour force behaviour – moving beyond the prudent assumptions applied by Edge Analytics – or a further growth in the labour force through above-trend migration, or a combination thereof. This recognises the modest level of projected growth in the working age population even under the higher level of population growth implied under the long-term demographic projection.

4.18   In such circumstances, the PPG indicates that plan-makers should consider how the provision of new housing can help to address any imbalance between labour force supply and likely job growth[73].

4.19   As in the SHMA, the scale of the labour force growth necessary to support this level of job growth over the assessment period can be estimated through the development of employment-led scenarios in POPGROUP.

4.20   This again applies the labour force behaviour assumptions set out earlier in this section. While it is acknowledged that these will differ from those derived by Cambridge Econometrics in their development of the LEFM forecast, the importance of applying '*realistic future*' assumptions on labour force behaviour has been recently recognised by a recent High Court judgment[74]. A Local Plan Inspector has also recently supported a '*cautious approach*' to estimating future labour force behaviour, in preference to forecasting models' outputs on economic participation[75]. The relatively prudent assumed changes in the behaviour of the labour force are therefore considered reasonable in this regard.

4.21   The SHMA, ELR and this update assess development needs over the period from 2013 to 2039, although – as identified in section 2 of this report – official population estimates have been released for the period to 2015. The population up to this point is therefore known and not tied to the creation of future employment opportunities, and the employment-led scenarios developed by Edge Analytics integrate the 2014 and 2015 MYE datasets on this basis.

4.22   Furthermore, population growth to 2015 has supported the creation of a published number of new jobs between 2013 and 2015, as identified through the Business Register and Employment Survey (BRES). The residual number of jobs needed to create the forecast 22,584 additional jobs over the full assessment period can therefore be estimated, with the scenarios developed by Edge Analytics showing the scale of future labour force growth – and resultant population growth – needed to support this growth, taking account of change to date.

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[73] PPG Reference ID 2a-018-20140306

[74] Chelmsford City Council v Secretary of State for Communities and Local Government and Gladman Developments, December 2016 [2016] EWHC 3329 (QB)

[75] Examination of the Telford and Wrekin Local Plan (2011 – 2031) Inspector's note to Telford and Wrekin Council – 30 March 2017, paragraphs 4 and 5

4.23   This is summarised in the following table, which provides an updated projection of the growth required to support the Cambridge Econometrics forecast and therefore replaces the similar scenario ('employment-led (LEFM)') presented in the SHMA, based on the latest evidence available[76].

Table 4.4:   Supporting Likely Job Growth

	Change 2013 – 2039				Average per year	
	Population	%	Hholds	%	Net migration	Dwellings
Newcastle-under-Lyme	26,635	21.3%	13,377	25.2%	970	530
Stoke-on-Trent	31,251	12.5%	17,487	16.2%	-12	698
HMA	**57,886**	**15.4%**	**30,864**	**19.2%**	**958**	**1,228**

*Source: Edge Analytics; Cambridge Econometrics*

4.24   The modelling indicates that population growth of circa 58,000 will be necessary over the assessment period in Stoke-on-Trent and Newcastle-under-Lyme to support likely job growth, increasing the population by approximately 15% by 2039. This is considerably larger than the 8% growth in population projected under the 2014-based SNPP, or indeed the 10% growth which could occur if long term historic demographic trends are sustained. This reflects the conclusion reached above, which found that a continuation of past demographic trends would not sufficiently grow the labour force and support likely job growth. This higher level of population growth is the result of the modelling assuming a higher level of net migration over the projection period than that implied by a continuation of historic trends. It is noted, however, that whilst this level of growth represents a significant change locally it remains proportionately lower than that projected nationally (17%) by the 2014-based SNPP over the same period.

4.25   It is important to note that while the modelling suggests that a particularly sizeable proportionate growth in the population of Newcastle-under-Lyme will be required, in practice this is likely to be more balanced between the two authorities. This reflects their strong functional economic relationship, and the likelihood that labour force growth in one authority can be expected to support employment growth across the strategic area covered by the Joint Local Plan. On this basis, it is important to understand the implications of this scenario at HMA level.

4.26   The higher level of growth implied by this scenario is underpinned by a more significant growth in the working age population, rebalancing the profile of population growth which would occur if past demographic trends continue (Table 4.1). The following chart illustrates this variation between demographic and employment-led scenarios.

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[76] Though underpinned by the same employment forecast, the updated modelling presented within this report applies an alternative method of extrapolation to 2039 to directly align with the ELR, takes account of population and employment growth to 2015 when considering change over the full assessment period (2013 – 2039) and applies updated labour force behaviour assumptions

Figure 4.1: Modelled Change in Population by Age 2013 – 2039
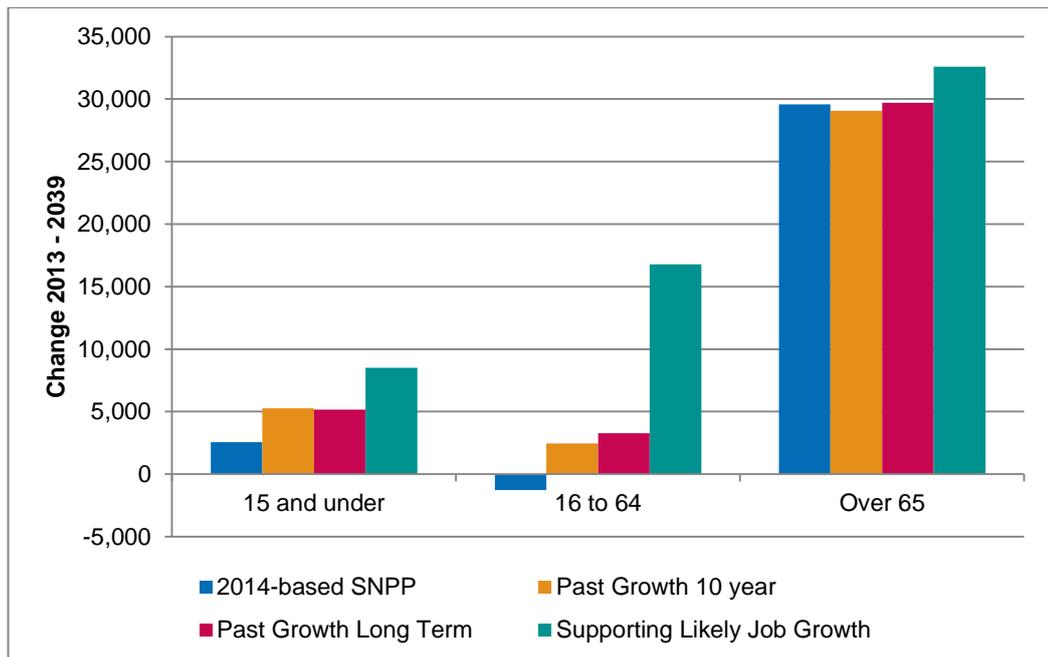
Source: Edge Analytics

4.27   It is noted that the larger modelled growth in working age residents also indirectly grows the number of younger residents aged 15 years and under, reflecting assumed fertility rates amongst the enlarged working age population. Similarly, there is a modest uplift in the implied growth of older residents, albeit the growth in this age group is predominantly underpinned by demographic trends and is less likely to be influenced by the creation of new employment opportunities.

4.28   As set out above, the higher levels of population growth required to support likely job growth result from an assumed increase in net migration to the HMA, with the modelling suggesting that a net inflow of 958 migrants is required each year to sufficiently grow the labour force. The following chart compares the implied average annual net migration under this scenario with both the 2014-based SNPP – the 'starting point' for assessing housing need – and the longer term past growth scenario developed in section 2 of this report.

Figure 4.2:   Benchmarking Net Migration Required to Support Likely Job Growth
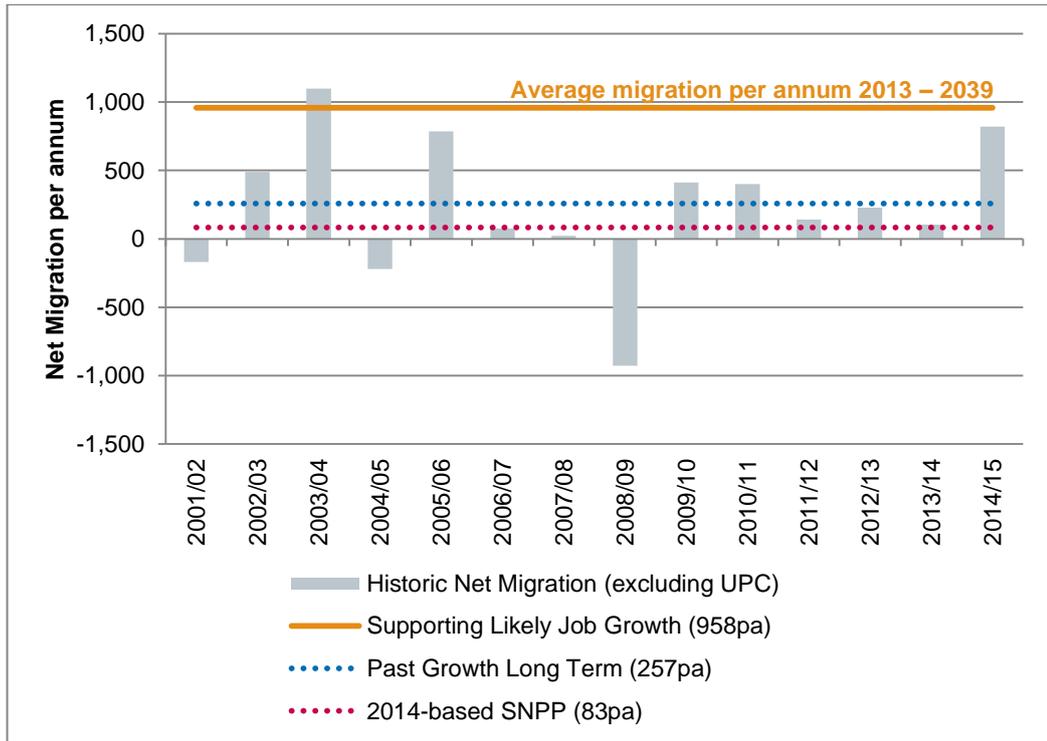
Source: ONS; Edge Analytics

4.29   It is clear that the annual level of net migration required to grow the labour force of Stoke-on-Trent and Newcastle-under-Lyme has been achieved only once since 2001, although the latest year of data (2014/15) approaches this level. Additional analysis has been developed and presented at Appendix 4 to consider the demographic factors contributing towards higher levels of annual net migration recorded in some years during this period. This indicates that a larger net inflow of younger working age residents was a factor which supported the higher flows observed, which suggests that achieving higher levels of net migration will be dependent upon a combination of attracting new working age residents and retaining existing working age residents who would otherwise move elsewhere. This may result in a deviation from the long-term average migration relationship with other authorities, the implications of which should be considered by the authorities as they develop the Joint Local Plan through Duty to Co-operate discussions.

4.30   When benchmarking required levels of net migration against the historic profile, it is important to reflect upon the uncertainties associated with the historic growth of Stoke-on-Trent in particular, given its underestimate at the 2011 Census and subsequently positive UPC. This issue was raised in concluding the analysis in section 3. The cause of UPC is unknown, although it is often attributed to migration for illustrative purposes given that this is the most challenging population component to estimate. When including UPC – as in the demographic scenarios presented at Appendix 2 – the level of net migration required to support likely job growth remains higher than seen historically on average but not unprecedented, having been surpassed and met on two occasions prior to the recession.

Figure 4.3: **Benchmarking Net Migration Required to Support Likely Job Growth Against Historic Estimates including UPC**
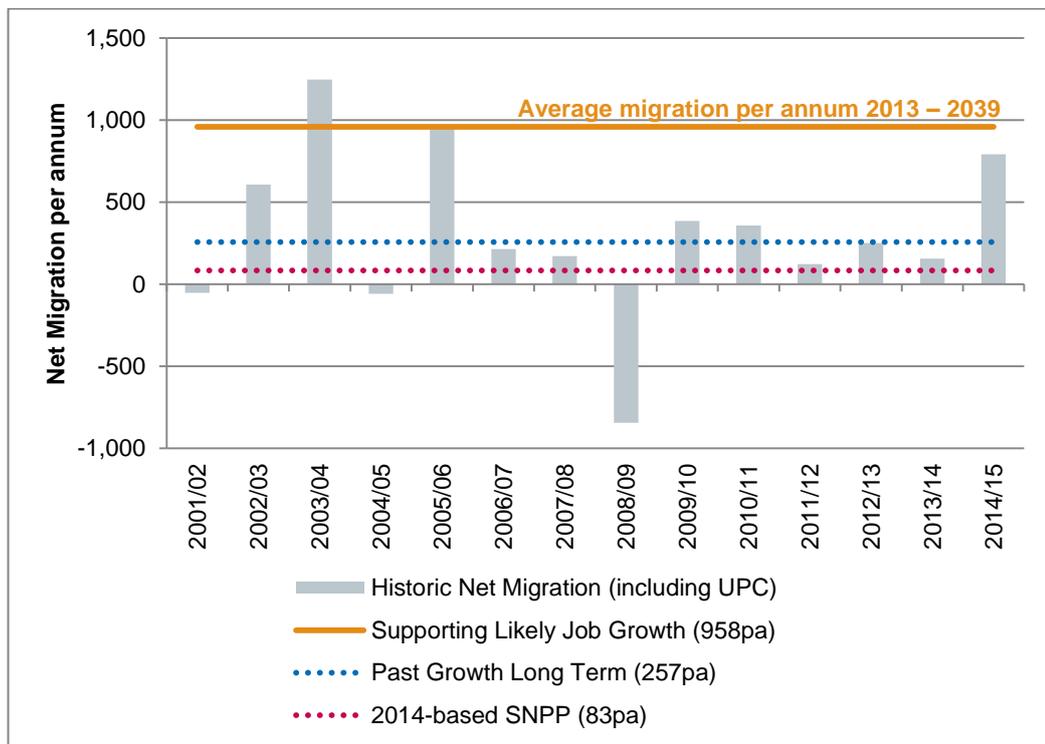
Source: ONS; Edge Analytics

Allowing for a Recovery of Younger Household Formation Rates

4.31   In order to convert the population into households, the modelling outputs presented at Table 4.4 apply the unadjusted 2014-based household formation rates to the level of population growth required to support likely job growth. However, the analysis in section 2 – and the 2015 SHMA – identified an assumption inherent within official projections that household formation for younger people remains suppressed in the HMA, having deteriorated over recent years. A range of sensitivities were considered and applied in section 2 to allow for a return to the levels of household formation last seen in 2001 for those younger age groups where this is not already assumed within the official unadjusted projections.

4.32   Applying a comparable adjustment to the scenario supporting likely job growth serves to uplift the number of households forming over the assessment period, increasing the number of homes needed to circa 1,390 dwellings per annum. This represents an uplift of 13% relative to the modelling outputs where unadjusted 2014-based headship rates are applied, as summarised in the following table.

Table 4.5: **Impact of Headship Rate Return Sensitivity (dwellings per annum 2013 – 2039)**

	Unadjusted 2014-based headship rates	Headship rate return sensitivity	% uplift
Newcastle-under-Lyme	530	586	11%
Stoke-on-Trent	698	804	15%
HMA	**1,228**	**1,390**	**13%**

Source: Edge Analytics

4.33 The application of this adjustment to the jobs-led scenarios is considered reasonable and appropriate, recognising the justification for its application provided in section 2. An important premise of the jobs-led projections is that the HMA will see an above-trend growth in the working age population, which will include a number of younger households who are assumed to be attracted to the HMA for employment purposes. In this context, it is reasonable to assume that an improvement in household formation rates will be sought by this larger cohort, and indeed this approach is consistent with that used within the SHMA. Failing to apply this adjustment could risk underestimating the number of new homes needed to accommodate this larger younger cohort, resulting in a potential undersupply which could adversely affect affordability.

Summary and Implications

4.34 The importance of taking employment trends into account when assessing housing need is clearly articulated within the PPG, given the need to ensure that likely job growth can be sustainably supported by an economically active labour force. The Government's Housing White Paper also continues to recognise the importance of the economy in planning for housing.

4.35 Following completion of the SHMA, the Councils published a joint ELR, which gives weight to a forecast produced by Cambridge Econometrics as the basis for economic policies in the Joint Local Plan. This conclusion and the preference given to a single economic forecast is taken forward within this report to ensure consistency of evidence and its interpretation. The preferred forecast suggests that is likely that the HMA will see the creation of 22,584 additional jobs over the period from 2013 to 2039, at an average rate of 869 jobs per annum. The ELR concludes that this would result in a '*positive but…realistic uplift on past trends*'.

4.36 Based on prudent labour force behaviour assumptions, modelling produced by Edge Analytics indicates that this level of job growth could not be supported by a continuation of recent or longer term demographic trends, given the limited projected growth in the working age population and strong ageing trend projected under each of the demographic scenarios. This introduces a risk that likely job growth over the plan period is constrained by a shortage of available labour.

4.37 Supporting likely job growth in the area would require either a substantial change in labour force behaviour – moving beyond the prudent assumptions applied by Edge Analytics, and potentially constraining employment growth if more significant assumed changes do not materialise – or a further growth in the labour force, or a combination thereof. When allowing for only modest changes in labour force behaviour, it is estimated that population growth of circa 58,000 will be necessary over the period to 2039 in Stoke-on-Trent and Newcastle-under-Lyme, which – at circa 15% – is considerably larger than the 10% growth which could occur if long term historic demographic trends continue. It is noted, however, that whilst this level of growth represents a significant change locally, it remains proportionately lower than that projected nationally (17%) by the 2014-based SNPP over the same period Achieving this level of population growth will require above-trend migration to support likely job growth, enabling growth in the working age population. This can be achieved by attracting new working age residents and retaining existing working age residents who would otherwise move elsewhere, with this factor historically contributing towards higher levels of net migration previously recorded.

4.38 It is apparent that the ELR considers that the HMA will see a strong growth in employment in the future, departing from recent historic trends. By contrast, the demographic projections suggest a limited growth in the working age population based upon an extrapolation of historic trends and taking into account an ageing of the population. On this basis, it is considered appropriate to apply an uplift to the OAN to support likely job growth. The modelling indicates a need for 1,228 dwellings per annum across the HMA to support forecast employment creation over the assessment period, increasing to 1,390 dwellings per annum when allowing for a return to higher levels of household formation amongst younger people.

5. Affordable Housing Need

5.1   The SHMA followed the methodology set out within the PPG by calculating the need for affordable housing in Stoke-on-Trent and Newcastle-under-Lyme. This established the current unmet need for housing, the projected future need for housing and the current supply of affordable housing stock[77]. This was based on Housing Register and lettings data supplied by the Council and supplementary datasets, and indeed the SHMA noted that:

"The calculation of affordable housing need is primarily based upon a point-in-time assessment of up-to-date evidence. The calculation is therefore reflective of current housing market conditions and in particular the affordability context relating to current day incomes and housing costs and the existing supply of affordable housing to address affordable housing need. Whilst the calculation presents future need for affordable housing to 2037, it is important that levels of need are regularly monitored and updated recognising changes to the housing market context and the supply of affordable housing"[78]

5.2   Updated data has been made available to inform the preparation of this update, and therefore an updated assessment of affordable housing need is presented within this section. This follows the same stepped methodology previously applied – as advocated by the PPG – but integrates the latest available data, as introduced throughout.

5.3   While the assessment presented in the SHMA was broken down to identify need within each sub-area, this assessment solely focuses on the need for affordable housing at local authority level, reflecting the scope of this update.

Current Unmet Gross Need

5.4   This stage of the calculation identifies the existing backlog of households in need of affordable housing, taking account of likely short-term supply. This provides a position on the shortfall in affordable housing supply to meet the backlog over the short-term.

Stage 1 – Current Housing Need (Gross Backlog)

5.5   This stage identifies the number of households currently classified as being within the greatest need of affordable housing, based on the Councils' respective Housing Registers as of October/November 2016. This backlog can be considered to be made up of a range of household types, from those in urgent need for housing – without a current permanent home – to those who are living in overcrowded and substandard homes, but are already housed.

5.6   Each authority operates an allocations policy, allocating applicants to a priority band to identify those in the greatest need of affordable housing and those who have little or no

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[77] PPG Reference ID 2a-022-20140306
[78] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (para 6.4)

need. For consistency with the SHMA, those assessed as low priority need[79] have not been included within this calculation.

Table 5.1:   Stage 1 – Current Housing Need

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
1.1 Existing affordable housing tenants in need	Housing Register Bands 1 – 6 (NuL) Bands 1 – 3 (SoT)	186	495	**681**
1.2 Other groups on Housing Register	Housing Register, exc 1.1	327	724	**1,051**
1.3 Total current housing need (gross)	**1.1 + 1.2**	**513**	**1,219**	**1,732**

5.7   Housing Register data indicates that 513 households in Newcastle-under-Lyme are currently in need of affordable housing, with a further 1,219 households in need in Stoke-on-Trent based on the Councils' respective allocations policies and excluding those who are considered to have little or no affordable housing need. Of the circa 1,730 households in need across the HMA, more than one in three (39%) are currently occupying affordable housing.

5.8   The SHMA previously indicated that some 2,667 households were in need of affordable housing across the HMA, based on the Housing Register as at summer 2014. This included 683 households in Newcastle-under-Lyme and 1,984 households in Stoke-on-Trent. The updated data presented above implies that the backlog has reduced over the intervening period, by around 25% in Newcastle-under-Lyme and circa 39% in Stoke-on-Trent.

5.9   Newcastle-under-Lyme Borough Council has identified a number of factors which may have contributed towards this reduction, including the introduction of more frequent reviews and increased encouragement of households to explore options in the private rented sector where they are able to afford the costs associated with this type of housing. Stoke-on-Trent City Council has similarly confirmed that the implied reduction accurately captures the effects of its revised allocations policy, which changed eligibility criteria and more than halved the number of households on the waiting list. This suggests that the earlier assessment may have overestimated the number of households in need of affordable housing, with the updated position established above more accurate and representative of current needs.

Stage 2 – Affordable Housing Supply

5.10   As identified in the SHMA, there is a supply of affordable housing available to address this backlog over the short-term. This is largely assumed to consist of affordable housing currently occupied by households in need, as identified at Step 1.1. These properties will be vacated when households' needs are met, enabling other households

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[79] Band 7 in Newcastle-under-Lyme and Band 4 in Stoke-on-Trent

in need to occupy vacated affordable housing. The calculation assumes that there is no long-term vacant stock planned to return to use, but takes account of planned demolitions and the committed supply of new affordable housing over the next five years.

Table 5.2:   Stage 2 – Affordable Housing Supply

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
2.1 Affordable dwellings occupied by households in need	Transfer tenants identified at Step 1.1	186	495	**681**
2.2 Surplus stock	Long-term vacant planned to return to use	0	0	**0**
2.3 Committed supply of new affordable housing	Commitments for next five years identified by Councils	109	121	**230**
2.4 Units to be taken out of management	Planned demolitions and stock removal	0	117	**117**
2.5 Total affordable housing stock available	**2.1 + 2.2 + 2.3 – 2.4**	**295**	**499**	**794**

Stage 3 – Shortfall in Affordable Housing to Meet Current Backlog (Annual)

5.11   The output from Stage 2 is subtracted from Stage 1 to provide an estimate of the total shortfall in affordable housing supply to meet the current backlog of housing need. This is divided by five to translate into an annual figure that would address backlog early in the plan period, reflecting guidance in the PPG[80]. The extent to which the backlog is met through supply within the next five years will require monitoring, however, given that a failure to clear the backlog within five years will result in a higher level of need later in the plan period.

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[80] PPG Reference ID 3-035-20140306

Table 5.3: **Shortfall in Affordable Housing to Meet Current Backlog (Net Annual)**

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
3.1 Total current housing need (gross)	1.3	513	1,219	**1,732**
3.2 Total affordable housing stock available	2.5	295	499	**794**
3.3 Shortfall in affordable housing need to meet current backlog (net annual)	(3.1 – 3.2) / 5	**44**	**144**	**188**

5.12 The updated assessment suggests a slightly smaller shortfall in Newcastle-under-Lyme relative to the previous assessment, which indicated a shortfall of 60 affordable homes annually over a short-term five year period. At housing market area level, this is offset by a slightly higher shortfall in Stoke-on-Trent – relative to the 93 home shortfall identified previously – reflecting the more modest levels of affordable housing stock expected to become available over the short-term.

Calculating Annual Net New Need

5.13 As new households form, additional demand for housing will be generated, with a resultant need for affordable housing when households are unable to access market housing. Existing households also fall into need as household circumstances change, although again this need can be balanced against supply.

Stage 4 – Future Housing Need

5.14 Section 2 of this report identified the Past Growth Long Term scenario as an appropriate demographic projection of need in Stoke-on-Trent and Newcastle-under-Lyme. The development of this scenario by Edge Analytics has identified a gross annual household formation rate, which provides an estimate of gross household formation – rather than the net household growth presented elsewhere in this report – based on changes in the number of households in specific 5 year age bands, relative to numbers in the age band below 5 years previously. In order to provide a more representative assessment of newly forming households, these estimates are limited to households where the head of household is 44 years or younger. The PPG does not include specific guidance on how newly forming households should be calculated, but this approach aligns with previous guidance issued by DCLG[81] and the approach previously taken within the SHMA.

5.15 The income required to access market housing is estimated and compared with the income profile of existing households, drawing upon the 2014 CACI data purchased by

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[81] Annex B of the DCLG 2007 SHMA Guidance – though replaced by the PPG – assumes in the identified methodology for calculating gross new household formation that headship rates 'plateau' after age 45

the Councils to inform the previous assessment. Whilst it is recognised that this income profile is now slightly outdated, it continues to provide a detailed indication of the proportion of households within broad income bands which is unlikely to have significantly changed over the intervening period.

5.16   The following table outlines the income required to access entry-level market housing, based on the evidence presented in section 3 of this report and the assumption that no more than one third of income is spent on housing costs. This aligns with research produced by the Resolution Foundation – which is regularly cited by both Shelter and the Joseph Rowntree Foundation – which indicates that '*households spending at or above this threshold are far more likely to struggle to actually make housing payments…and are also more likely to experience material hardship*'[82]. This updates the position previously assumed in the SHMA that no more than 25% of income is spent on housing costs, but is nevertheless considered reasonable and appropriate in the context of this research. Reasonable assumptions have also been made in estimating the annual cost of mortgage repayments[83].

Table 5.4:   Income Required to Access Market Housing

	Newcastle-under-Lyme	Stoke-on-Trent
Lower quartile house price 2015	£97,500	£67,500
Income required to purchase	**£22,595**	**£15,642**
Lower quartile private rent 2015/16 (2 bed)	£5,400	£4,560
Income required to privately rent	**£16,200**	**£13,680**

Source: Turley, 2016; Land Registry, 2015; VOA, 2016

5.17   In both Newcastle-under-Lyme and Stoke-on-Trent, the evidence presented above indicates that private rented housing is the most affordable market housing option, requiring a lower income than required to purchase an entry-level home. Recognising that CACI income data is rounded to the nearest £5,000, this indicates that only those with incomes lower than £15,000 are unlikely to be able to afford the cost of privately renting in the open market. As such – assuming that the income of newly forming households reflects the income profile implied by the 2014 CACI data available to inform this study – it can be assumed that 28% of newly forming households in Newcastle-under-Lyme and 33% of households in Stoke-on-Trent will be unable to privately rent, and require affordable housing.

5.18   In addition to newly forming households, a number of existing households fall into need from other tenures[84]. This is based on the number of lettings to existing households recorded on an annual basis (2014/15 – 2015/16 in Newcastle-under-Lyme, 2013/14 – 2015/16 in Stoke-on-Trent).

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[82] Resolution Foundation (2014) Housing pinched: understanding which households spend the most on housing costs
[83] 5% deposit assumed, with repayment over a 25 year period at a fixed interest rate of 3%
[84] Excluding Council/housing association tenants, households living with friends, parents or relatives, or those with no fixed address

Table 5.5:   Stage 4 – Future Housing Need (Annual)

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
4.1 New household formation (annual)	Gross household formation, Past Growth Long Term scenario	1,009	1,819	**2,828**
4.2 Newly forming households in need	Proportion of households unable to afford to privately rent in the open market	28%	33%	**–**
	Number of households unable to afford to privately rent in the open market	279	604	**883**
4.3 Existing households falling into need	Lettings to existing households from other tenures	223	680	**903**
4.4 Total newly arising need (gross annual)	**(4.1 x 4.2) + 4.3**	**502**	**1,284**	**1,786**

5.19   The assessment indicates that a need for 1,786 affordable homes will be generated annually through the formation of new households and the flow of existing households falling into need from other tenures. This falls slightly below that implied by the previous assessment (2,048), reflecting the smaller number of households assumed to be unable to afford to privately rent – based on the application of an assumption that no more than one third of income is spent on housing costs – and a slightly smaller expected flow of existing households falling into need.

Stage 5 – Affordable Housing Supply

5.20   Using lettings data supplied by the Councils, the estimated amount of affordable housing anticipated to be made available each year is estimated based on the number of lettings recorded annually on average[85], excluding transfers. An estimate of the number of intermediate units likely to become available is also made, based on data provided by the Councils.

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[85] 2014/15 – 2015/16 in Newcastle-under-Lyme; 2013/14 – 2015/16 in Stoke-on-Trent

Table 5.6:   Stage 5 – Affordable Housing Supply (Annual)

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
5.1 Annual supply of social re-lets (net annual)	Lettings excluding transfers, 2/3 year average	293	1,209	**1,502**
5.2 Annual supply of intermediate housing available for relet or resale at sub-market values	Council monitoring data (NuL, 2013 – 2015) Estimated turnover rate for SoT	10	8	**18**
5.3 Annual supply of affordable housing	**5.1 + 5.2**	**303**	**1,217**	**1,521**

Stage 6 – Annual Net New Need

5.21   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 new need in full – will add to the backlog position each year.

Table 5.7:   Stage 6 – Annual Net New Need (Net Annual)

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
6.1 Total newly arising need	4.4	502	1,284	**1,786**
6.2 Annual supply of affordable housing	5.3	303	1,217	**1,521**
6.3 Annual net new need	**6.1 – 6.2**	**199**	**66**	**265**

5.22   The assessment indicates that the annual supply of affordable housing in both Stoke-on-Trent and particularly Newcastle-under-Lyme is unlikely to be sufficient to meet newly arising need generated by newly forming households and existing households falling into need from other tenures. This results in an annual need for 265 additional affordable homes across the HMA, inclusive of 199 homes in Newcastle-under-Lyme and 66 homes in Stoke-on-Trent.

Total Affordable Housing Need

5.23   The final stage of the calculation identifies the total affordable housing need on a net annual basis, calculated by adding together the two components introduced above. As outlined earlier in this section, the assessment assumes that the backlog is cleared

within a five year time horizon, with this resulting in a five year affordable housing need figure alongside a longer term net affordable need figure.

Table 5.8: Stage 7 – Total Affordable Housing Need (Net Annual)

Step	Source	Newcastle-under-Lyme	Stoke-on-Trent	HMA
7.1 Shortfall in affordable housing need to meet current backlog (net annual)	3.3	44	144	**188**
7.2 Annual net new need	6.3	199	66	**265**
7.3 Net annual affordable housing need (5 years)	**7.1 + 7.2**	**242**	**210**	**453**

5.24 Across the HMA, the assessment indicates an **annual need for 453 affordable homes** to clear the backlog and meet newly arising need over the next five years, with this reducing to **265 affordable homes per annum** once the backlog is cleared.

5.25 At HMA level, this is broadly comparable with the need for 424 affordable homes per annum implied by the previous assessment in the 2015 SHMA. The updated evidence does, however, suggest a higher need for affordable housing in Newcastle-under-Lyme relative to the previous assessment (103), which is partially offset by a smaller implied need for affordable housing in Stoke-on-Trent when compared with the annual need for 261 affordable homes calculated previously.

Size of Affordable Housing Required

5.26 In order to estimate the need for affordable housing of different sizes, the affordable housing needs 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 needs. This follows the guidance in the PPG, which specifies that plan makers should consider '*the house size in the current stock and assess whether these match current and future needs*'[86].

5.27 In order to arrive at this estimate, the assessment has been replicated in a comparable but streamlined overleaf, with analysis broken down by dwelling size using the number of bedrooms. Housing Register and lettings data used to inform this calculation includes a breakdown by number of bedrooms, which is supplemented by evidenced assumptions where this detail is not available. Given the need for such assumptions, it is recommended that the outputs of this calculation are used only for guidance.

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[86] PPG Reference ID 2a-028-20140306

Table 5.9:   Affordable Housing Needs Assessment by Size

		Newcastle-under-Lyme					Stoke-on-Trent					HMA				
		1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Current Unmet Need																
1.3	Total current housing need	228	184	78	23	**513**	530	332	240	117	**1,219**	758	516	318	140	**1,732**
2.5	Total affordable housing stock available	115	97	68	15	**295**	219	88	116	76	**499**	334	185	185	91	**794**
3.3	**Shortfall in affordable housing**	**23**	**17**	**2**	**2**	**44**	**62**	**49**	**25**	**8**	**144**	**85**	**66**	**27**	**10**	**188**
%		52%	40%	4%	4%	–	43%	34%	17%	6%	–	45%	35%	14%	5%	–
Annual Net New Need																
4.4	Total newly arising need	192	177	123	11	**502**	347	532	393	12	**1,284**	539	708	516	23	**1,786**
5.3	Annual supply of affordable housing	134	132	35	4	**303**	275	664	277	1	**1,217**	408	796	312	5	**1,521**
6.3	**Annual net new need**	**58**	**45**	**88**	**7**	**199**	**72**	**-133**	**116**	**11**	**66**	**131**	**-88**	**204**	**18**	**265**
%		29%	23%	44%	4%	–	109%	-200%	175%	17%	–	49%	-33%	77%	7%	–
Total Affordable Housing Need																
3.3	Shortfall in affordable housing	23	17	2	2	**44**	62	49	25	8	**144**	85	66	27	10	**188**
6.3	Annual net new need	58	45	88	7	**199**	72	-133	116	11	**66**	131	-88	204	18	**265**
7.3	**Net annual affordable housing need (5yrs)**	**81**	**63**	**90**	**9**	**242**	**134**	**-84**	**141**	**19**	**210**	**215**	**-21**	**231**	**28**	**453**
%		33%	26%	37%	4%	–	64%	-40%	67%	9%	–	48%	-5%	51%	6%	–

5.28 The analysis suggests that a large proportion of affordable homes delivered over the next five years to clear the backlog will require only one bedroom, although a need exists for affordable housing of all sizes. This is driven by households on the Housing Register, and it is recommended that the Councils continue to monitor the number of bedrooms needed by households in priority bands when planning to meet this evidenced need.

5.29 The calculation suggests that various sizes of affordable housing will be needed to meet new need annually generated over the plan period in Newcastle-under-Lyme. The ongoing supply of three bedroom properties in particular is found to fall notably below estimated future needs, although it should be noted that the assessment takes no account of changes resulting from welfare reforms. Again, it is recommended that the impacts of these reforms are continuously monitored by the Councils.

5.30 The calculation for Stoke-on-Trent notably suggests that there is an oversupply of affordable housing with two bedrooms relative to future needs, which contrasts with an assessed shortfall of one and three bedroom housing. The need for one bedroom housing is assumed to be driven by the sizeable growth in the number of one person households projected in Stoke-on-Trent, while those assumed to require three bedrooms may in reality meet their needs in a smaller property. As above, it is therefore recommended that the above findings are not used prescriptively in policy, with the assumptions made in the assessment tested against ongoing monitoring of current affordable housing need – based on the Housing Register – and supply.

Meeting Affordable Housing Need

5.31 The 2015 SHMA acknowledged and summarised the national programme of welfare reforms which were expected to influence households' eligibility for and the provision of affordable housing. The passage of the 2016 Housing and Planning Act has introduced a range of further measures which will impact upon housing provision once implemented.

5.32 Passage of the Act coincided with consultation by Government on proposed changes to national planning policy[87], which made clear its commitment to home ownership but recognised the important role of affordable rent for those not currently seeking home ownership. The changes proposed would broaden the definition of affordable housing, supporting '*present and future innovation by housing providers in meeting the needs of a wide range of households who are unable to access market housing*'. This would include '*products that are analogous to low cost market housing or intermediate rent, such as discount market sales or innovative rent to buy housing. Some of these products may not be subject to 'in perpetuity' restrictions or have recycled subsidy*'.

5.33 The Housing and Planning Act made provision for a new simplified definition of affordable housing as '*new dwellings…to be made available for people whose needs*

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[87] DCLG (2015) Consultation on National Planning Policy

are not adequately served by the commercial housing market[88]. Secondary legislation is required to implement this definition, necessitating further parliamentary debate[89].

5.34   The Government's recently published Housing White Paper[90] confirms that a revised definition will be brought forward through changes to the NPPF later this year, proposing a definition of affordable housing as '*housing that is provided for sale or rent to those whose needs are not met by the market (this can include housing that provides a subsidised route to home ownership*' and which '*meets the criteria*' for one of the following models[91]:

- **Social rented housing**, defined as currently and owned by local authorities and private registered providers with guideline target rents determined through the national rent regime. It may be owned by other persons and provided under equivalent rental arrangements, as agreed with the local authority or Homes and Communities Agency;

- **Affordable rented housing**, defined as currently and let by local authorities or private registered providers of social housing to households eligible for social rented housing. Affordable rent is controlled at no more than 80% of the local market rent including service charges where applicable;

- **Starter Homes**, as defined in the Housing and Planning Act 2016 and subsequent secondary legislation with an income restriction of £80,000 outside London. These homes are expected to provide a new low cost market housing product for first time buyers between the ages of 23 and 40 with a mortgage, sold for no more than 80% of open market value and capped at £250,000 outside London;

- **Discounted market sales housing**, sold at a discount of at least 20% below market value with provision to remain at a discount for future eligible households. Eligibility is to be determined with regard to local incomes and house prices;

- **Affordable private rent housing**, made available for rent at a level which is at least 20% below local market rent with provision to ensure that rent remains at a discounted level or alternative affordable housing provision is made if the discount is withdrawn. This is viewed as particularly suited to the provision of affordable housing in Build to Rent schemes; and

- **Intermediate housing**, defined to include discounted market sales and affordable private rent housing – as outlined above – and other housing that is '*provided for sale and rent at a cost above social rent, but below market levels*'.

5.35   A transition period is proposed to enable a review of local policies, with the revised definitions intended to apply from April 2018. The Government also intends to introduce

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[88] Housing and Planning Act 2016, part 6, section 159 (4)
[89] Section 159(2) of the Act inserts '*(3ZB) No regulations may be made under section 106ZB [which contains the updated definition of affordable housing] unless a draft of the instrument containing the regulations has been laid before, and approved by a resolution of, each House of Parliament*'
[90] DCLG (2017) Fixing our Broken Housing Market (para A.120)
[91] Ibid (p100)

a requirement for sites of 10 units or more to ensure that at least 10% of all homes are affordable home ownership products, including Starter Homes, shared ownership homes and homes available for discount market sale.

5.36   These changes may have implications for the delivery of homes which are suitable for those in need of affordable housing. The calculation presented in this chapter assumes that households unable to afford the cost of privately renting in the open market will require affordable housing. Products with a smaller ongoing cost relative to private rent will therefore contribute towards meeting the need for affordable housing calculated within this chapter.

5.37   It is recommended that the Councils continue to monitor the implementation of policy changes proposed by the Housing White Paper.

Summary and Implications

5.38   This section has followed the methodology prescribed within the PPG to provide an updated calculation of the need for affordable housing in Stoke-on-Trent and Newcastle-under-Lyme. This integrates updated data which has been made available to inform the preparation of this update.

5.39   The assessment indicates that there is an **annual need for 453 affordable homes** to clear the backlog and meet newly arising needs over the next five years, inclusive of 242 affordable homes in Newcastle-under-Lyme and 210 affordable homes in Stoke-on-Trent. This reduces to 265 affordable homes per annum once the backlog is cleared. It is of note that this broadly compares with the need for 424 affordable homes per annum concluded within the 2015 SHMA, albeit the evidence suggests an increased need for affordable housing in Newcastle-under-Lyme which is partially offset by a smaller implied need in Stoke-on-Trent.

6. Updated Objective Assessment of Need

6.1 This update has been structured around the methodological steps set out within the PPG for the objective assessment of housing need, seeking to identify:

- An appropriate **demographic projection of housing need**, adjusting the 'starting point' of the latest 2014-based official projections where necessary to reflect factors which are not captured in past trends;

- The level of adjustment necessary to respond to **market signals** of imbalance between housing demand and supply;

- The extent to which **likely job growth** can be supported through labour force availability; and

- The implications of the identified scale of **affordable housing need** in Stoke-on-Trent and Newcastle-under-Lyme and its likely delivery over the plan period.

6.2 This section draws upon the evidence presented throughout this report to arrive at an evidenced position on the recommended objectively assessed need (OAN) for housing in Stoke-on-Trent and Newcastle-under-Lyme, following the guidance in the PPG as of May 2017. This remains the latest official guidance on calculating housing needs, pending the planned consultation on options for the introduction of a standard methodology which – in the absence of a housing requirement adopted in an up-to-date plan – is intended to apply as the '*baseline for assessing five year housing land supply and housing delivery*' from April 2018[92]. The Government has suggested that '*in specific circumstances where authorities are collaborating on ambitious proposals for new homes*', additional time could be given by the Secretary of State before this new baseline is applied. Equally, although the Government intends to incentivise authorities to use the new approach in producing Local Plans, it has acknowledged that this may not be universally adopted by stating that:

"We will expect Councils that decide not to use the new approach to explain why not and to justify the methodology they have adopted in their area. We will consult on what constitutes a reasonable justification for deviating from the standard methodology, and make this explicit in the National Planning Policy Framework"[93]

6.3 In the absence of any guidance on a preferred alternative methodology at this time – with the Housing White Paper silent on the standardised methodology proposed by the Local Plans Expert Group (LPEG), for example – this update seeks to establish whether the latest evidence implies a '*meaningful change*'[94] in the housing situation in Stoke-on-Trent and Newcastle-under-Lyme. This is essential in maintaining an evidenced and up-to-date understanding of housing needs in the housing market area – as required by adopted policy and guidance available at the current point in time – and will enable continued progress in producing the Joint Local Plan, as expected by Government. This

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[92] DCLG (2017) Fixing our Broken Housing Market (para 1.15)
[93] Ibid (para A.23)
[94] PPG Reference ID 2a-016-20150227

is considered a reasonable, consistent and appropriate basis through which this updated position can be robustly established, although the implications of a new methodology should be monitored by the Councils.

6.4   In accordance with the NPPF and PPG, the need for housing is assessed in full across the housing market area (HMA), which as concluded within the 2015 SHMA covers the administrative areas of Stoke-on-Trent and Newcastle-under-Lyme[95]. The section does, however, use the modelling developed to inform this update to consider the implications of the recommended OAN for each local authority area.

Demographic Projection of Need

6.5   The PPG clearly identifies the latest official household projections as the 'starting point' for the assessment of housing needs[96]. The 2014-based projections were released in July 2016 and indicate that approximately 20,230 additional households will form in Stoke-on-Trent and Newcastle-under-Lyme over the period assessed within the SHMA (2013 – 2039). When allowing for vacancy, this implies a need for **805 dwellings per annum** across the HMA, with 490 homes needed annually in Stoke-on-Trent and 315 homes needed each year in Newcastle-under-Lyme.

6.6   In accordance with the PPG, this therefore represents the 'starting point' for the objective assessment of need, which it is noted is higher than the 'starting point' of the 2012-based projections (691 dwellings per annum) used in the SHMA. However, the SHMA previously identified that the 2012-based projections risked underestimating future population growth in Stoke-on-Trent and Newcastle-under-Lyme, given that they project forward trends which have been suppressed throughout the recession. This represents a constrained position, which does not provide a reliable or appropriate basis for planning to meet housing needs.

6.7   The PPG clearly states that demographic trend-based projections may require '*adjustment to reflect factors which are not captured in past trends*'[97]. In Stoke-on-Trent and Newcastle-under-Lyme, a longer-term period is considered more representative of a positive market context, capturing a pre-recession period in which higher levels of development were achieved as well as the more suppressed market context subsequently seen. This provides a more balanced perspective on future growth, which is considered less likely to suppress the future demographic trends shaping the need for housing in the HMA relative to the trend period drawn upon in the official 'starting point' projections.

6.8   The alternative demographic scenarios developed by Edge Analytics and presented in section 2 of this report integrate the latest population estimates and draw upon a ten year (2005 – 2015) and fourteen year (2001 – 2015) historic period. This suggests that a higher level of population growth could occur over the assessment period if demographic trends seen during these periods are sustained, surpassing the level of growth projected under the 2014-based SNPP. This indicates that the 'starting point'

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[95] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (para 2.9)
[96] PPG Reference ID 2a-015-20140306
[97] PPG Reference ID 2a-015-20140306

could underestimate how the population will change over the assessment period if past growth trends continue, subsequently underestimating the future need for housing.

6.9 The past growth scenarios developed by Edge Analytics exclude unattributable population change (UPC), for consistency with the official projections produced by ONS. The SHMA previously acknowledged that the population of Stoke-on-Trent was underestimated during the years preceding the 2011 Census, and modestly overestimated in Newcastle-under-Lyme.

6.10 It is recognised that the issue of UPC impacts upon historic demographic trends recorded between 2001 and 2011, which could result in future population growth in Stoke-on-Trent being underestimated if growth is based solely upon a demographic projection of need. Indeed, there is some evidence – based on the Patient Register – that the population of Stoke-on-Trent has grown to a greater extent since 2011 than the latest population estimates suggest, suggesting that even this dataset may underestimate the future scale of demographic growth in the city.

6.11 However, rather than applying an adjustment to account for these factors, it is considered appropriate to assess the implications of these factors in the context of the other adjustments made in arriving at the OAN and in particular the elevated scale of population growth associated with supporting employment growth.

6.12 Taking the above into account, it is considered that the Past Growth Long Term scenario – which draws upon demographic trends seen between 2001 and 2015 – forms the most appropriate basis for an adjustment to the 'starting point'. This scenario fully captures a period with healthier development rates observed in the HMA prior to the recession, with this balanced against – and assisting in offsetting the demographic impact of – the more recent period during which the rate of development has slowed. This scenario indicates a minimum need for 915 dwellings per annum, when applying the household formation rates assumed within the official 2014-based household projections.

6.13 In accordance with the PPG, however, the analysis in section 2 considered in detail the extent to which the official projections indicated a continued suppression of household formation rates, with this particularly focussing on younger households. It is apparent that within the two authorities the projections assume a local decline which has been seen since 2001, linked to deteriorating affordability in the housing market which has been consistently recognised as a fundamental issue by Government. Following a comparable approach, consideration has been given to an appropriate adjustment to the household formation rates of younger households recognising that a variety of technical adjustments can be reasonably applied. As a minimum, an adjustment which results in an uplift of 14% to the projected growth in households is considered reasonable. It is recognised that variant adjustments could result in a higher or lower level of housing need, however, the scale of difference implied is not considered sufficiently significant in the context of the overall projected demographic need and in recognition of the comparatively modest affordability issues evident in the HMA compared against a national picture. Again, this needs to be considered in the context of adjustments made to respond to market signals and forecast employment growth.

6.14   The adjustment applied allows for the formation of approximately 3,700 younger households over the period to 2039, who would otherwise be unable to form within the projections. Allowing for a positive return to higher levels of household formation for those groups most affected by the worsening affordability of housing is considered important in ensuring that this suppressed market context does not form the basis for establishing future need.

6.15   Applying this adjustment to the Past Growth Long Term scenario – considered the most appropriate demographic growth projection for the HMA – indicates a minimum demographic need for **1,064 dwellings per annum across the HMA**. This uplifts the demographic 'starting point' by 32% – or some 259 dwellings per annum – across the HMA. Within this total, there is an implied need for 398 dwellings per annum in Newcastle-under-Lyme (+26% from 'starting point') and 666 dwellings per annum in Stoke-on-Trent (+36%).

Responding to Market Signals

6.16   Section 3 of this update follows the guidance in the PPG by assessing a series of market signals to understand the local balance between housing supply and demand. Appropriate comparisons are made with neighbouring and comparable areas, enabling the significance of market trends to be established and informing a position on the scale of adjustment necessary to respond to any identified worsening in market signals.

6.17   The analysis in section 3 indicates that there has been some worsening in market signals in Stoke-on-Trent and Newcastle-under-Lyme, although it does not suggest that there is a significant imbalance between housing supply and demand. Market signals largely compare favourably with the areas presented, with house prices and rents relatively low and affordability a less significant issue than seen in many other areas. The limited growth in the number of overcrowded households and concealed families also does not suggest a significant unmet need for housing over recent years.

6.18   Change in house prices over recent years is relatively significant in both authorities, although each – particularly Stoke-on-Trent – continues to be characterised by relatively low house prices. Furthermore, there has been a relatively significant increase in rents in Newcastle-under-Lyme, with the affordability ratio increasing over recent years to suggest that house prices have increased at a faster rate than earnings. These are the only clear indicators which suggest that market signals have worsened to a greater extent than seen nationally, and indeed more broadly it can be observed that Newcastle-under-Lyme has seen the greatest worsening of the two authorities in the HMA.

6.19   On this basis, it is considered that a small adjustment to the demographic trend-based projection is justified in response to market signals in Newcastle-under-Lyme. This recognises the worsening trend in house prices and rents – and the impact that this has had on affordability – while acknowledging that, in absolute terms, rents, house prices and affordability rank relatively positively when compared to neighbouring and similar authorities.

6.20   No uplift is considered to be required in Stoke-on-Trent, given that the city remains characterised by its low house prices which fall below all but one of the comparator

areas presented in section 3. While there has been a significant proportionate increase in house prices, the affordability pressure in Stoke-on-Trent is less acute, and the authority is amongst the most affordable of those considered in section 3.

6.21   As noted earlier in this report, the PPG provides no clarification on the scale of adjustment necessary when responding to market signals, but states that any adjustment should be '*at a level which is reasonable*'[98]. Several Planning Inspectors have sought to establish the scale of adjustment considered reasonable to respond to evidenced worsening in market signals, with Inspectors more recently increasingly seeking clarification on the scale of a distinct market signals uplift '*which could be expected to improve affordability, in accordance with government policy*'[99]. It is noted that a distinct and separate market signals uplift – beyond and additional to adjustments to household formation rates – also featured within the alternatively methodology proposed by LPEG, albeit this has not been endorsed by Government.

6.22   The conclusion of the Inspector examining the Eastleigh Local Plan is widely cited as a benchmark in interpreting this methodological step of the PPG, with the Inspector advocating an uplift of 10% to respond to respond to the '*modest*' pressure of market signals recognised within the SHMA[100]. The interpretation of modest pressure recognised that '*not all signals demonstrate that Eastleigh is worse than the national or regional/sub regional averages. But on some crucial indicators it is*'[101]. The Inspector cited an affordability ratio which had worsened to a greater extent than seen nationally or across the Southampton HMA, and rents which were increasing faster than the national or county rate.

6.23   The Inspector considering the Canterbury Local Plan recommended an uplift of 20% associated with evidence of worsening market signals[102], advising that this uplift needed to be considered in the context of other adjustments relating to household formation and the alignment of population change with economic growth. He noted that '*the amount of uplift to be applied to the starting point estimate is a matter of judgement*' and identified the potential for '*a degree of overlap between [the market signals uplift] and some of the other assumptions*', before recommending that '*an uplift that took reasonable account of market signals, economic factors, a return to higher rates of household formation and affordable housing needs*' was appropriate as a full OAN for Canterbury[103].

6.24   Table 3.3 compares trends in Stoke-on-Trent and Newcastle-under-Lyme with Eastleigh and Canterbury, where Inspectors have arrived at clear positions on the scale of adjustment necessary to respond to market signals. From this analysis, it is clear that market signals in Newcastle-under-Lyme – and indeed Stoke-on-Trent – have not deteriorated to the extent seen in Eastleigh and Canterbury, with the borough considerably more affordable than these authorities despite the notable recent growth in house prices.

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[98] PPG Reference ID 2a-020-20140306

[99] Interim conclusions of the Inspector examining the Mid Sussex District Plan, 20 February 2017, p5

[100] 'Report on the Examination into Eastleigh Borough Council's Eastleigh Borough Local Plan 2011 – 29', 11th February 2015

[101] Ibid (para 40)

[102] 'Canterbury District Local Plan: Note on main outcomes of Stage 1 hearings', August 2015

[103] Ibid (para 25/26)

6.25   On this basis, it is considered that a '*reasonable*' response to market signals in Newcastle-under-Lyme would be proportionately smaller than that considered appropriate in Eastleigh and Canterbury, suggesting that an uplift of less than 10% is necessary. An uplift of 5% to the demographic trend-based projection is considered an appropriate, proportionate and reasonable response to the evidence of a limited worsening in market signals in Newcastle-under-Lyme.

6.26   Applying this adjustment to the demographic projection of need for the borough indicates a need for 418 dwellings per annum in Newcastle-under-Lyme over the period to 2039, with no market signals adjustment considered necessary in Stoke-on-Trent. Across the HMA, this indicates a slightly higher level of need for **1,084 dwellings per annum**.

Supporting Likely Job Growth

6.27   The importance of taking employment trends into account when assessing housing need is clearly articulated within the PPG, given the need to ensure that likely job growth can be sustainably supported by an economically active labour force. The Government's Housing White Paper also continues to recognise the importance of the economy in planning for housing.

6.28   In considering the implications of future employment growth on housing need, the SHMA introduced two employment forecasts, which have been since evaluated further within the Councils' joint Employment Land Review[104] (ELR). The ELR concludes that the greatest weight should be given to a forecast produced by Cambridge Econometrics, which would result in the creation of 22,584 additional jobs in Stoke-on-Trent and Newcastle-under-Lyme over the period from 2013 to 2039. This is inclusive of 17,372 jobs within the Councils' plan period (2013 – 2033). The ELR concludes that this would result in a '*positive but…realistic uplift on past trends*'.

6.29   Based on prudent labour force behaviour assumptions, modelling produced by Edge Analytics indicates that this level of job growth could not be supported by a continuation of recent or longer term demographic trends, given the limited growth in the working age population and strong ageing trend projected under each of the demographic scenarios. This introduces a risk that likely job growth over the plan period is constrained by a shortage of available labour.

6.30   Supporting likely job growth in the area would require either a substantial change in labour force behaviour – moving beyond the prudent assumptions applied by Edge Analytics, and potentially constraining employment growth if more significant assumed changes do not materialise – or a further growth in the labour force, or a combination thereof. When allowing for only modest changes in labour force behaviour, it is estimated that population growth of circa 58,000 will be necessary over the period to 2039 to support likely job growth. This represents a higher level of growth (15%) in the population than projected based on a continuation of longer term past demographic trends (10%), albeit remaining below the level of population growth projected nationally over the same period (17%). This indicates a need to allow for a further growth in the population to support likely job growth, enabling growth in the working age population

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[104] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent Joint Employment Land Review

beyond the limited growth projected under the demographic projections through an allowance for higher levels of net migration to the area.

6.31   The modelling indicates that a net inflow of 958 persons per annum will be required over the assessment period to grow the labour force and support likely job growth. A continuation of longer term migration trends – underpinning the Past Growth Long Term scenario – would result in a net inflow of 257 persons per annum. Supporting likely job growth will evidently require an uplift to the historic level of net migration to the area, indicating that both Stoke-on-Trent and Newcastle-under-Lyme will need to attract new working age residents and retain existing working age residents who would otherwise move elsewhere if higher levels of net migration are to be sustained.

6.32   While this would represent a relatively significant shift from the long-term historic profile in the area, annual migration of this scale is not unprecedented, having been seen at least once since 2001 (Figure 4.2) and possibly twice if the past underestimation of the Stoke-on-Trent population was due to an undercount in the number of migrants moving to the area (Figure 4.3). Additional analysis presented in Appendix 4 indicates that a stronger net inflow of younger working age residents has historically been a factor which contributed towards recent peaks in net migration to Stoke-on-Trent and Newcastle-under-Lyme.

6.33   This issue has been considered by the Inspector examining the emerging Cheshire East Local Plan Strategy, which neighbours the HMA. His further interim views caution against planning for *'unprecedented additional levels of migration'*[105], but supported planning for a level of housing need based on the '*highest level [of migration] ever achieved*'[106] in Cheshire East following the analysis within the Council's Housing Development Study[107]. This was predicated upon supporting likely job growth in Cheshire East, with a recognition that '*less out-migration may...occur with more jobs being provided*'[108].

6.34   On this basis, allowing for levels of net migration which are not unprecedented in Stoke-on-Trent and Newcastle-under-Lyme to grow the labour force and support likely job growth does not appear unreasonable, and would appear to correlate with the above-trend growth in employment considered realistic within the ELR. This also aligns with the objectives of the Stoke-on-Trent and Staffordshire Enterprise Partnership, which – as recognised in the SHMA – seeks to drive the '*transformation of Stoke-on-Trent*' into an '*economic powerhouse*'[109]. The Government is also committed to rebalancing the national economy, having identified the need to drive growth across the whole country as a central pillar of its modern Industrial Strategy[110]. Failing to positively address the labour shortages which would potentially result from a continuation of past demographic

[105] Stephen J Pratt (2015) Cheshire East Council Examination of the Cheshire East Local Plan Strategy – Inspector's Further Interim Views on the Additional Evidence Produced by the Council during the Suspension of the Examination and its Implications for the Submitted Local Plan Strategy (para 30)
[106] Ibid (para 31)
[107] ORS (2015) Cheshire East Housing Development Study
[108] Stephen J Pratt (2015) Cheshire East Council Examination of the Cheshire East Local Plan Strategy – Inspector's Further Interim Views on the Additional Evidence Produced by the Council during the Suspension of the Examination and its Implications for the Submitted Local Plan Strategy (para 31)
[109] Stoke-on-Trent and Staffordshire Enterprise Partnership (2014) Strategic Economic Plan – Part 1: Strategy (p1)
[110] HM Government 2017) Building our Industrial Strategy Green Paper

trends is contrary to these objectives, and could reduce the resilience of local businesses and generate unsustainable commuting patterns[111].

6.35   It is apparent that the ELR considers that the HMA will see a strong level of growth in employment in the future, departing from recent historic trends. By contrast, the demographic projections suggest a limited growth in the working age population based upon an extrapolation of historic trends and taking into account an ageing of the population. On this basis, it is considered that a further uplift to the OAN is justified to support likely job growth in Stoke-on-Trent and Newcastle-under-Lyme, in line with the approach taken in the SHMA. The modelling developed in this update suggests that **1,390 dwellings per annum** will be required to support forecast job creation over the period to 2039, when allowing for a return to higher levels of household formation amongst younger people and modest changes in labour force behaviour.

Implications of the Calculated Scale of Affordable Housing Need

6.36   The updated calculation presented at section 5 of this report indicates that there is a need for 453 affordable homes per annum across the HMA over five years in order to clear the backlog whilst meeting newly arising need during this time. Once the backlog is cleared, this reduces to 265 affordable homes per annum.

6.37   As recognised within the SHMA, there is a complex relationship between affordable housing provision and market housing, which needs to be carefully considered in meeting the need for affordable housing. Existing and projected additional households form a significant component of the calculation, and would not be expected to add to the overall need for housing in the HMA.

6.38   However, the PPG makes clear that the need for affordable housing should be '*considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments*'[112]. The Councils' adopted Core Strategy includes a requirement for 25% of homes to be affordable[113]. While it is acknowledged that this policy will be replaced upon adoption of the Joint Local Plan, provision of this scale could facilitate the delivery of circa 350 affordable homes per annum when providing the level of housing growth needed to support likely job creation. This would evidently be expected to result in the need for affordable housing being accommodated over the full projection period albeit recognising that it may be challenging for the backlog to be met within the first five years assumed within the calculation model.

6.39   The PPG does not specify how any adjustment should be made to the OAN in relation to affordable housing. The level of affordable housing need calculated is considered to further justify an uplift from the 'starting point' and adjusted demographic projection, given that the resultant increase in housing development can facilitate an increase in affordable housing provision. However, it is considered that the evidence of affordable housing need does not in itself necessitate a further quantifiable adjustment to the OAN

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[111] PPG Reference ID 2a-018-20140306
[112] PPG Reference ID 2a-029-20140306
[113] Stoke-on-Trent City Council and Newcastle-under-Lyme Borough Council (2008) Core Strategy

when considering the potential for needs to be met over the longer-term projection period.

Objective Assessment of Need

6.40   Following the methodology outlined above, the demographic 'starting point' of 805 dwellings per annum (2013 – 2039) across the HMA requires adjustment to more closely align with longer term demographic trends and allow for a return to higher levels of household formation amongst younger people. A further small adjustment is considered necessary to respond to evidence of a moderate worsening in market signals in Newcastle-under-Lyme, although no market signals adjustment is considered as being necessary or appropriate in Stoke-on-Trent. These adjustments result in a recommended need for 1,084 dwellings per annum across the HMA, uplifting the 'starting point' by 35%. Of this total, there is an implied need for 418 dwellings per annum in Newcastle-under-Lyme and 666 dwellings per annum in Stoke-on-Trent.

6.41   However, the analysis indicates a need for a further uplift to grow the labour force and support likely job growth, through higher – but not unprecedented – levels of net migration which will enable growth in the working age population. This suggests that 1,390 dwellings per annum will be needed across the HMA, when allowing for an improvement in household formation amongst younger people.

6.42   This represents an uplift of 73% above the 'starting point' and 31% above the adjusted demographic projection before any market signals adjustment is applied. This uplift from the minimum demographic projection evidently captures any potential uncertainties associated with under-estimating trend-based population growth when accounting for UPC in Stoke-on-Trent. Even including UPC for Stoke-on-Trent in full – and taking full account of this uncertainty – would result in an implied level of need across the HMA (1,177 dwellings per annum[114]) which falls below that required to support likely job growth, given that the latter uplifts the recommended demographic position to grow the labour force. Providing for 1,390 dwellings per annum is therefore considered to address any historic uncertainty associated with the underestimation of official ONS population estimates in Stoke-on-Trent by uplifting the assessed level of housing need above a demographic trend-based scenario.

6.43   This level of need also assumes a recovery in the formation rates of younger households. Whilst it is recognised that higher or lower levels of need can be considered based upon technical adjustments to this aspect of the demographic projection it is important to recognise that provision of this scale across the HMA would significantly boost the supply of housing, in line with the objectives of the NPPF[115]. Over the past fifteen years (2000 – 2015), an average of 727 net completions have been recorded annually, with the provision of 1,390 dwellings per annum therefore almost doubling this average rate of development (91%). On this basis, it is considered to reasonably respond to the potential implications of more pronounced adjustments in the formation rates of younger households and will surpass the adjustment considered necessary to provide a supply response to the moderate worsening of market signals in Newcastle-

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[114] Past Growth Long Term including UPC for Stoke-on-Trent (Appendix 2) but excluding UPC in Newcastle-under-Lyme (Table 2.6), with headship rate return sensitivity and 5% uplift for market signals in Newcastle-under-Lyme
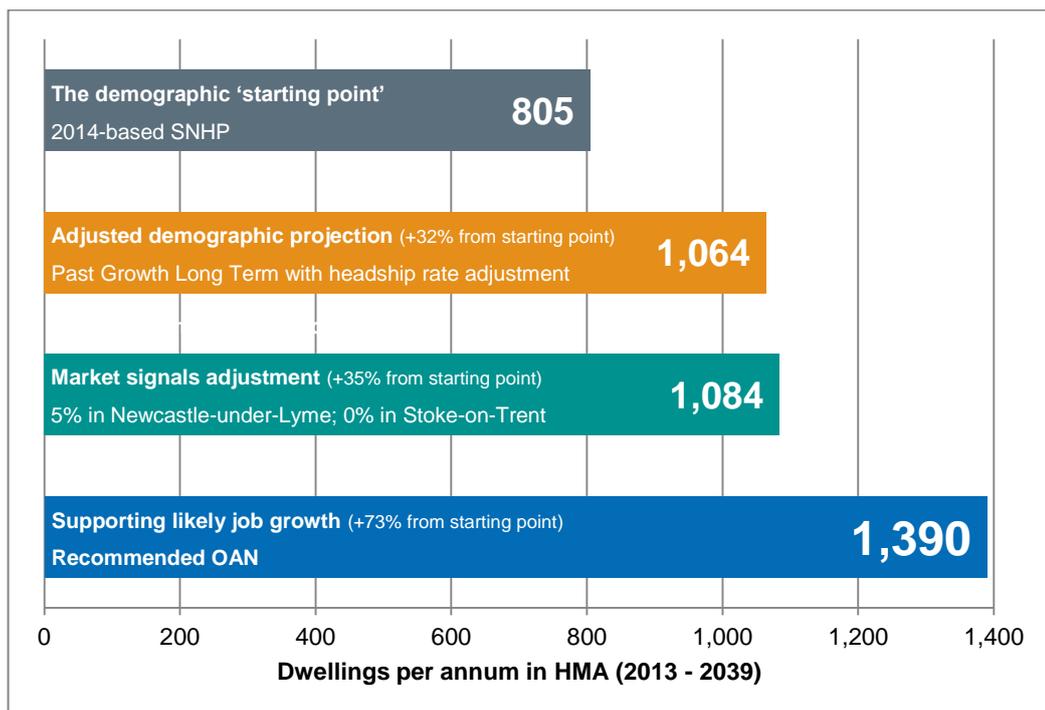[115] DCLG (2012) National Planning Policy Framework (para 47)

under-Lyme in particular. Furthermore, delivery of this scale will make a notably greater contribution towards meeting the recognised need for affordable housing than would be supported through providing solely for demographic needs across the HMA.

6.44   On this basis, it is concluded that there is an **objectively assessed need (OAN) for 1,390 dwellings per annum in the Newcastle-under-Lyme and Stoke-on-Trent HMA**. This is based on the need to support employment growth across the HMA, with need on this basis likely to be balanced between the two authorities given their strong functional economic relationship and the likelihood that labour force growth in one authority can be reasonably expected to support employment growth across the strategic area covered by the Joint Local Plan. The recommended OAN at HMA level should therefore be given the greatest weight. It is important to recognise, however, that this total is based on individual authority-level modelling – based on the forecast level of job growth in each authority and the modelled labour force availability in each area – presented at Table 4.5 of this update.

6.45   The adjustments applied across the HMA are summarised in the following chart.

Figure 6.1:   Adjustments to the 'Starting Point' in Arriving at the OAN

The demographic 'starting point'
2014-based SNHP   **805**

Adjusted demographic projection (+32% from starting point)
Past Growth Long Term with headship rate adjustment   **1,064**

Market signals adjustment (+35% from starting point)
5% in Newcastle-under-Lyme; 0% in Stoke-on-Trent   **1,084**

Supporting likely job growth (+73% from starting point)
Recommended OAN   **1,390**

Dwellings per annum in HMA (2013 - 2039)

Source: Turley; Edge Analytics

7. Need for Different Sizes and Types of Housing

7.1 The PPG highlights the importance of considering the size and type of housing required once an overall housing figure has been identified[116]. Responding to this guidance, the SHMA based its analysis of the size of property likely to be required on modelling undertaken by Edge Analytics[117], which provided a breakdown of the types of households projected to form over the period to 2039. This analysis has been updated based on the revised modelling prepared by Edge Analytics to understand the types of households likely to form over the assessment period under the recommended OAN scenario, and the implied size of housing required to meet this need.

7.2 Furthermore, the NPPF and PPG both specify that the specific needs of different household groups should be assessed. Section 8 of the SHMA provides a detailed overview of the housing requirements of older people, students, people with disabilities, high income earners, black and minority ethnic groups and self- and custom-builders. This update builds upon this analysis, providing a limited update for groups – namely older people and students – where updated evidence is now available. The SHMA therefore continues to represent the main source of evidence on the specific needs of different household groups, and should be read alongside the updated evidence presented in this section.

Size of Housing Required

7.3 The analysis in this section explores how a changing demographic profile may generate a need for housing of different sizes over the assessment period. Existing housing trends form the basis for this assessment, with the approach assuming that the current tendencies of different household types to occupy different sizes of housing is maintained throughout the period assessed. This does not seek to estimate how market factors – such as changes to house prices, incomes and household preferences – will impact upon the propensity of households to occupy different sizes of property. Recognising market volatility over longer term periods, this approach is considered prudent.

7.4 The assessment is based on projected change in the number of households of different types, under the scenario which underpins the recommended full OAN for 1,390 dwellings per annum. The following chart shows the scale of growth in different household types projected under this scenario over the period assessed within this report.

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[116] PPG Reference ID 2a-021-20160401

[117] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment (paras 6.101 – 6.112)

Figure 7.1:   Change in Household Profile (Supporting Likely Job Growth) 2013 – 39
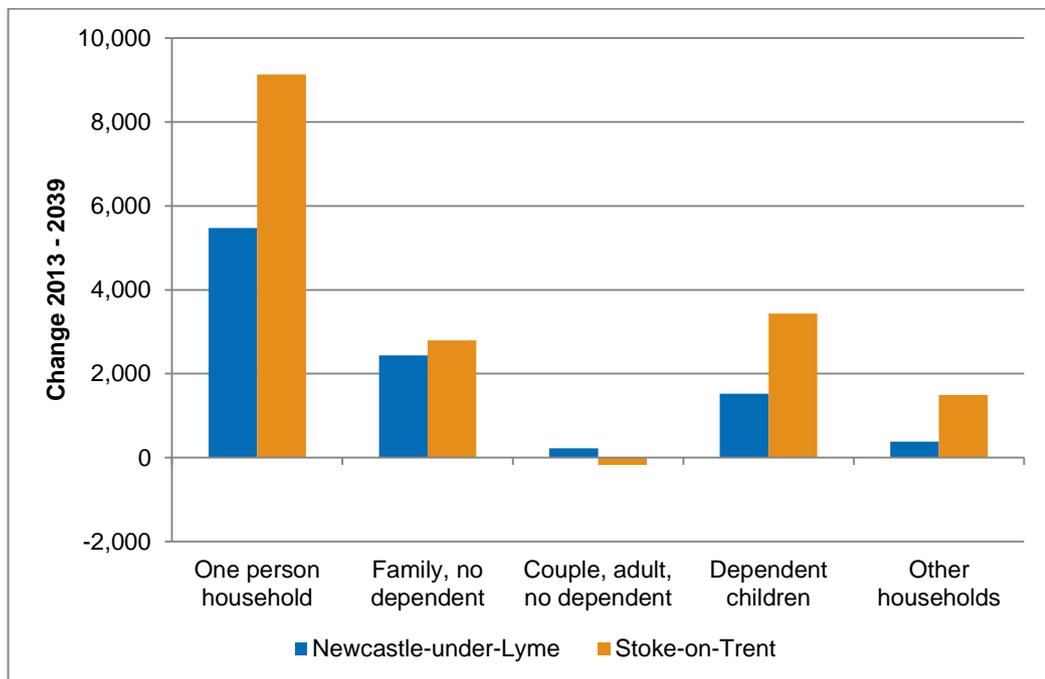
Source: Edge Analytics

7.5   Both authorities are projected to see a sizeable growth in the number of one person households, with a further projected increase in both families without children and households with dependent children. More limited change is anticipated in the number of family households containing another adult, and indeed this is expected to modestly decline in Stoke-on-Trent over the assessment period to 2039.

7.6   In order to understand the implications for the type of housing required by these households, it is necessary to establish a profile of the size of housing currently occupied by different household types in Stoke-on-Trent and Newcastle-under-Lyme. This is based on the number of bedrooms and drawn from the 2011 Census, and builds upon and can be read alongside the detailed analysis of Census data in section 3 of the SHMA.

7.7   It is noted that the Census only provides detail on the number of bedrooms in a limited number of household categories, which do not directly align with the household types used within the 2014-based SNHP, upon which the POPGROUP modelling in this report is based. A process of aggregation is therefore necessary, resulting in the identification of three broad household typologies as follows:

- One person households;

- One family households, with or without dependent children and/or other adults; and

- Other households not captured by the definitions introduced above, such as student households and unrelated sharing adults ('other households').

7.8   The following table shows the tendency of each of these household types to occupy different types of housing in Stoke-on-Trent and Newcastle-under-Lyme, based on the 2011 Census.

Table 7.1:   Number of Bedrooms by Household Type 2011

	1 bed	2 beds	3 beds	4+ beds
Newcastle-under-Lyme				
One person households	24%	37%	34%	5%
One family households	3%	26%	52%	19%
Other households	3%	24%	45%	28%
Stoke-on-Trent				
One person households	22%	48%	28%	2%
One family households	3%	35%	52%	10%
Other households	3%	30%	45%	21%

Source: Census 2011

7.9   It is evident that one person households in both authorities tend to occupy smaller housing, contrasting with family households who demonstrate a tendency towards occupying larger housing with two or particularly three bedrooms. Other households also typically live in larger housing, with more than three quarters living in properties with at least three bedrooms. This could capture the occupancy trends of full-time students and other unrelated sharing adults.

7.10   The profile of household growth will shape the demand for different sizes of housing over the assessment period. By proportionately applying households existing tendencies to occupy different sizes of housing – based on the 2011 Census data presented at Table 7.1 – an illustrative profile of the size of housing likely to be required over the assessment period under the OAN scenario can be established.

Table 7.2:   Implied Size of Housing Required (Supporting Likely Job Growth) 2013 – 2039

	1 bed	2 beds	3 beds	4+ beds
Newcastle-under-Lyme	13%	31%	44%	13%
Stoke-on-Trent	13%	41%	39%	7%
HMA	**13%**	**37%**	**41%**	**10%**

*Source: Turley; Edge Analytics; Census 2011*

7.11   The modelling indicates that the greatest demand for housing in each authority relates to properties with two or three bedrooms, with the types of households projected to increase demonstrating a strong tendency towards occupying housing of this size. The analysis also indicates that approximately 10% of homes will need to have four or more

bedrooms. This should, however, be considered in the context of the Councils' aspirations to improve the executive or aspirational housing offer, and a policy-led approach towards providing a greater number of larger homes may be considered through the development of planning policy to achieve this ambition. On this basis, it is considered that this should be viewed very much as a minimum position.

7.12   The modelling also suggests a need for smaller properties with only one bedroom, with 13% of households suggested as needing this size of property. This is driven in large part by the sizeable projected growth in one person households over the assessment period – although the earlier analysis does show that households of this type do also tend to occupy housing with two or more bedrooms. This should be considered as a maximum with higher demand likely to be recorded for larger properties to meet the needs and expectations of these households.

7.13   At a headline level, this can be broadly compared against the profile of stock delivered over recent years, based on change between the 2001 and 2011 Census. Only limited conclusions can be drawn from this analysis, however, given that the number of bedrooms was only recorded in the 2011 Census. Understanding the respective contributions of different types of dwellings in growing the housing stock over this decade – based on Figure 3.3 of the SHMA – nevertheless provides valuable context. This is summarised in the following chart.

Figure 7.2:   Housing Stock Growth in the HMA by Type 2001 – 2011
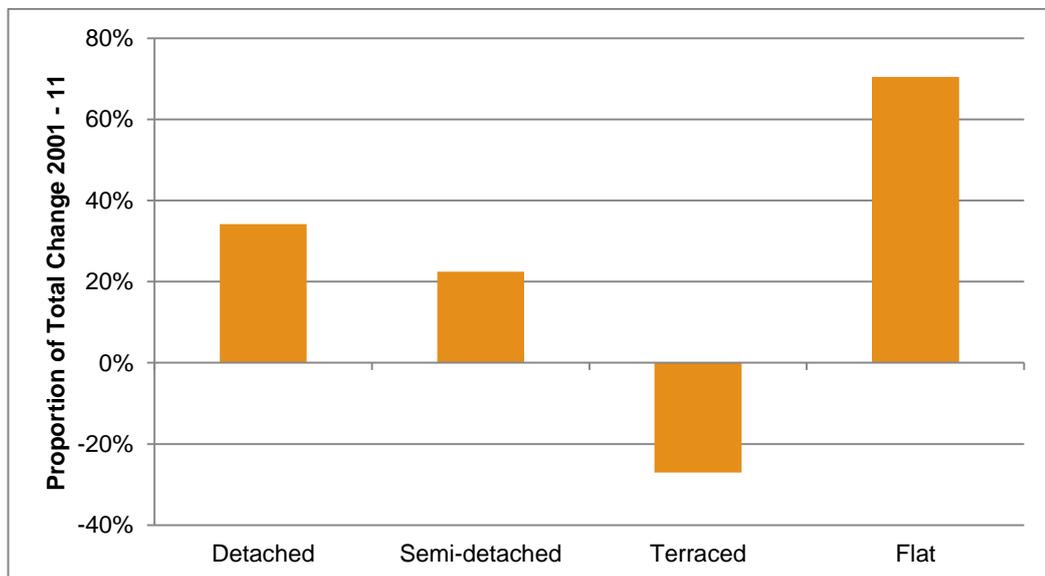
Source: Census 2011

7.14   It is evident that a considerable proportion of the additional dwellings delivered over the decade to 2011 were flats, with terraced housing making a negative contribution towards housing stock over this time.

7.15   While the impact of this change on the overall size profile of dwellings in the HMA cannot be established using this data, the 2011 Census did identify that the stock of flatted accommodation in the area is significantly weighted towards smaller properties

with one or two bedrooms, with detached and semi-detached housing in contrast more likely to contain three bedrooms or more. This is illustrated in the following table.

Table 7.3:   Accommodation Type by Number of Bedrooms 2011

	1 bed	2 beds	3 beds	4+ beds	Total
Detached	2%	20%	43%	36%	100%
Semi-detached	4%	28%	62%	6%	100%
Terraced	6%	56%	33%	5%	100%
Flat	51%	44%	3%	2%	100%

Source: Census 2011

7.16   On this basis, while the delivery of flats is likely to continue to accommodate demand for smaller property, there will be a clear need to ensure a balanced delivery of different types of houses to meet the needs for different sizes of housing in Stoke-on-Trent and Newcastle-under-Lyme.

Interpretation of Evidence

7.17   This modelling exercise provides an illustrative interpretation of available historic evidence to estimate the size of housing which may be required in Stoke-on-Trent and Newcastle-under-Lyme over the assessment period. In reality, the profile of housing delivered will need to respond to the market, which will provide an important consideration in judging the type of housing most appropriate to meet demand at any point in time.

7.18   The analysis presented above should therefore only be used for guidance and monitoring purposes, in order to consider and monitor the balance of housing delivered over the plan period in response to demographic change. While this evidence provides a valuable overall indication of the broad mix of housing which may be required at a HMA level, it is recommended that policies are not overly prescriptive in directly basing requirements for individual sites on the illustrative mix presented at Table 7.2. The individual mix of housing provided for on a site-by-site basis will need to take into account local market evidence and viability considerations which may influence the appropriate mix.

Older Persons

7.19   The SHMA specifically considered the needs of older people within section 8, taking account of past trends, existing occupancy trends and future change. This was partially based on modelling produced by Edge Analytics, which has now been updated in arriving at an updated OAN in section 6.

7.20   As shown at Figure 4.1 of this report, a sizeable growth in the older population (65+) is projected under both the demographic trend-based and employment-led scenarios developed by Edge Analytics. Older people living in private households will therefore continue to directly generate a need for dwellings over the plan period.

7.21 However, as recognised within the SHMA, a small component of the overall population does not live in private households, and are instead accommodated within communal establishments. This is explicitly not included within the private household population assumed to live in households – through the application of household formation rates – by DCLG. This population is therefore not converted into households by Edge Analytics, and consequently do not generate a need for dwellings under the scenarios presented within this report or indeed the SHMA.

7.22 As identified within the SHMA, however, the number of people living in communal establishments ('communal population') is a direct output of both the official household projections produced by DCLG and the POPGROUP modelling developed by Edge Analytics. This enables an understanding of the assumed change in the communal population, which would inherently generate a need for some form of additional institutional housing. The approach adopted by Edge Analytics in treating the communal population is consistent with DCLG, namely:

- For all ages up to 74, the number of people in each age group that are not in households is recorded at the projection period[118]; 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.

7.23 Consequently, modelled growth in the communal population will be entirely attributable to older age groups aged 75 and over, with the younger age group fixed. As shown in the following table, the modelling indicates that the communal population could grow by circa 1,443 persons under the OAN scenario over the assessment period.

Table 7.4:   Modelled Change in Communal Population 2013 – 2039

	Past Growth Long Term	Supporting Likely Job Growth
Newcastle-under-Lyme	555	623
Stoke-on-Trent	775	820
HMA	**1,330**	**1,443**

Source: Edge Analytics

7.24 All of this growth relates to older people aged 75 and over, and relates to individual persons. This indicates a need for a comparable increase in the number of bedspaces in communal establishments over the assessment period to 2039. Furthermore, given its exclusion from the household growth used to inform a recommendation on the number of dwellings needed over the assessment period, this need is additional to the number of dwellings objectively assessed as being required within section 6 of this report.

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[118] Sourced directly from DCLG household projections, referred to as the 'institutional population' and taken from the 2011 Census

7.25 In considering how this need for specialist accommodation is met, it is important to recognise that there is a high level of uncertainty associated with estimating the number of older residents requiring – or preferring – accommodation in residential institutions (Use Class C2) or alternatively extra care housing (C3). It is important to recognise that the Councils' housing strategies may seek to meet the implied institutional need through both social and market housing designed to cater for older persons' needs, for example in C3 housing. This can reflect housing and social strategies which seek to promote the independent living of older people, for example, although a sample of completions data for Stoke-on-Trent indicates that bedspaces in both use classes are in the pipeline or have been completed over recent years. Similarly, Newcastle-under-Lyme has seen units in both use classes permitted over the past five years, with its Affordable Housing Supplementary Planning Document (SPD) acknowledging that '*the constituent elements of extra care developments can straddle these boundaries*' with interpretation varying '*according to the particular circumstances of proposals and the range of services and facilities provided*'[119].

7.26 The analysis presented here has not applied any adjustment in this regard. However, where a Council sought to provide – or anticipated providing – for an element of this need through C3 accommodation, this would result in a higher OAN, given that the latter would be included within the assessment of need and therefore subtracted from the separately calculated need for C2 accommodation set out in Table 7.4.

Student Housing

7.27 The SHMA acknowledged that the location of both Keele University and the Stoke-on-Trent campus of Staffordshire University necessitate an appreciation of the specific characteristics and needs of the student population. This analysis is not revisited in full, although the implications of the latest available information are assessed below.

7.28 Statistics published by the Higher Education Statistics Agency (HESA) were presented at Figure 8.8 of the SHMA to establish how the number of students at both Keele University and Staffordshire University had changed since 1995. This is updated below, although it remains important to note that it is not possible to disaggregate student numbers at the latter to the Stafford or Stoke-on-Trent campuses.

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[119] Newcastle-under-Lyme Borough Council (2009) Affordable Housing SPD, p8

Figure 7.3:   Change in Student Numbers at Keele University and Staffordshire University 1995 – 2016
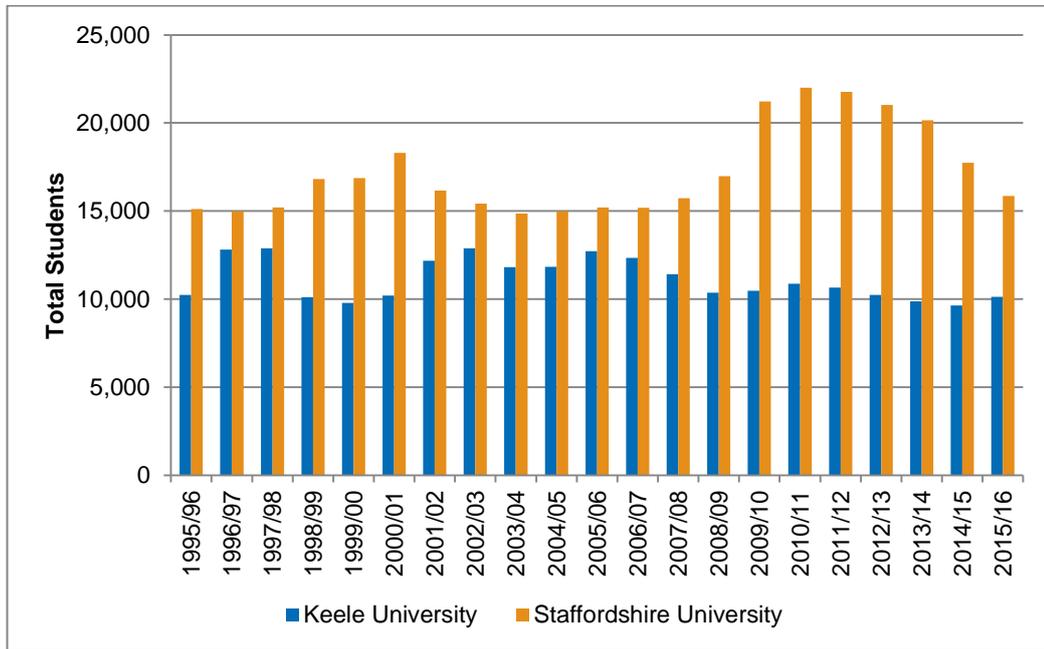

Source: HESA

7.29   In line with the findings of the SHMA, student numbers at Keele University remain relatively stable, with little change over recent years. The University has, however, signalled its ambitions to grow the student population to around 13,000 over the period to 2020[120], to be supported by the delivery of '*transformation projects*' including new teaching and learning spaces and a reconfiguration of the student accommodation offer. When engaged to inform the production of the SHMA, the University indicated that the majority of student growth may be accommodated off-campus but were unable to provide any further evidence to provide confirmation as to the growth being achieved within the programme set. It is recommended that the Councils continue to monitor the implementation of this strategy with the University.

7.30   Furthermore, while Figure 7.3 shows that notable growth in the number of Staffordshire University students had been recorded over the period to 2010/11, this has followed a period of sustained reduction in student numbers, with a fall of over a quarter (28%) since this peak.

7.31   This is potentially a consequence of the University's relocation of the majority of courses, students and staff to the Stoke-on-Trent campus, vacating the Stafford campus in response to students' preferences and its inefficient use of available space. While this was referenced in the SHMA, it is understood that this relocation was completed in September 2016, with the majority of the University's current students therefore now located at the Stoke-on-Trent campus.

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[120] Keele University (2015) Our Vision 2020

7.32   Although the full demographic effect of this relocation is not known at this stage, understanding annual change in the younger population (18 – 24) up to the latest mid-year population estimate (2015) provides valuable context. As shown in the following chart, there has been a level of volatility in this age group over the long-term, with the last three years (2012 – 2015) characterised by a fall in the student population which contrasted with the preceding period of modest growth.

Figure 7.4:   Annual Change in Younger Population (1991 – 2015)
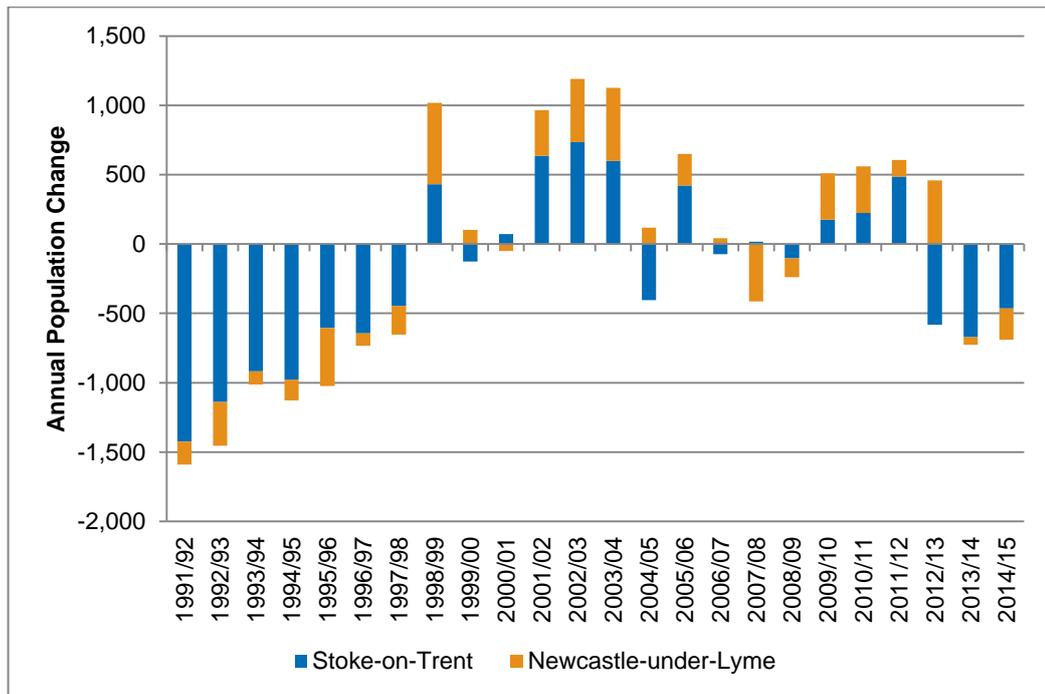
Source: ONS

7.33   Over the past decade, the number of younger residents in Stoke-on-Trent and Newcastle-under-Lyme has remained relatively static, increasing by only 123 persons between 2005 and 2015. Noting that this forms the basis for the Past Growth Long Term scenario preferred in this update, this suggests that this scenario is not capturing a trend of significant growth in the younger population. Indeed, the 2014-based SNPP shows that a continuation of more recent trends would not result in significant growth in the number of younger residents over the full assessment period to 2039.

7.34   It is, however, of note that the scenario developed to support likely job growth in Stoke-on-Trent and Newcastle-under-Lyme allows for a more marked increase in the number of younger residents over the period to 2039, increasing the size of this cohort by circa 3,000 persons. While universities' strategies do not extend to cover this period, this indicates that the OAN is underpinned by a scenario which allows for a level of long-term growth in the population of student age, contrasting with a demographic trend-based projection which holds younger residents at a broadly stable level. This allowance for growth appears aligned with the universities' short-term ambitions, albeit this will require ongoing monitoring by the Council given the more short-term nature of universities' strategic planning.

7.35 Furthermore, over the short-term, it is also recommended that the Council seeks to engage with the universities to understand the short-term effects of student growth on the local housing market. This is considered particularly important in the absence of demographic evidence on the effects of Staffordshire University's relocation, in order to understand how the associated growth in the student population has been and/or is to be accommodated. Without a proportionate increase in the number of student bedspaces, this relocation could increase the number of students seeking accommodation in the private market, generating a need for houses in multiple occupation (HMO) or purpose built student accommodation (PBSA) if students are moving to the area. This information has not been made available to inform this update, but the Council should seek to monitor these trends over the short-term in order to effectively manage demand generated by the student population.

Summary and Implications

7.36 Reflecting the requirements of the PPG, this section has considered the types of households likely to form over the assessment period under the recommended OAN scenario, and considered the type and size of housing required to meet these needs. The SHMA considers the specific needs of different household groups in detail, and this should continue to be read alongside the updated analysis presented in this section.

7.37 Edge Analytics' modelling indicates that supporting likely job growth in Stoke-on-Trent and Newcastle-under-Lyme will result in a notable increase in the number of one person households and families. While one person households tend to occupy smaller housing, family households demonstrate a stronger tendency towards occupying housing with two or three bedrooms. Projected growth in these types of households can therefore be expected to generate a strong demand for housing of all sizes, with the analysis indicating a particular future demand for housing with two or three bedrooms. There also remains a need for smaller properties with only one bedroom and larger homes with at least four bedrooms, and it is recommended that the outputs of this modelling exercise should only be used for guidance. It is advised that policies are not overly prescriptive given that the profile of housing delivered will be driven by the market.

7.38 Furthermore, the modelling indicates that growth in the older population will increase the number of residents living in communal establishments, requiring circa 1,450 bedspaces over the period to 2039. This is additional to the OAN, and needs to be considered on the basis of ensuring additional provision of additional bedspaces in specialist older persons' accommodation.

7.39 The analysis has also sought to establish an updated position on the impact of students in Stoke-on-Trent and Newcastle-under-Lyme, reflecting on the analysis in the SHMA. Although change in the number of Staffordshire University students based at the Stoke-on-Trent campus cannot be established through secondary data sources, it is evident that student numbers at Keele University have remained relatively steady over recent years, although there remain ambitions for short-term growth. Staffordshire University has also relocated the majority of its students to Stoke-on-Trent by vacating its Stafford campus, although the full demographic effect of this relocation is not known at this stage. The OAN scenario allows for growth in the number of younger people living in the HMA over the period to 2039, contrasting with a demographic trend-based projection

which suggests that relatively little change will occur in this cohort. This appears more aligned with the universities' short-term ambitions, albeit this will require ongoing monitoring by the Councils, particularly over the short-term as the effects of relocation become known.

8. Conclusions

8.1 Turley and Edge Analytics were appointed by Newcastle-under-Lyme Borough Council and Stoke-on-Trent City Council ('the Councils') to prepare a Strategic Housing Market Assessment (SHMA) which objectively assessed the need for housing across the two authorities. The final report[121] was issued in July 2015 and published prior to the issues consultation to inform the Councils' emerging Joint Local Plan, which ran from February to March 2016.

8.2 The SHMA identified the importance of continuing to take account of newly published evidence throughout the preparation of the Joint Local Plan. In particular, the SHMA acknowledged that its conclusions will require review following completion of the Councils' Employment Land Review[122] (ELR), which was finalised in December 2015.

8.3 The release of new 2014-based sub-national population and household projections in May and July 2016 respectively also provides a new set of data which forms an updated demographic 'starting point' for the assessment of housing needs. While Planning Practice Guidance (PPG) clearly states that housing needs assessments are not automatically rendered out of date when new projections are issued[123], the Planning Inspectorate (PINS) in practice typically require local authorities to demonstrate an awareness and appreciation of updated evidence released throughout the plan-making process, particularly where a '*meaningful change in the housing situation*'[124] is implied.

8.4 Collectively, the availability of the findings from the ELR and the release of new 2014-based population and household projections justify a review of the SHMA which considers the implications of this newly published evidence on the objectively assessed need (OAN) for housing in Stoke-on-Trent and Newcastle-under-Lyme.

8.5 This follows the guidance and methodology set out in the PPG as well as its recent interpretation through Inspectors' decisions. This remains the latest available official guidance on calculating housing needs, pending the planned consultation on an updated standard methodology intended to apply from April 2018[125]. In the absence of any guidance on a preferred methodology at the current point in time – and to maintain the Councils' ongoing progress in developing the Joint Local Plan, in line with the Government's expectation that all areas are covered by an up-to-date plan – this is considered a reasonable, consistent and appropriate basis through which this updated position can be robustly established. However, the implications of any alternative methodology will need to be considered by the Councils in the future.

8.6 The updated analysis presented in this report indicates that there is **an objectively assessed need (OAN) for 1,390 dwellings per annum** in the Newcastle-under-Lyme and Stoke-on-Trent housing market area (HMA) over the period from 2013 to 2039. This sits within the range previously concluded in the 2015 SHMA (1,177 – 1,504 dwellings per annum).

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[121] Turley (2015) Stoke-on-Trent and Newcastle-under-Lyme Strategic Housing Market Assessment
[122] NLP (2015) Newcastle-under-Lyme and Stoke-on-Trent Joint Employment Land Review
[123] PPG Reference ID 2a-016-20150227
[124] Ibid
[125] DCLG (2017) Fixing our Broken Housing Market

14. In following the stepped methodology prescribed by the PPG, this recognises that the demographic 'starting point' of 805 dwellings per annum across the HMA – based on the 2014-based sub-national household projections (SNHP) – requires adjustment. The SHMA identified that more recently lower levels of housing development were likely to have impacted on the growth of the area's population and the ability of households to form. In considering the latest data available this update confirms in this context that it remains appropriate to use a longer-term historic period (2001 to 2015) to project forward projections of population and household growth. This ensures that the trend-based projection captures periods of strong market activity as well as the more recent period of lower development levels thereby presenting a more balanced historic period and associated projection of growth.

15. The preferred demographic scenario also incorporates an adjustment to allow for a return to higher levels of household formation amongst younger people, recognising the underlying assumption within official projections that local household formation amongst many younger age groups will remain suppressed. This continues a local decline which has been seen since 2001, linked to deteriorating affordability in the housing market which has been consistently recognised as a fundamental issue by Government. An adjustment to household formation rates which allows for a short-term return to higher levels of household formation for younger age groups where not already projected has been applied. This results in an increase in the formation of younger households over the assessment period.

16. In combination, these demographic adjustments indicate a need for 1,064 dwellings per annum across the HMA, uplifting the demographic 'starting point' projection by 32%.

17. Furthermore, it is considered that a small adjustment to the demographic trend-based projection is justified in response to market signals in Newcastle-under-Lyme, which are considered to be indicative of an imbalance between supply and demand. This recognises the worsening trend in house prices and rents – and the impact that this has had on affordability – while acknowledging that, in absolute terms, rents, house prices and affordability rank relatively positively when compared to neighbouring and similar authorities. Reflecting on Inspectors' conclusions on the scale of adjustment necessary to respond to market signals, it is considered that an uplift of 5% is an appropriate, proportionate and reasonable response to this limited worsening observed in Newcastle-under-Lyme. No uplift is considered to be required in Stoke-on-Trent, given the low cost of housing and evidence of a less acute affordability pressure. Applying these adjustments as necessary indicates a slightly higher need for 1,084 dwellings per annum across the HMA.

18. Following the PPG methodology the analysis also suggests that there is a need for a further uplift to grow the labour force and support the '*positive…but realistic uplift on past [employment] trends*' concluded as likely within the Councils' joint ELR. Based on prudent assumptions on the behaviour of the labour force, a continuation of recent demographic trends would support a modest growth in employment across the HMA. However, it is recognised that this would fall someway short of providing the labour required to support the creation of the identified 22,584 additional jobs across the HMA identified in the ELR over the period from 2013 to 2039. Supporting this notably higher level of job growth in the area would require either a substantial change in labour force

behaviour or a further growth in the labour force. Accommodating the higher level of population growth required to support likely job growth will generate a greater need for housing than implied by the demographic projection, requiring **1,390 dwellings per annum** when simultaneously allowing for a return to higher levels of household formation for younger households. This enables growth in the working age population through an allowance for higher – but not unprecedented – levels of net migration to the area.

19.   This represents an uplift of 73% above the 'starting point' and 31% above the adjusted demographic projection, and evidently captures and surpasses the adjustment considered necessary to provide a supply response to the moderate worsening of market signals in Newcastle-under-Lyme. Provision of this scale would also almost double the average rate of development over the past fifteen years, significantly boosting the supply of housing in line with the objectives of the NPPF. The update also confirms that it is reasonable to assume that this level of provision would also facilitate the delivery of the updated calculation of affordable housing needed. This recognises an updated calculated annual need for 453 affordable homes over the next five years and 265 affordable homes per annum thereafter recognising the clearing of the existing backlog of need across the HMA.

20.   The updated position on the OAN for housing has implications for the different sizes and types of housing estimated as being needed over the assessment period. The modelling indicates that growth in the older population will increase the number of residents living in communal establishments, requiring circa 1,450 bedspaces over the period to 2039 which is additional to the OAN. The updated analysis also highlights the continued demand for housing of all sizes, but suggests that growth in the number of households typically occupying housing with two or three bedrooms is likely to generate increased demand for housing of this size over the period to 2039. There also, however, remains a need for smaller properties with only one bedroom, and larger homes with at least four bedrooms. The outputs of this modelling exercise should only be used for guidance, however, and it is recommended that policies are not overly prescriptive in directly basing requirements for individual sites on the illustrative mix presented in the evidence given that the profile of housing delivered will need to respond to the market.

Appendix 1: Edge Analytics Modelling Assumption Note

Stoke-on-Trent & Newcastle-under-Lyme

Demographic Forecasts

Data Inputs & Assumptions

May 2017

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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.3.0.

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; this is entirely the responsibility of the users of the information presented in this report.

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Forecasting Methodology

1.1   Evidence is often challenged on the basis of the appropriateness of the methodology that has been employed to develop growth forecasts. The use of a recognised forecasting product which incorporates an industry-standard methodology (a cohort component model) removes this obstacle and enables a focus on assumptions and output, rather than methods.

1.2   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.

1.3   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.

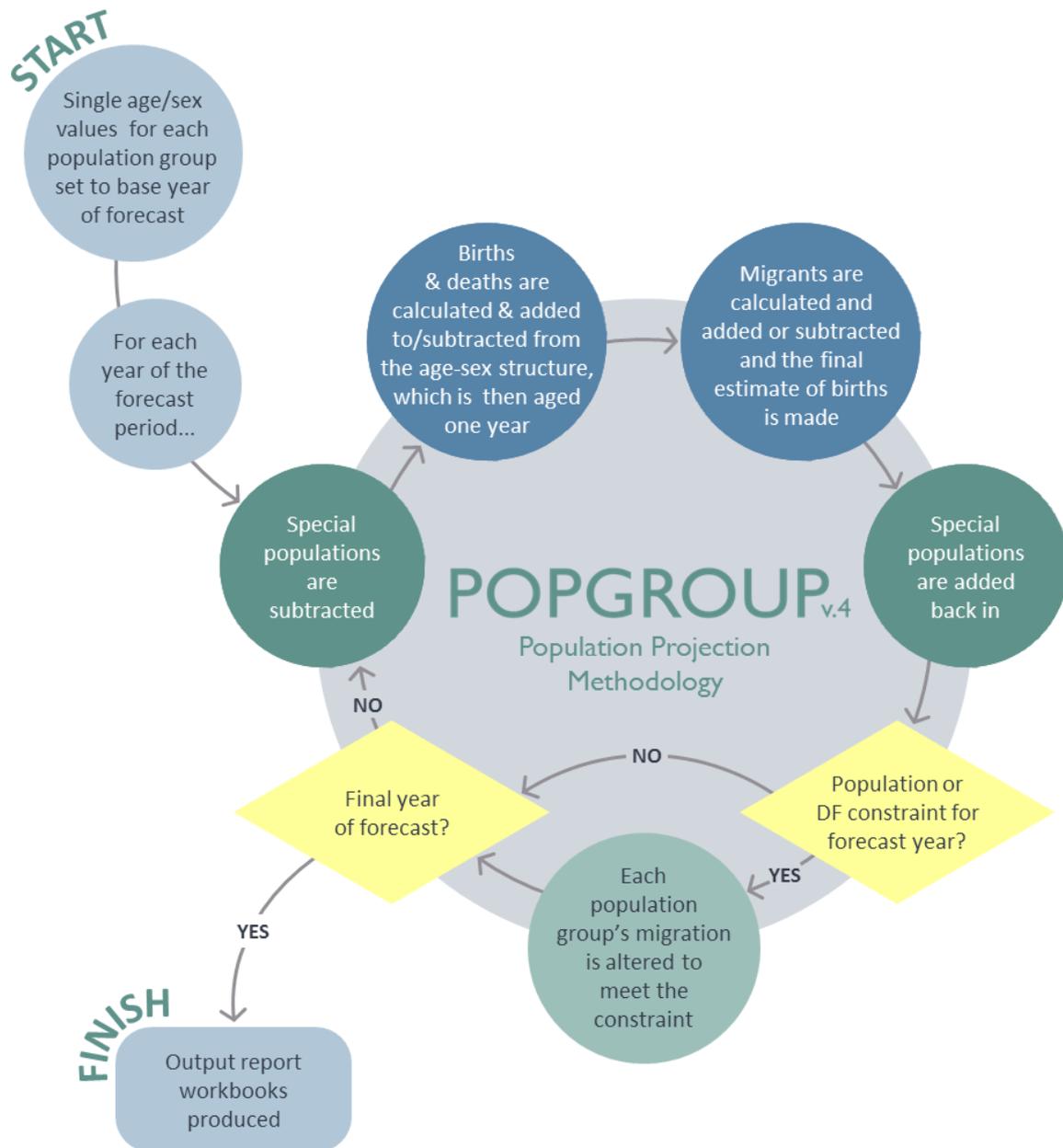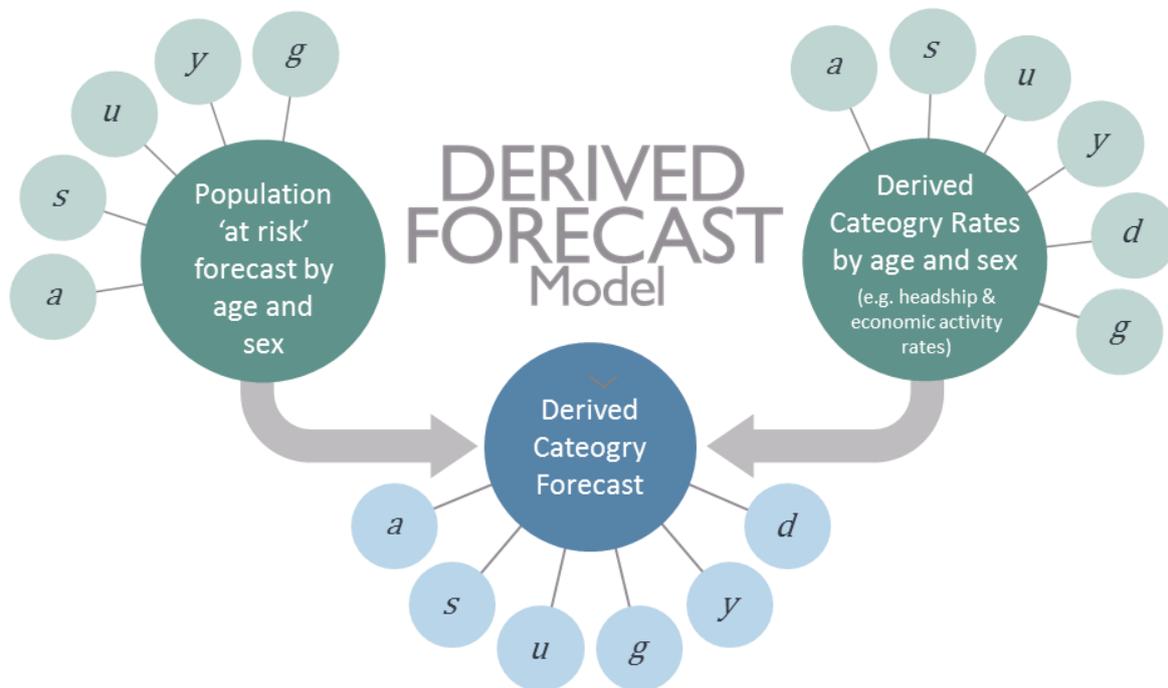1.4   For further information on POPGROUP, please refer to the Edge Analytics website: http://www.edgeanalytics.co.uk/.

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Figure 1: POPGROUP population projection methodology

Figure 2: Derived Forecast (DF) methodology

$$D_{a,s,u,y,d,g} = \frac{P_{a,s,u,y,g}\ R_{a,s,u,y,d,g}}{100}$$

D	Derived Category Forecast	y	Year
P	Population 'at risk' Forecast	d	Derived category
R	Derived Category Rates	g	Group (usually an area, but can be an ethnic group or social group)
a	Age-group		
s	Sex		
u	Sub-population		

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2 Data Inputs & Assumptions

Introduction

2.1   Edge Analytics has developed a suite of demographic scenarios for Stoke-on-Trent and Newcastle-under-Lyme using POPGROUP v.4 and the Derived Forecast model. The POPGROUP suite of demographic models draws data from a number of sources, building a historical picture of population, households, fertility, mortality and migration on which to base its scenario forecasts. Using historical data evidence for 2001–2015, in conjunction with information from ONS sub-national population projections (SNPPs) and DCLG household projections, a series of assumptions have been derived which drive the scenario forecasts.

2.2   The following scenarios have been produced:

- SNPP-2014
- PG 10yr (exc UPC)
- PG 10yr (inc UPC)
- PG Long-Term (exc UPC)
- PG Long-Term (inc UPC)
- ELR Likely Job Growth
- ELR Policy-on

In the following sections, a narrative on the data inputs and assumptions underpinning the scenarios is presented.

Population, Births & Deaths

Population

2.3   In each scenario, historical population statistics are provided by the mid-year population estimates (MYEs), with all data recorded by single-year of age and sex. These data include the revised MYEs for 2002–2010, which were released by the ONS in May 2013. The revised MYEs

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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.

2.4   In the **SNPP-2014** scenario, the historical MYEs are used up to 2014. From 2014, future population counts are provided by single-year of age and sex to ensure consistency with the trajectory of the ONS 2014-based SNPP.

2.5   In the other scenarios, the historical MYEs are used up to 2015.

Births & Fertility

2.6   In each scenario, historical mid-year to mid-year counts of births by sex have been sourced from the ONS MYEs.

2.7   In the **SNPP-2014** scenario, historical births are used from 2001/02 to 2013/14. From 2014/15, future counts of births are specified, to ensure consistency with the 2014-based official projection.

2.8   In all other scenarios, historical births are used from 2001/02 to 2014/15. From 2015/16, an area-specific age-specific rate (ASFR) schedule, derived from the ONS 2014-based SNPP, is included in the POPGROUP model assumptions. Long-term assumptions on changes in age-specific fertility rates are taken from the ONS 2014-based SNPP.

2.9   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 (i.e. from 2015 onwards).

Deaths & Mortality

2.10   In each scenario, historical mid-year to mid-year counts of deaths by 5-year age group and sex have been sourced from the ONS MYEs.

2.11   In the **SNPP-2014** scenario, historical deaths are used from 2001/02 to 2013/14. From 2014/15, future counts of deaths are specified, to ensure consistency with the 2014-based official projection.

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2.12 In all other scenarios, historical deaths are used from 2001/02 to 2014/15. From 2015/16, an area-specific age-specific mortality rate (ASMR) schedule, derived from the ONS 2014-based SNPP, is included in the POPGROUP model assumptions. Long-term assumptions on changes in age-specific mortality rates are taken from the ONS 2014-based SNPP.

2.13 In combination with the 'population-at-risk' (i.e. the whole 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 (i.e. from 2015 onwards).

Migration

Internal Migration

2.14 In each scenario, historical mid-year to mid-year estimates of internal in- and out-migration by 5-year age group and sex have been sourced from the 'components of population change' files that underpin the ONS MYEs. These internal migration flows are estimated using data from the Patient Register (PR), the National Health Service Central Register (NHSCR) and the Higher Education Statistics Agency (HESA).

2.15 In the **SNPP-2014** scenario, historical counts of internal in and out-migrants are used from 2001/02 to 2013/14. From 2014/15, future counts of migrants are specified, to ensure consistency with the 2014-based official projection.

2.16 In the **PG** scenarios, historical counts of internal in and out-migrants are used from 2001/02 to 2014/15. From 2015/16, future internal migration flows are based on the area-specific historical migration data.

2.17 In the **PG 10yr (exc UPC)** and **PG 10yr (inc UPC)** scenarios, a 10-year international migration history is used (2005/06 to 2014/15). In the **PG Long-Term (exc UPC)** and **PG Long-Term (inc UPC)** scenarios, a 14-year internal migration history is used (2001/02 to 2014/15). In the **PG** scenarios, the relevant historical time period is used to derive the age-specific migration rate (ASMigR) schedules, which are then used to determine the future number of in- and out-migrants.

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2.18   In the case of internal in-migration, the ASMigR schedules are applied to an external 'reference' population (i.e. the population 'at-risk' of migrating into the area). This is different to the other components (i.e. births, deaths, internal out-migration), where the schedule of rates is applied to the area-specific population (i.e. the population 'at-risk' of migrating out of the area). The reference population is defined by considering the areas which have historically contributed the majority of migrants into the area. In the case of Stoke-on-Trent and Newcastle-under-Lyme, it comprises all districts which cumulatively contributed 70% of migrants into the Stoke and Staffordshire Local Enterprise Partnership (LEP) over the 2008/09–2014/15 period.

2.19   In the **Jobs-led** scenarios (**ELR Likely Job Growth** and **ELR Policy-on**), historical counts of migrants are used from 2001/02 to 2014/15. From 2015/16, these scenarios then calculate their own internal migration assumptions to ensure an appropriate balance between the population and the targeted increase in the 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 the ASMigR schedule, derived from the ONS 2014-based SNPP.

International Migration

2.20   Historical mid-year to mid-year counts of immigration and emigration by 5-year age group and sex have been sourced from the 'components of population change' files that underpin the ONS MYEs. Any 'adjustments' made to the MYEs to account for asylum cases are included in the international migration balance.

2.21   In all scenarios, future international migrant counts are specified.

2.22   In the **SNPP-2014** scenario, historical counts of migrants are used from 2001/02 to 2013/14. From 2014/15, the international in- and out-migration counts are drawn directly from the 2014-based official projection.

2.23   In the **PG** scenarios, historical counts of international in and out-migrants are used from 2001/02 to 2014/15. From 2015/16, future international migration counts are based on the area-specific historical migration data. In the **PG 10yr (exc UPC)** and **PG 10yr (inc UPC)** scenarios, a ten year history is used (2005/06 to 2014/15). In the **PG Long-Term (exc UPC)** and **PG Long-Term (inc UPC)** scenarios, a 14-year history is used (2001/02 to 2014/15). In each **PG** scenario, an ASMigR

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schedule of rates is derived from the relevant migration history and is used to distribute future counts by single year of age.

2.24 Implied within the international migration component of change in the **PG 10yr (inc UPC)** and **PG Long-Term (inc UPC)** scenarios 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 **PG 10yr (exc UPC)** and **PG Long-Term (exc UPC)** scenarios, the UPC adjustment is excluded from the international migration assumptions.

2.25 In the **Jobs-led** scenarios (**ELR Likely Job Growth** and **ELR Policy-on**), historical counts of international in and out-migrants are used from 2001/02 to 2014/15. From 2015/16, international migration counts are taken from the ONS 2014-based SNPP (i.e. counts are consistent with the **SNPP-2014** scenario). An ASMigR schedule of rates from the ONS 2014-based SNPP is used to distribute future counts by single year of age.

Households & Dwellings

2.26 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."*

2.27 In POPGROUP, a dwelling is defined as a unit of accommodation which can either be occupied by one household or vacant.

2.28 The household and dwelling implications of each 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 2014-based household projection model from the DCLG. The 2014-based model was released by the DCLG in July 2016, and is underpinned by the 2014-based SNPP from ONS.

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Household Headship Rates

2.29 A household headship rate (also known as household representative rate) is the *"probability of anyone in a particular demographic group being classified as being a household representative"*[1].

2.30 The household headship rates used in the POPGROUP modelling have been taken from the latest DCLG 2014-based household projection model, which is underpinned by the ONS 2014-based SNPP. The DCLG household projections are derived through the application of projected headship rates to a projection of the private household population. The methodology used by DCLG in its household projection models consists of two distinct stages:

- **Stage One** produces the national and local authority projections for the total number of households by sex, age-group and relationship-status group over the projection period (Table 1).
- **Stage Two** provides the detailed 'household-type' projection by age-group, controlled to the previous Stage One totals (Table 2).

Table 1: DCLG Stage One headship rate classification by relationship status

DCLG Category	Description
Single	Not in a couple: Marital status single
Couple	In a couple: whether married or cohabiting
Previously Married	Not in a couple: marital status previously married

Table 2: DCLG Stage Two headship rate classification household type classification

DCLG Category	Description
One person male	One person households: Male
One person female	One person: Female
Couple no child	One family and no others: Couple households: No dependent children
Cple+adlts no child	A couple and one or more other adults: No dependent children
One child	Households with one dependent child
Two children	Households with two dependent children
Three+ children	Households with three or more dependent children
Other households	Other households with two or more adults

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[1] Household Projections 2012-based: Methodological Report. Department for Communities and Local Government (February 2015). https://www.gov.uk/government/statistics/2012-based-household-projections-methodology

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2.31   Stage One and Stage Two headship rates were used to apply a number of sensitivities to the scenarios. Following assessment of these sensitivities, **Stage Two** headship rates have been applied to all scenarios by 10-year age group in an 8-fold household type classification (Table 2). An additional alternative **Stage Two** headship rate sensitivity has also been applied to the scenarios.

- **HH-14**: 2014-based DCLG headship rates for Newcastle-under-Lyme and Stoke-on-Trent (Fig 3 on p11 and Fig 4 on p12 respectively).

- **HH-14 Return**: 2014-based headship rates, with the rates for the 15–24 and 25–34 age groups for Newcastle-under-Lyme and the 25–34 age group for Stoke-on-Trent returned to their respective 2001 values by 2024, following the original trend thereafter. Note that this adjustment has been made for all household types within the defined age groups. In the case of Newcastle-under-Lyme, the headship rates for the youngest age groups (15–24 and 25–34) decline over the 2001–2024 period, with increases seen in all other age groups up to 59 (Fig 5, p 13). In the case of Stoke-on-Trent, the headship rates for the age group 25–34 declines over time, with increases seen in the age group 15–24 and all age groups up to 59 (Fig 6, p13).

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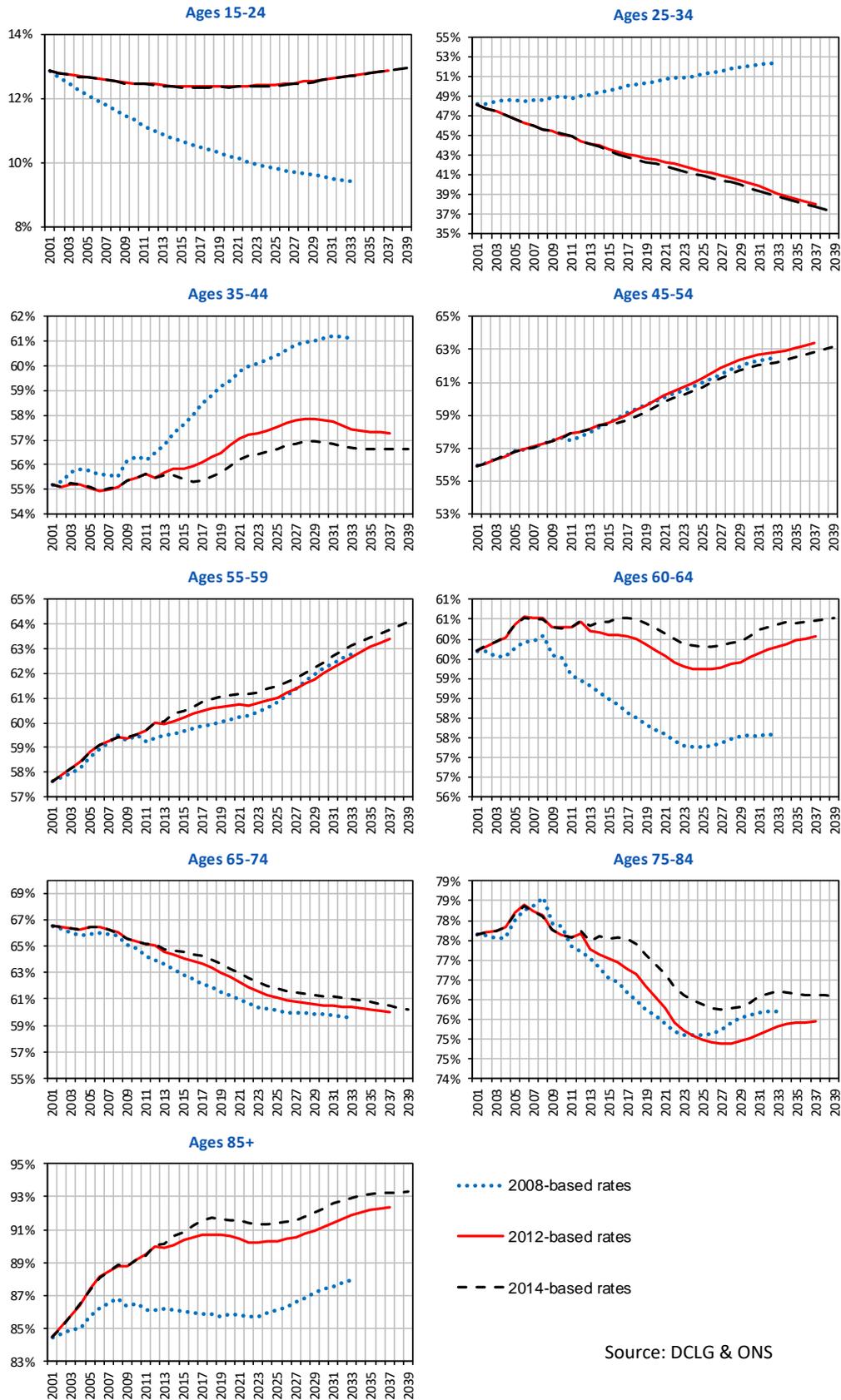**Headship Rates by Age Group 2001-2039: Newcastle-under-Lyme**

Figure 3: Newcastle-under-Lyme 2008-based, 2012-based and 2014-based headship rate comparison
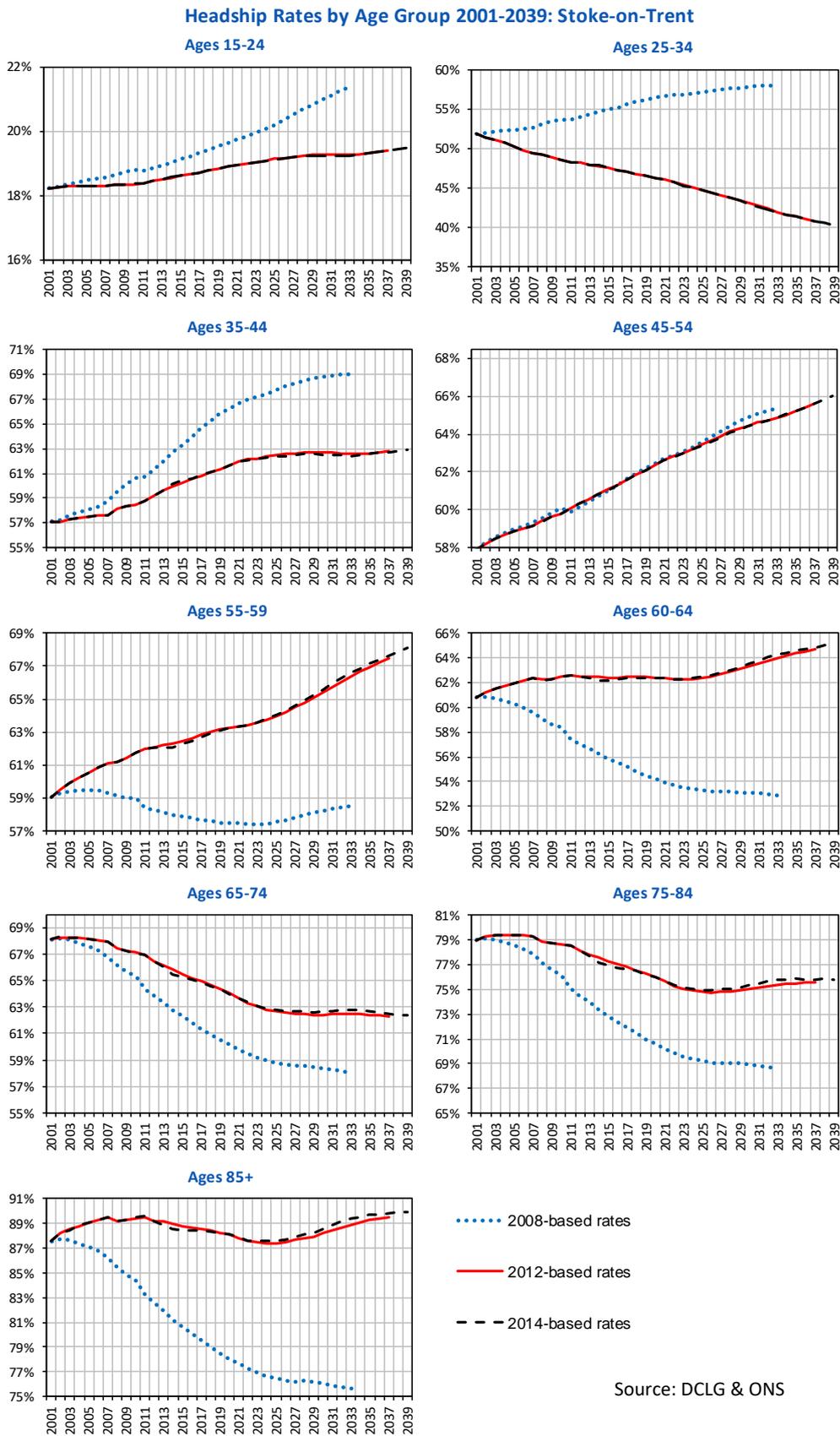
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Figure 4: Stoke-on-Trent 2008-based, 2012-based and 2014-based headship rate comparison

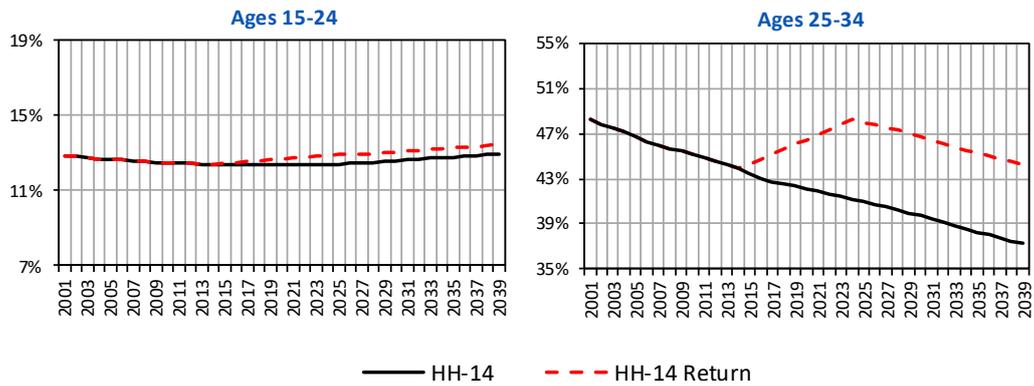**HH-14 & HH-14 Return Headship Rates 2001–2039: Newcastle-under-Lyme**

Figure 5: Newcastle-under-Lyme HH-14 and HH-14 Return Headship Rate comparison

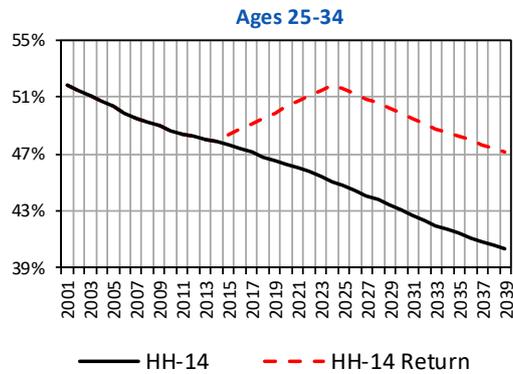**HH-14 & HH-14 Return Headship Rates 2001–2039: Stoke-on-Trent**

Figure 6: Stoke-on-Trent HH-14 and HH-14 Return Headship Rate comparison

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Communal Population Statistics

2.32   Household projections in POPGROUP exclude the population 'not-in-households' (i.e. the communal/institutional population). These data are drawn from the DCLG 2014-based household projections, which use statistics from the 2011 Census. Examples of communal establishments include prisons, residential care homes and student halls of residence.

2.33   For ages 0–74, the number of people in each age group not-in-households is fixed throughout the forecast period. For ages 75–85+, the proportion of the population not-in-households is recorded. Therefore, the population not-in-households for ages 75–85+ varies across the forecast period depending on the size of the population.

Vacancy Rate

2.34   The relationship between households and dwellings is modelled using a 'vacancy rate'. For Newcastle-under-Lyme, a vacancy rate of 2.9% has been defined, fixed throughout the forecast period. For Stoke-on-Trent, a vacancy rate of 3.6% has been defined and fixed throughout the forecast period. Using the vacancy rate, the 'dwelling requirement' of each household growth trajectory has been evaluated.

Labour Force & Jobs

2.35   The labour force and jobs implications of the population growth trajectory are evaluated through the application of three key data items: economic activity rates, an unemployment rate and a commuting ratio.

Economic Activity Rates

2.36   The level of labour force participation is recorded in the economic activity rates. Economic activity rates by five year age group (ages 16-75+) and sex have been derived from Census statistics. Between the 2001 and 2011 Censuses, rates of economic activity increased in both Newcastle-under-Lyme and Stoke-on-Trent, most notably for females and males in the older age groups (Figure 9 and Figure 10 respectively).
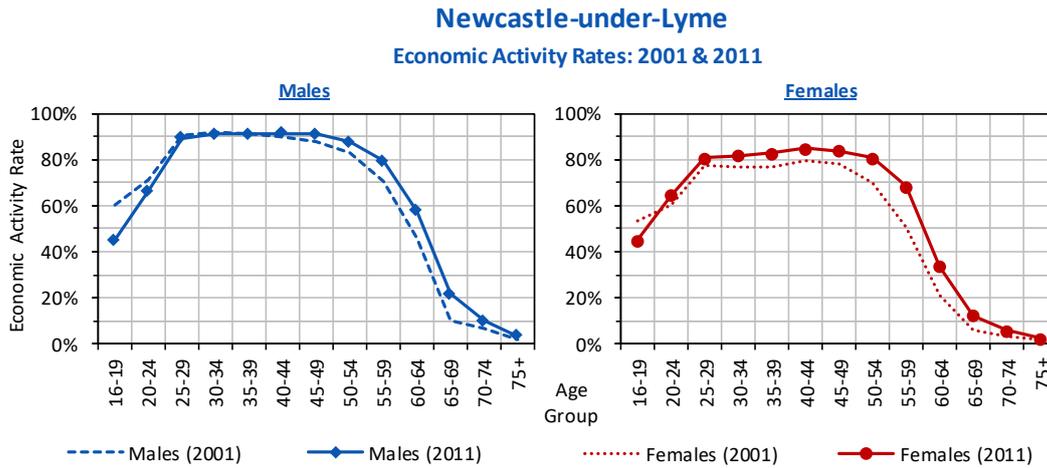
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Newcastle-under-Lyme

Economic Activity Rates: 2001 & 2011

Figure 7: Newcastle-under-Lyme Economic activity rates: 2001 and 2011 Census comparison (source: ONS)

Stoke-on-Trent UA

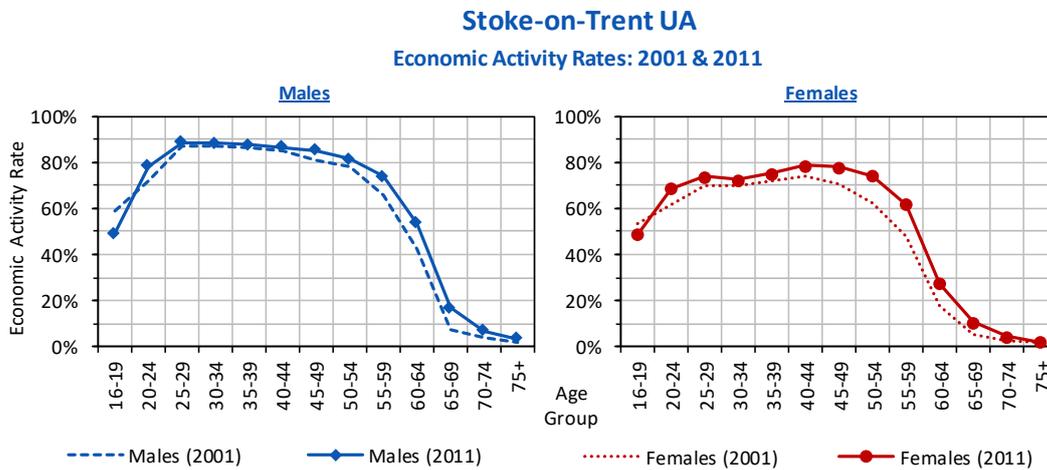**Economic Activity Rates: 2001 & 2011**

Figure 8: Stoke-on-Trent Economic activity rates: 2001 and 2011 Census comparison (source: ONS)

2.37   The Office for Budget Responsibility (OBR) has undertaken analysis of labour market trends in its 2014 Fiscal Sustainability Report[2]. Included within its analysis is a forecast of changing economic activity rates for males and females, extending to a long-term 2066 forecast horizon.

2.38   Adjustments have been to the 2011 Census economic activity rates for all ages 16–75+ for Newcastle-under-Lyme and Stoke-on-Trent (Figure 11 and Figure 12 respectively), in line with the OBR forecasts. These economic activity rates have been applied in all scenarios.

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[2] http://cdn.budgetresponsibility.org.uk/41298-OBR-accessible.pdf
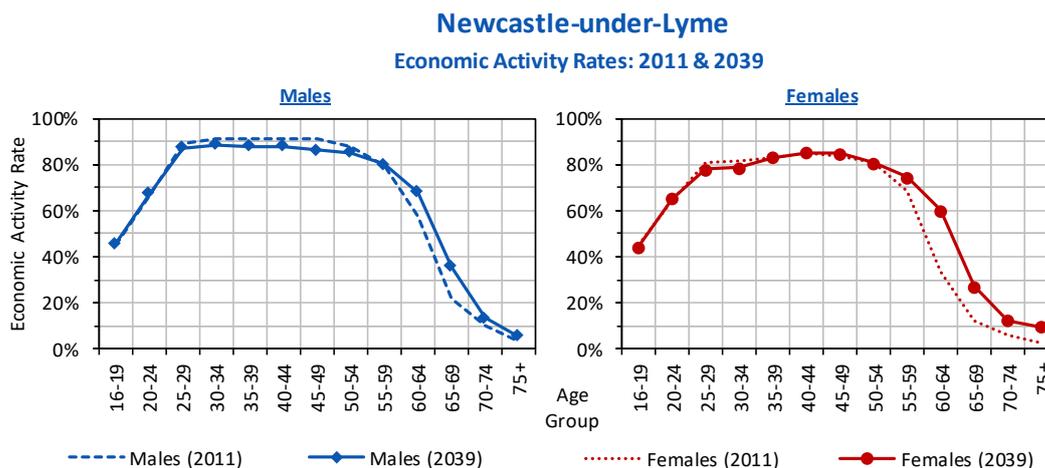
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Figure 9: OBR Economic activity rate profile for Newcastle-under-Lyme: 2011 and 2039
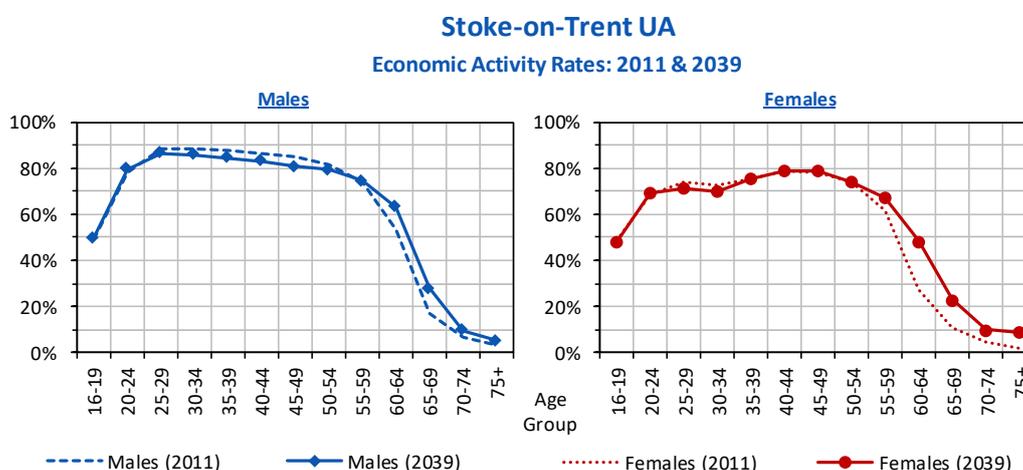

Figure 10: Economic activity rate profile for Stoke-on-Trent: 2011 and 2039

Commuting Ratio

2.39   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. 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.

2.40   From the 2011 Census 'Travel to Work' statistics, published by ONS in July 2014. A commuting ratio of 1.16 has been derived for Newcastle-under-Lyme and 0.95 for Stoke-on-Trent. These

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2011 Census commuting ratios are compared to the 2001 Census values in Table 2 and Table 3. The 2011 commuting ratio has been applied in all scenarios, fixed throughout the forecast period.

Table 3: Newcastle-under-Lyme Commuting Ratio Comparison

Newcastle-under-Lyme		2001 Census	2011 Census
Workers	*a*	54,943	57,366
Jobs	*b*	46,646	49,305
Commuting Ratio	*a/b*	**1.18**	**1.16**

Note: 2001 data from Census Table *T101 – UK Travel Flows* ; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age* .

Table 3: Stoke-on-Trent Commuting Ratio Comparison

Stoke-on-Trent UA		2001 Census	2011 Census
Workers	*a*	98,832	108,109
Jobs	*b*	111,832	114,178
Commuting Ratio	*a/b*	**0.88**	**0.95**

Note: 2001 data from Census Table *T101 – UK Travel Flows* ; 2011 data from Census Table *WU02UK - Location of usual residence and place of work by age* .

Unemployment Rate

2.41   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.

2.42   In all scenarios, historical unemployment rates are defined up to 2015 (Table 4, p18). Between 2015 and 2018, the unemployment rate is fixed at the 2015 value. For Newcastle-under-Lyme, the unemployment rate remains fixed at 4.1% thereafter. For Stoke-on-Trent, between 2018 and 2023, the unemployment rate is incrementally reduced to its pre-recession average (2004–2007) of 5.7% (and is fixed thereafter).

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Table 4: Historical unemployment rates 2004–2015

Area	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Average Pre-Recession (2004-07)
Newcastle-under-Lyme	3.5	3.7	4.5	5.4	5.4	6.9	7.0	8.3	6.6	6.1	5.1	4.1	4.3
Stoke-on-Trent	5.2	5.6	5.1	6.7	7.3	10.3	9.7	10.9	8.6	9.5	7.5	6.4	5.7

Source: ONS model-based estimates of unemployment, from NOMIS

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Appendix 2: Impact of Including Unattributable Population Change

Over the years preceding the 2011 Census, the population of Stoke-on-Trent was underestimated by the ONS. On this basis, following the publication of the Census findings, an adjustment was applied to historic population estimates for Stoke-on-Trent to allow for the positive unattributable population change (UPC) which had grown the population to a greater extent than previously thought. As noted within section 2 of this report and elsewhere within the SHMA, the ONS does not take UPC into account in its development of official population projections. However, the SHMA confirmed that including UPC in Stoke-on-Trent resulted in higher past growth demographic trends, subsequently elevating the implied level of growth which could occur if historic demographic trends are sustained. However, there is significant uncertainty associated with UPC, given that the ONS has confirmed that its exact cause – and its timing – cannot be accurately determined.

The scenarios presented in section 2 of this report exclude UPC for consistency with the approach taken by ONS and recognising the differing impact of UPC across the two authorities in the HMA. However, sensitivity scenarios have been produced by Edge Analytics to demonstrate the impact of including UPC in Stoke-on-Trent, given that the authority has the most uncertainty associated with its historic growth trends, reflected in the larger UPC component relative to Newcastle-under-Lyme.

Table 2.1   Alternative Demographic Trend-based Projections for Stoke-on-Trent – including UPC

	Change 2013 – 2039				Average per year	
	Population	%	Hholds	%	Net migration	Dwellings
Past Growth 10 year						
Including UPC	27,444	11.0%	15,750	14.6%	-221	628
Excluding UPC	23,445	9.4%	13,705	12.7%	-348	547
Past Growth Long Term						
Including UPC	28,606	11.4%	16,510	15.3%	-153	659
Excluding UPC	23,539	9.4%	14,192	13.1%	-314	566
Past Growth **including UPC with headship rate return sensitivity**						
10 year	27,444	11.0%	18,284	16.9%	-221	729
Long Term	28,606	11.4%	19,029	17.6%	-153	759

Source: Edge Analytics

Appendix 3: Policy-On Economic Growth – Housing Need Implications

As identified within section 4 of this report, the ELR adjusts the baseline Cambridge Econometrics forecast to reflect policy ambitions, significantly uplifting the number of jobs which could be created over the assessment period. The Policy On scenario indicates that successful policy intervention could create 41,834 gross additional jobs between 2013 and 2039, as summarised in the following table.

Table 3.1   Policy On Employment Growth Scenario 2013 – 2039

	Gross additional jobs 2013 – 2039	Annual change
Newcastle-under-Lyme	15,330	590
Stoke-on-Trent	26,504	1,019
HMA	**41,834**	**1,609**

Source: NLP

As established within this report, it is not considered appropriate to take this 'policy on' scenario into account when objectively assessing the need for housing in Stoke-on-Trent and Newcastle-under-Lyme. This recognises its inherent integration of policy factors, which moves beyond a baseline position on likely job growth and requires a broader consideration of the wider policy interventions required to support such a level of growth.

However, it is recognised that the realisation of stronger job growth would have an impact on the scale of housing need in the HMA. For illustrative purposes and to inform the Councils' consideration of realising an ambition to see stronger levels of job growth, an additional scenario has been developed by Edge Analytics to establish the scale of labour force growth required to support 'policy on' employment growth. This also provides an indication of the implied scale of housing growth associated. This is based on the prudent labour force assumptions set out within section 4 of this report. The outputs of this modelling are summarised in the following table.

Table 3.2   Supporting Policy On Employment Growth

|	Change 2013 – 2039				Average per year	
	Population	%	Hholds	%	Net migration	Dwellings
Newcastle-under-Lyme	38,228	30.5%	17,788	33.5%	1,361	705
Stoke-on-Trent	57,465	23.0%	27,789	25.7%	819	1,109
HMA	**95,693**	**25.5%**	**45,577**	**28.3%**	**2,180**	**1,814**

Source: Edge Analytics

Appendix 4: Demographic Factors Influencing Historic Migration

This report concludes that there is an objectively assessed need (OAN) for 1,390 dwellings per annum in Stoke-on-Trent and Newcastle-under-Lyme. This provides for the level of population required to grow the labour force and support a realistic forecast of job creation across the housing market area (HMA). Over the plan period, this requires a level of annual net migration which – though not unprecedented – largely surpasses that seen historically. It is recognised that this is based upon an increased growth primarily in the working age population which would require a retention of existing working age residents who would otherwise move elsewhere, or an increased attraction of new working age residents to the employment opportunities generated in the HMA over the plan period.

The analysis within this report shows that the historic migration profile of Stoke-on-Trent and Newcastle-under-Lyme is comparatively volatile. However, on several occasions, the area has attracted a strong net inflow of migrants, approaching or exceeding the level required to grow the labour force and support likely job growth based on the modelling presented in this report. These years are highlighted in the following chart.

Figure 4.1   Peak Net Migration to Stoke-on-Trent and Newcastle-under-Lyme
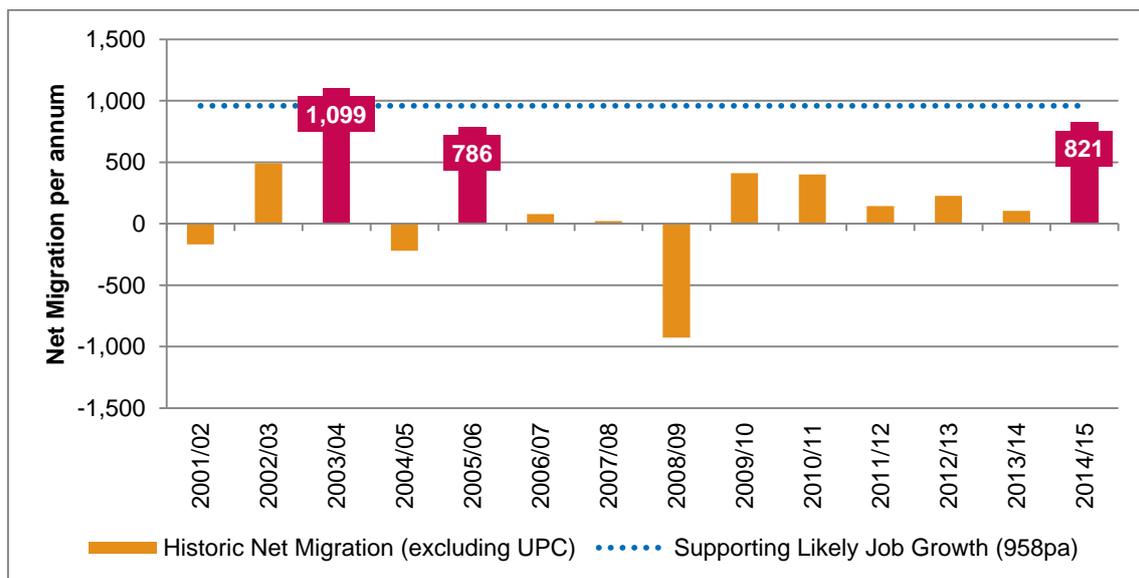
Source: ONS; Edge Analytics

This appendix has been produced to explore the demographic factors which historically contributed towards supporting the higher levels of net in-migration recorded during these peak years. This is intended to provide additional context in relation to the level of net migration required to support a realistic forecast of likely job growth in Stoke-on-Trent and Newcastle-under-Lyme.

Origin and Destination of Migrants

Internal Migration

A review of Patient Register Data Service (PRDS) data has been undertaken by Edge Analytics to establish the historic origin and destination of internal migrants. Authorities sharing the strongest relationship with Stoke-on-Trent and Newcastle-under-Lyme over the full period for which data is available (2001 – 2015) have been identified, with a view towards understanding whether the net flow with these authorities in peak years significantly deviated from the average position. Data is presented separately for Newcastle-under-Lyme and Stoke-on-Trent. It is important to note that while the gross flows between these authorities are presented for completeness, any changing dynamic between Stoke-on-Trent and Newcastle-under-Lyme is not a factor influencing the high net flow of internal migrants to the HMA, given that the net flow within the HMA equates to zero.

The following table identifies the largest gross inflows to and outflows from Stoke-on-Trent, presenting the average annual flow over this period (2001 – 2015) and drawing comparisons with flows during the peak years identified above.

Table 4.1   Largest Gross Inflows to and Outflows from Stoke-on-Trent

	2001 – 15	2003/04	2005/06	2014/15
Inflows to Stoke-on-Trent				
Newcastle-under-Lyme	2,017	2,210 ▲	2,260 ▲	1,910 ▼
Staffordshire Moorlands	1,012	1,090 ▲	940 ▼	1,020 ▲
Stafford	588	660 ▲	570 ▼	614 ▲
Cheshire East	404	440 ▲	380 ▼	365 ▼
Birmingham	269	230 ▼	240 ▼	330 ▲
Outflows from Stoke-on-Trent				
Newcastle-under-Lyme	2,322	2,290 ▼	2,090 ▼	2,421 ▲
Staffordshire Moorlands	1,307	1,230 ▼	1,240 ▼	1,378 ▲
Stafford	691	660 ▼	680 ▼	683 ▼
Cheshire East	460	450 ▼	450 ▼	579 ▲
Birmingham	294	210 ▼	230 ▼	298 ▲

Source: Edge Analytics; ONS

The analysis indicates that the earliest peak (2003/04) was driven by above average inflows from areas which typically send migrants to Stoke-on-Trent, and reduced outflows to those areas where Stoke-on-Trent residents typically move. This is likely an important factor which contributes towards the net positive migration effect in this year, which deviates from the long-term trend. However, the factors influencing internal migration in subsequent years is less clear, with the relatively small outflows in 2005/06, for example, mirrored by smaller inflows from other authorities.

Comparable analysis is presented below for Newcastle-under-Lyme, which highlights – as in Stoke-on-Trent – that the earliest peak (2003/04) was characterised by slightly above average inflows and smaller outflows from several key authorities. Again, this relationship is less clear in the other peak years identified, given that the relatively high flows in the latest peak year (2014/15) appear to have been offset by increased outflows to the same authorities.

Table 4.2   Largest Gross Inflows to and Outflows from Newcastle-under-Lyme

|	2001 – 15	2003/04	2005/06	2014/15
Inflows to Newcastle-under-Lyme				
Stoke-on-Trent	2,322	2,290 ▼	2,090 ▼	2,421 ▲
Cheshire East	447	470 ▲	420 ▼	506 ▲
Staffordshire Moorlands	265	280 ▲	230 ▼	257 ▼
Stafford	240	250 ▲	220 ▼	252 ▲
Shropshire	147	170 ▲	150 ▲	163 ▲
Outflows from Newcastle-under-Lyme				
Stoke-on-Trent	2,017	2,210 ▲	2,260 ▲	1,910 ▼
Cheshire East	504	470 ▼	460 ▼	581 ▲
Stafford	259	250 ▼	260 ▲	302 ▲
Staffordshire Moorlands	258	260 ▲	240 ▼	266 ▲
Shropshire	173	170 ▼	140 ▼	233 ▲

Source: Edge Analytics; ONS

In summary, there is some evidence that a temporary deviation from the long-term average relationship with authorities sharing strong migration links with Stoke-on-Trent and Newcastle-under-Lyme was potentially a factor contributing towards higher net flows to the HMA, particularly in 2003/04. However, the analysis is less conclusive during recent peak years, suggesting that the higher net migration flows resulted from variance in the relationship with a wider area beyond those authorities historically sharing the strongest relationship.

International Migration
The analysis within this report has highlighted the net positive effect of international migration in Stoke-on-Trent and Newcastle-under-Lyme historically since 2001. In contrast, internal migration has had a largely negative effect on the population. The following chart shows the net flow of internal and international migrants to the HMA annually since 2001, in order to isolate the contributions of internal and international migration towards the peak years identified above.

**Figure 4.2   Net Internal and International Migration 2001 – 2015**
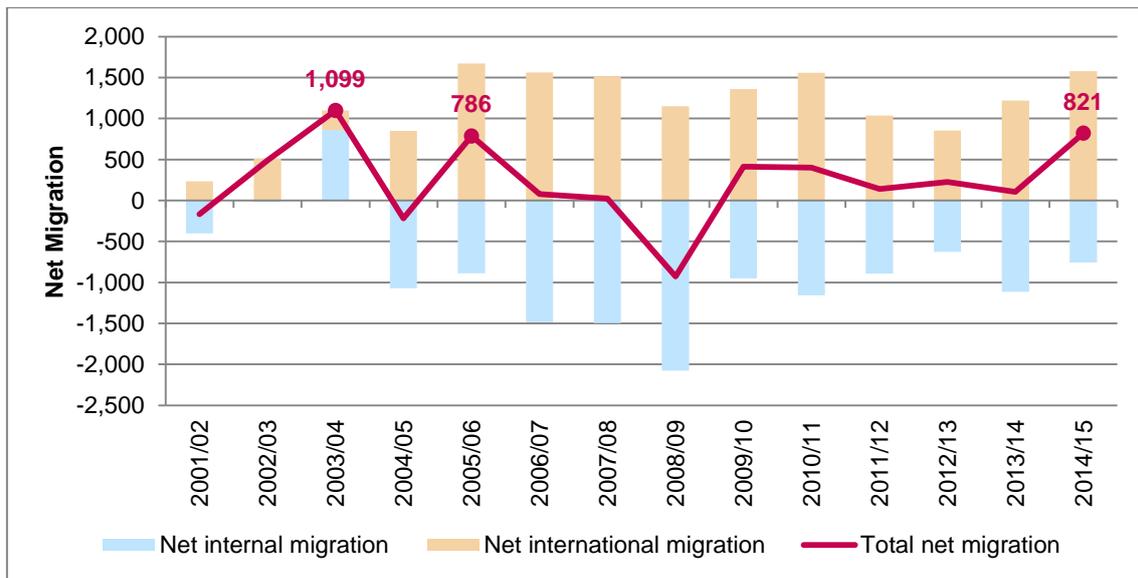
Source: ONS

It is clear that the highest level of net in-migration recorded during this period (2003/04) was underpinned by a strong net inflow of internal migrants, which continued a positive trend observed over the preceding two years. International migration was not a factor significantly influencing this level of inflow, and indeed the net inflow of international migrants in this year was amongst the lowest recorded in the period shown. In contrast, international migration appears to have been a more significant factor influencing the higher levels of net migration recorded in 2005/06 and 2014/15, with these years characterised by the highest level of net international migration recorded during this period.

Age Profile

Further analysis can establish the age groups driving net migration trends during recent peak years, in order to identify whether peak years where characterised by a deviation from the long-term average trend. The following chart shows the net flow of different age cohorts to Stoke-on-Trent and Newcastle-under-Lyme in each of the peak years, with the long-term annual average (2001 – 2015) also presented for context.

Figure 4.3   Net Migration by Age Group (Average and Selected Years)
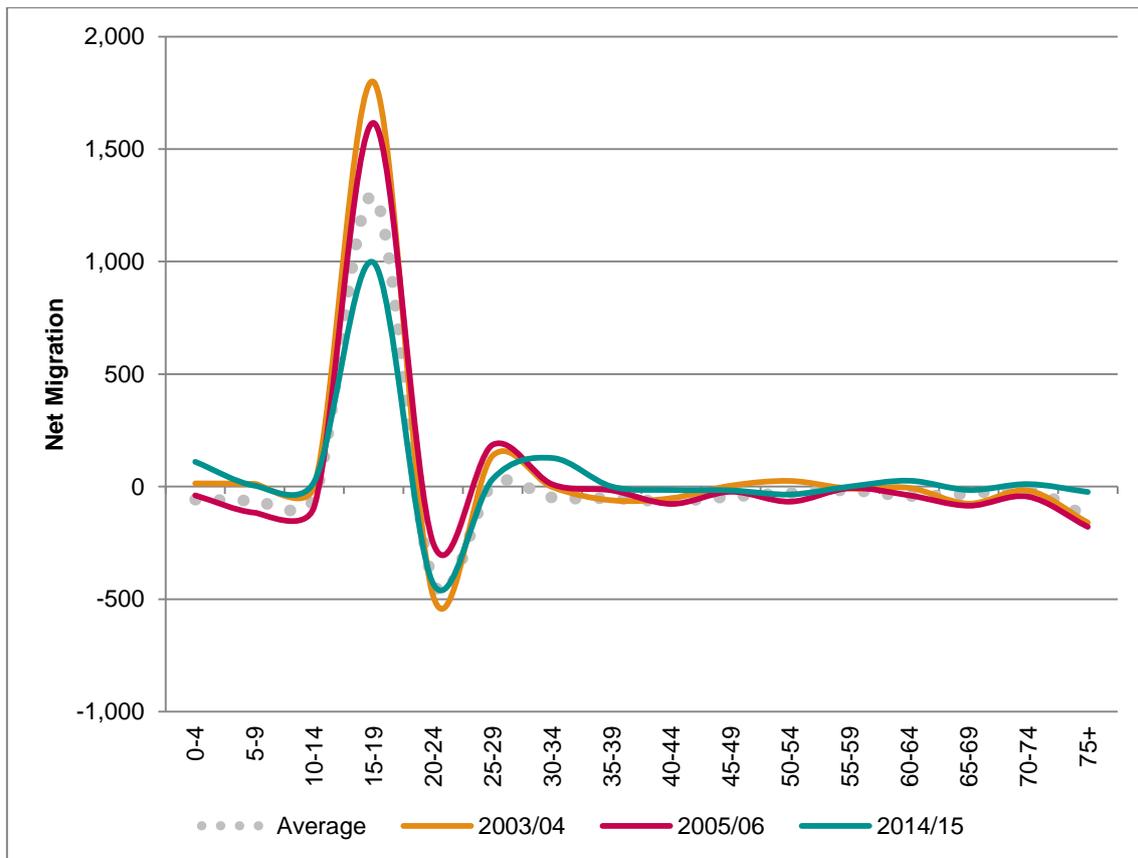
Source: ONS

The chart indicates that earlier peaks (2003/04 and 2005/06) were characterised by stronger net inflows of people aged 15 to 19, relative to the long-term average. This does not appear to have been a factor influencing the more recent peak (2014/15), however, with the larger net inflow of children and families a more marked characteristic in this year. Indeed, all peak years saw a relatively large net inflow of younger working age residents (25 – 39), suggesting that attracting and retaining these residents is key to achieving higher levels of net migration.

Summary and Implications

Consistently achieving the higher levels of above-trend net migration required to grow the labour force and support likely job growth will require a deviation from the historic profile summarised in this report and this appendix. However, this appendix has identified a number of factors which could contribute towards supporting higher net inflows, including:

- **The importance of internal migration and relationships with other local authority areas.** The analysis indicates that net migration has peaked when Stoke-on-Trent and Newcastle-under-Lyme temporarily attracted a comparatively large number of people from several key authorities, with a smaller corresponding outflow. However, this is not conclusive for all peak years, suggesting that it is not just those authorities sharing the strongest relationship with the HMA which contributed towards higher migration flows. This suggests a wider, rather than localised impact; and

- **The importance of attracting and retaining working age residents.** Recent peak years in migration levels were characterised by larger net inflows of younger working age people, which could be facilitated in future through the provision of housing and increasing local employment opportunities. More broadly, there is long-term evidence of a strong net inflow of those of student age, who subsequently move away after graduating. A changing economy can be a factor contributing towards retaining younger people, reducing the outflow of this cohort and increasing net migration.

Appendix 5: Comparison with 2015 SHMA Scenarios

The table overleaf has been produced at the request of the Councils to provide a headline comparison between the updated modelling presented in this update – which incorporates the latest available evidence – and the scenarios which previously informed the conclusions of the 2015 SHMA. It should be noted that the updated modelling presented in this update incorporates the latest available evidence, and should therefore be given greater weight than scenarios previously developed.

For clarity, key outputs from scenarios given weight in the conclusions of the 2015 SHMA are compared against the updated scenarios which form the basis for this report's conclusions. Change in the population is presented over the full period assessed within each report (2013 – 2039), with annualised dwelling figures. The scenario(s) underpinning the concluded OAN at HMA level in each report is also highlighted.

Table 5.1   Comparison of Previous and Updated Modelling Outputs

	2015 SHMA			2017 SHMA Update		
	Newcastle-under-Lyme	Stoke-on-Trent	HMA	Newcastle-under-Lyme	Stoke-on-Trent	HMA
The 'starting point'	2012-based **239 dwellings pa** 7,259 persons	2012-based **452 dwellings pa** 16,875 persons	2012-based **691 dwellings pa** 24,134 persons	2014-based **315 dwellings pa** 12,674 persons	2014-based **490 dwellings pa** 18,186 persons	2014-based **805 dwellings pa** 30,860 persons
Adjusted demographic projection with adjustment to headship rates	10 year trend **367 dwellings pa** 12,513 persons	10 year trend **810 dwellings pa** 32,768 persons	10 year trend **1,177 dwellings pa** 45,281 persons	Long Term **398 dwellings pa** 14,602 persons	Long Term **666 dwellings pa** 23,539 persons	Long Term **1,064 dwellings pa** 38,141 persons
Supporting forecast job growth with adjustment to headship rates	LEFM **679 dwellings pa** 32,468 persons	LEFM **825 dwellings pa** 36,722 persons	LEFM **1,504 dwellings pa** 69,190 persons	LEFM **586 dwellings pa** 26,635 persons	LEFM **804 dwellings pa** 31,251 persons	LEFM **1,390 dwellings pa** 57,886 persons

Source: Turley; Edge Analytics

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