Updated Assessment of Housing Need: Coventry-Warwickshire HMA

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Prepared by

GL Hearn Limited

280 High Holborn
London WC1V 7EE

T +44 (0)20 7851 4900
glhearn.com

Contents

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DATE	ORIGINATORS	APPROVED
September 2015	Nick Ireland, Planning Director Aled Barcroft, Planner Justin Gardner, JGC	Nick Ireland, Planning Director
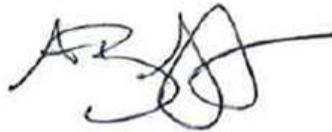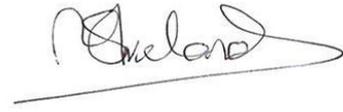
Limitations

This document has been prepared for the stated objective and should not be used for any other purpose without the prior written authority of GL Hearn; we accept no responsibility or liability for the consequences of this document being used for a purpose other than for which it was commissioned.

1   INTRODUCTION

1.1   The purpose of this report is to draw together evidence regarding the Objectively Assessed Need (OAN) for Housing in the Coventry and Warwickshire Housing Market Area (HMA).

1.2   Key evidence at the sub-regional level which have considered housing and employment land needs comprises:

- Joint Strategic Housing Market Assessment (GL Hearn, Nov 2013);
- Coventry & Warwickshire Joint Employment Land Study (Atkins, Mar 2014);
- Joint SHMA Addendum (GL Hearn, Sept 2014);
- Coventry & Warwickshire LEP Employment Land Study (CBRE, Draft Report June 2015).

1.3   This report considers the implications of the 2012-based Household Projections, published by Government in February 2015. It also takes account of updated econometric forecasts from Cambridge Econometrics (dated March 2015) purchased by Warwickshire County Council. This represents new information which was not available when the Joint SHMA Addendum was prepared.

1.4   This report reviews existing evidence, updates part of the evidence base regarding housing need, and draws this together to provide conclusions on OAN for the HMA and individual local authorities within it.

Geography

1.5   Paragraph 159 in the National Planning Policy Framework (NPPF) sets out local authorities should work together to identify Objectively Assessed Need (OAN) for housing for the relevant Housing Market Area (HMA). The relevant HMA is defined (using a best-fit to local authority boundaries) as Coventry and Warwickshire, and made up of the following local authorities:

- Coventry
- Rugby
- North Warwickshire
- Nuneaton & Bedworth
- Stratford-on-Avon
- Warwick

1.6   The justification for the definition of the HMA is outlined in the Joint SHMA Report[1]. It is supported by a national research study by CURDS which includes parts of all of the Warwickshire authorities as within a Coventry-focused HMA. It is consistent with evidence underpinning the definition of the Coventry & Warwickshire Local Enterprise Partnership. The SHMA recognises links between parts of the HMA and adjoining areas, including Solihull and Birmingham.

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[1] Joint Strategic Housing Market Assessment (GL Hearn, Nov 2013)

National Policy and Guidance

National Planning Policy Framework (NPPF)

1.7   The National Planning Policy Framework (NPPF) was published in March 2012. The NPPF highlights the Strategic Housing Market Assessment (SHMA) as a key piece of evidence in determining housing needs. Paragraph 159 in the Framework outlines that this should identify the scale and mix of housing and the range of tenures which the local population is likely to need over the plan period which:

- Meets household and population projections, taking account of migration and demographic change;
- Addresses the need for all types of housing, including affordable housing and the needs of different groups in the community; and
- Caters for housing demand and the scale of housing supply necessary to meet this demand.

1.8   This is reaffirmed in the NPPF in Paragraph 50. The SHMA is intended to be prepared for the housing market area, and include work and dialogue with neighbouring authorities where the HMA crosses administrative boundaries.

1.9   Paragraph 158 of the NPPF emphasises the alignment of the housing and economic evidence base and policy. Paragraph 17 in the NPPF reaffirms this, and outlines that planning should also take account of market signals, such as land prices and housing affordability. However it also makes clear that plans must be deliverable.

1.10   Case law has established that the objectively assessed housing need needs to be defined on a 'policy off' basis[2] leaving aside land availability and development constraints; and that conclusions on housing need needs to be drawn at both a housing market area and local authority level[3].

Planning Practice Guidance

1.11   Planning Practice Guidance was issued by Government in March 2014 on '*Assessment of Housing and Economic Development Needs'* and is provided online as a live resource. This is relevant to this report in that it provides clarity on how key elements of the NPPF should be interpreted, including the approach to deriving an objective assessment of the need for housing. The approach in this report takes account of this Guidance.

1.12   The Guidance defines "need" as referring to:

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[2] See Gallagher vs. Solihull MBC
[3] See Satnam Millennium vs. Warrington MBC

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

1.13   It sets out that the assessment of need should be realistic in taking account of the particular nature of that area, and should be based on future scenarios that could be reasonably expected to occur. It should not take account of supply-side factors or development constraints. Specifically the Guidance sets out that:

"plan makers should not apply constraints to the overall assessment of need, such as limitations imposed by the supply of land for new development, historical under performance, infrastructure or environmental constraints. However these considerations will need to be addressed when bringing evidence bases together to identify specific policies within development plans."

1.14   The Guidance outlines that estimating future need is not an exact science and that there is no one methodological approach or dataset which will provide a definitive assessment of need. However, the starting point for establishing the need for housing should be the latest household projections published by the Department for Communities and Local Government (CLG). This report takes account of 2012-based Household Projections published by CLG in February 2015 which are the latest official household projections at the time of writing.

1.15   The Guidance sets out that there may be instances where these national projections require adjustment to take account of factors affecting local demography or household formation rates, in particular where there is evidence that household formation rates are or have been constrained by supply. It suggests that proportional adjustments should be made where the market signals point to supply being constrained relative to long-term trends or to other areas in order to improve affordability.

1.16   Evidence of affordable housing needs is also relevant, with the Guidance suggesting that the total affordable housing need should be considered in the context of its likely delivery as a proportion of mixed market and affordable housing. The Guidance outlines that an increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.

1.17   In regard to employment trends, the Guidance indicates that job growth trends and/or economic forecasts should be considered having regard to the growth in working-age population in the housing market area. It sets out that where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility and other sustainable options such as walking and cycling) and could reduce the resilience of local

businesses. In such circumstances, plan makers will need to consider how the location of new housing and infrastructure development could help to address these problems.

1.18   The PPG here identifies that in effect that the primary geography for seeking to align housing and economic evidence in the housing market area; but recognises a need to consider the locational strategy for homes and jobs. It does not suggest a need to specifically match employment and workforce growth at a local authority level.

1.19   Relevant case law has however suggested (to some degree in contrast to this) that assumptions on changing commuting patterns could be regarded as 'policy on' and that there is a case for seeking to take account at a local authority level of expected growth in employment within individual local authorities[4].

Overview of the Approach to Deriving Conclusions OAN

1.20   The NPPF and Practice Guidance set out a clear approach to defining OAN for housing. We have sought to summarise this within the diagram overleaf, Figure 1. This summarises the approach we have used to considering OAN.

1.21   This report does not seek to set out what the housing target should be. It focuses on assessing housing need. The distinction between household projections, an objective assessment of housing need, and a 'policy on' housing requirement are set out in Paragraph 37 of the High Court judgement in the case of *Solihull MBC vs. Gallagher Estates*. This is however to some degree a subtlety and this report does provide evidence which may assist in policy-making.

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[4] See Oadby DC vs. SSCLG

Figure 1:   Overview of PPG Approach to defining OAN
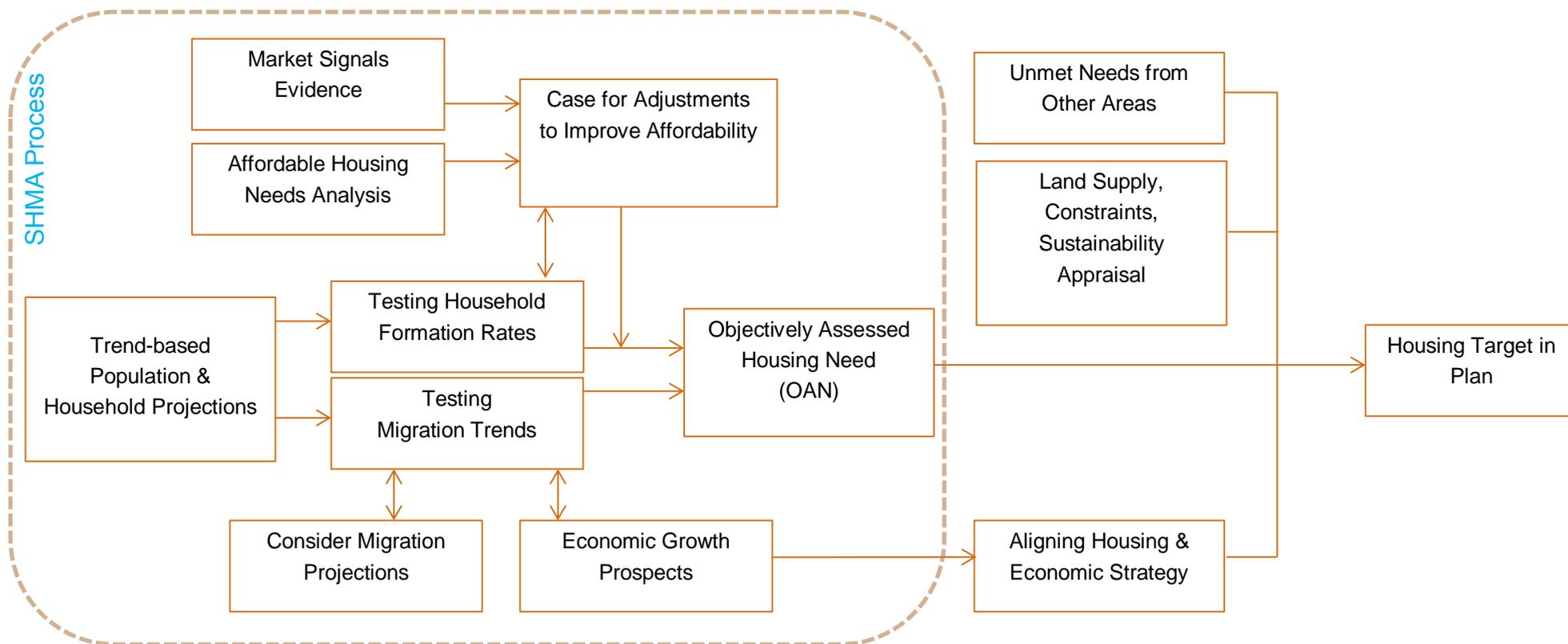
Report Status and Structure

1.22   The remainder of this report is structured as follows:

- Section 2: Review of Existing Evidence;
- Section 3: Updated Trend-based Demographic Projections;
- Section 4: Reviewing Economic Growth Potential;
- Section 5: Updating the Assessment of Market Signals;
- Section 6: Updated Assessment of Affordable Housing Need;
- Section 7: Conclusions.

2   REVIEW OF EXISTING EVIDENCE

Coventry & Warwickshire Joint SHMA

2.1   The Joint SHMA was published in advance of the finalisation of Planning Practice Guidance (PPG), but follows an approach which is relatively similar to that described in the PPG to defining overall housing need, based on the draft PPG.

Starting Point – Demographic Projections

2.2   Following the approach in the PPG, the SHMA started out by examining the latest household projections available in 2013 – the CLG 2011-based 'Interim' Household Projections. These projected an annual increase in households of 4,066 per annum (pa) between 2011-21 across the HMA. This equated to 4,188 dwellings pa (Table 32).

2.3   In Para 7.8 it outlines that these 2011-based Interim Household Projections were based principally on Pre-Census estimates of population dynamics (births, deaths and migration). Updated projections were thus developed which took account of revised Mid-Year Population Estimates, included adjustments for Unattributable Population Change (UPC); and extending the projections forwards to 2031. This resulted in housing need for 3,335 dwellings pa (using 2011-based Headship Rates projected forwards). The SHMA identified this as a minimum level of provision.

2.4   The box below considers the issue of Unattributable Population Change (UPC).

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Unattributable Population Change (UPC)

ONS consulted on how to deal with Unattributable Population Change as part of preparing the Sub-National Population Projections. It has decided not to make an adjustment for UPC in the 2012-based Sub-National Population Projections, setting this out in a report issued in January 2014 – post the preparation of the SHMA.

ONS sets out that it is unclear to what extent UPC relates to sampling errors in either the 2001 or 2011 census, or the measurement of inter-censal components (particularly migration). ONS set out that if it is due to international migration, it is more likely that the biggest impacts will have been earlier in the decade.

The Planning Advisory Service's Technical Advice Note on *Objectively Assessed Need and Housing Targets* (June 2014) has considered this issue. Sections 5.8 to 5.11 of that report discuss UPC in some detail, setting out:

> *'It has been suggested that UPC is due to miscounting of the population in the 2001 or 2011 Census, or both. But a more likely explanation is that the UPC is migration, probably international migration, which was unrecorded or recorded to the wrong places*

> *Planning authorities and others may wish to test alternative scenarios, which do take account of the UPC, and take a view accordingly'.*

This is what the SHMA did. The SHMA was published prior to the ONS Jan 2014 *Report on Unattributable Population Change.* ONS' conclusions are reflected in a change in the modelling approach in the *SHMA Addendum*, which is considered further below.

Ultimately there is arguably no right or wrong approach to addressing UPC. It is an area in which it is necessary to 'take a view.'

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2.5   The SHMA provided a sensitivity analysis, including scenarios for migration based on 5 and 10 year trends. This resulted in a need for between 3,270 homes pa based on 10 year trends; to 3,509 homes pa based on 5 year trends. The "PROJ 1A" projection was considered preferable as it took account of how ONS expected migration to change over time, rather than projecting this forward on a simply "annual average" basis (as is for instance typically done in deriving 10 year migration projections). It was in effect a more advanced projection.

2.6   A further sensitivity analysis was run applying the household formation assumptions from the 2008 CLG Household Projections to the PROJ 1A population projection. This resulted in a need for 4,094 homes per annum (Table 35).

2.7   The SHMA conclusions in respect of trend-based demographic projections were based on a judgement that it would be appropriate to adjust the projections to take account of UPC; and that given evidence of the impact of economic factors on household formation, household formation rates could be expected to be more positive than those in the 2011-based Interim Household

Projections. It found that it would be appropriate to model 2011 based rates to 2021; and then use 2008 based rates on an indexed basis thereafter. This approach has been supported at a range of local plan examinations (e.g. Litchfield, South Worcestershire or Derbyshire Dales). This resulted in a need (based on demographic factors) for 3,750 dwellings pa.

Jobs and Homes

2.8 The SHMA considered the relationship between jobs and homes. It examined Experian forecasts (dated May 2013) for growth in employment. Table 1 summarises the projections (as set out in Table 31 in the Joint SHMA).

Table 1:   Projected Employment Growth 2011-31

Growth in Total Employment, 2011-31	Total	%
North Warwickshire	9400	21.3%
Nuneaton & Bedworth	4400	9.7%
Rugby	6500	14.0%
Stratford-on-Avon	9500	15.0%
Warwick	10300	11.8%
Coventry	22600	15.0%
HMA	62600	14.3%
West Midlands	-	11.1%
UK	-	14.0%

Source: Experian/ GLH

2.9 No detailed interrogation or testing of the economic forecasts was undertaken as part of the SHMA. On this basis a number of caveats are clearly set out in respect of the weight which should be given to the projections.

- In Para 6.35, the SHMA clearly outlines that **economic forecasting is not an exact science** and that different forecasting houses can take slightly different views on the performance of the UK economy, and different sectors within it. It outlines that there can be differences in methodology in how forecasting models work, and that forecasts vary over time. It identifies that comparing forecasts can be useful for establishing the 'parameters' for what level of employment growth we might expect.
- Economic forecasting is less accurate at an individual local authority level. Coupled with the range of assumptions necessary to relate this to housing need, economic-led projections at local authority level should be treated with caution (as set out in Para 7.34).
- In Paras 6.37 and 6.39 the SHMA clearly outlines that forecasts assume that **historical relationships continue to hold true** in regard to the relative performance between a sector locally and it at a regional / national level, with **the forecasts taking no account of policy issues or land availability**.

  In particular this highlighted the influence of recent development of land within North Warwickshire for logistics/ distribution on employment growth in the District and that the forecasts were in effect assuming further provision of regional logistics floorspace which could in reality occur in other areas within the sub-regional market.

2.10   These points are important in interpreting economic forecasts, and continue to hold true. This is an important point which is relevant to analysis and conclusions in this report.

2.11   For Coventry and Warwick, an alternative set of economic forecasts where available – based on work undertaken for the two local authorities by GL Hearn and Cambridge Econometrics. For these areas it was therefore possible to provide a comparative assessment of growth potential. Figures for total employment growth between 2011-31 from the two forecasts are shown in Table 2.

Table 2:   Comparisons of 2012 CE and Experian Forecasts for Coventry and Warwick

| Employment Growth, 2011-31	Experian, 2013	Cambridge Econometrics, 2012
Warwick	10,900	10,300
Coventry	22,600	16,900

Source: Experian and CE

2.12   For Warwick District the two forecasts at this point were relatively similar (Experian forecasting 3% stronger growth in employment). However for Coventry, Experian forecasts stronger employment growth (with employment growth just over 1/3 higher). This highlights the impact of assumptions which different forecasting houses can make regarding the growth potential/ performance of different economic sectors; and differences in the modelling approach of these two forecasting houses. Neither is inherently "right" – they provided in effect a set of parameters for how the economy might perform based on different assumptions about drivers and how different sectors will grow moving forwards.

2.13   In translating forecasts for jobs growth into figures for housing provision, it is necessary to make assumptions regarding:

- Relationship between jobs and people in work;
- Changes to employment rates; and
- Changes to commuting patterns.

2.14   Projections are clearly sensitive to these factors. The SHMA modelling did not make any allowance for double-jobbing (Para 7.28, Bullet 1). Instead it assumed a 1:1 relationship between jobs and people. The SHMA analysis will therefore slightly over-estimate the population growth and housing provision necessary to support growth in employment. We would typically expect the number of 'people' to be 5-10% lower than the number of jobs. Later sections in this report consider this issue further.

2.15   Assumptions on changes to employment rates were set out in Figure 64 in the SHMA Report. Two scenarios for commuting were presented, based on the Experian forecasts:

A. PROJ A (Jobs) – assumed a 1:1 relationship between jobs and residents in employment in an area (i.e. a commuting ratio of 1.0 was applied consistently);

B. PROJ B (Residents in Employment) – used 2001 Census data to calculate a commuting ratio which was held constant over time.

2.16   The core projections are summarised at an HMA level below (using 2011-based headship rates):

Figure 2: Annual Housing Need in Coventry & Warwickshire HMA – Key Scenarios
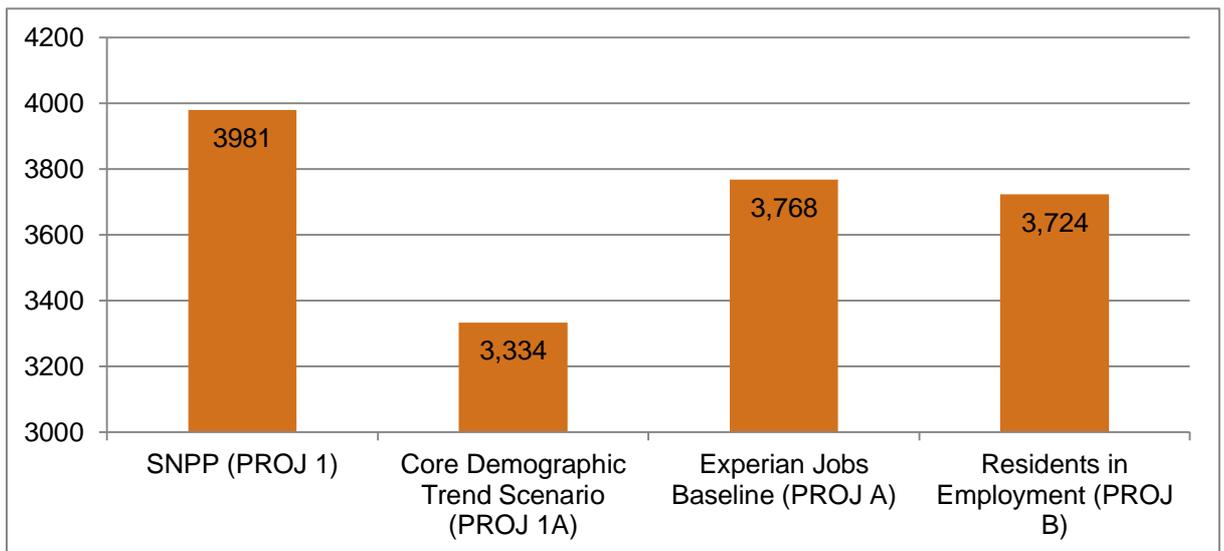
2.17   Thus across the HMA, the level of housing need identified in the economic-driven scenarios (based on Experian forecasts) was above the Core Demographic Scenario, PROJ 1A, but below that identified in the 2011-based SNPP (extended to 2031).

2.18   Moving on to consider distribution issues, Figure 3 summarises the projections for housing need for each of the authorities. What the SHMA analysis particularly highlighted in respect of the relationship between economics and demographics was:

- Coventry has a young population which is expected to grow relatively strongly. However if past trends continue, its workforce would grow more quickly than employment. In such circumstances it is feasible that either:
  - We would see high / growing worklessness;
  - People would move out of the City to find jobs elsewhere, reducing population growth; or
  - Commuting would change with feasibly higher out-commuting from Coventry.
- Warwick and Stratford-on-Avon Districts show stronger growth in the economic-driven scenarios than the demographic-driven scenarios. To support the level of employment growth in these areas forecast by Experian, it would be necessary to see either:
  - Increased commuting to these areas to work, of which the potential was strongest from Coventry to Warwick – where there is an existing net commuting flow; or
  - Higher levels of housing provision than in the demographic-based scenarios.
- In respect of Rugby Borough, the SHMA evidence showed that growth in jobs and homes had been reasonable well balanced in the past, and that this was expected to continue;

- For North Warwickshire, the trend-based economic forecasts expected strong relative employment growth. However the trend has been driven in particular by the build out of two Regional Logistics Sites at Hams Hall and Birch Coppice; and there were particular questions given the sub-regional/ regional nature of logistics demand as to whether in the future economic growth at this level could or should be sustained – or whether the next phase of major sites would be located somewhere else in the LEP area. Like Stratford-on-Avon, North Warwickshire has a relatively older population structure.

- For Nuneaton and Bedworth, it is important to understand the close economic relationship with Coventry. What the evidence broadly suggested was in effect a "jobs deficit" which contributed to out-commuting.

2.19   Understanding these various dynamics, and the sensitivity of the economic forecasts to input assumptions, informed the conclusions drawn in the Joint SHMA.

2.20   Moving forward, there is a need to be relatively cautious about commuting assumptions.[5] For the purposes of considering OAN on a 'policy off' basis we would recommend that no changes to current commuting patterns are made. There are however clear policy issues arising from the above – in terms of the location of future employment growth and housing within the HMA.

Figure 3:   Annual Housing Need for Key Scenarios – by Local Authority
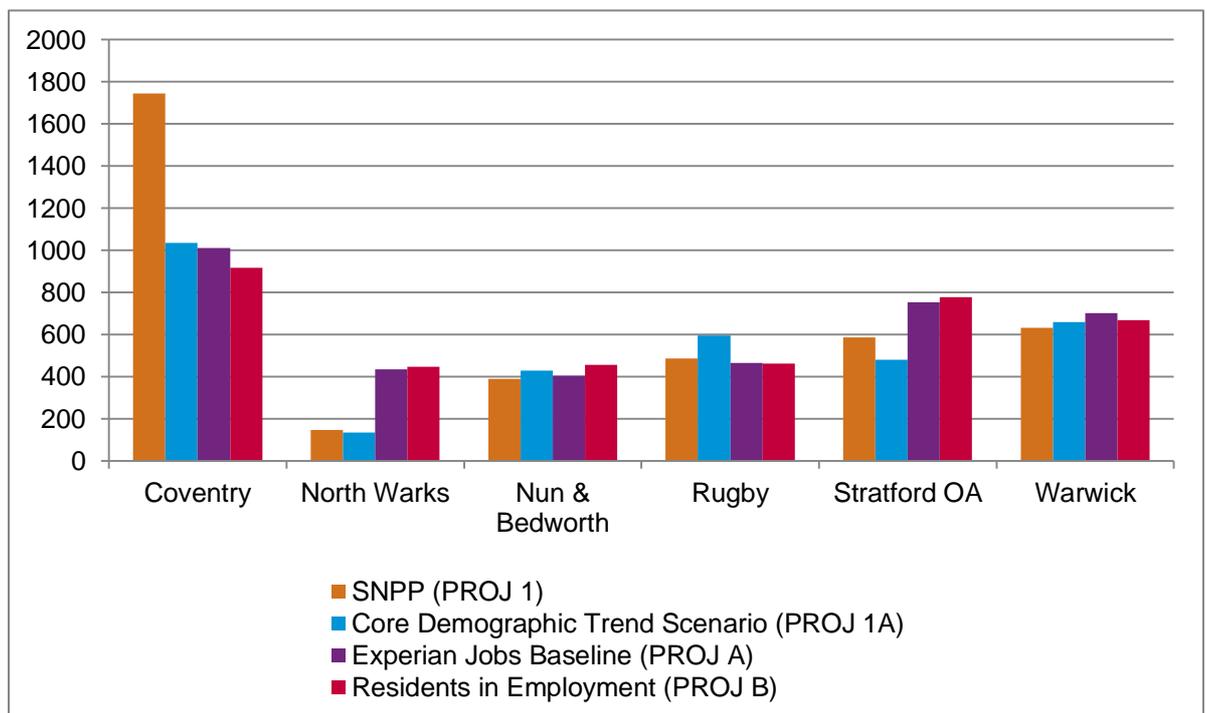
2.21   The PROJ 1A demographic-led projection was expected to support growth in labour supply (residents in employment) 12% below that which might be needed to support the Experian forecasts. However it was considered (Para 7.28) that this gap could feasibly be mitigated as some people

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[5] See Oadby & Wigston DC vs. SSCLG

were likely to hold down more than one job; employment rates could rise more strongly; or commuting dynamics (particularly between local authorities could change). In particular employment rates in Coventry were low (as Figure 64 in the SHMA shows) and there was notable scope for these to rise to nearer those in other parts of the HMA.

2.22   The SHMA however concluded that some additional housing provision to support employment growth might be justified in North Warwickshire and Stratford-on-Avon (Para 7.32). Some modest adjustments to the conclusions on OAN were made of this basis – but not to the scale at which they might now be considered necessary taking account of how these issues have been considered at other local plan examinations and case law.

Affordable Housing Need and Market Signals

2.23   The SHMA identified that 1,356 households per annum across the HMA required support in meeting their housing needs. This represents 36% of the need identified from the demographic projections. Considering potential affordable housing delivery, and the degree to which the Private Rented Sector provides housing for households requiring support, the SHMA found no basis per se for further adjustments to overall housing provision (noting that the headship approach used in drawing conclusions models an improvement in household formation relative to recent trends). This test was not however applied strictly to individual local authorities.

2.24   In respect of market signals, the SHMA found that market conditions had changed dramatically since 2007/8, with the trend being of falling prices and improving affordability. Market demand (as shown by sales evidence) was notably below pre-2008 levels. The evidence pointed to economic conditions, including availability of mortgage finance, influencing housing market dynamics with little evidence of a shortage of supply. It did however identify greater affordability issues in Stratford-on-Avon and to a lesser extent Warwick District relative to other parts of the HMA. However in any defined geography, there will be areas in which housing costs are higher than in other parts of it.

2.25   The evidence of affordable housing need, and of greater (un)affordability issues in some parts of the HMA provided support to the adjustment to household formation rates relative to the then latest official household projections.

Conclusions

2.26   The SHMA defined on the basis of the projections an OAN for between 3,700 – 3,800 homes at HMA level. Table 51 split this down at a local authority level as follows:

Figure 4: SHMA Conclusions on OAN, 2011-31
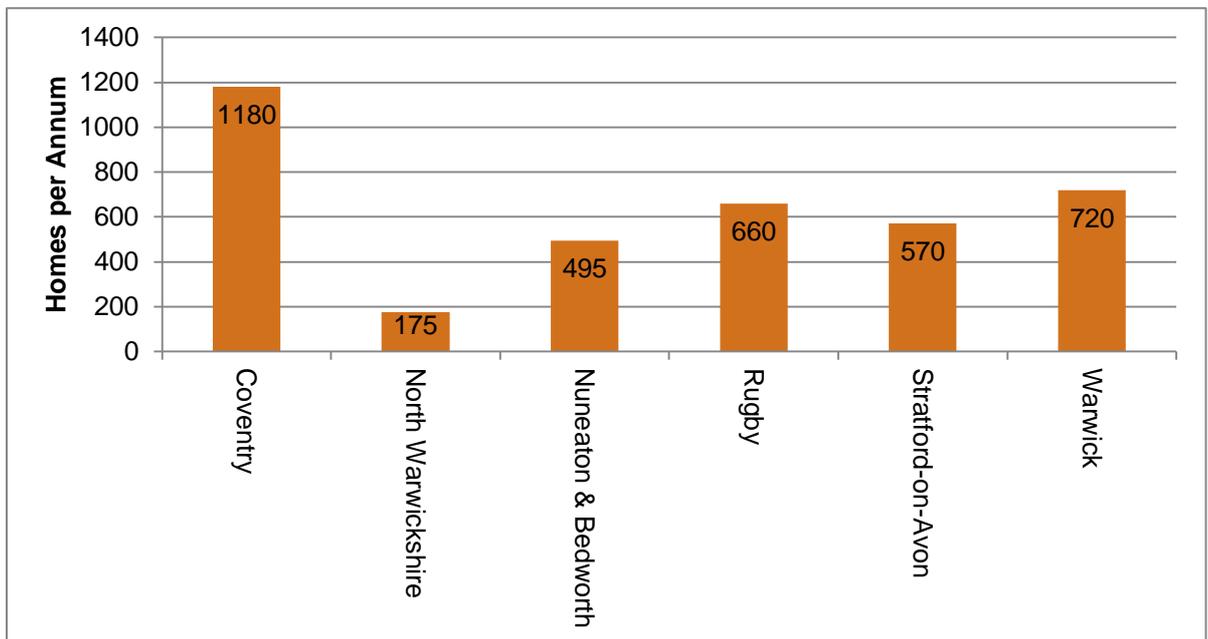
2.27   These OAN conclusions included an adjustment to support additional workforce growth and improve affordability / enhance affordable housing delivery in North Warwickshire and Stratford-on-Avon.

Coventry & Warwickshire Strategic Employment Land Study

2.28   The Strategic Employment Land Study (SELS) was commissioned by Coventry and Warwickshire Local Enterprise Partnership with the aim of drawing together evidence regarding employment land provision; and in particular assessing future employment land needs using a range of demand scenarios. It focuses on B-class employment sectors.

2.29   In respect of overall employment land provision, Section 4 in the SELS considered four scenarios for employment land provision:

- Scenario 1: Cambridge Econometrics Base Scenario
- Scenario 2: Baseline+ Growth Scenario
- Scenario 3: Housing-led Scenario
- Scenario 4: Past Completions

Scenario 1 – Baseline

2.30   Scenario 1 was based on Cambridge Econometrics' 45 sector employment forecasts to 2025, dated August 2013. These are the same CE forecasts which were considered in the SHMA Addendum. Atkins extrapolated these forecasts to 2031; and converted forecasts for total employment into Full-

Time Equivalent (FTE) jobs (based on the current split of full and part-time employment by sector at the LEP level).

2.31   Using these assumptions, Atkins set out at Paragraph 4.5 that the CE forecasts would see an increase in total employment of 94,500 (21%) between 2011-31 across the LEP; equivalent to 77,600 FTE jobs. FTE job numbers are thus 18% lower than those for total jobs.

2.32   Employment growth in B-class sectors of 34,300 FTE jobs was expected (Paragraph 4.7). 44% of the net total FTE job growth was therefore expected to be in B-class sectors. This was modelled by Atkins to translate into a need for close to 1 million sq.m of additional B-class employment floorspace (and 201 ha of land) in *net terms* (based on the assumptions on sectors to use classes, employment densities and plot ratios set out).

2.33   This scenario was based on the forecasts as provided by Cambridge Econometrics. No testing of the realism of the forecasts, or the accuracy of the underlying forecast data was included within the Atkins report.

Scenario 2 – Baseline+

2.34   The Baseline+ Scenario was developed by Atkins. This took the CE baseline forecasts as a given, and then assumed that an additional 8,800 new jobs in advanced manufacturing and engineering (AME) sectors would be created, over and above the baseline, by 2025. This is equivalent to an additional 629 jobs per annum in net terms. Results are presented at a LEP/ HMA level only, with no breakdown provided to local authority districts.

2.35   In this scenario, Atkins assume that the 8,800 net jobs represent additional FTE jobs. They also assume that the rate of increase (629 FTE jobs per annum) continues post 2025. The scenario therefore models an additional 12,600 FTE jobs over and above the baseline between 2011-31. These are all assumed to be in B-class sectors.

2.36   This scenario results in a net need for 1.5 million sq.m of additional B-class employment floorspace and 326 ha of land, based on Atkins' assumptions.

Scenario 3 – Housing-Led

2.37   The housing–led scenario takes figures provided by GL Hearn for growth in residents in employment aligned to the SHMA findings (3,800 homes). Our analysis indicated that this would support growth in residents in employment across the LEP area of just under 49,000 persons between 2011-31.

2.38   Atkins used 2001 Census data showing that 82.5% of LEP area residents worked within the area, and consistent assumptions to Scenario 1 regarding the breakdown of jobs by sector and floorspace/ land use. This resulted in a need for 543,000 sq.m of employment floorspace and 115 ha of land in net terms.

2.39   This scenario uses a modelling assumption that job growth will be 17.5% lower than the expected growth in residents in employment as a result of out-commuting. This fails to take account of in-commuting to the area, and the overall "commuting balance." The 2011 Census data (released since preparation of the Atkins report) indicates modest net in-commuting to the HMA as a whole (with a commuting ratio of 0.97). On the basis of this more recent data, this scenario is likely to under-estimate employment growth and employment land requirements.

2.40   This scenario, Atkins set out, should however be given limited weight given the difficulties in relating demographics and housing need to economic growth and employment land. In particular in Paragraph 4.27 they suggest that the scenario is likely to under-estimate employment land need.

2.41   GL Hearn would further comment that the scenario (as with the others) deals simply with **net** growth in the resource of employment land, and does not deal with the adequacy or market attractiveness of existing supply; or flexibility within the employment land resource.

Section 4 – Past Completions

2.42   The forth scenario projects forwards past completions. Figures for **gross** completions (i.e. completions of new development) are used, resulting in a need for 659 ha of employment land over the 2011-31 period.

Atkins Conclusions

2.43   Atkins conclude that Scenario 2 is used as the minimum estimation of quantitative need in the sub-region. This is a net figure. However as they set out in Paragraph 4.36, actual demand could be significantly greater – with past (gross) completions suggesting up to 660 ha of land required.

2.44   The issue here particularly reflects the differences between 'net' and 'gross' figures for employment land provision. Net figures in effect describe what might be expected in respect of the overall change in the employment land resource over the plan period. We would expect gross needs for new employment land to exceed net figures shown by forecasts as:

- Some employment land / floorspace can be expected to be lost over time, such as through redevelopment of redundant stock, office-to-residential conversions etc.
- Taking account of qualitative issues, planning strategies may seek to redevelopment poorer quality employment sites which do not meet modern business requirements.
- It is appropriate in many circumstances to provide a margin to ensure a flexibility of supply, reflecting difficulties in accurately forecasting long-term land requirements, to take account of

potential issues associated with the delay in sites coming forwards and ensure a choice of sites/ premises is available to meet a range of requirements.

2.45   On the basis of these factors and drawing together the evidence regarding employment demand, labour supply and past completions, Atkins' conclusions regarding a future need for employment floorspace seem entirely reasonable. However we would comment that a detailed testing of the feasibility and robustness of 90,200 FTE jobs (77600 FTE in the baseline + 12600 additional FTE jobs) is not provided; and we do not consider that provision of 326 ha of employment land would necessarily support this level of job creation.

2.46   Consideration of employment land needs has been taken further since through the CBRE Study commissioned by the Coventry & Warwickshire LEP.

Joint SHMA Addendum

2.47   The Joint SHMA Addendum was commissioned in Summer 2014 to take account of the new Sub-National Population Projections (SNPP) released by ONS in May 2014; and to consider the potential implications of different levels of employment growth on the level and distribution of housing provision in the HMA.

Demographic-led Projections

2.48   In respect of the demographic projections, the Addendum:

1.   Was based on the 2012-based SNPP which take full account of the 2011 Census data, and what this shows regarding population change. The projections are therefore based on "better data" than that in the 2013 SHMA.

2.   Made no adjustments for Unattributable Population Change, taking account of the approach taken by ONS to national projections and analysis of more recent demographic trends.

3.   Applied two scenarios for household formation – the first based on using 2011-based headship rates to 2021; and 2008-based rates (on an indexed basis) thereafter; with the second, and more positive approach, based on modelling a 'part return to trend' in household formation, modelled on an age-specific basis.

2.49   2012-based Household Projections were not available at the time when the Joint SHMA Addendum was prepared.

Table 3: Housing Need – 2012-based SNPP, 2011-31

2012-based SNPP	Indexed Headship	PRT Headship
Coventry	1885	1811
North Warwickshire	159	204
Nuneaton & Bedworth	394	422
Rugby	441	453
Stratford-on-Avon	463	508
Warwick	564	606
HMA Total	3906	4004

2.50 The indexed headship approach was used to draw conclusions in the 2013 SHMA and thus allows comparison of the impact of the new population projections. The 3906 homes pa across the HMA shown based on the 2012 SNPP is 4% higher than that derived based on the SHMA demographic modelling (3750 pa). This reflects stronger expected population growth.

2.51 The "part return to trend" approach to headship rates was taken forward in this report on the basis that this is in effect a more sophisticated approach (as far as the data available at the time would allow) to modelling household formation looking at dynamics for different age groups. Since this report was prepared, new household formation rates have been released in the CLG 2012-based Household Projections. This report considers these.

Economic-led Projections

2.52 The SHMA Addendum considered two sets of forecasts for growth in employment:

- Forecasts from Experian's Regional Planning Service, dated May 2013. These forecasts were considered in the November 2013 Joint SHMA Report;
- Forecasts from Cambridge Econometrics, supplied by Warwickshire County Council, dated August 2013. These forecasts are consistent to those used in the Coventry and Warwickshire Joint Employment Land Review (Atkins, 2014).

2.53 As the Addendum Report outlined, econometric forecasts are volatile, particularly at a local authority level. The forecasts considered assume that historical relationships between performance of sectors in a given local authority and the region hold true moving forwards (i.e. if a sector performed in relative terms better in Warwick District in the past, it is projected to continue to do so). They take account of the structure of the local economy and its relative past performance.

2.54 The forecasts do not however take account of land supply or development constraints; or of initiatives or interventions which might stimulate economic growth (in so far as they may differ in their impact to past interventions). Taking account of these factors, as set out the forecasts are likely to be more reliable at an HMA level than for individual local authorities where specific supply-side factors are likely to have a greater influence on past (and future) performance.

2.55   Both sets of forecasts considered in the Addendum can thus be considered 'Policy Off.' They reflect Cambridge Econometrics and Experian's respective views regarding future economic performance at the time of their preparation in 2013. Neither forecast is inherently 'right' or 'better' – they simply reflect differences in the views of the two economic forecasters regarding the performance of different sectors in the economy.

2.56   The Cambridge Econometrics' (CE) forecasts indicated a more positive outlook for the Coventry & Warwickshire Economy overall – forecasting growth in 90,500 between 2011-31 compared to forecast growth of 62,600 by Experian. The distribution is shown below:

Figure 5:   Distribution of Employment Growth in Different Models
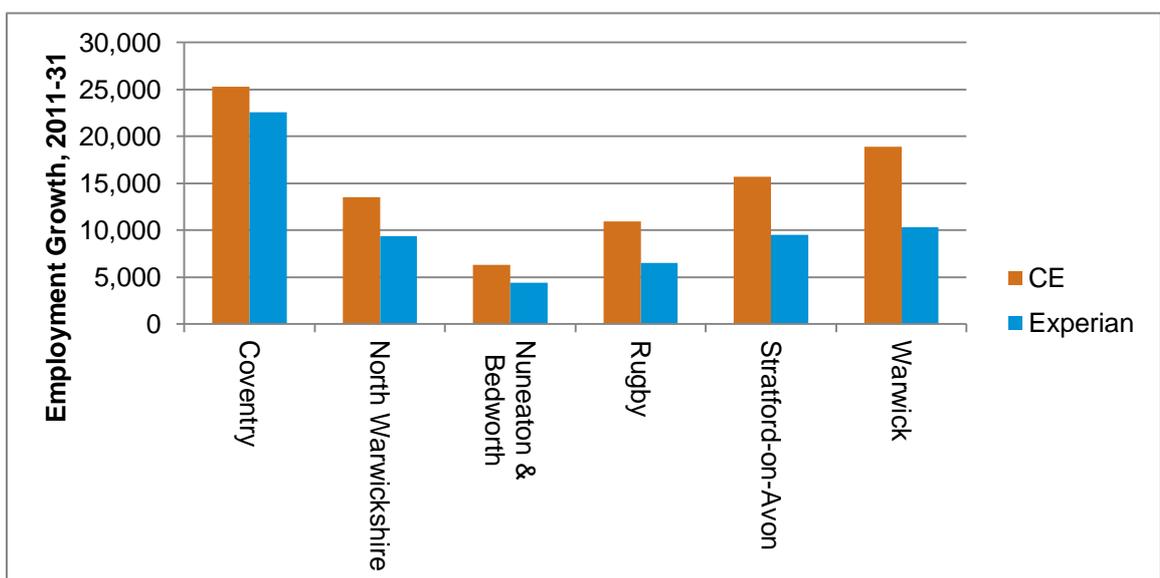
2.57   CE project stronger employment growth in all areas, but particularly in Stratford-on-Avon and Warwick Districts.

2.58   In relating jobs and homes, the Addendum again runs two scenarios for commuting (1:1 ratio and using a commuting ratio from the 2011 Census).

2.59   Using the labour supply scenarios, which take account of existing commuting patterns Table 4 shows the housing need arising. In each case the modelling is based on a "part return to trend" approach to modelling headship rates.

Table 4:   Housing Need for Economic-Led Projections, 2011-31

Homes per Annum	2012-based SNPP	Experian Labour Supply	Cambridge Econometrics Labour Supply
Coventry	1811	943	1,060
North Warwickshire	204	432	601
Nuneaton & Bedworth	422	442	513
Rugby	453	452	571
Stratford-on-Avon	508	764	976
Warwick	606	604	825
HMA	4,004	3,636	4,546

2.60   Dealing first with the findings at an HMA level, the Experian forecasts resulted in housing need which was 9.1% below that shown by the 2012-based SNPP; whilst the CE forecasts showed a housing need which was 13.5% above them. This serves in effect to provide a sensitivity analysis, showing that depending on future economic performance housing need could be either higher or lower. This was in effect a key conclusion of the SHMA Addendum.

2.61   A clear distribution issue also arises, which the Addendum did not really deal with. Figure 6 compares the distribution of housing need arising from the 2012-based SNPP, and the Experian and Cambridge econometric forecasts (based on the Addendum modelling work).

Figure 6:   Comparison of Distribution of Housing Need in HMA, 2011-31
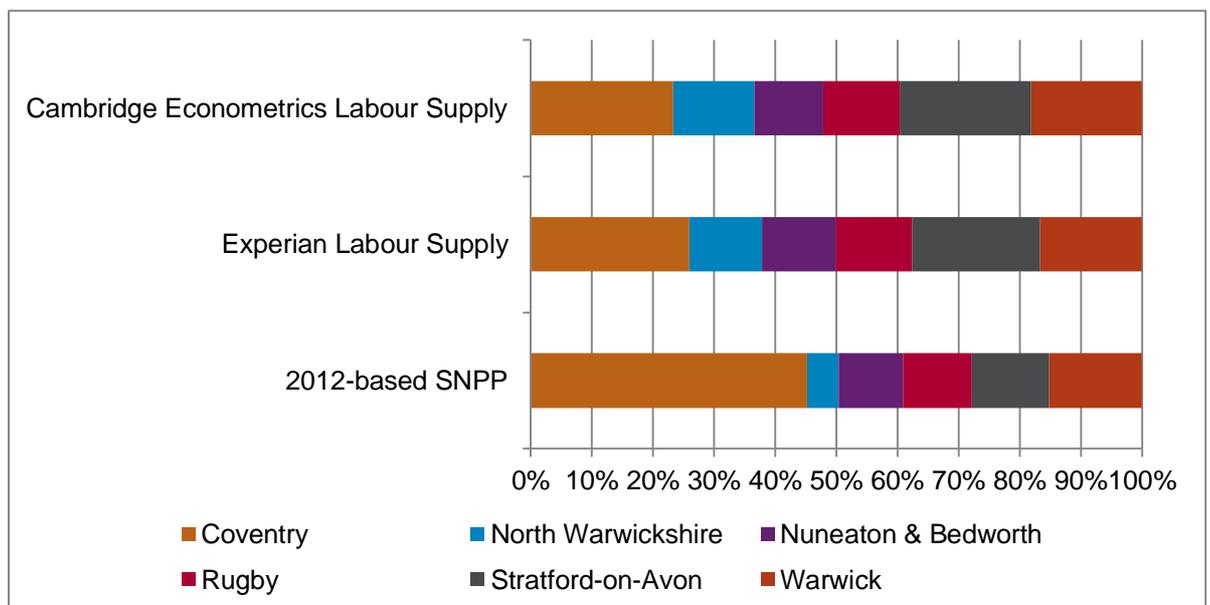
Source: GLH Analysis

2.62   As the SHMA Addendum report set out, the data raises a policy issue regarding to the 'strategy' which should be adopted for distribution of housing need and economic investment – whether

housing and economic investment should be focused towards Coventry (as the RSS did) or distributed more widely around the County. As Para 3.23 set out:

> *"The policy issue which it raises related to the balance between housing and economic growth in and around Coventry, either in regard to a need to focus economic investment in and around Coventry or in regard to ensuring that new employment sites / opportunities are accessible to Coventry residents (or to agree an alternative distribution of housing provision). There are potentially skills and transport-related components to this."*

2.63   The report also includes a clear caveat regarding the use of the economic forecasts – setting out that these are simply baseline forecasts and that these should be compared with forecast employment growth assumptions in other parts of each Council's evidence base. It sets out that a detailed interrogation of local economic dynamics, opportunities and risks, should inform planning assumptions regarding future employment growth and the implications of economic growth on housing need. The implication is that the **baseline forecasts should not be taken as a given** – but that each local authority should consider the alignment of its evidence and strategy for housing and employment (as Para 158 in the NPPF requires) in moving from "policy off" assessments to "policy on" targets for housing provision.

2.64   What the addendum did not do was draw conclusions on OAN at an individual local authority level, taking account of the economic forecasts and other factors. The Satnam Millennium Ltd vs. Warrington MBC legal judgement now suggests that this is necessary.

Market Signals and Affordability

2.65   Para 4.3 in the Addendum summarises the evidence from market signals in the SHMA report. Paras 4.4-4.5 consider further the affordable housing need.

2.66   There is clearly a complex interplay of factors which will influence future household formation. GL Hearn included in the Addendum a sensitivity analysis examining (and quantifying) the potential implications of returning household formation rates for those aged 25-34 to 2001 levels by 2031. The impacts of this were set out in Tables 14 and 15.

3 UPDATED TREND-BASED DEMOGRAPHIC PROJECTIONS

3.1 In this section consideration is given to demographic evidence of housing need. The analysis begins by considering the most recent (2012-based) population and household projections published by ONS/CLG. It then assesses key components within the projections – migration trends and household formation rates.

3.2 The core projections in this section look at housing needs in the period from 2011 to 2031 to be consistent with previous research carried out in the HMA and plan-making timeframes.

3.3 Data about the population size and structure is available up to mid-2014 and so within the projections developed, the data in the 2011-14 period is fixed to published data (from ONS) for the Coventry and Warwickshire local authorities. The Planning Practice Guidance specifically sets out that account should be taken of the most recent demographic evidence including the latest Office for National Statistics population estimates (ID2a-017).

3.4 This report takes account of the 2013 and 2014 ONS Mid-Year Population Estimates. This influences the figures shown for population growth and housing need shown for the HMA and for individual authorities, with for instance strong recent population growth (particularly in Coventry) translating into a higher housing need than shown in previous reports for the HMA.

Demographic profile of Coventry/Warwickshire

3.5 The population of Coventry/Warwickshire in 2014 is estimated to be 889,100, this is an increase of 80,100 people since 2001 – a 9.9% increase over the 13-year period. This level of population growth is above that seen across the West Midlands region (8.2%) and in-line with the average for England as a whole (9.8%). Over the period from 2001 to 2014, population growth was particularly strong in Rugby (17.1% increase) and notably weaker in North Warwickshire (1.1%).

3.6 We can also consider longer-term trends in population growth, with data being available back to 1981. Figure 7 shows that population growth in Coventry/Warwickshire was limited during the 1980s and 1990s. However, since about 2000 there has been a notable increase in the HMA's population. The trend in the HMA is broadly similar to that seen across the West Midlands, although growth over the past three years in the HMA in particular has been relatively stronger.

3.7 The analysis does show that the population growth rate in the HMA since 2000 has been broadly similar to that seen across England.

Figure 7:   Indexed Population Growth (1981-2014)
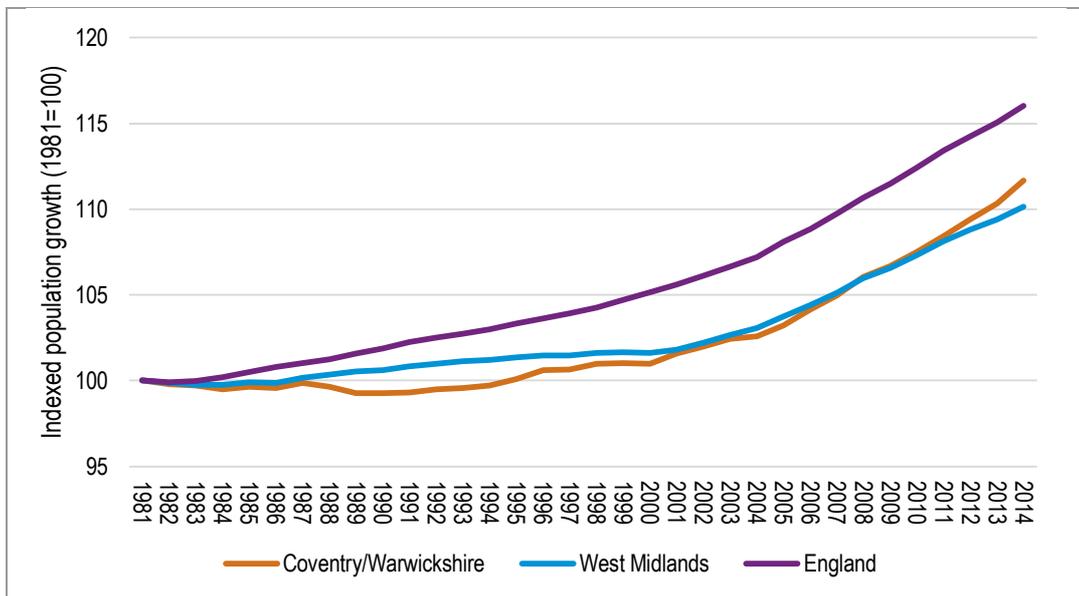
Source: ONS

3.8   Figure 8 below shows the same information for individual local authority areas. The data shows significant variations between population growth in different areas and over time. Some of the most notable trends include:

- Population decline in Coventry until about 2004 and a rapid increase thereafter;
- Strong population growth in both Stratford-on-Avon and Warwick up until the past 5- or 6-years, since which population growth has been fairly static;
- Fairly steady growth in Nuneaton & Bedworth throughout the period;
- Limited population growth in North Warwickshire; and
- Population decline in Rugby until about 2000 and strong growth thereafter.

3.9   The distribution of population growth within the HMA appears to have been influenced in part by past planning policies. The West Midlands Regional Spatial Strategy sought to focus growth towards Metropolitan Urban Areas, including Coventry. This together with the housing moratoria in place for parts of the last decade in Warwick and Stratford-on-Avon appear to have had some influence on the distribution of population growth within the HMA.

3.10   The strong recent growth in the HMA's population is evident, influenced in particular by strong recent population growth in Coventry.

Figure 8:   Indexed Population Growth (1981-2014) – by Local Authority
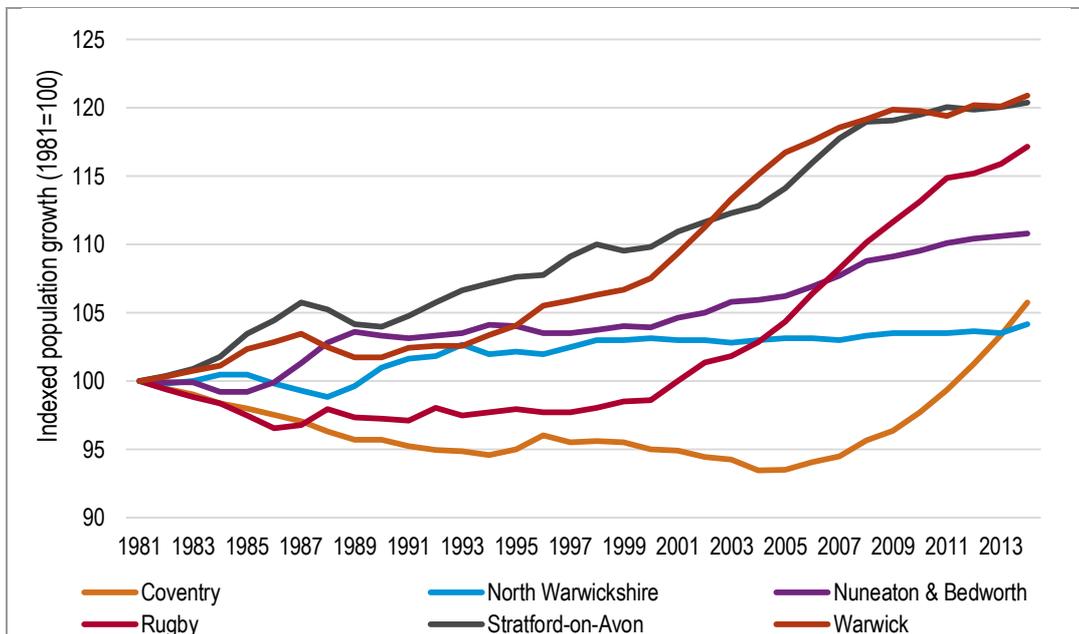
Source: ONS

3.11   Figure 9 and Table 5 consider the drivers of population change in the HMA. Population change is largely driven by natural change (births minus deaths) and migration. ONS's historical migration data also includes a small "other changes" category, which relates mainly to changes in armed forces and prison populations, and an "Unattributable Population Change" category (UPC). UPC could reflect either errors in the estimation of migration, or with the accuracy of Census data in either 2001 or 2011. We return to discuss UPC later in this section.

3.12   The figure shows that both natural change and net migration have been key drivers of population change in the HMA. The number of births has typically exceeded the number of deaths by around 2,360 per annum over the period from 2001. The level of natural change has generally been increasing over time although the more recent evidence suggests that this may now be levelling off. The data also shows that migration is a key component of change – particularly international migration. Over the period from 2001, net international migration has averaged 4,770 people per annum and internal migration (i.e. moves from one part of the Country to another) just 27 per annum on average. Net migration levels have been particularly strong since about 2005. Other changes are quite small, but the data shows a significant (and negative) level of UPC.

Figure 9: **Components of Population Change, mid-2001 to mid-2014 – Coventry/Warwickshire**
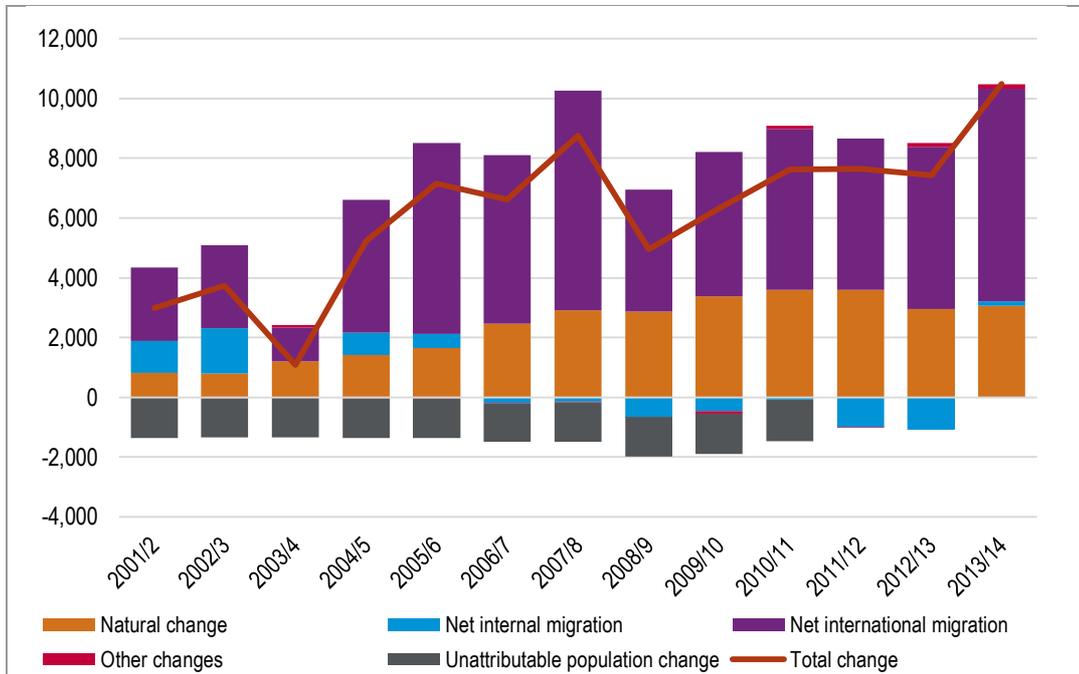
Source: ONS

Table 5: **Components of Population Change (2001-14) – Coventry/Warwickshire**

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	814	1,068	2,456	-24	-1,325	2,989
2002/3	796	1,526	2,760	-38	-1,309	3,735
2003/4	1,208	-7	1,127	83	-1,321	1,090
2004/5	1,418	745	4,435	-36	-1,334	5,228
2005/6	1,649	474	6,380	-30	-1,324	7,149
2006/7	2,473	-183	5,636	-27	-1,277	6,622
2007/8	2,914	-146	7,338	-10	-1,336	8,760
2008/9	2,859	-654	4,080	-11	-1,320	4,954
2009/10	3,373	-470	4,829	-79	-1,337	6,316
2010/11	3,600	-84	5,388	102	-1,377	7,629
2011/12	3,591	-998	5,058	-14	0	7,637
2012/13	2,962	-1,084	5,425	130	0	7,433
2013/14	3,052	169	7,109	153	0	10,483

Source: ONS

3.13 The tables below provide this information for individual local authorities. The key finding from these tables is about how UPC varies between the authorities. In particular, it can be seen to be significant (and negative) in Coventry. We return to consider this later in this section.

Figure 10: Components of Population Change (2001-14) – Coventry

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	707	-2,566	1,891	-23	-1,518	-1,509
2002/3	672	-1,899	2,105	-14	-1,494	-630
2003/4	847	-2,861	1,004	28	-1,509	-2,491
2004/5	910	-2,280	3,095	-13	-1,500	212
2005/6	1,153	-1,732	3,825	-19	-1,484	1,743
2006/7	1,388	-2,775	4,209	-25	-1,497	1,300
2007/8	1,735	-1,487	4,994	-4	-1,481	3,757
2008/9	1,691	-1,355	3,376	-16	-1,489	2,207
2009/10	2,079	-946	4,668	-33	-1,487	4,281
2010/11	2,252	-774	5,206	48	-1,491	5,241
2011/12	2,078	-992	5,116	15	0	6,217
2012/13	1,872	-596	5,359	43	0	6,678
2013/14	1,929	-264	5,953	0	0	7,618

Source: ONS

Figure 11: Components of Population Change (2001-14) – North Warwickshire

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	11	30	36	6	-46	37
2002/3	-50	5	12	-5	-38	-76
2003/4	-11	63	-12	8	-28	20
2004/5	26	142	10	-3	-50	125
2005/6	-9	-5	79	-2	-37	26
2006/7	22	-110	41	-2	-32	-81
2007/8	21	91	47	-2	-28	129
2008/9	83	134	-14	-3	-44	156
2009/10	50	-80	-4	-5	-19	-58
2010/11	66	-57	37	6	-29	23
2011/12	19	67	39	-14	0	111
2012/13	69	-172	23	4	0	-76
2013/14	32	223	78	11	0	344

Source: ONS

Figure 12: Components of Population Change (2001-14) – Nuneaton & Bedworth

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	135	143	-45	-2	155	386
2002/3	151	578	44	-17	160	916
2003/4	193	-165	-60	10	149	127
2004/5	274	-24	-15	-4	149	380
2005/6	170	215	203	-3	154	739
2006/7	456	238	29	-13	164	874
2007/8	460	385	241	-3	124	1,207
2008/9	388	-161	87	1	147	462
2009/10	499	-252	43	-1	140	429
2010/11	538	46	-19	-1	86	650
2011/12	512	-12	-76	-28	0	396
2012/13	416	-173	-83	38	0	198
2013/14	450	-303	2	22	0	171

Source: ONS

Figure 13: Components of Population Change (2001-14) – Rugby

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	12	787	100	23	211	1,133
2002/3	36	50	119	1	191	397
2003/4	77	499	163	-2	211	948
2004/5	122	654	348	-10	209	1,323
2005/6	140	486	873	14	217	1,730
2006/7	306	606	529	7	249	1,697
2007/8	346	386	722	-2	234	1,686
2008/9	336	206	401	20	265	1,228
2009/10	317	597	244	-15	230	1,373
2010/11	370	640	192	19	240	1,461
2011/12	473	-119	-89	-10	0	255
2012/13	322	138	151	11	0	622
2013/14	461	425	163	78	0	1,127

Source: ONS

Figure 14: Components of Population Change (2001-14) – Stratford-on-Avon

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	-140	1,040	-121	-4	-68	707
2002/3	-95	933	-23	4	-85	734
2003/4	-103	755	-99	28	-90	491
2004/5	-142	1,202	387	2	-109	1,340
2005/6	-101	1,140	972	-13	-113	1,885
2006/7	-74	1,337	622	7	-122	1,770
2007/8	17	546	778	4	-157	1,188
2008/9	-34	134	248	-8	-180	160
2009/10	-47	533	94	-8	-207	365
2010/11	-52	803	111	12	-241	633
2011/12	-26	-244	0	24	0	-246
2012/13	-79	316	-75	27	0	189
2013/14	-223	387	99	26	0	289

Source: ONS

Figure 15: Components of Population Change (2001-14) – Warwick

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	89	1,634	595	-24	-59	2,235
2002/3	82	1,859	503	-7	-43	2,394
2003/4	205	1,702	131	11	-54	1,995
2004/5	228	1,051	610	-8	-33	1,848
2005/6	296	370	428	-7	-61	1,026
2006/7	375	521	206	-1	-39	1,062
2007/8	335	-67	556	-3	-28	793
2008/9	395	388	-18	-5	-19	741
2009/10	475	-322	-216	-17	6	-74
2010/11	426	-742	-139	18	58	-379
2011/12	535	302	68	-1	0	904
2012/13	362	-597	50	7	0	-178
2013/14	403	-299	814	16	0	934

Source: ONS

3.14   The age profile of the population of the HMA is generally similar to that seen across the region and nationally. 23.3% of people are aged 60 and over. This compares with 23% regionally and 23% for the whole of England. The proportion of people aged Under 30 is 38%, consistent with 38% in the region and slightly above the 37% seen nationally.

3.15   For individual local authority areas there are some notable differences in the population age structure, with Stratford-on-Avon (and to a lesser extent North Warwickshire) having an older population and the opposite being true for Coventry. This has particular implications on the interaction between economic performance and housing need.

Figure 16: Population Age Profile (2014)
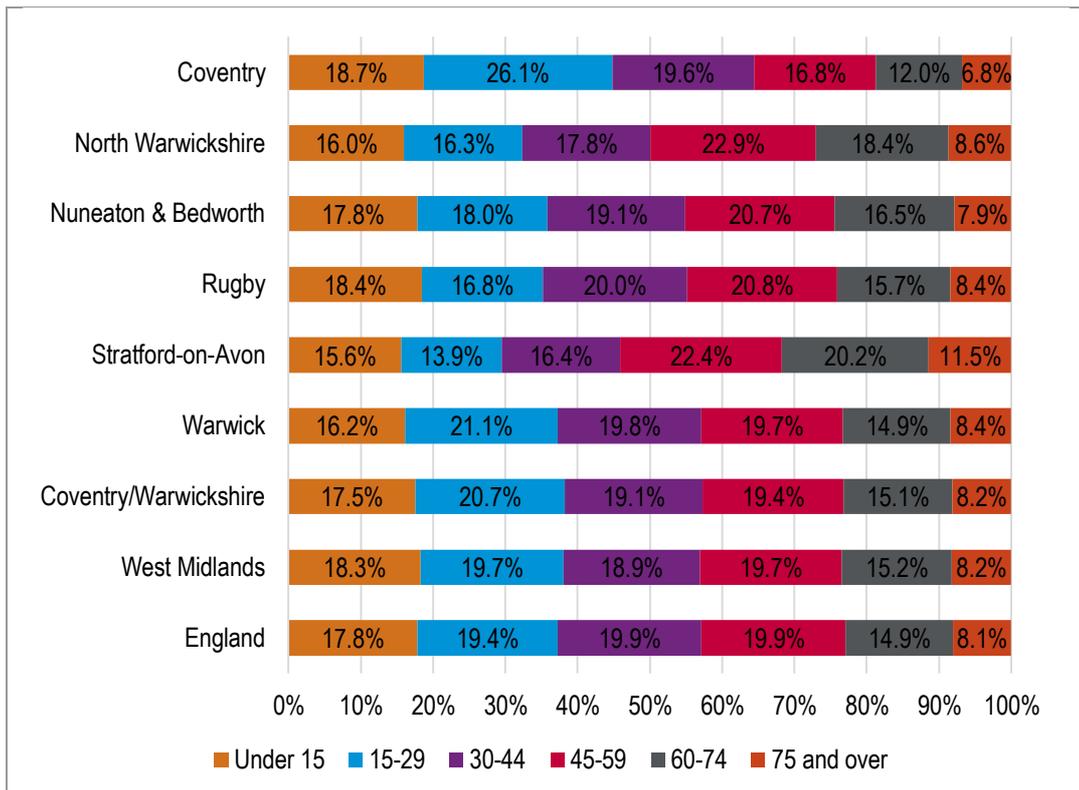
Source: ONS 2014 Mid-Year Population Estimates

3.16   Table 6 shows how the age structure of the population has changed over the 2001 to 2014 period. The data shows the most significant growth to have been in the 15-29 age group, although the 60-74 group shows the highest proportionate increase (as the post war "baby boomer" generation moves through the population structure). The analysis also indicates a small decline in the population aged 30-44 and a moderate increase in the number of children (population aged under 15). The analysis shows growth in the number of people aged 45-59 and 75 and over. A growing population in the oldest age groups is linked to improvements in life expectancy.

Table 6: Change in Age Structure 2001 to 2014 – Coventry/Warwickshire

Age group	2001	2014	Change	% change
Under 15	151,800	155,900	4,100	2.7%
15-29	154,100	184,400	30,300	19.7%
30-44	179,300	169,500	-9,800	-5.5%
45-59	155,600	172,900	17,300	11.1%
60-74	107,400	134,000	26,600	24.8%
75 and over	60,800	72,600	11,800	19.4%
Total	809,000	889,100	80,100	9.9%

Source: ONS Mid-Year Population Estimates (2001 and 2014)

3.17 The same analysis has been carried out for the individual local authorities and a range of comparator areas (in the table below). The data identifies that population profile changes in the HMA are fairly similar to that seen in the region and nationally. However, for individual local authorities a different picture emerges – the Warwickshire authorities have seen significant growth in the population aged 60 and over; whilst in Coventry the main population change has been in groups aged under 60.

Table 7: Change in Age Structure 2001 to 2014

	Under 15	15-29	30-44	45-59	60-74	75 and over	Total
Coventry	6.1%	29.2%	1.5%	13.2%	8.0%	2.7%	11.4%
North Warwks	-12.3%	1.0%	-21.8%	5.9%	35.3%	28.6%	1.1%
Nuneaton & Bedworth	-4.7%	8.6%	-10.7%	8.3%	32.5%	26.6%	5.9%
Rugby	14.5%	15.4%	3.0%	19.7%	36.4%	28.4%	17.1%
Stratford-on-Avon	-2.1%	7.0%	-18.1%	7.1%	40.8%	46.3%	8.5%
Warwick	4.7%	21.0%	-3.5%	10.5%	24.7%	15.8%	10.5%
Coventry/Warwickshire	2.7%	19.7%	-5.5%	11.1%	24.8%	19.4%	9.9%
West Midlands	2.1%	14.8%	-7.0%	11.4%	21.2%	20.2%	8.2%
England	4.2%	12.9%	-4.0%	16.0%	24.1%	17.5%	9.8%

Source: Mid-Year Population Estimates

2012-based Population and Household Projections

3.18 The PPG states that *'household projections published by the Department for Communities and Local* Government *should provide the starting point estimate of overall housing need. The household projections are produced by applying projected household representative rates to the population projections published by the Office for National Statistics. Projected household representative rates are based on trends observed in Census and Labour Force Survey data'.*

3.19 The most up-to-date projections are the 2012-based CLG Household Projections published in February 2015. These projections were underpinned by ONS (2012-based) Subnational Population

Projections (SNPP) – published in May 2014. Our analysis therefore initially considers the validity of the population projections and their consistency with past trends.

2012-based Sub-National Population Projections

3.20 The latest set of Sub-National Population Projections (SNPP) were published by ONS on the 29th May 2014. They replace the 2010- and 2011-based projections. Subnational population projections provide estimates of the future population of local authorities, assuming a continuation of recent local trends in fertility, mortality and migration which are constrained to the assumptions made for the 2012-based national population projections. The new SNPP are largely based on trends in the 2007-12 period (2006-12 for international migration trends). The SNPP are only population projections and do not contain headship rates (which are needed to convert into household estimates).

3.21 The SNPP are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour. The primary purpose of the subnational projections is to provide an estimate of the future size and age structure of the population of local authorities in England. These are used as a common framework for informing local-level policy and planning in a number of different fields as they are produced in a consistent way.

Overall Population Growth

3.22 Table 8 below shows projected population growth from 2011 to 2031 in each local authority in the HMA and other areas. The data shows that the population of the HMA is expected to grow by around 149,200 people. This is a 17.3% increase – substantially above that expected across the West Midlands (10.7%) and also some way above the figure for England as a whole (13.8%). Population growth is expected to be particularly strong in Coventry and weaker in North Warwickshire. The stronger relative population growth moving forwards is particularly a reflection of projected strong population growth in Coventry.

3.23 It should be noted that due to inclusion within the modelling of mid-2014 population estimates for Coventry/Warwickshire (and the individual local authorities) the figures for the HMA and constituent authorities do not exactly match those in the published SNPP (and in some instances in other published reports). The core projections herein for Coventry and Warwickshire authorities have been rebased to take account of population change between 2012-14 based on the ONS Mid-Year Population Estimates. Population is projected from 2014 onwards.

3.24 Figures for comparator areas are however taken directly from the SNPP. The impact of this, when projecting over 15+ years should not be significant.

Table 8:   Projected Population Growth (2011-2031)

	Population 2011	Population 2031	Change in population	% change
Coventry	316,915	405,972	89,057	28.1%
North Warwickshire	62,089	66,017	3,928	6.3%
Nuneaton & Bedworth	125,409	137,929	12,520	10.0%
Rugby	100,496	116,336	15,840	15.8%
Stratford-on-Avon	120,824	131,315	10,491	8.7%
Warwick	137,736	155,082	17,346	12.6%
Coventry/Warwickshire	863,469	1,012,652	149,183	17.3%
West Midlands	5,608,700	6,210,300	601,600	10.7%
England	53,107,200	60,418,800	7,311,600	13.8%

Source: ONS

3.25   Figure 17 shows past and projected population growth in the period 2001 to 2031. The data also plots a linear trend line for the last five years for which data is available (2009-14) and also a longer-term period from 2001 to 2014 – this being the longest period for which reasonable data about the components of population change (e.g. migration) is available.

3.26   The data shows that the population is expected to grow at a rate which is slightly above long-term past trends, but at a level which is very similar to that seen over the past five years. ONS typically consider short-term trends when developing the SNPP (looking at the last 5-years for internal migration and the last 6-years for international migration) and this is thus understandable. The analysis also suggests at the HMA level that the large UPC component is not unduly influencing the forward projections.

**Figure 17: Past and Projected Population Growth – Coventry/Warwickshire**
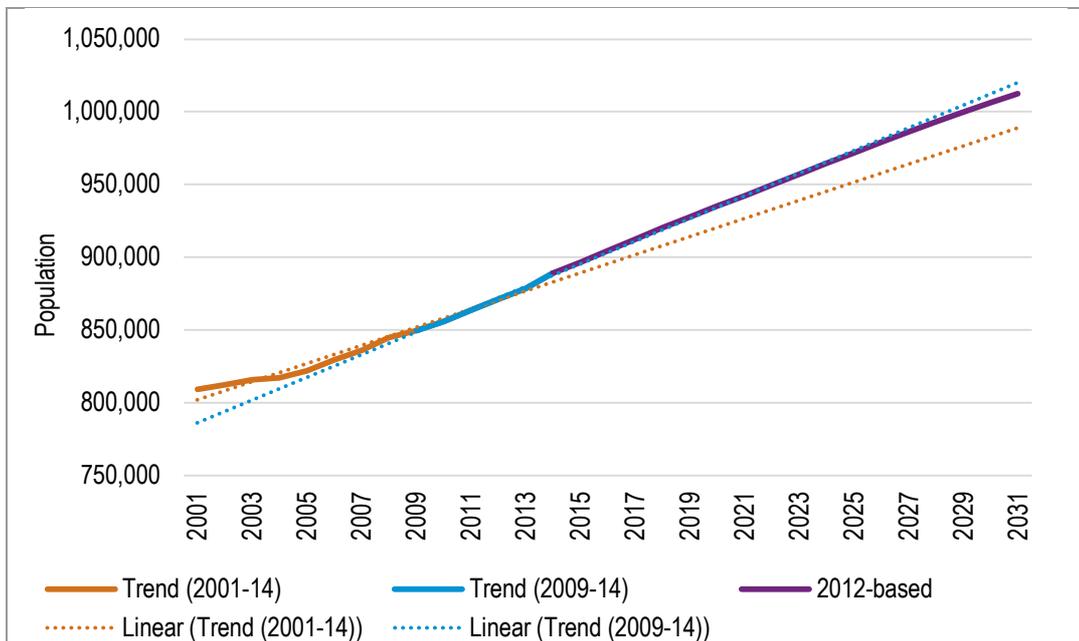
Source: ONS

3.27   Figure 18 shows the same data for individual local authorities. In Coventry the data suggests that future growth is expected to sit somewhere between short- and long-term past trends; this is also the case in Stratford-on-Avon. North Warwickshire (and to a lesser extent Nuneaton & Bedworth) shows projected population growth at a level that is some way above past trends, although it does need to be borne in mind that past population growth in these areas has been very modest (as Figure 8 indicated). In Rugby, the analysis shows future population growth to be in line with recent trends, whereas in Warwick, population growth is expected to be some way above short-term trends (where population growth has been relatively modest), but in-line with longer-term rates of population growth.

3.28   At the HMA level, we would conclude that the SNPP is a reasonable projection to take forward into household growth modelling. For individual local authorities there are some differences between the future projection and past trends, although overall it is not considered that these undermine the validity of the SNPP.

3.29   GL Hearn has considered the components of population change in Coventry, including migration trends (international and domestic). We have examined whether the evidence points to any issues related to recording of student moves and/or international out-migration. Whilst it is difficult to be definitive, and important to recognise that projecting population trends in Coventry is likely to be subject to a higher error margin than in other areas, we find no conclusive evidence which would warrant making adjustments to the demographic projections.

3.29.1   Future population growth in Coventry in the SNPP does not look to be unreasonable when compared with past trends (sitting as it does, somewhere between short- and longer-term trends); although there are factors in the demographic data which could point to both higher or lower variant projections.

**Figure 18: Past and Projected Population Growth – by Local Authority**
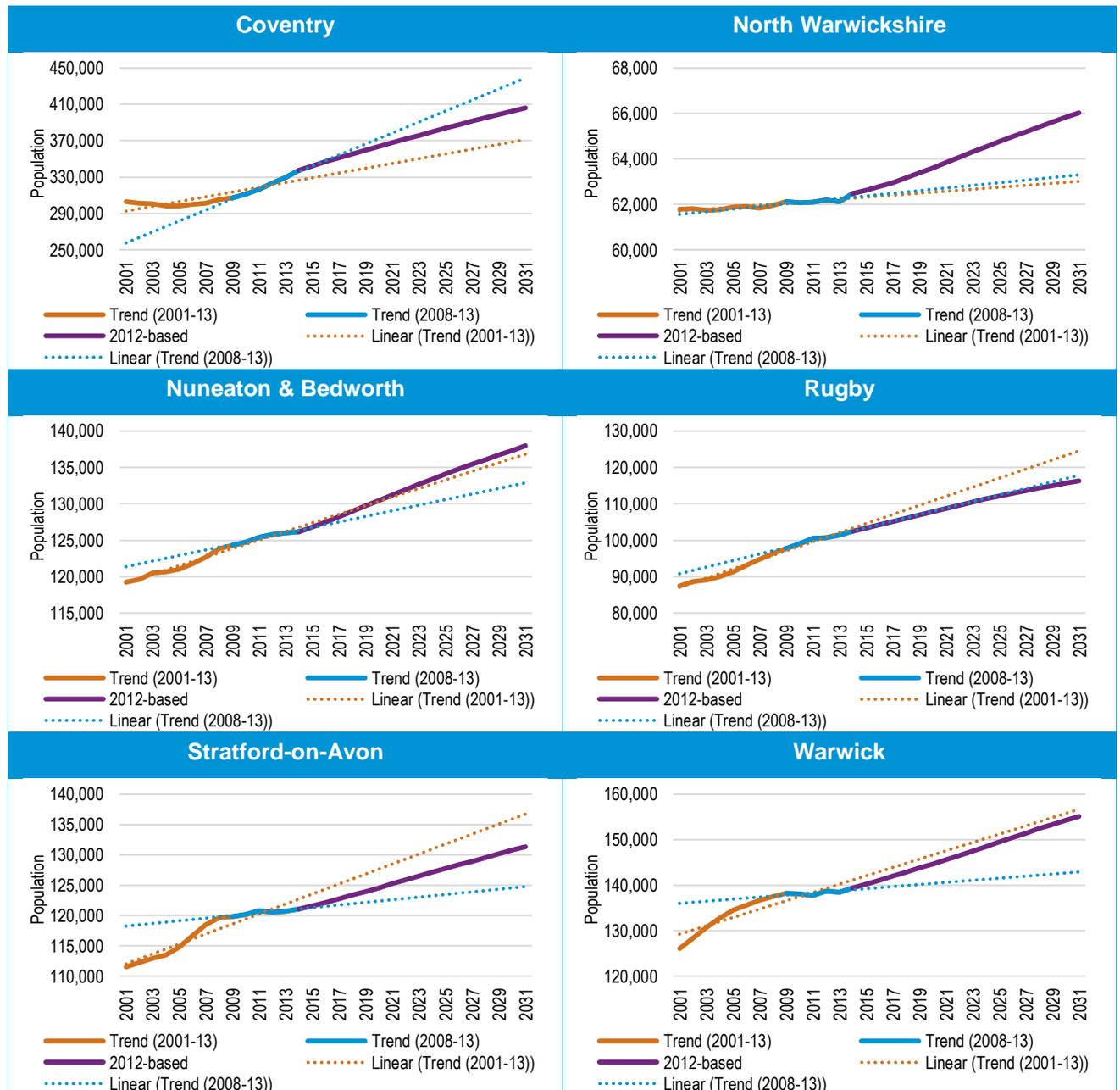
Source: ONS

Components of Population Change

3.30   Figure 19 below brings together data about migration (both past trends and the future projection) along with information about natural change. This shows that natural change is expected to decrease over time from about 4,000 more births than deaths at the start of the projection down to around 3,300 by 2031. This is driven by expected changes in age structure.

3.31   Expected levels of migration also show a slight reduction over time (reducing from a typical value of about 3,700 at the start of the projection down to 3,200 by 2031). This is a reflection of the impacts of expected changes in the age structure of the population.

3.32   For the whole of the projection period (2014-31) the average level of migration is expected to be around 3,400 people (net) per annum – this figure is lower than the level seen in past trends, regardless of the period studied (4,800 per annum on average from 2001 to 2014 and 5,100 per annum for the past five years). These figures should however be considered in the context of the UPC which average about 1,300 for the years in which this data is available; and on that basis the projected levels do not look to be unreasonable.

Figure 19: Components of Population Change, mid-2001 to mid-2031 – Coventry/Warwickshire
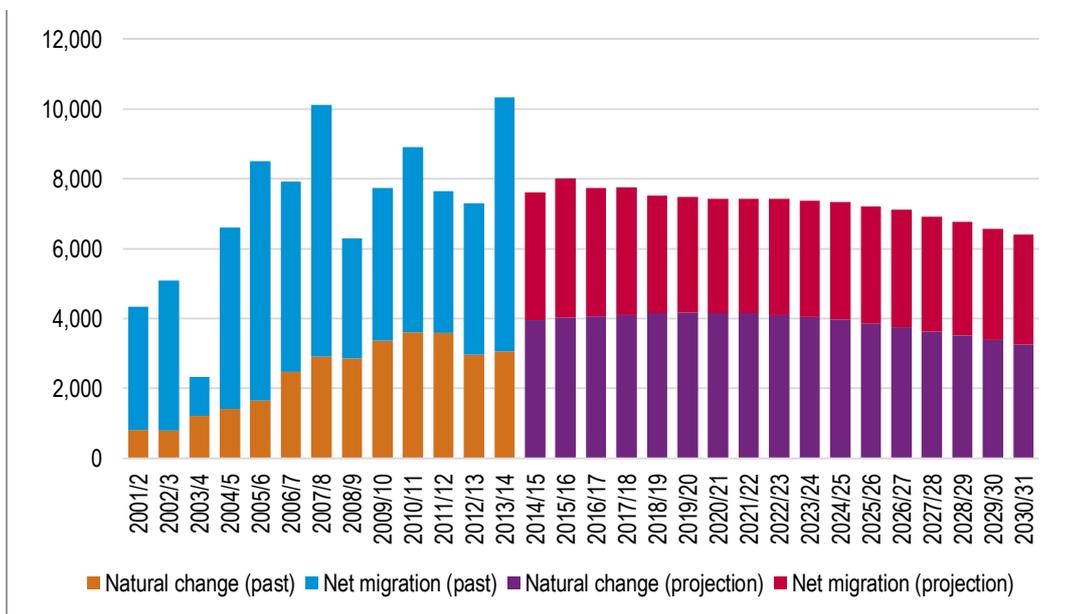
Source: ONS

Sensitivity Analysis

3.33   We have sought to undertake a sensitivity analysis to test the robustness of the SNPP as a trend-based projection for population growth, and to understand the potential error margins associated with it.

3.34   Population projections are built up from estimates of births, deaths and in- and out-migration. The recording of births and deaths is generally relatively good; the quality of data on migration flows generally less strong and therefore estimates of migration flows are likely to have larger error margins than other components of demographic projections. Migration flows can also fluctuate notably year-on-year, and therefore it is the most difficult element to predict. Population projections thus tend to be particularly sensitive to migration assumptions.

3.35   The PPG recommends that the 2012-based SNPP and Household Projections are used as a starting point for considering housing need. It sets out that they are statistically robust and based on nationally consistent assumptions.

3.36   To test the sensitivity of these projections to the demographic inputs, particularly on migration, we have sought to consider alternative ways of projecting migration, considering longer-term migration trends (using the ONS migration estimates); to explore the extent to which migration levels could have been under- or over-estimated; and by examining what the latest migration estimates (post 2012) suggest about recent trends.

3.37   A number of alternative projections have therefore been developed to provide a sensitivity analysis to the 2012-based SNPP. These explore the following:

- A. Implications of 2013 and 2014 Mid-Year Population Estimates;
- B. Implications of Unattributable Population Change (UPC);
- C. 10-year Migration Trends (Constant); and
- D. 10-year migration trends (Variable).

3.38   The analysis which follows explains what each of these scenarios examines, and the modelling approach.

Implications of 2013 and 2014 Mid-Year Population Data

3.39   In modelling future population growth, the 2012-based SNPP projects migration flows based on trends for internal migration over the preceding 5 years; and international migration over the preceding 6 years

3.40   Since the publication of the 2012-based SNPP, two further sets of Mid-Year Estimates have been issued by ONS – for 2013 and 2014. In seeking to understand how population projections might change as a result of more recent ONS data (exploring for instance what ONS 2014-based SNPP might show), it is important to understand how the projections work. The SNPP is not a simple roll forward of past migration numbers but also takes account of the age structure and how this will change over time – this has an impact on estimated future migration (which can go up as well as down). Additionally, international migration is linked back to the ONS national projections which use

a longer-term time series for analysis (believed to date back to 1994). It also needs to be noted that when looking at past trends at a local level, ONS conventionally uses data from the past five years for internal/domestic migration and a period of six years when considering international migration trends.

3.41 The tables below therefore shows average levels of migration in the periods which fed into the 2012-based SNPP and also those that are expected to feed into the 2014-based SNPP. The analysis considers the difference between these periods to determine if the next set of SNPP are likely to project a higher or lower level of population growth. The analysis in this projection looks at internal and international migration separately.

3.42 The data shows in Coventry that there has been an increase in migration (both internal and international); with all other areas seeing a reduction (once both internal and international migration are combined). However across the whole HMA, the data shows a modest reduction in net migration; a decrease of 23 internal migration and 94 for international migration when comparing the trend periods feeding into the 2012-based SNPP with the period that will feed into the next (2014-based) SNPP.

Table 9: Past Trends in Internal and International Migration – data feeding into Sub-National Population Projections – Coventry, North Warwickshire and Nuneaton & Bedworth

	Coventry		North Warwickshire		Nuneaton & Bedworth	
	Internal net migration	Inter-national net migration	Internal net migration	Inter-national net migration	Internal net migration	Inter-national net migration
2006/7		4,209		41		29
2007/8	-1,487	4,994	91	47	385	241
2008/9	-1,355	3,376	134	-14	-161	87
2009/10	-946	4,668	-80	-4	-252	43
2010/11	-774	5,206	-57	37	46	-19
2011/12	-992	5,116	67	39	-12	-76
2012/13	-596	5,359	-172	23	-173	-83
2013/14	-264	5,953	223	78	-303	2
2012-SNPP	-1,111	4,561	31	17	1	88
2014-SNPP	-714	4,946	-4	27	-139	-8
Difference	396	385	-35	10	-140	-96

Source: ONS

Table 10: **Past trends in internal and international migration – data feeding into subnational population projections – Rugby, Stratford-on-Avon and Warwick**

	Rugby		Stratford-on-Avon		Warwick	
	Internal net migration	Inter-national net migration	Internal net migration	Inter-national net migration	Internal net migration	Inter-national net migration
2006/7		529		622		206
2007/8	386	722	546	778	-67	556
2008/9	206	401	134	248	388	-18
2009/10	597	244	533	94	-322	-216
2010/11	640	192	803	111	-742	-139
2011/12	-119	-89	-244	0	302	68
2012/13	138	151	316	-75	-597	50
2013/14	425	163	387	99	-299	814
2012-SNPP	342	390	354	308	-88	46
2014-SNPP	336	177	359	80	-332	93
Difference	-6	-213	5	-228	-243	47

Source: ONS

3.43   In this sensitivity analysis (Sensitivity A), the levels of migration underpinning the 2012-based SNPP have been adjusted to reflect the difference between figures for the different periods shown in the tables above. For example, in Coventry, the modelling assumes a level of internal migration that is 396 people higher for each year of the projection post-2014.

3.44   What this sensitivity analysis shows is a rate of population growth which is very modestly above that in the 2012-based SNPP driven by strong recent growth in population in Coventry; but with lower growth expected (relative to the 2012-based SNPP) in each of the Warwickshire authorities.

Implications of Unattributable Population Change

3.45   ONS estimates changes in population in different local authorities on a year-by-year basis. Following the release of data from the 2011 Census, ONS revisited its estimates for the component of population change over the 2001-11 period (the Inter-Censal period).

3.46   Part of the growth in population which was recorded over this period has been ascribed to 'Unattributable Population Change.' ONS is not clear what component of population data this can be ascribed to. At a national level this represents 103,700 persons across England. ONS consider that this is likely to reflect a combination of errors in the following:

- Sampling variability;
- International migration estimates;
- Census population estimates, both in 2001 and 2011; and/or
- Internal migration estimates (at a sub-national level).

3.47   As noted earlier there is only a modest level of Unattributable Population Change (UPC) in the ONS data for 2001-11 in the Coventry/Warwickshire HMA as a whole. In this instance UPC is negative, this suggests that the components of change feeding into the SNPP may have over-estimate migration and population growth, or there was an error in the Census data.

3.48   The Planning Advisory Service's Report on *Objectively Assessed Needs and Housing Targets* suggests that one of the most likely explanations of UPC is that it relates to under- or over-estimation of migration, and particularly international migration, recognising that this is the most difficult component of demographic change to accurately quantify based on current data.

3.49   We have sought to interrogate the data to explore this issue. In Coventry the 2011 Census showed a population which was lower than previous ONS estimates, and thus UPC is negative. The potential reasons for this include that the 2001 population was under-estimated; the 2011 was over-estimated (which would seem the least likely); or net migration has been over-estimated.

3.50   Although the scale of UPC is modest when considered at an HMA level, it has a greater impact when considered for individual local authorities, particularly in Coventry. This sensitivity analysis considers the potential impact of UPC on the projections. It assumes that UPC can be attributed in full to the recording of migration, and adjusts migration projections to reflect this. An adjustment is made to the overall migration assumptions for each year from 2014. As an example, in Coventry, this means assuming a level of net migration which is 1,495 people per annum lower than suggested in the SNPP. Adjustments for other areas are more modest.

3.51   The sensitivity analysis considers the impacts on population growth if all of the UPC was associated with the recording of migration. This could be regarded as testing the greatest potential impact of this issue. It shows a notably lower level of population growth (relative to the 2012-based SNPP) in Coventry; and lower figures in North Warwickshire, Stratford-on-Avon, and Warwick; with higher projected population growth (relative to the SNPP) in Nuneaton and Bedworth and Rugby.

3.52   For strategic planning purposes, the issue to be considered it whether it would be technically robust to adjust future projections to take account of UPC.

3.53   As we set out in the SHMA Addendum 2014, ONS has considered the issues as to whether it should adjust the 2012-based SNPP for Unattributable Population Change. Its *Report on Unattributable Population Change (ONS, Jan 2014)* concluded that it would not be appropriate to do so, on the basis that the scale of the issue was not that substantial and that there was no evidence that there was bias in the trend data which would be expected to continue into the future. In particular ONS concluded that UPC is unlikely to be seen in continuing national trends as:

- It is unclear what proportion of the UPC is due to sampling error in the 2001 Census, adjustments made to Mid-Year Population Estimates (MYEs) post the 2001 Census, sampling error in the 2011 Census and or error in the intercensal components (mainly migration);
- If it is due to either the 2001 Census or 2011 Census then the components of population change will be unaffected;
- If it is due to international migration, it is likely that the biggest impacts will be seen earlier in the decade and will have less of an impact in the latter years, because of improvements introduced to migration estimates in the majority of these years.

3.54 Adjusting projections for UPC would have a downward impact on projected population growth and housing need for some authorities within the HMA; but upwards in others. The greatest impact is on projections for Coventry.

3.55 Whilst this is a useful sensitivity analysis to undertake (it is one suggested in the PAS Technical Advice Note) we do not consider it, on its own, to be a robust alternative to the SNPP. The main reasons for this are that it is unclear if UPC is related to migration and more importantly, due to changes in the methods used by ONS to measure migration it is most probable that any errors are focussed on earlier periods (notably 2001-6) and therefore a UPC adjustment for more recent data would not be appropriate. It is also noteworthy that the 2012-based SNPP is based on data from 2006/7 onwards. When taken as a whole (for the HMA), the SNPP shows a level of population growth which is consistent with short-term past trends, suggesting that UPC is not having a significant impact on the projections moving forward.

3.56 What the analysis however serves to show is that trend-based demographic projections in the 2012-based SNPP are subject to a greater potential error margin in Coventry in particular (followed by Rugby Borough).

10-year Migration Trends

3.57 A common alternative scenario for population projections is to consider longer-term, 10 year, migration trends; as opposed to the 5/6 year period used in projecting migration used in the SNPP.

3.58 Two projections have been developed linked to long-term (10-year) migration trends. However, knowing what levels of migration were in the past does not directly tells us what might happen in the future. This is because population projections are 'dynamic' and levels of migration can vary year-on-year as the population age structure changes (for example, if an area sees much of its growth in age bands where out-migration is typically high, then we might expect out-migration to increase at a faster rate than in-migration (and hence see a reduction in overall net migration)). The first projection developed (Sensitivity C) therefore simply models the levels of migration seen over the past decade (based on annual average migration flows, projected forwards); whilst the second projection (Sensitivity D) considers the relationship between past and projected migration in the

2012-based SNPP and models migration depending on the extent to which 10-year trends vary from the period feeding into the SNPP (which is the 5/6 years up to 2012). Brief descriptions are provided below:

- 10-year Migration Trends (Constant) – based on the average level of net migration to each local authority over the past 10 years (2004-14). Analysed separately for internal and international migration and held constant over the period from 2014 onwards (note that data is fixed to 2014 by reference to mid-year population estimate data)
- 10-year Migration Trends (Variable) – again based on migration trends over the past 10 years (2004-14). The difference in this projection is that migration varies over time in line with changes expected in the SNPP. Essentially the projection looks at the difference between migration over the past 10 years and the level that fed into the SNPP and models this difference for each year of the projection.

3.59   At the HMA level, these sensitivities show a stronger relative level of population growth. The 10 year constraint migration in particular shows notably stronger population growth in Coventry; and stronger growth in Rugby and Stratford-on-Avon relative to the SNPP; with lower population growth in other areas. The variable 10 year projection, which takes account of how migration flows might change in the future over time, shows lower overall population growth (18.2% compared to 17.3% across the HMA in the 2012-based SNPP), with stronger growth shown in North Warwickshire, Rugby, Stratford-on-Avon and Warwick relative to the SNPP.

Sensitivity Analysis Outputs

3.60   Table 11 below shows the estimated level of population growth in the SNPP and the alternative projections developed. At an HMA level, the sensitivity analysis shows that population growth could vary from 14.0% (if UPC was attributed in full to recording of migration) to 22.1% (based on a linear projection of 10 year population trends). The 2012-based SNPP sits within the middle of this range, showing population growth of 17.3%. The evidence suggests that the next SNPP might show modestly lower overall population growth than this at an HMA level (16.8%), albeit that it is difficult to precisely predict this. The analysis tends to support the robustness of the SNPP Projection, but illustrates the potential error margin associated with this.

Table 11:   Projected Population Growth (2011-2031) – Sensitivity Analysis, HMA

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	863,469	1,012,652	149,183	17.3%
2014 updated	863,469	1,008,863	145,394	16.8%
UPC adjustment	863,469	984,135	120,666	14.0%
10-year migration (constant)	863,469	1,054,247	190,778	22.1%
10-year migration (variable)	863,469	1,020,527	157,058	18.2%

Source: Demographic Projections

3.61   The projections have been run for each of the six local authorities (shown in the tables below).

3.62   The data shows in Coventry that the most recent migration data would suggest a higher population growth figure whilst a UPC adjustment is somewhat lower. In all other areas the more recent migration data suggests lower population growth; with the UPC adjustment showing a mixed pattern (figures are higher in Nuneaton & Bedworth and Rugby but lower in the other local authorities). The projections linked to 10-year migration trends also show a variable pattern, although it is notable in Stratford-on-Avon that both projections are higher than any of the other alternatives developed (and higher than the SNPP) – this is the only area where this is the case.

Figure 20: Projected Population Growth (2011-2031) – Sensitivity Analysis, Coventry

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	316,915	405,972	89,057	28.1%
2014 updated	316,915	422,713	105,798	33.4%
UPC adjustment	316,915	374,045	57,130	18.0%
10-year migration (constant)	316,915	453,632	136,717	43.1%
10-year migration (variable)	316,915	401,928	85,013	26.8%

Source: Demographic projections

Figure 21: Projected Population Growth (2011-2031) – Sensitivity Analysis, North Warwickshire

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	62,089	66,017	3,928	6.3%
2014 updated	62,089	65,546	3,457	5.6%
UPC adjustment	62,089	65,340	3,251	5.2%
10-year migration (constant)	62,089	62,473	384	0.6%
10-year migration (variable)	62,089	66,209	4,120	6.6%

Source: Demographic projections

Figure 22: Projected Population Growth (2011-2031) – Sensitivity Analysis, Nuneaton & Bedworth

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	125,409	137,929	12,520	10.0%
2014 updated	125,409	133,232	7,823	6.2%
UPC adjustment	125,409	140,756	15,347	12.2%
10-year migration (constant)	125,409	132,518	7,109	5.7%
10-year migration (variable)	125,409	136,881	11,472	9.1%

Source: Demographic projections

Figure 23: Projected Population Growth (2011-2031) – Sensitivity Analysis, Rugby

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	100,496	116,336	15,840	15.8%
2014 updated	100,496	109,495	8,999	9.0%
UPC adjustment	100,496	120,821	20,325	20.2%
10-year migration (constant)	100,496	120,920	20,424	20.3%
10-year migration (variable)	100,496	116,802	16,306	16.2%

Source: Demographic projections

Figure 24: Projected Population Growth (2011-2031) – Sensitivity Analysis, Stratford-on-Avon

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	120,824	131,315	10,491	8.7%
2014 updated	120,824	126,786	5,962	4.9%
UPC adjustment	120,824	128,646	7,822	6.5%
10-year migration (constant)	120,824	132,657	11,833	9.8%
10-year migration (variable)	120,824	136,688	15,864	13.1%

Source: Demographic projections

Figure 25: Projected Population Growth (2011-2031) – Sensitivity Analysis, Warwick

	Population 2011	Population 2031	Change in population	% change
2012-based SNPP	137,736	155,082	17,346	12.6%
2014 updated	137,736	151,092	13,356	9.7%
UPC adjustment	137,736	154,527	16,791	12.2%
10-year migration (constant)	137,736	152,047	14,311	10.4%
10-year migration (variable)	137,736	162,019	24,283	17.6%

Source: Demographic projections

3.63   Whilst the analysis and alternative projections shown above provides a useful sensitivity test to the SNPP, it is not considered that any of the alternatives should be thought of as preferable to the 2012-based SNPP.

3.64   With regard to updated migration information (Sensitivity B), whilst the data shows how figures have changed it is not possible to say with full confidence how this will be translated into the next SNPP (2014-based). The SNPP is not just based on overall migration levels and also takes account of the age structure of migration and how this changes over time. Additionally, the SNPP is constrained to national population projections and therefore assumptions about international migration at a national level can influence the assumptions at a local area level.

3.65   With the UPC adjustment, whilst the level of UPC is clearly significant, it does not appear to be strongly impacting on the future projections, with levels of population growth being broadly in-line with recent trends. Furthermore, as described above, it is not clear that UPC can be attributed in full to migration as opposed to other factors such as the accuracy of 2001 Census data; and there is no robust way to unattributed parts of the UPC. It is unattributable.

3.66   The projections linked to long-term migration trends are also not thought to be a reasonable alternative to the SNPP. In the case of the 10-year migration (constant) projection, it is clear that the analysis does not take account of the impact of a changing population structure (as the SNPP does) and is therefore unreliable. The variable projection looks to be more reasonable at an HMA level; although some outputs for particular areas do not look robust (this is particularly the case in Warwick where the projected levels of migration are significantly above those seen in the past (either over the previous 5- or 10-years)). It is clear that there are factors in the past which have influence population growth in different time periods in different local authorities, but the impact of this appears to have been greater on the distribution of growth across the HMA than the overall level.

3.67   Overall, it is considered that the 2012-based SNPP remains a sound demographic projection for the testing of population growth (and ultimately housing need) and it is noteworthy that the various sensitivity scenarios do broadly confirm the levels of population growth shown by the SNPP as a reasonable trend-based projection (when considered together and across the whole HMA).

Age Structure Changes

3.68   With growth in the population will also come age structure changes. Table 12 below summarises the findings for key (15-year) age groups under the 2012-based SNPP (as updated to take account of 2013/14 mid-year population data). The data shows that largest growth will be in people aged 60 and over; it is estimated that there will be 281,400 people aged 60 and over in 2031 – this is an increase of 83,500 from 2011, representing growth of 42%. The population aged 75 and over is

projected to increase by an even greater proportion, 72%, driven by improving life expectancy. Looking at the other end of the age spectrum the data shows that there are projected to be around 18% more people aged under 15, along with more modest increases in the population aged between 15 and 59.

Table 12: Population Change 2011 to 2031 by Fifteen Year Age Bands (2012-based SNPP (as updated) – Coventry/Warwickshire

Age group	Population 2011	Population 2031	Change in population	% change
Under 15	150,728	177,995	27,267	18.1%
15-29	176,808	191,100	14,292	8.1%
30-44	172,089	193,516	21,427	12.5%
45-59	165,873	168,610	2,737	1.6%
60-74	129,787	164,040	34,253	26.4%
75+	68,184	117,390	49,206	72.2%
Total	863,469	1,012,652	149,183	17.3%

3.69   The same analysis has been carried out for the individual local authorities and a range of comparator areas (in the table below). The data identifies that projected population profile change in the HMA is in-line with that expected nationally and regionally – albeit that due to the higher level of population growth overall, the data tends to show higher age specific changes. For individual local authorities the data shows an ageing of the population in all areas; Coventry however also sees significant increases in the younger population – such a trend is not apparent in any of the other local authorities.

Figure 26: Population change 2011 to 2031 by fifteen year age bands (2012-based SNPP (as updated))

	Under 15	15-29	30-44	45-59	60-74	75 and over	Total
Coventry	34.7%	21.8%	32.0%	17.4%	28.1%	47.8%	28.1%
North Warwickshire	0.6%	-5.8%	-5.2%	-13.9%	23.7%	88.5%	6.3%
Nuneaton & Bedworth	8.9%	-3.4%	1.9%	-7.7%	23.7%	87.7%	10.0%
Rugby	13.2%	-0.2%	0.9%	4.9%	35.2%	85.3%	15.8%
Stratford-on-Avon	-0.1%	-7.8%	-7.7%	-13.8%	22.7%	95.2%	8.7%
Warwick	11.0%	-0.4%	9.4%	-0.1%	24.7%	65.9%	12.6%
Coventry/Warwickshire	18.1%	8.1%	12.5%	1.6%	26.4%	72.2%	17.3%
West Midlands	7.9%	1.3%	3.4%	-3.4%	24.7%	67.1%	10.7%
England	11.0%	2.3%	4.9%	1.9%	31.4%	69.2%	13.8%

Source: JGC Demographic Projections

Household Growth

3.70   Having studied the population size and the age/sex profile of the population, the next step in the process is to convert this information into estimates of the number of households in the area. To do this the concept of headship rates is used. Headship rates can be described in their most simple terms as the number of people who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)).

3.71   With the publication of new 2012-based CLG Household Projections a new set of headship rates is now available. These rates are considered to be more positive than the previous set (2011-based) and typically suggest higher rates of household growth for a given population. The current projected headship rates are based on initial analysis of 2011 Census data. A further set of headship rates may be released by Government later in 2015. Further details are set out in the 2012-based Household Projections; Methodology Report (CLG, Feb 2015). The information herein used is however the best currently available.

3.72   Table 13 shows expected household growth in the 2012-based projections from 2011 to 2031 for Coventry/Warwickshire and a range of other areas. The figures for the Coventry/Warwickshire authorities do not exactly match the published CLG Households Projections figures (or in some instances those in previous reports) as we have included population data for 2013 and 2014. This is consistent with the approach advocated in the PPG, which sets out that account should be taken of the latest ONS Mid-Year Population Estimates. This re-basing affects different local authorities in different ways, but at the HMA level increases the housing need, reflecting in particular strong recent population growth in Coventry.

3.73   Figures for wider geographies are shown for comparative purposes only. The data suggests an increase in households of 81,500 over the 20-year period – this is a 23% increase; higher than expected across the West Midlands region and also higher than the national average.

Table 13:   2012-based Household Projections: Projected Household Growth (2011-2031)

	Households 2011	Households 2031	Change in households	% change
Coventry	128,441	169,190	40,749	31.7%
North Warwickshire	25,860	29,032	3,172	12.3%
Nuneaton & Bedworth	52,809	61,021	8,212	15.6%
Rugby	42,087	51,087	9,000	21.4%
Stratford-on-Avon	52,102	60,813	8,711	16.7%
Warwick	58,712	70,357	11,644	19.8%
Coventry/Warwickshire	360,011	441,500	81,489	22.6%
West Midlands	1,087,934	1,287,668	199,734	18.4%
England	22,103,878	26,406,679	4,302,801	19.5%

Source: CLG and demographic projections

3.74 Figure 27 below shows household growth back to 1991 and projected forward to 2031. The analysis shows that growth in Coventry/Warwickshire has generally been significantly stronger than seen across the West Midlands, and broadly tracking national trends.

Figure 27: Indexed Household Growth (1991-2031)
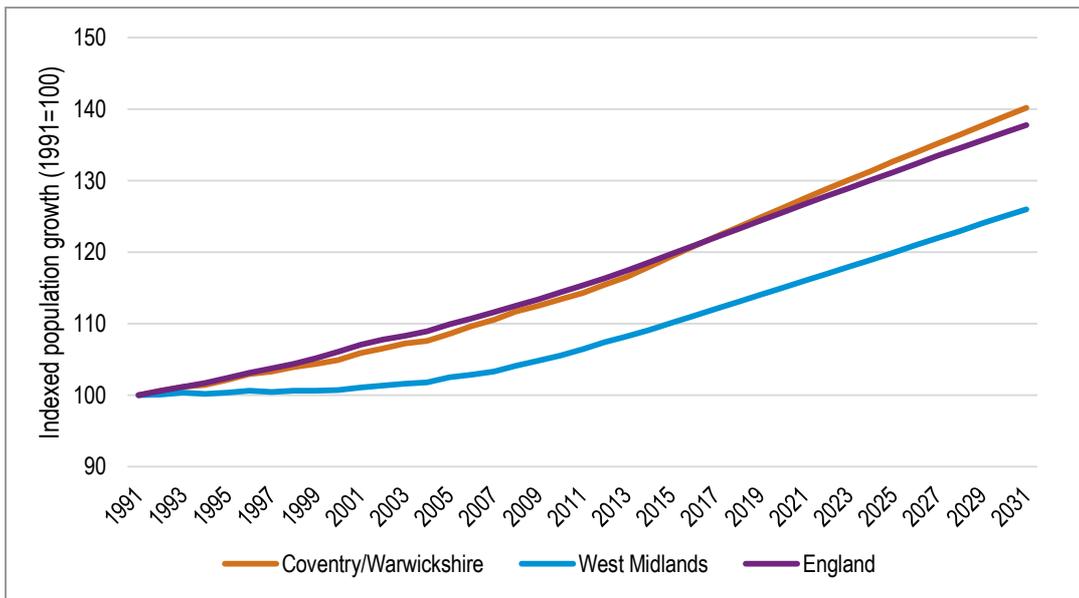
Source: CLG and demographic projections

3.75 Figure 28 shows the same information for individual local authority areas. The data shows that all areas with the exception of Coventry are expected to see grow which is broadly in-line with long-term past trends (arguably with a slight uplift in some areas). In Coventry however, the picture is somewhat different – after moderate growth until the mid-2000s the increase in households has been significant. Projected growth moving forwards is expected to continue at rates which are similar to recent trends.

Figure 28: Indexed Household Growth (1991-2031) – by Local Authority
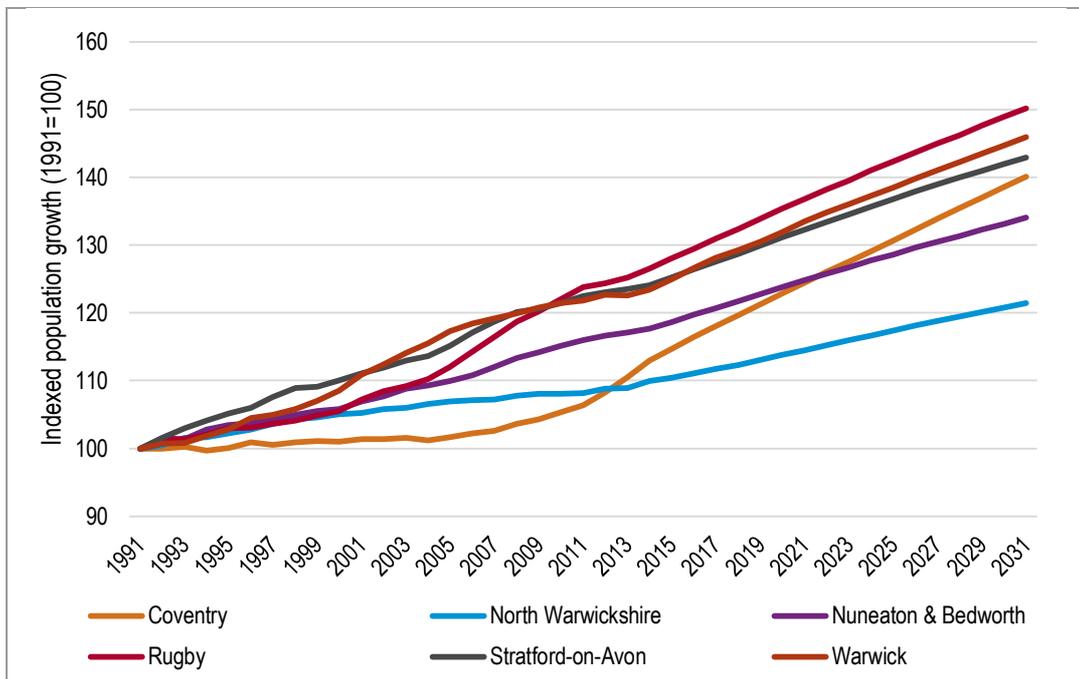
Source: CLG and demographic projections

3.76   The figures described above all use information from the 2012-based CLG household projections to convert population into households. It is useful to understand how the different CLG projections impact on assumptions for different age groups (i.e. to compare the 2012-based projections with those released as 2008- and 2011-based versions).

3.77   Figure 29 shows the headship rates used in each of the projections. Overall the 2012-based projections look fairly sound with levels and rates of change being not dissimilar to those in the earlier (pre-recession) 2008-based projections.

3.78   The main age group of concern is people aged 25-34 where the latest projections show quite a movement away from historic figures (e.g. levels in the 1991-2001 period). Particularly in the 2001-11 period, the 2012-based projections do appear to be indicating some degree of supressed household formation, with household formation amongst this age group falling. Whilst the downward trend is not projected forward post-2012, it still leaves the rate below historical figures (e.g. for 2001, when the rate started to decrease).

3.79   The issue of supressed household formation in 25-34 age group is considered in more detail later in the report.

**Figure 29: Projected Household Formation Rates by Age of Head of Household –
Coventry/Warwickshire**
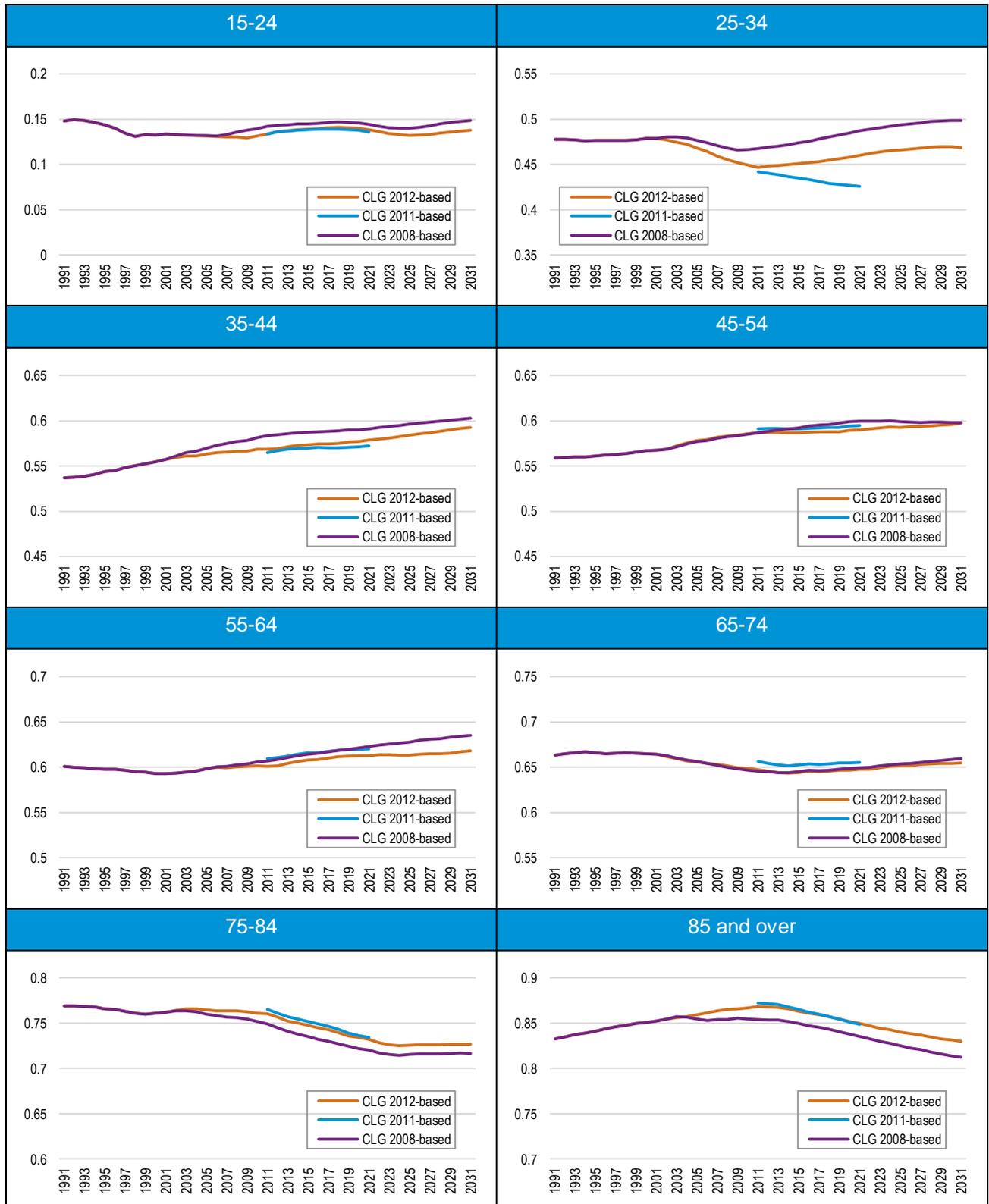
Source: Derived from CLG data

3.80   In relating growth in households to dwellings and overall housing need, it is necessary to make allowance for vacant and second homes. A 3% allowance for vacant and second homes is used, consistent with that in the SHMA and SHMA Addendum. This is the level of provision considered necessary to allow for turnover of properties, and period repairs, within a properly-functioning housing market. It is consistent with the assumptions used in the West Midlands Regional Spatial Strategy, and has been accepted at by the Inspector examining the Stratford-on-Avon District Core Strategy in his Initial Findings.

3.81   The analysis shows an overall housing need for 4,197 dwellings per annum across the HMA. This figure (derived from the latest official projections) would be considered as the starting point for considering housing need, following the approach in the PPG.

3.82   For individual authorities, this projection shows a need for between 163 dwellings per annum in North Warwickshire to 2,099 in Coventry.

Figure 30: Projected Housing Need 2011-31 – 2012-based SNPP and 2012-based headship rates

	Households 2011	Households 2031	Change in households	Per annum	Dwellings (per annum)
Coventry	128,441	169,190	40,749	2,037	2,099
North Warwickshire	25,860	29,032	3,172	159	163
Nuneaton & Bedworth	52,809	61,021	8,212	411	423
Rugby	42,087	51,087	9,000	450	464
Stratford-on-Avon	52,102	60,813	8,711	436	449
Warwick	58,712	70,357	11,644	582	600
Coventry/Warwickshire	360,011	441,500	81,489	4,074	4,197

3.83   For completeness, the table below shows the outputs (in terms of annual dwelling need) from the SNPP and each of the sensitivity projections developed. As can be seen, there are some notable variations at an HMA level and for individual local authorities; however, when considered together the sensitivity projections tend to support the SNPP as being a reasonable projection. An average of the sensitivities has been provided in the table below for reference purposes – it is not considered that any of the alternative projections are more robust than the SNPP.

Figure 31: Projected Housing Need (per annum) in Core Demographic-led and Sensitivity Projections, using 2012-based headship Rates

Housing Need per Annum, 2011-31	2012-based SNPP	2014 updated	UPC adjustment	10-year migration (constant)	10-year migration (variable)	Average of sensitivities
Coventry	2,099	2,435	1,485	3,018	2,024	2,241
North Warwickshire	163	155	151	99	168	143
Nuneaton & Bedworth	423	328	477	322	400	382
Rugby	464	319	550	567	469	476
Stratford-on-Avon	449	351	397	484	551	446
Warwick	600	524	589	550	745	602
Coventry/Warwickshire	4,197	4,113	3,648	5,040	4,358	4,290

Trend based Demographic Projections: Implications

- The 2012-based Sub-National Population Projections (SNPP) look to be a sound demographic-led projection which can be considered as a robust starting point for considering overall housing need. Future population growth in these projections (the population growth rate) sits in-line with short-term trends and at a level that is some way above long-term trends. Future levels of migration are below past trends (based on both long- and short-term trends), although this looks to be a reasonable when account is taken of an apparent / potential over-estimation of population growth and migration within the ONS components of change (in the 2001-11 period).

- The sensitivity analysis with projections using more recent migration trends and a UPC adjustment show population growth which is below the SNPP; whilst linking figures to 10-year migration trends are above the SNPP figures. Overall (when taken together) the sensitivity projections tend to confirm the SNPP as a sound demographic projection. The period over which projections are based influences the distribution of need to authorities within the HMA; in part reflecting past planning policies. This is no different from projections in other areas.

- The 2012-based CLG Household Projections also look to be reasonably sound when considering age specific household formation rates. The only age group where there is some concern is people aged 25-34 where there does appear to be some degree of suppression in the past. although this looks to be largely corrected for moving forward. This issue is considered further in later sections.

- The 2012-based population and household projections suggest a need for about 4,197 dwellings per annum to be provided across the HMA – this takes account of 2013 and 2014 midyear population data. It provides a starting point for considering overall housing need.

4 REVIEWING ECONOMIC GROWTH POTENTIAL

4.1 In this section we move on to consider evidence regarding economic growth potential. We address the economic forecasts which were considered within the 2013 Strategic Housing Market Assessment and 2014 Addendum; together with the 2014 Atkins Sub-Regional Employment Land Study and CBRE 2015 Employment Land Use Study. These assessments in effect treat econometric forecasts as a given. We have also reviewed economic growth assumptions within individual authorities respective employment land reviews; and consider the latest forecasts from Cambridge Econometrics.

Appraising Baseline Forecasts for the HMA

4.2 Figure 32 compares the 2013 econometric forecasts from Experian and Cambridge Econometrics, which were considered in the SHMA Addendum. The CE forecasts have also been used in the Atkins and CBRE Employment Land Studies. The number of jobs recorded in the Experian model has historically been slightly lower (reflecting differences in how total employment is modelled). Moving forwards Cambridge Econometrics models more positive employment growth. However much of the difference relates to figures for 2011-12 and 2012-13.

4.3 Each forecasting house in effect 'models' employment, reflecting issues with the availability of data. The key sources for considering trends in employment are the Annual Business Inquiry (ABI) and Business Register and Employment Survey (BRES) which principally take account of jobs based on PAYE data. This typically does not fully capture self-employment or agricultural employment, including from small businesses which may fall below VAT thresholds. There can also be some issues with the data, which can record jobs in some instance at the places where people are paid from, rather than where the job may actually be. This clearly has a greater potential impact for smaller areas. Forecasting houses seek to draw together datasets to estimate overall employment.

Figure 32: Employment Forecasts for CW LEP – Comparison
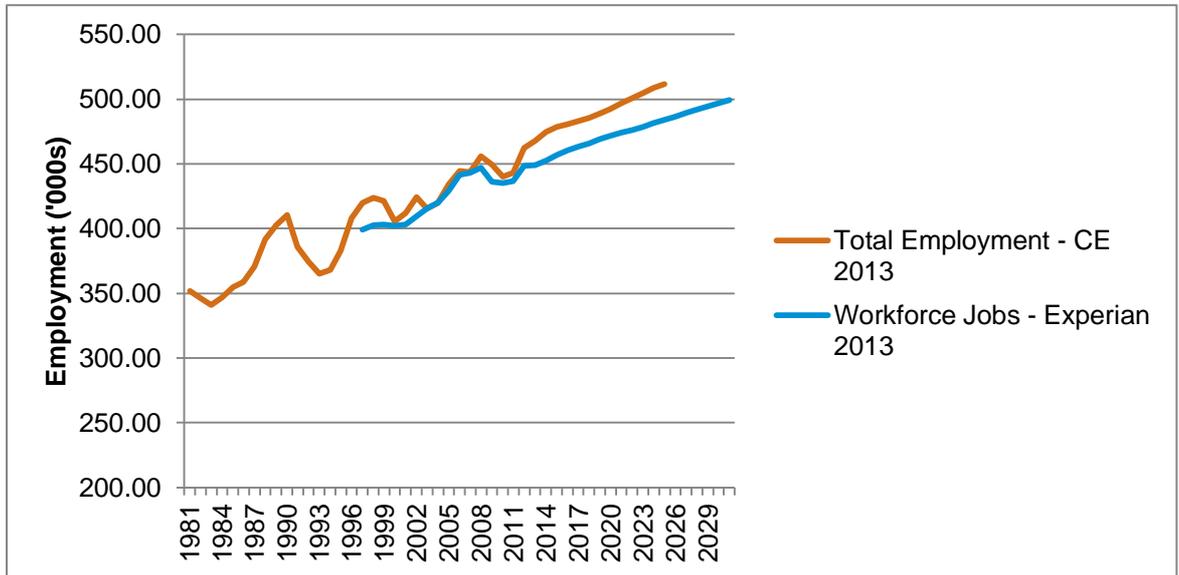
Source: GLH Analysis

4.4   As a cross-check on the two projections, we have run an analysis comparing the projections with historical employment growth. The PPG sets out that past trends and/or forecasts for employment growth should be considered. Experian forecast employment growth which was slightly more modest than past trends; whilst the rate of growth in the CE forecasts (from 2013 forwards) is relatively similar. This is shown in Figure 33.

Figure 33: Benchmarking Forecasts against Past Employment Trends
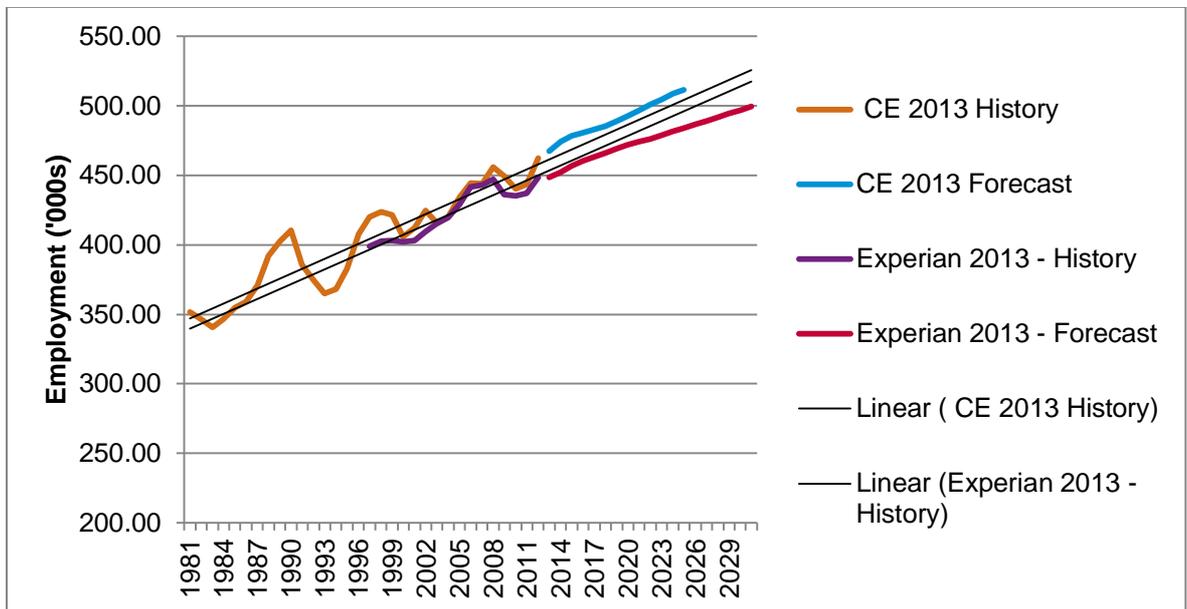
Source: GLH Analysis

4.5   What a comparison between the two 2013 forecasts however particularly shows is a significant difference between the growth in employment which was expected to have occurred between 2011-2013. We have therefore sought to drill down to consider changes in employment across the HMA between 2011-12 and 2012-13 based on a range of data sources.

Figure 34: Assessing Changes in Employment 2011-13, Coventry & Warwickshire

	Change in Jobs	
	2011-12	2012-13
CE 2013 Forecasts	19,000	5,300
Experian 2013 Forecasts	11,500	400
BRES Employment	-1800	2,200
APS Self-Employment	6,300	3,600
ONS Workforce Jobs	-3000	10,000

Source: GLH Analysis, BRES, APS, Forecasts

4.6   The CE forecasts indicate growth in employment of 24,300 over this two year period. However Experian indicates growth of 11,900 (just under half that expected in the CE figures).

4.7   ONS Business Register and Employment Survey (BRES) data shows growth in employment of just 400 jobs. This represents official data but may under-estimate growth in employment as it does not include growth in self-employment in firms which are not registered for VAT. It seems likely that there was some growth in self-employment over this period.

4.8   Self-employment figures (on a residence-basis) from the Annual Population Survey (APS) show an increase of 9,900; however these should be treated with caution as they are not on a workplace-basis and they are based on survey data with a larger potential error margin.

4.9   Indicative ONS workforce jobs estimates (contained on NOMIS in the jobs density statistics) estimate growth in employment of 7,000. As this is based on official data including from BRES and APS, this is the most likely to provide a reasonable estimate of employment changes over the 2011-13 period.

4.10   The changes in ONS Workforce Jobs (and other key data on jobs) over the 2011-13 period in each of the local authorities is shown below. This is then compared to what was forecast in the respective forecasts from Cambridge Econometrics and Experian. The ONS Workforce Jobs figures are very different – they show stronger growth than was forecast in Coventry; and lower growth or a decline in employment in other areas. In particular over the 2011-13 period, the Workforce Jobs data suggests that employment fell in Warwick, Nuneaton and Bedworth and North Warwickshire.

4.11   Whilst there are clear differences between each data source, the Cambridge Econometrics 2013 forecasts in particular expected notably stronger economic growth over the 2011-13 period than seems to have occurred (and relative to the forward forecasts). This has a particular impact on the overall figures for employment growth between 2011-31.

4.12   To support the preparation of this report, Warwickshire County Council has provided GL Hearn with new 2015 forecasts from Cambridge Econometrics. This shows a much closer relationship with the ONS Workforce Jobs estimates, albeit with some notable differences for some local authorities.

Figure 35: Comparing data for Employment Growth by Local Authority, 2011-13

|	ONS Workforce Jobs	CE 2013 Forecasts	Experian Forecasts	CE 2014 Forecasts
Coventry	12,000	5,100	3,800	5,100
North Warwickshire	-6,000	1,800	500	-2,000
Nuneaton & Bedworth	-1,000	1,900	1,500	-2,400
Rugby	3,000	4,000	2,300	2,600
Stratford-on-Avon	2,000	5,700	1,500	4,600
Warwick	-3,000	5,800	2,400	-2,900
CW LEP	7,000	24,200	11,900	5,000

Source: ONS, CE, Experian, GLH

4.13   Cambridge Econometrics' forecasts are based on data from the Business Register and Employment Survey (BRES) and the Annual Business Inquiry (ABI). Agricultural employment data from the Department for Environment, Food & Rural Affairs (DEFRA) is used. Estimates of self-employment are taken from the Annual Population Survey (APS). The forecasts are made

consistent to more recently-published estimates of jobs at a regional level (quarterly workforce jobs, June figures) published by ONS.

4.14   Our interrogation of the forecasts, through comparison of estimates of employment in 2011 with Census data on the number of people working in each District, suggests some evidence that employment numbers in Warwick District in particular may have been over-estimated. The impact of this on future employment growth estimates is however modest. Accuracy of data at a regional and LEP level is likely to be greater than for individual local authorities.

4.15   We turn next to consider the forward projections. Over the 2013-25 period considered in all projections, CE 2013 forecasts show an average of 0.8% pa growth in employment (Compound Annual Growth Rate, CAGR). Experian is slightly more modest, with annual growth of 0.6% pa. The CE 2014 forecasts sit between these, showing annual growth of 0.7% pa.

4.16   GL Hearn would not consider any one forecast to be "better" – they just provide a range of potential outcomes for how the economy might perform based on different assumptions. It would be appropriate to treat the figures as a range.

4.17   Economic trends tend to be more variable at a local authority level, and thus the difficulty in predicting future economic performance accurately increases. Figure 36 compares the forecasts at a local authority level. It compares annual employment growth forecast between 2013-25 (the period which both forecasts cover).

Figure 36: Annual Employment Growth Forecast, 2013-25 – CE and Experian 2013
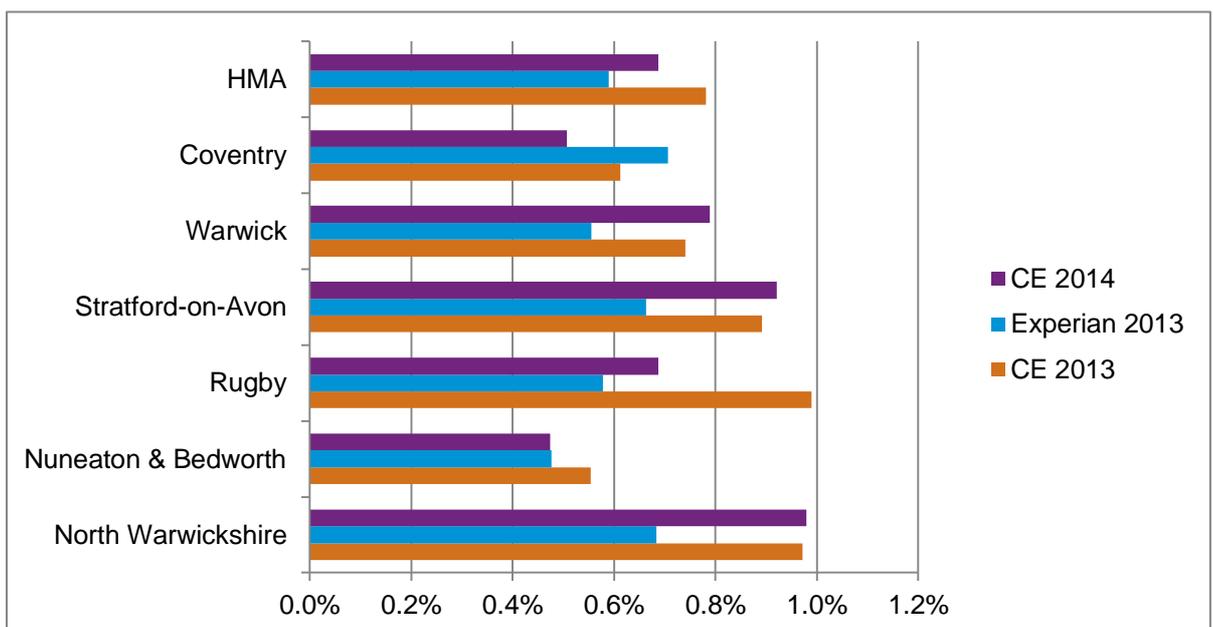
Source: GLH Analysis

4.18   We can also compare the forecasts in terms of how they expect different sectors to perform. Figure 37 analyses forecast employment growth by sector across the HMA over the 2013-25 period used in the three forecasts.

4.19   Cambridge Econometrics forecast a more positive outlook for the manufacturing sector (with less job losses) and for accommodation, food and recreation. They expect slightly stronger growth in professional and other private services; and (in the 2014 forecasts) in wholesale and retail. Experian shows stronger employment growth in finance and insurance; and transport and storage.

4.20   The comparison of the sector distribution of growth further highlights that a key difference between the forecasts is the views of the two forecasting houses of how different sectors might perform.

Figure 37: Forecasts for Employment Growth by Sector, Coventry and Warwickshire HMA, 2013-25
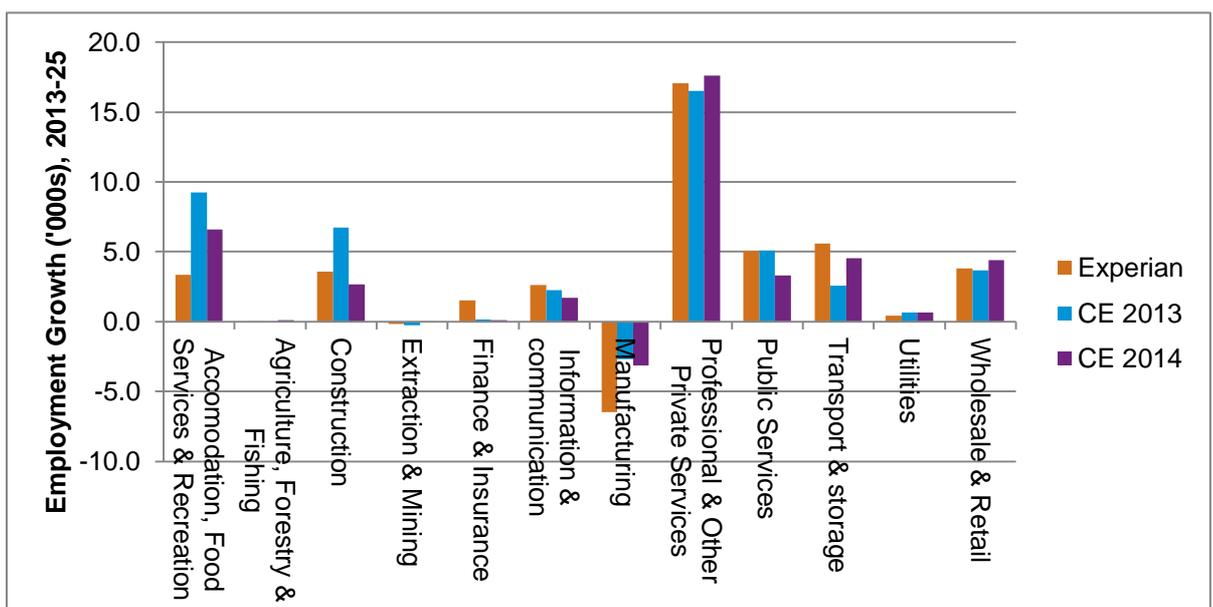
Source: GL Hearn Analysis

4.21   The comparative review of the 2013 forecasts indicates that a key substantive difference between them relates to figures for employment growth between 2011-13. It is difficult to provide accurate figures for employment growth over this period, given the evident issues regarding how employment is recorded and the multiple data sources which need to be considered to model employment changes.

4.22   Notwithstanding the issues regarding the accuracy of the forecasts employment figures for the 2011-13 period, the analysis highlights that it is not appropriate, looking forward, to simply "pick" one forecast or the other. They present in effect parameters for potential future employment growth.

4.23   For the purposes of considering housing need, accurate data for changes between 2011-14 is not however essential – as we have demographic data which takes us to 2014; and projections can therefore effectively be run from 2014 forwards. The economic forecasts in effect a reasonable set of parameters for employment growth which can be used to provide an initial view regarding economic growth potential moving forwards. We have therefore used this to provide an updated set of economic-driven projections, which should effectively be considered to replace those in the SHMA Addendum.

4.24   Table 14 shows the increase in the number of jobs expected from 2014 to 2031 in the Experian baseline projections. Over the 17-year period in the projections an increase of around 47,100 jobs is expected – this is an increase of about 10% from 2014 levels. The increase is expected to be particularly strong in Coventry with more moderate growth shown for Nuneaton & Bedworth and to a lesser degree Warwick.

Table 14:   Employment Growth – Experian 2013 Forecasts, 2014-31

	Jobs (2014)	Jobs (2031)	Change (2014-31)	% change from 2014
Coventry	154,393	173,649	19,256	12.5%
North Warwickshire	48,358	53,328	4,970	10.3%
Nuneaton & Bedworth	45,761	49,328	3,567	7.8%
Rugby	48,649	53,387	4,738	9.7%
Stratford-on-Avon	66,029	72,458	6,429	9.7%
Warwick	89,246	97,351	8,105	9.1%
Coventry/Warwickshire	452,436	499,501	47,065	10.4%

Source: Experian

4.25   Table 15 shows the increase in the number of jobs expected from 2014 to 2031 using Cambridge Econometrics (CE) 2013 data. Estimates post 2025 are based on the average expected in the 5-years leading up to the end of the forecast period (i.e. 2020-25). Overall, the analysis suggests a 12.6% increase in jobs (a 59,800 increase). This remains somewhat higher than the figures from Experian. For individual local authorities the data suggests a higher increase in jobs in all areas other than Coventry when compared with the Experian data.

Table 15:   Employment Growth – Cambridge Econometrics 2013 Forecasts, 2014-31

	Jobs (2014)	Jobs (2031)	Change (2014-31)	% change from 2014
Coventry	159,719	178,144	18,425	11.5%
North Warwickshire	47,726	55,072	7,346	15.4%
Nuneaton & Bedworth	48,296	52,193	3,898	8.1%
Rugby	52,285	60,291	8,006	15.3%
Stratford-on-Avon	68,683	79,287	10,603	15.4%
Warwick	97,764	109,308	11,544	11.8%
Coventry/Warwickshire	474,473	534,295	59,822	12.6%

Source: Cambridge Econometrics

4.26   Table 16 below shows the 2015 Cambridge Econometrics forecasts data for employment growth between 2014-31. These new forecasts, supplied by Warwickshire County Council, provide an updated set of CE forecasts which take account of new data releases and economic changes over the last couple of years. They are drawn from the March 2015 run of CE's Local Economy Forecasting Model (LEFM). Overall, across the HMA, this shows slightly lower growth than either the Experian or 2013 CE forecast.

Table 16:   Employment Increase (2014-31) – Cambridge Econometrics 2015

	Jobs (2014)	Jobs (2031)	Change (2014-31)	% change
Coventry	159,418	171,929	12,511	7.8%
North Warwickshire	42,024	47,994	5,970	14.2%
Nuneaton & Bedworth	46,756	49,720	2,964	6.3%
Rugby	51,761	56,564	4,804	9.3%
Stratford-on-Avon	71,669	80,887	9,218	12.9%
Warwick	88,937	98,876	9,939	11.2%
Coventry/Warwickshire	460,565	505,971	45,406	9.9%

Source: Cambridge Econometrics, Warwickshire County Council

4.27   Table 17 seeks to bring together and compare the three forecasts, considering the rate of employment projected. Looking at the three forecasts together, growth in employment at a rate of 0.6-0.7% per annum seems likely.

4.28   At a local authority level, the forecasts suggest that a slightly stronger growth rate can be expected in Stratford-on-Avon District relative to the HMA average; with weaker growth in Nuneaton and Bedworth.

Table 17:   Comparing Projected Employment Growth by Local Authority, 2014-25

Annual Growth Rate in Employment (%)	CE 2013	Experian 2013	CE 2014
Coventry	0.6%	0.7%	0.5%
North Warwickshire	0.9%	0.6%	1.0%
Nuneaton & Bedworth	0.5%	0.5%	0.5%
Rugby	0.9%	0.6%	0.7%
Stratford-on-Avon	0.8%	0.6%	0.9%
Warwick	0.6%	0.5%	0.8%
HMA	0.7%	0.6%	0.7%

Updating the SHMA Economic-led Projections

4.29   In relating jobs it is necessary to consider the interaction between jobs and people (recognising that some people may have more than one job), changes to employment rates (as a result of reducing unemployment or people working longer); and commuting dynamics.

4.30   Table 18 shows summary data about commuting to and from Coventry/Warwickshire and individual local authorities from the 2011 Census. The data shows that the sub-region generally sees a level of in-commuting for work. Out-commuting is particularly high in Nuneaton & Bedworth and also positive in Rugby. All other areas see net in-commuting with the commuting ratio (calculated as the number of residents in employment divided by the number of people who work in an area) being particularly low in North Warwickshire. Across the whole sub-region there are about 12,000 more people working in the area than live in the area (and are working). The ratios used are consistent with those in the SHMA Addendum.

Table 18:   Commuting Patterns, 2011

	Residents in employment	People working in area	Commuting Ratio
Coventry	138,142	148,921	0.93
North Warwickshire	31,418	39,768	0.79
Nuneaton & Bedworth	60,416	45,509	1.33
Rugby	50,716	47,701	1.06
Stratford-on-Avon	61,377	64,012	0.96
Warwick	70,069	78,236	0.90
Coventry/Warwickshire	412,138	424,147	0.97

Source: Census (2011)

4.31   In translating the commuting pattern data into growth in the labour-force it is assumed that the commuting ratio remains at the same level as shown by the 2011 Census. The commuting ratio is held constant. The figures have been applied on a local authority by local authority basis using data as shown in Table 18 above.

4.32   As well as commuting patterns we can also consider that a number of people may have more than one job (double jobbing). This can be calculated as the number of people working in each District divided by the number of jobs. Data from the Annual Population Survey (available on the NOMIS website) suggests that around 3.6% of workers have a second job (data averaged from data for the 2004-14 period to recognise relatively high error margins associated with data for individual years). This gives a double jobbing ratio of 0.96 (i.e. the number of jobs can be discounted by 3.6% to estimate the required change in the workforce). Again data has been used on an individual local authority basis with the double jobbing percentages for each area being:

- Coventry – 3.1%
- North Warwickshire – 5.1%
- Nuneaton & Bedworth – 2.3%
- Rugby – 4.1%
- Stratford-on-Avon – 4.2%
- Warwick – 3.3%

4.33   To calculate the change in the resident workforce required to match the forecast number of jobs we can multiply the commuting ratio by the amount of double jobbing and in turn multiply this by the number of jobs – this is shown in the table below. Overall, the Experian 2013 forecast expects an increase of 47,100 jobs; if commuting patterns and levels of double jobbing remain the same then this would require a lower level of growth in the resident workforce (of about 43,400 people). For individual areas however the findings are different with an uplift to the number of jobs being seen in Nuneaton & Bedworth and Rugby and the opposite in other locations.

Table 19:   Relating Growth in Jobs and Resident Workforce – Experian 2013 Forecasts, 2014-31

	Change in jobs	Adjustment factor	Change in resident workforce
Coventry	19,256	0.90	17,309
North Warwickshire	4,970	0.75	3,729
Nuneaton & Bedworth	3,567	1.30	4,626
Rugby	4,738	1.02	4,833
Stratford-on-Avon	6,429	0.92	5,904
Warwick	8,105	0.87	7,023
Coventry/Warwickshire	47,065		43,425

Source: Experian, NOMIS and 2011 Census

4.34   The same analysis can be carried out with the CE 2013 forecast and this is shown in the table below. Again there is expected to be a higher growth in the jobs than workforce. The numbers overall are however slightly higher – this is due to the higher forecast job growth in the CE projections.

Table 20:   Relating Growth in Jobs and Resident Workforce – CE 2013 Forecasts, 2014-31

	Change in jobs	Adjustment factor	Change in resident workforce
Coventry	18,425	0.90	16,563
North Warwickshire	7,346	0.75	5,512
Nuneaton & Bedworth	3,898	1.30	5,055
Rugby	8,006	1.02	8,167
Stratford-on-Avon	10,603	0.92	9,739
Warwick	11,544	0.87	10,002
Coventry/Warwickshire	59,822		55,037

Source: Cambridge Econometrics, NOMIS and 2011 Census

4.35   The analysis for the Cambridge Econometrics 2014 forecasts is shown below – this shows a slightly more moderate increase in the resident workforce when compared with the older CE forecast (and also slightly lower than when using Experian).

Table 21:   Relating Growth in Jobs and Resident Workforce – CE 2015 Forecasts, 2014-31

	Change in jobs	Adjustment factor	Change in resident workforce
Coventry	12,511	0.90	11,246
North Warwickshire	5,970	0.75	4,480
Nuneaton & Bedworth	2,964	1.30	3,843
Rugby	4,804	1.02	4,900
Stratford-on-Avon	9,218	0.92	8,467
Warwick	9,939	0.87	8,612
Coventry/Warwickshire	45,406	-	41,548

Source: CE, NOMIS and 2011 Census

4.36   As well as studying commuting levels and double jobbing the analysis needs to consider how economic participation and employment rates will change in the future. Although the past few years have seen an increase in unemployment there have generally been increases in the proportion of people who are economically active (particularly for females and people aged over 50). In the future we may see a continuation of these trends – particularly in relation to people working longer (partly linked to pensionable ages) and have modelled for there to be some increase in employment rates as we move through to 2031.

4.37   Table 22 shows the age/sex specific rates assumed in the analysis. These have been based on consideration of a range of different forecasting houses forecasts and also take account of the 2011 Census and trends over the period since 2001. It should be stressed that these figure reflect what

we would consider to be a reasonable set of assumptions although there would be a case for alternatives (both in an upwards and downwards direction).

Table 22: Modelled Employment Rate Changes by Age and Sex – Coventry/Warwickshire

	Sex	Year	Aged 16 to 24	Aged 25 to 34	Aged 35 to 49	Aged 50 to 64	Aged 65 and over
Coventry	Male	2014	39.8%	77.4%	81.8%	71.4%	13.0%
		2031	39.8%	77.6%	82.8%	76.4%	16.8%
	Female	2014	42.8%	69.3%	76.0%	63.3%	8.5%
		2031	42.8%	72.8%	79.4%	71.6%	11.5%
North Warwickshire	Male	2014	61.2%	88.3%	90.3%	77.9%	16.5%
		2031	61.2%	88.6%	91.2%	82.9%	18.5%
	Female	2014	59.6%	82.1%	83.9%	66.5%	9.6%
		2031	59.6%	85.7%	87.3%	74.8%	11.9%
Nuneaton & Bedworth	Male	2014	58.8%	85.8%	87.4%	74.4%	12.3%
		2031	58.8%	86.0%	88.4%	79.4%	15.4%
	Female	2014	57.5%	76.4%	81.8%	63.2%	7.4%
		2031	57.5%	79.9%	85.2%	71.5%	9.7%
Rugby	Male	2014	59.0%	89.9%	91.4%	79.8%	16.1%
		2031	59.0%	90.2%	92.4%	84.8%	18.7%
	Female	2014	57.5%	79.9%	84.3%	68.3%	9.7%
		2031	57.5%	83.5%	87.7%	76.6%	11.9%
Stratford-on-Avon	Male	2014	61.9%	90.7%	93.2%	81.9%	21.6%
		2031	61.9%	91.0%	94.1%	86.9%	22.4%
	Female	2014	62.0%	83.8%	84.4%	69.3%	12.3%
		2031	62.0%	87.4%	87.7%	77.6%	13.3%
Warwick	Male	2014	44.0%	86.8%	91.0%	79.3%	19.1%
		2031	44.0%	87.0%	91.9%	84.3%	21.3%
	Female	2014	47.5%	82.0%	84.6%	70.7%	10.9%
		2031	47.5%	85.6%	88.0%	79.0%	12.8%

4.38   Figure 38 below shows how the overall employment rate in each local authority is expected to change over time. The employment rate is based on the number of people in employment divided by the population aged 16 and over. The analysis shows that generally the employment rate is expected to decline. The main exception to this is in the case of Coventry where the rate is expected to increase. The rate in Warwick is also expected to increase slightly, although there is a decline from about 2021. The different rate changes in different locations is driven by levels of population change and how the age structure is expected to evolve over time. This is particularly related to the ageing of the population, and this is why Stratford-on-Avon sees the most notable decline in the employment rate. The rates shown in the figure below are derived from the 2012-based SNPP and it should be noted that these change very slightly with different assumptions about population growth.

Figure 38: Projected Change in the Employment Rate – Coventry & Warwickshire, 2014-31
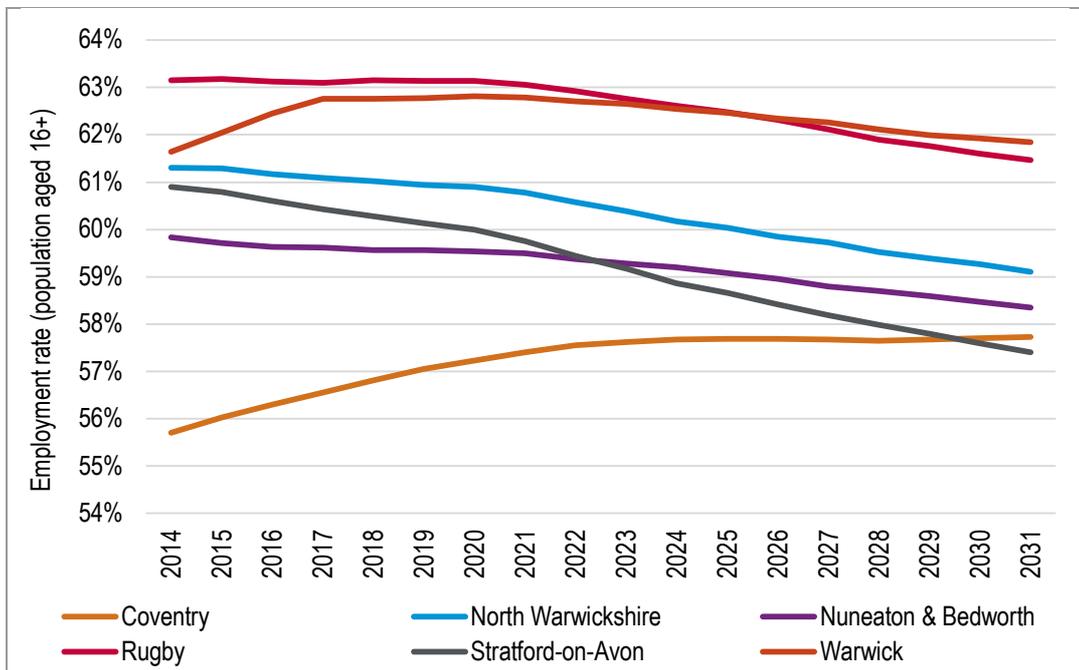
Source: Derived from Annual Population Survey, Labour Force Survey, Economic forecasts and demographic projections

4.39   The outputs from the Experian-based projection is as follows and shows that for the resident workforce to increase in line with the forecast number of jobs would require around 3,700 homes per annum to be delivered in the 2011-31 period. The outputs are displayed as annual averages over the 2011-31 period but are only variable post-2014 (the start date of the demographic projections). The estimated household growth in the 2011-14 period is fixed by reference to ONS mid-year population estimates and linked to headship rate assumptions in the 2012-based CLG household projections. Headship rate assumptions from the 2012-based Household Projections are used as this is the latest official dataset.

Table 23:   Economic-driven Projection – Experian 2013

	Households (2011)	Households (2031)	Change in households	Per annum	Dwellings (per annum)
Coventry	128,441	156,340	27,899	1,395	1,437
North Warwickshire	25,860	30,916	5,056	253	260
Nuneaton & Bedworth	52,809	61,308	8,499	425	438
Rugby	42,087	50,302	8,215	411	423
Stratford-on-Avon	52,102	63,144	11,042	552	569
Warwick	58,712	69,368	10,656	533	549
Coventry/Warwickshire	360,011	431,379	71,368	3,568	3,675

4.40   With the projection linked to the CE 2013 forecast the assessed level of housing need is higher (a need for just over 4,000 dwellings per annum across the HMA).

Table 24:   Economic-driven Projection – Cambridge Econometrics 2013

	Households (2011)	Households (2031)	Change in households	Per annum	Dwellings (per annum)
Coventry	128,441	155,792	27,351	1,368	1,409
North Warwickshire	25,860	32,064	6,205	310	320
Nuneaton & Bedworth	52,809	61,606	8,798	440	453
Rugby	42,087	52,489	10,402	520	536
Stratford-on-Avon	52,102	65,627	13,525	676	697
Warwick	58,712	71,293	12,581	629	648
Coventry/Warwickshire	360,011	438,871	78,861	3,943	4,061

4.41   The newer 2015 Cambridge Econometrics forecasts show a housing need for 3,600 homes over the 2011-31 period.

Table 25:   Economic-driven Projection – Cambridge Econometrics 2015

	Households 2011	Households 2031	Change in households	Per annum	Dwellings (per annum)
Coventry	128,441	151,884	23,443	1,172	1,207
North Warwickshire	25,860	31,400	5,540	277	285
Nuneaton & Bedworth	52,809	60,765	7,956	398	410
Rugby	42,087	50,346	8,259	413	425
Stratford-on-Avon	52,102	64,803	12,701	635	654
Warwick	58,712	70,395	11,683	584	602
Coventry/Warwickshire	360,011	429,594	69,583	3,479	3,584

Source: CE, NOMIS, 2011 Census and demographic modelling

4.42   The chart below draws together the projections for individual districts. If we use the Experian forecasts and the latest 2015 CE forecasts (in that the 2013 CE forecasts are effectively superseded by the later set), a range for housing need based on economic performance at a local authority level can be derived as follows:

- Coventry: 1,207 – 1,437 homes per annum;
- North Warwickshire: 260 – 285 homes per annum;
- Nuneaton & Bedworth: 410 – 438 homes per annum;
- Rugby: 423 – 425 homes per annum;
- Stratford-on-Avon: 569 – 654 homes per annum;
- Warwick: 549 – 602 homes per annum.

Figure 39: Housing Need based on Economic Forecasts, 2011-31 (Dwellings per Annum)
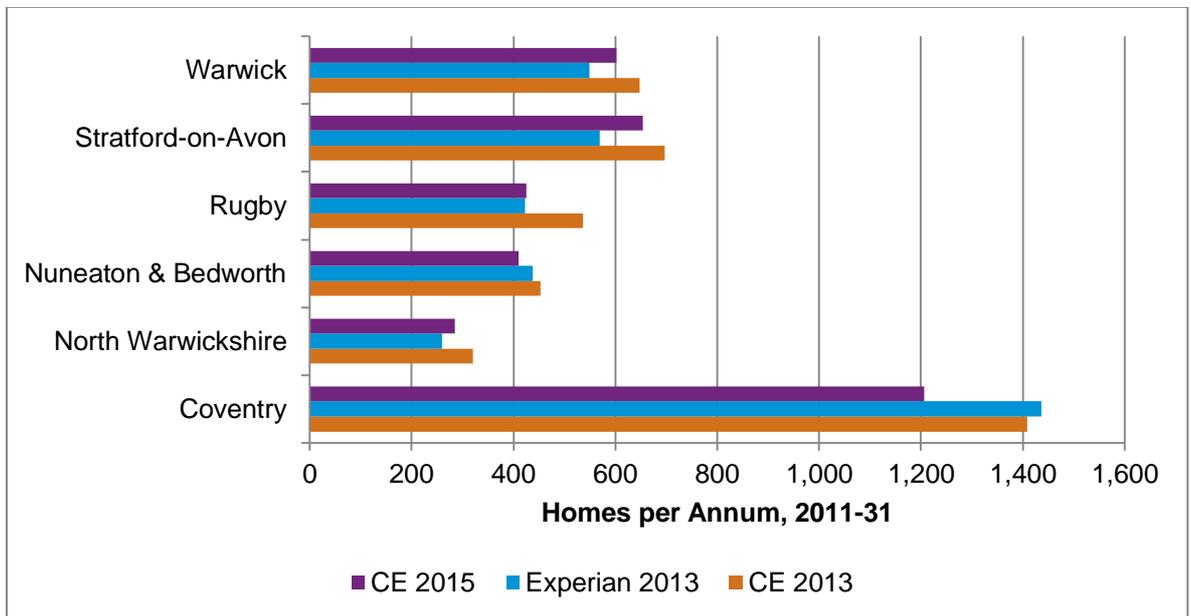
Workforce Growth in the 2012-based SNPP

4.43   Previous analysis of the 2012-based SNPP has highlighted this as a reasonable demographic projection and it is of interest to use some of the data in this section (e.g. about commuting, double jobbing and employment rates) to establish when level of workforce growth and jobs the SNPP might support. An analysis of this is shown in Table 26 below – in this instance the adjustment factor works backwards (i.e. we have an estimate of the resident workforce and work back to establish how many jobs might be supported). The analysis shows that the resident workforce is projected to grow by 56,700 people and that this would potentially support around 61,300 additional jobs in the 2014-31 period.

Table 26:   Jobs Growth and Change in Resident Workforce (2014-31) – linked to the 2012-based SNPP

	Change in resident workforce	Adjustment factor	Change in jobs
Coventry	34,792	1.11	38,705
North Warwickshire	804	1.33	1,072
Nuneaton & Bedworth	4,212	0.77	3,247
Rugby	6,030	0.98	5,912
Stratford-on-Avon	2,304	1.09	2,509
Warwick	8,552	1.15	9,870
Coventry/Warwickshire	56,695		61,315

Source: Derived from demographic projections

Reviewing the Projections alongside Other Evidence

4.44   As explained in Section 2, econometric forecasts should be used as a tool for considering how local economies might perform. They do not necessarily provide an 'answer' in themselves; and need to be brought together with wider evidence. This is clear in the approach set out in the PPG.

4.45   In considering economic growth potential, consideration needs to be given through local plans to:

- Local economic growth dynamics and growth potential;
- The influence of past employment supply / supply constraints on past performance;
- Potential policy issues which might influence future growth potential.

4.46   We are mindful, as set out in the SHMA, that past performance at a local level has been influenced by past investment decisions; and equally there are factors moving forwards which are not considered in trend-based forecasting methodologies. Policy influences are potential a "policy on" issue, however it is reasonable to take account of local economic factors and supply-side influences in considering how different parts of the sub-regional economy might perform.

4.47   As an example, economic growth in North Warwickshire has been strongly influenced by delivery of employment space at the Regional Logistics Sites at Hams Hall and Birch Coppice. The forecasts (which are effectively projections of past trends) implicitly assume that land supply in the district will continue to support delivery of similar levels of new development moving forwards. However in commercial terms, the market for logistics/ distribution space is sub-regional or regional in scale, and there is no reason why the next phase of development of major logistics/ distribution development could not take place at other accessible locations within the wider sub-region.

4.48   The forecasts take no account of investment in infrastructure, such as delivery of the KNUCKLE rail link. Nor do they take account of strategic economic growth objectives, either of the LEP or individual local authorities. These issues are relevant in coming to an 'informed view' regarding economic growth potential in different areas.

4.49   To address these issues, we have sought to draw together information from existing evidence-based studies which have been undertake to consider dynamics and growth potential in the authorities within the HMA.

Employment Studies in Coventry and Warwickshire

4.50   The table below summarised evidence from existing employment land studies and other recent economic evidence studies undertaken by or for the Coventry and Warwickshire local authorities. It should be noted that the studies cover different timescales, and that annualised job growth figures are not therefore directly comparable between areas.

Table 27:   Review of Employment Growth Assumptions in Employment Studies

Authority	Evidence Base	Economic Growth Expectations
Nuneaton & Bedworth	Employment Land Review (GVA Grimley, 2010) N&B Forecast Model (Oxford Economics, Oct 2011) Scale of Growth Background Paper (2013) Employment Land Review (NBBC, 2014)	2010 Employment Land Review included 2009 CE forecasts showing zero employment growth 2007-26. Past trends scenario also shown based on 0.6% pa growth showing 4,900 jobs (260 pa) Oxford Economics 2011 Forecast Report shows growth of 2,300 jobs between 2010-28 in baseline scenario (0.3% pa). Policy-led higher growth scenarios modelled for 0.5% and 1.0% growth per annum. Baseline would equate to 130 jobs pa. 2013 forecasts using the Oxford Economics model show employment growth of 4,500 FTE jobs (0.6% pa growth) between 2011-31.
Coventry	Review of Existing Employment Sites (CCC, 2012) Coventry's Economy: Employment Land Requirement Update (CCC, Jan 2012)	Limited detailed work undertaken in Employment Land Study. Trend-based scenario showed jobs growth of 35,000 – 37,000 over 20 year plan period (1750 – 1850 jobs pa). Detailed forecasting undertaken in GL Hearn / Cambridge Econometrics 2012 Study. This showed growth of 13,500 jobs 2011-28, but leaving total employment in 2028 just 4,500 above 2008 levels. A 0.5% annual growth rate in employment was expected post 2015. An Employment Land Review Update is currently underway which is considering further economic growth potential in the City.
North Warwickshire	Employment Options and Updated Economic Land Availability Requirements (NWBC, 2010) Employment Land Review Update (GL Hearn, Sep 2013)	2013 Employment Land Review Update included Experian 2013 forecasts (as considered above), which showed jobs growth of 8,600 between 2911-28 (500 pa) but noted that this trend-based projection was driven by significant development of land in the district for transport, storage and distribution and this may not continue. Clear downside risks to the forecast were identified.

Rugby	Employment Land Study (GL Hearn, 2015)	2015 Employment Land Study uses 2014 Cambridge Econometric forecasts. These show employment growth of 5,400 jobs between 2013-31 (300 pa). This equates to a growth rate of 0.4% per annum.
Warwick	Warwick District Employment Land Review (GL Hearn, May 2013)	2013 Employment Land Review Update took account of 2012 CE forecasts, which showed growth of 10,300 jobs between 2011-30 (540 jobs pa). The forecasts showed 9,500 jobs 2011-29.
Stratford-on-Avon	Stratford-on-Avon Employment Land Study (GL Hearn, Aug 2011) Consolidated Review of Housing Need and Requirement (ERM, Dec 2014)	The latest evidence is in the ERM Consolidated which reviewed a range of forecasts and wider evidence. This concluded employment growth of 12,100 jobs between 2011-31 would be reasonable; and has been accepted by the Inspector's Interim Findings as part of the Core Strategy Examination. This would equate to 605 jobs per year.

4.51   GL Hearn has sought to consider the scale of employment growth which might be expected, in overall terms, in different local authorities. We have sought to compare the growth assumptions within existing studies, within the three sets of econometric forecasts considered herein, and to take account of our knowledge of growth potential within the LEP area.

4.52   At an HMA level, we consider that the growth assumptions within the latest Cambridge Econometrics (2015) forecasts provide a realistic assessment of overall employment growth. This equates to 0.7% per annum growth in employment – which is above forecast UK average growth and consistent with the NPPF requirement for positive planning. This would require provision of around 3,600 – 3,750 homes per year (depending on the distribution of employment and workforce growth).

4.53   Based on our understanding growth potential within the HMA, we however consider that some adjustments to the distribution of employment growth would be reasonable to provide a realistic assessment of future growth potential. We consider these below.

Coventry

4.54   Trend-based employment projections show relatively modest growth in Coventry. The City is however the economic heart of the sub-region – it is the largest employment centre; it is expected to see significant population and workforce growth. The Coventy area includes some of the major / catalyst employers within the sub-region, such as Jaguar Land Rover, as well as two universities and associated R&D including the Manufacturing Technology Centre, Coventry Technology Park and Warwick Science Park. In addition, office-based employment can be expected to grow

potentially more strongly than in baseline forecasts supported by the delivery of the Friargate scheme. On the basis of the evidence, we would consider that the City is likely to see stronger employment growth than anticipated some of the baseline forecasts. This takes account of potential growth in the Coventry area, not just of sites within the City's boundaries.

4.55   A reasonable 'policy off' assessment of growth potential for Coventry would be for around 0.6% per annum growth in employment. This equates to employment growth of 16,700 between 2014-31 (c. 985 jobs pa). This is the average of the three forecasts, and would require around 1350 homes per annum (as an annual average over the 2011-31 period). This does not take account specifically of initiatives to stimulate economic growth in the City. Economic dynamics and growth potential in the City are being considered further as part of work on the Coventry Employment Land Review Update.

North Warwickshire

4.56   Past employment growth in North Warwickshire has been driven in particular by the development of a number of large logistics/ distribution schemes, including Hams Hall and Birch Coppice. Whilst some further development is planned, the pace and scale of additional growth in employment in these sectors seems likely to be more modest moving forwards, unless further major releases come forward. The logistics/ distribution market is sub-regional in nature and it is perfectly possible that demand will be satisfied by schemes in adjoining authorities. The District's competitive advantage comes from its accessibility and access to the road network. The housing market is relatively weaker, and substantial workforce growth seems unlikely. We consider that employment growth is less likely to occur moving forwards at the pace seen in the past.

4.57   We consider that a realistic assessment of growth potential in North Warwickshire would be for employment growth of 0.4% per annum. This would see employment growth of 3,000 between 2014-31. This would require provision of 210 homes per year (as an annual average over the 2011-31 period).

Nuneaton and Bedworth

4.58   The forecasts for Nuneaton and Bedworth are relatively similar to one another. The economy and labour market is relatively closely linked to that of Coventry. The Cambridge Econometrics 2013 and 2014 forecasts, and Experian 2013 forecasts both forecast 0.5% pa growth. The Council's Oxford Economics based model similarly forecasts 0.5% pa growth between 2014-31 (equivalent to 0.59% pa growth in FTE jobs between 2011-31). This is a reasonable scenario, and we calculate equates to growth in total employment of 4,800 between 2014-31. This would require provision of 496 homes per annum.

4.59   There is a notable degree of net out-commuting from the Borough, particularly to Coventry. A policy consideration may be whether higher employment growth should be targeted with a view to supporting more local living and working and reducing out-commuting (or at least growth in out-commuting). This issue will influence the balance of growth in employment and labour supply in the Borough. Any planned changes to commuting dynamics would need to be agreed with other authorities affected – particularly with Coventry City Council.

Rugby

4.60   The Borough has seen strong economic performance over the last decade, and we would expect future employment growth in line with the HMA average. The Borough benefits from strong accessibility, and historically workforce growth and employment have run in tandem. The office market will be influenced by the Friargate scheme coming forward in Coventry. 0.7% annual growth in employment seems realistic, in line with the CE 2015 forecasts. This equates to growth of 4,800 jobs between 2014-31. This would require provision of 425 homes per year (as an annual average over the 2011-31 period).

Stratford-on-Avon

4.61   The evidence herein includes three econometric forecasts for Stratford-on-Avon. The three forecasts provide a reasonable set of parameters for employment growth in the District. It would seem reasonable to assume growth in employment of around 9,000 between 2014-31. This would equate to annual growth of 0.7% per annum in employment. A growth rate between the Experian and CE 2013 forecasts, which this represents, is broadly consistent with the findings of the ERM Study regarding the scale of employment growth which can be expected over the plan period from 2011-31. This level of growth in employment would require provision of 650 homes per year (as an annual average over the 2011-31 period).

Warwick

4.62   The District has a relatively growth-orientated economic base, with a concentration of employment in higher-value sectors and key strengths including in gaming. It is well located with respect to the M40 and Coventry. The positive forecasts shown for the Borough in the 2015 CE forecasts seem realistic – these show growth in employment of 9,900 (on a policy-off basis) over the 2014-31 period, which equates to an annual growth rate of 0.8%. These would require provision of 600 homes per year (as an annual average over the 2011-31 plan period).

4.63   The table below ties together our assessment of expected employment growth potential across the LEP area, and the associated housing need. Figures are rounded to the nearest 5 dwellings per year to avoid spurious accuracy in the projections. The projections do not make specific allowance

for future policy decisions on the distribution of housing and employment land provision, in accordance with the PPG. They represent a demand-based assessment of housing need.

Table 28:   Conclusions on Economic-Driven Housing Need

	Employment Growth 2014-31	Economic-Driven Housing Need, per Annum 2011-31
Coventry	16,700	1,350
North Warwickshire	3,000	210
Nuneaton & Bedworth	4,800	495
Rugby	4,800	425
Stratford-on-Avon	9,000	650
Warwick	9,900	600
Coventry/Warwickshire	48,200	3,730

4.64   We have also sought to provide indicative figures regarding the scale of employment growth which is expected over the 2011-31 period, to equate to plan-making timeframes. For the avoidance of doubt, the analysis in this report has been focused on examining future economic growth potential, from 2014 forwards, and the implications of this on housing need. Figures for employment growth between 2011-14 vary depending on the source used; and the total figures for employment growth below should therefore be treated as indicative. Figures are rounded to the nearest 100 jobs at local authority level, and for the HMA.

Table 29:   Indicative Employment Growth, 2011-31

	2011-31 Rounded
Coventry	24000
North Warwickshire	2100
Nuneaton & Bedworth	8000
Rugby	8600
Stratford-on-Avon	12100
Warwick	9100
Coventry/ Warwickshire	63800

Source: GL Hearn Estimates

4.65   The analysis in this section should be considered as providing a demand-based assessment of economic growth potential for the HMA and individual authorities, taking account of the structure and growth potential of the economy in different areas. It should be considered as a policy-off assessment. As part of the plan-making process, it may be appropriate to consider adjustments to targets for housing and employment land provision, particularly in order to support supply-demand balance, or take account of unmet needs arising from other areas. This report should not be considered as precluding this.

4.66   One of the issues which the report does highlight is the strong projected workforce growth expected in Coventry. There is thus some basis, in policy terms, for considering the potential for enhanced

employment growth in the City to avoid issues associated with unemployment and worklessness, and reflecting the attractiveness of an available potential workforce to employers looking to invest. Similarly there is a case for seeking to bolster employment in Nuneaton and Bedworth to support more local living and working.

5 UPDATING THE ASSESSMENT OF MARKET SIGNALS

5.1 In this section we provide an updated assessment of market signals. Market signals were considered in the 2013 SHMA Report. The analysis herein does not seek to repeat this, which is still relevant evidence, but to consider how housing market dynamics have evolved over the subsequent period and consider the implications of this.

5.2 For some of the housing market signals, most notably those derived from Census data, there has been no new data released since the 2013 SHMA and therefore have not been included here. We however cross-reference to analysis in the 2013 SHMA where appropriate.

Findings of the 2013 SHMA

The 2013 SHMA found that market conditions had changed dramatically since 2007/8, with the trend being of falling prices and improving affordability. Market demand (as shown by sales evidence) was notably below pre-2008 levels. The evidence pointed to economic conditions, including availability of mortgage finance, influencing housing market dynamics with little evidence of a shortage of supply.

Updating the Assessment

House Prices

5.3 The SHMA found that two local authorities within the HMA – Stratford-on-Avon and Warwick Districts - had an average house prices in 2012 which has above national average, and notably above the West Midlands average. For the other local authorities prices were similar (or in the cases of Coventry and Nuneaton and Bedworth notably below) the West Midlands average.

5.4 The SHMA identified that whilst house prices had grown notably over the pre-recession decade; that since 2007 in real terms, stripping out inflation, the value of housing had fallen in all areas.

5.5 We have now been able to update the assessment to include trends over the 2012-14 period. Figure 40 shows house price dynamics over the 2008-14 period.

5.6 Stratford-on-Avon and Warwick Districts continue to have the highest house prices in the HMA. Figure 40 suggests that average house prices in these areas have risen comparatively more strongly in absolute terms.

5.7 An improvement in housing market conditions during the course of 2013 and 2014 has been seen nationally, supported by an in improving economic context; continuing low interest rates; some improvement in availability of mortgage finance; and government initiatives to support the housing market, such as the Help-to-Buy Scheme. Improving market conditions stimulated growth in house

prices in 2013, but there has been some weakening of growth trends since – this is evident in Figure 40.

5.8 The 2013 SHMA reported that between 2008 and 2012 house prices remained broadly static in Coventry (0.4%) and fell in North Warwickshire (-2.0%). House prices increased by 5.4% in Nuneaton and Bedworth (£6,750), 8.4% in Rugby (£12,523), 5.4% (£12,500) in Stratford-on-Avon, and 6.3% (£12,750) in Warwick. However, house price increases across the HMA were below those recorded across England (where there was an average increase of 8.9% (£15,000) between Q1 2008 and Q3 2012). House values in effect fell in real terms (stripping out inflation).

5.9 Since mid-2012 house prices have increased in all of the HMA authorities reflecting some recovery in the housing market. In absolute terms, the strongest growth in prices was in Warwick District (£27,000, 12.7%); in proportional terms it was in North Warwickshire (£15,000, 10.3%). Rugby over this short period has also seen an increase which has above the national average (£12,500, 8.4%).

5.10 Growth in prices in Stratford-on-Avon, whilst significant in absolute terms over the two year period (£16,250) has been modest in proportional terms (6.6%). Nuneaton and Bedworth has performed arguably weakest (£7,750, 6.2%); followed by Coventry (£10,000, 8.0%).

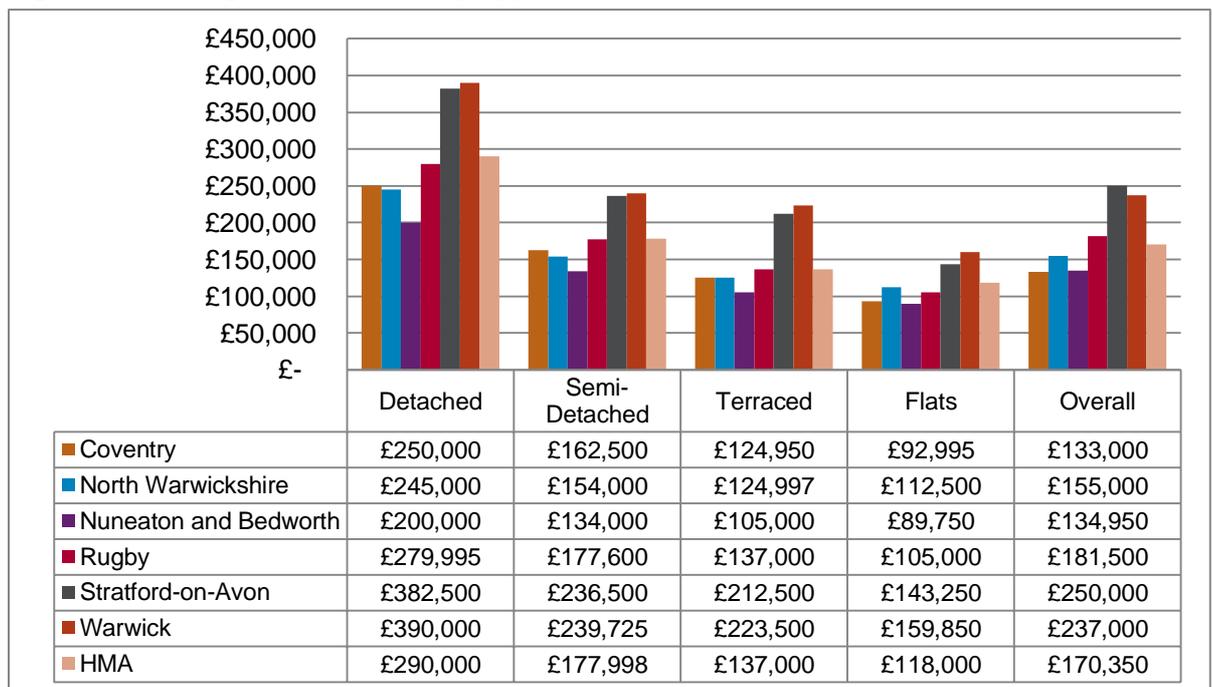**Figure 40: Median House Price Trends 2008 – 2014**
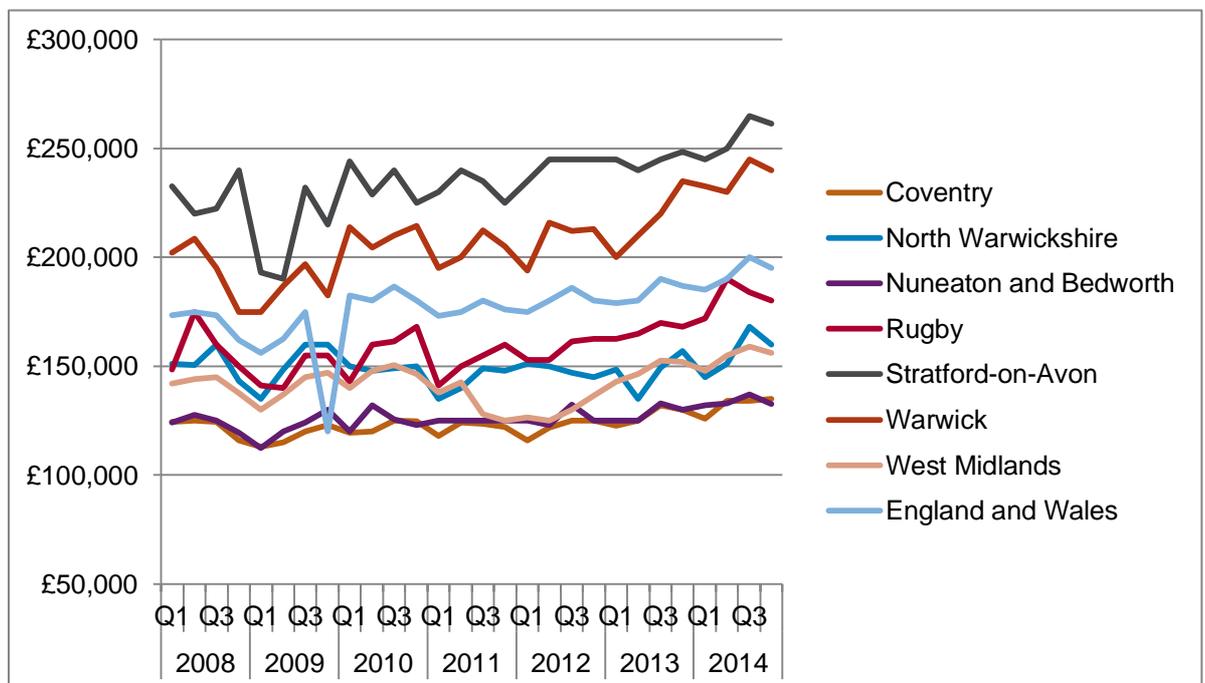
Source: HM Land Registry / CLG

5.11 It is important to remember that average house prices are influenced by the mix of houses sold. Figure 41 below profiles the average price of properties sold in 2014 by different dwelling type.

5.12   An analysis of house price by type confirms that house prices are highest in Stratford-on-Avon and Warwick in the south of the County. This is consistent with the analysis in the 2013 SHMA and suggests stronger relative demand for market homes in these areas. House prices in Rugby are close to the HMA average for all house types, with prices in North Warwickshire slightly lower than this on average.

5.13   House prices are lowest in Nuneaton and Bedworth and Coventry. Prices for detached and semi-detached in Coventry are higher – above North Warwickshire prices – which may be a reflection of lower availability of these stock types in the City (there being for instance limited detached stock).

5.14   The value of terraced houses and flats in Nuneaton and Bedworth are particularly low. The market evidence suggests demand is stronger in relative terms for other house types.

Figure 41: Average House Prices by Type 2014

	Detached	Semi-Detached	Terraced	Flats	Overall
Coventry	£250,000	£162,500	£124,950	£92,995	£133,000
North Warwickshire	£245,000	£154,000	£124,997	£112,500	£155,000
Nuneaton and Bedworth	£200,000	£134,000	£105,000	£89,750	£134,950
Rugby	£279,995	£177,600	£137,000	£105,000	£181,500
Stratford-on-Avon	£382,500	£236,500	£212,500	£143,250	£250,000
Warwick	£390,000	£239,725	£223,500	£159,850	£237,000
HMA	£290,000	£177,998	£137,000	£118,000	£170,350

Source: HM Land Registry

5.15   Figure 42 shows the difference in house prices between the figures reported in the 2013 SHMA (covering the October 2012 – March 2013) and 2014 figures. This shows that while there has been an overall increase in house prices over this period, this has been stronger for certain types of housing than others. It shows that **overall the profile of house price changes has been very mixed**.

5.16   The median price of detached houses has actually decreased in five of the six HMA authorities, with only Rugby seeing an increase. North Warwickshire, Nuneaton and Bedworth, and Stratford-on-

Avon have also seen a decrease in the price of semi-detached houses – albeit a smaller decrease than seen for detached properties.

5.17   By contrast, all areas have seen an increase in the median price of terraced houses; and all areas except Coventry have seen an increase in the price of flats. North Warwickshire and Nuneaton and Bedworth have seen particularly high increases in the price of flats increasing by £19,300 (21%) and £21,400 (31%) respectively – but from a comparatively lower base.

5.18   The evidence suggests a recovery in housing market conditions towards the lower end of the market, but one which is quite embryonic and has not filtered through into a wider growth in demand for housing.

Table 30:   Difference in Median House Prices by Type Between 2012/2013 and 2014

	Coventry	North Warwickshire	Nuneaton and Bedworth	Rugby	Stratford-on-Avon	Warwick
Detached	-£2,053	-£11,500	-£5,228	£17,242	-£21,433	-£875
Semi-Detached	£6,736	-£7,335	-£653	£19,928	-£9,508	£7,834
Terraced	£7,361	£9,166	£6,503	£3,373	£6,233	£7,555
Flats	-£1,978	£19,291	£21,427	£6,663	£9,325	£9,896

Source: HM Land Registry

Sales Trends

5.19   Whilst prices reflect the supply/demand balance, sales volumes tell us about changes in relative demand for housing. It is important to consider these alongside trends in house prices to understand demand for market housing.

5.20   To assess relative demand we use an approach of benchmarking sales performance against long-term trends. Figure 42 benchmarks annual sales across the HMA and wider geographies over the 1998-2014 period (the latest data available at the date of the 2013 SHMA was 2011). Consistent with the analysis in the 2013 SHMA, it uses an index where 1 is the average annual sales over the 1998-2007 decade (the pre-recession decade). We seek to compare recent sales volumes relative to averages over this period. Sales volumes tell us about trends in effective market demand for housing.

5.21   The chart shows that the credit crunch resulted in a substantial reduction in effective demand, with sales broadly halving. The impact of this can clearly be related across to housing completions over this period. Between 2008 and 2012 there was little growth in sales – weak market conditions persisted. 2013 and 2014 have seen some recovery in the number of sales, however sales volumes remain well below pre-recession levels – in 2014 the number of sales was 76% of the pre-recession

rate in the HMA. This is marginally better than with the rate seen across England (75%) and the West Midlands (74%), but still suggests that demand for market housing (in a longer-term context) remains relatively subdued.

5.22   The strong similarity between the sales trend across the HMA and the regional / national trends highlights the influence of macro-economic factors on effective demand for market homes within the HMA.

Figure 42: Quarterly Sales Index, 1998 – 2011 HMA Level
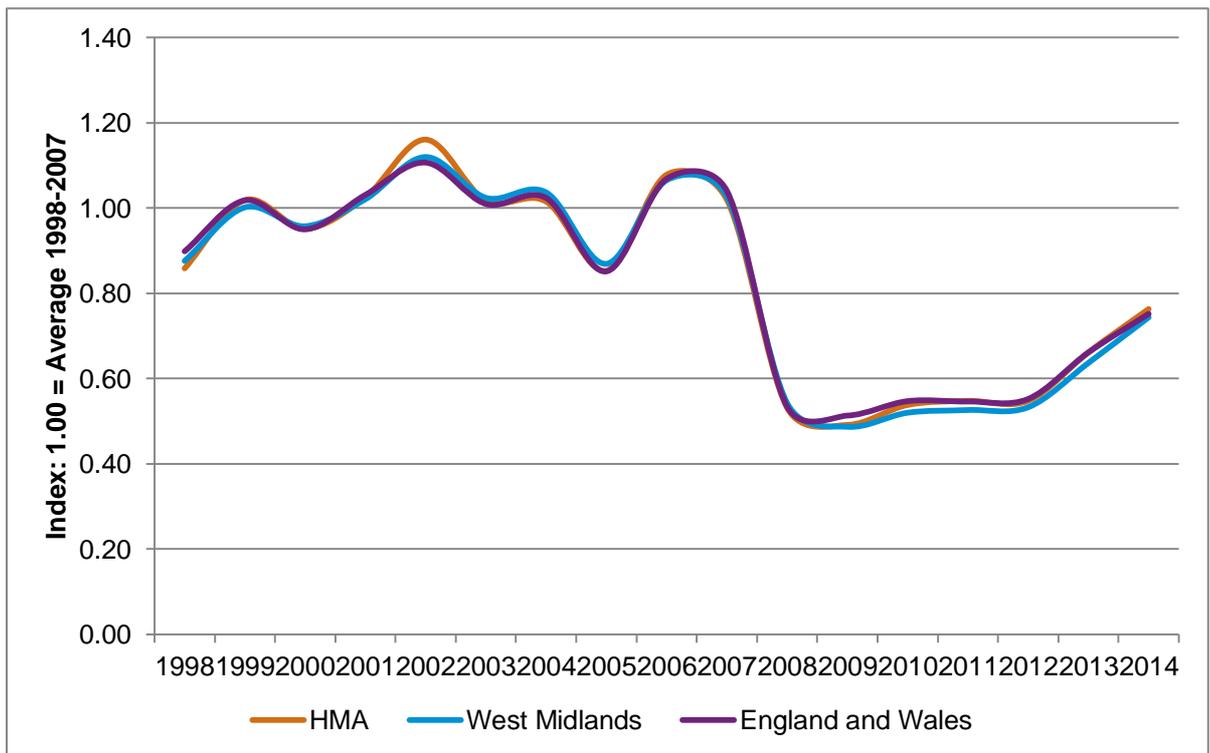
Source: HM Land Registry / CLG

5.23   Figure 43 shows the trend in sales / effective demand at local authority level. This reiterates the impact of macro-economic factors on the market, although it does show more variance than the wider areas considered above.

5.24   Since the economic downturn, market performance in Nuneaton and Bedworth has been further below the pre-2007 average than the other HMA authorities and, as of 2014, the number of sales in the borough was at 68% of the pre-recession level. Market demand appears to remain comparatively weaker in Nuneaton and Bedworth and Coventry than other parts of the HMA.

5.25   The best performing authority in terms of sales volume is Stratford-on-Avon where sales volume in 2014 was 83% of the pre-recession rate. 2014 saw a strong recovery in sales volumes in North Warwickshire, but from comparatively lower relative performance over the previous five years.

Figure 43: Quarterly Sales Index, 1998 – 2014 Local Authority Level
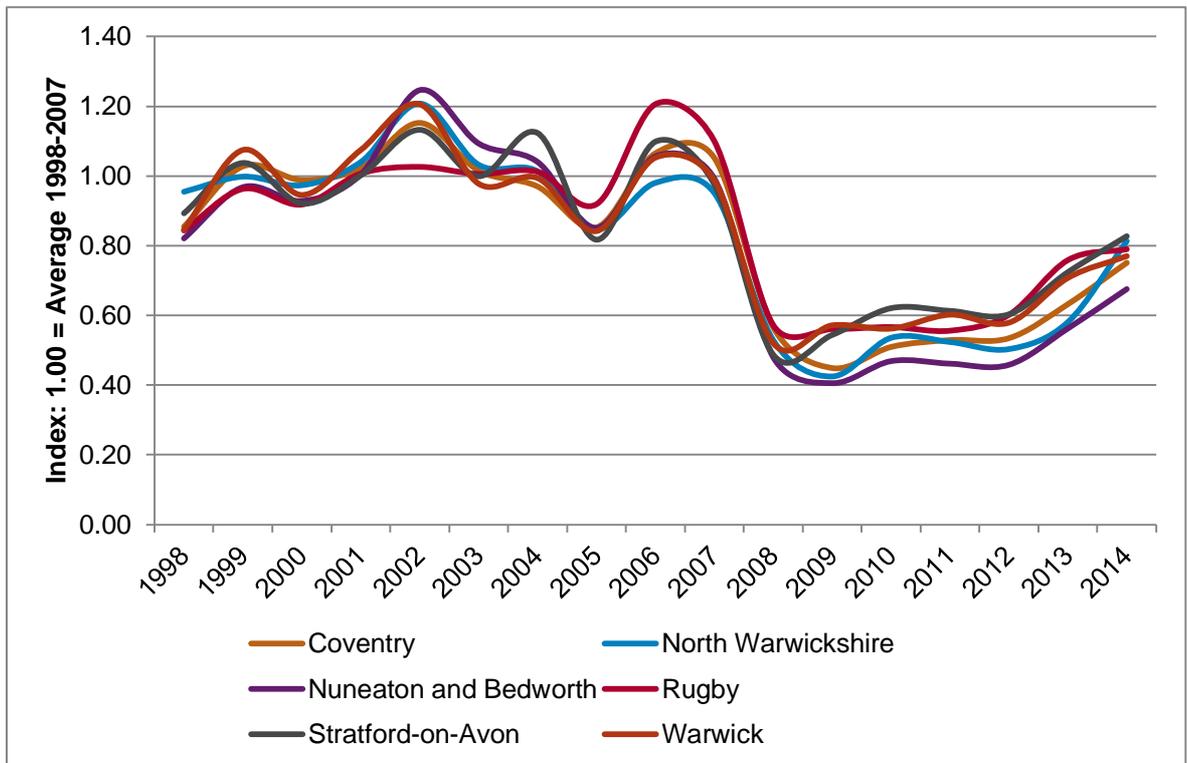
Source: HM Land Registry / CLG

Rental Trends

5.26 The 2013 SHMA found that the variation in rental costs across the HMA followed the same broad pattern as for purchase prices. The most recent VOA private rental data (March 2015) shows the median rental prices in the HMA authorities.

5.27 Median monthly rents in the HMA are shown in the table below and range from £500 per calendar month (pcm) in Nuneaton and Bedworth to £750pcm in Stratford-on-Avon. This compares to the West Midlands median value of £550pcm and the England value of £600pcm. It is only in Warwick and Stratford-on-Avon Districts that average rental costs are above the West Midlands and national averages.

Figure 44: Median Monthly Rent, March 2015

Area	Median Rent
Coventry	£ 525
North Warwickshire	£ 550
Nuneaton and Bedworth	£ 500
Rugby	£ 575
Stratford-on-Avon	£ 750
Warwick	£ 725
West Midlands	£ 550
England	£ 600

Source: VOA Private Rental Data

5.28   Figure 45 below shows the median rental values benchmarked to September 2011 values. Also shown in Figure 45 is the Consumer Price Index (CPI), a measure of inflation.

5.29   The analysis shows comparatively stronger growth in private rental prices in Warwick where the median monthly price has grown by £130 (22%) since September 2011. Stratford-on-Avon and Rugby have also seen stronger growth in rental values over this period with both boroughs experiencing prices increases of 15%. These authorities saw growth above the West Midlands rate of 10% for this period, and well above the CPI growth of 5.5%.

5.30   In the HMA authorities, it is only in Stratford-on-Avon and Warwick Districts where rental costs are above average and have shown notable recent growth.

5.31   In Coventry rental prices have grown by 6% over this period, while North Warwickshire and Nuneaton and Bedworth have seen growth of 5%. This is roughly in line with CPI inflation indicating zero growth in real terms.

Figure 45: Benchmarked Trend in Median Private Rental Values (Sep 2011 – Mar 2015)
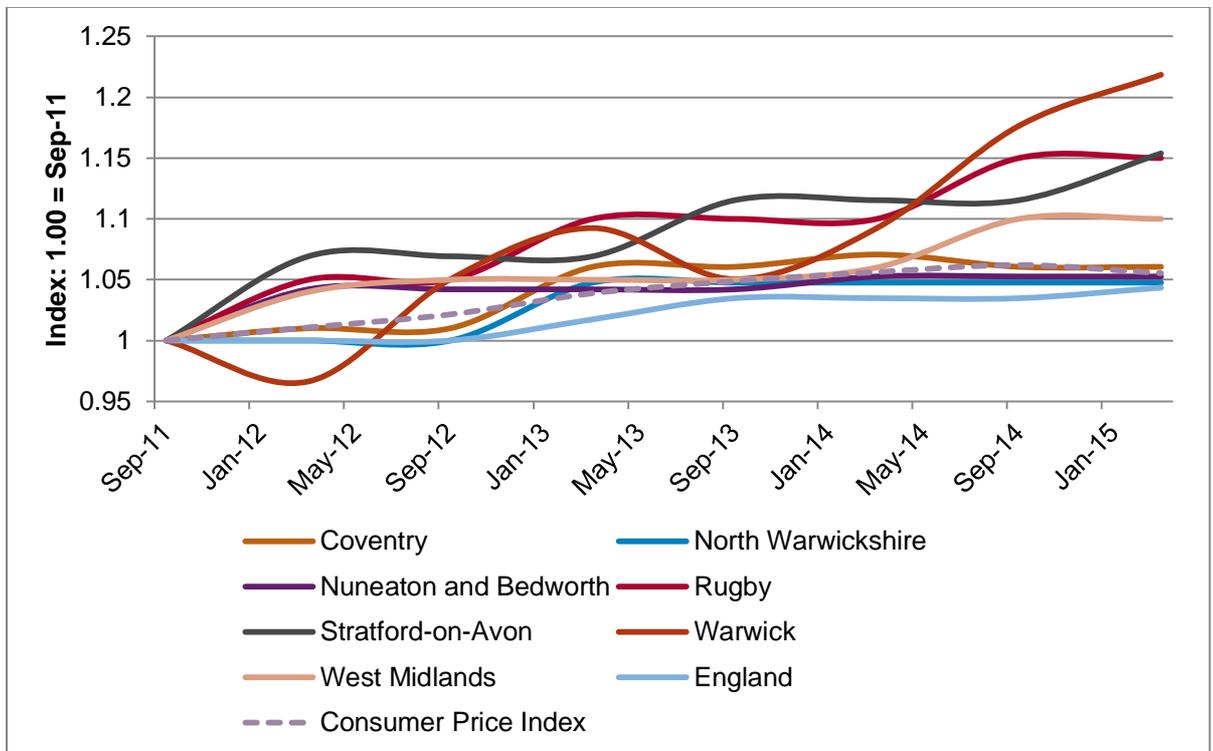
Source: VOA Private Rental Data

Affordability of Market Housing

5.32   We have considered evidence of affordability by looking specifically at the relationship between lower quartile house prices and lower quartile earnings. This is expressed as an affordability ratio.

5.33   Looking at the HMA as a whole, affordability ratios are 'average' relative to other areas nationally. Within an HMA we would expect there to be some variation, with some areas more or less expensive than others.

5.34   The latest figures, from 2013, show that in the HMA the lower quartile affordability ratio ranges from 8.9 in Stratford-on-Avon (i.e. lower quartile house prices in the district are 8.9 times higher than lower quartile earnings) to 4.8 in Coventry. The HMA average is 6.5 which is broadly consistent within the England average.

Figure 46: Lower Quartile Affordability Ratio 2013

Area	Lower Quartile Affordability Ratio
Coventry	4.77
North Warwickshire	6.37
Nuneaton and Bedworth	5.29
Rugby	6.12
Stratford-on-Avon	8.89
Warwick	7.82
HMA Average	6.54
England	6.45

Source: CLG

5.35   We next consider whether there has been any material worsening of the affordability ratio. As shown in Figure 47, across all areas the ratio of affordability rose over the 2000-7 period, as occurred in almost every part of the country.

5.36   It is however evident that affordability has subsequently improved. The lower quartile house price to earnings ratio in Stratford-on-Avon remains broadly consistent with the 2007 position in Stratford-on-Avon. There has been no material worsening of affordability in the District, despite recent house price increases. In other parts of the HMA, affordability has improved, with the LQ price-income ratio falling. In some cases affordability has improved to quite a notable degree (particularly in Coventry and Nuneaton and Bedworth).

Figure 47: Lower Quartile Affordability 1998-2013
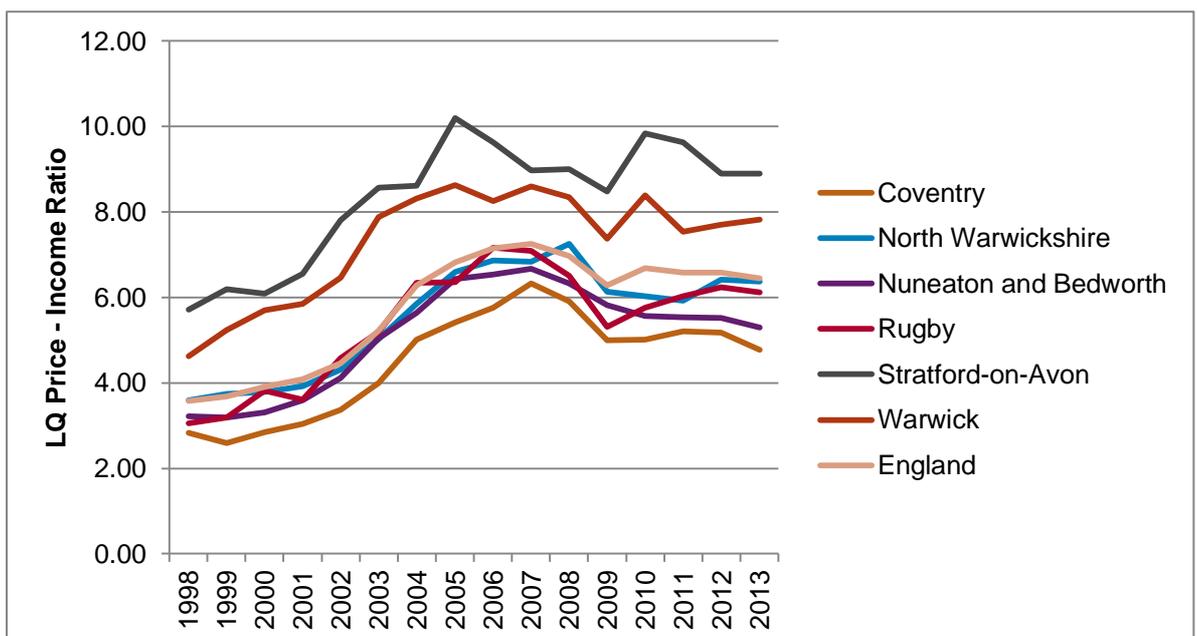
Source: CLG

5.37   Figure 48 below compares the lower quartile and median affordability ratios. This shows that for all
        of the Coventry and Warwickshire authorities the lower quartile affordability ratio is higher than the
        median ratio. This indicates that within the HMA affordability is more acutely felt at the lower end of
        the market. This contrasts with the national picture where the lower quartile figure is lower.

Figure 48: Lower Quartile Affordability vs Median Affordability 2013

	LQ	Median	Difference
Coventry	4.77	4.32	0.45
North Warwickshire	6.37	6.01	0.36
Nuneaton and Bedworth	5.29	5.21	0.08
Rugby	6.12	5.64	0.48
Stratford-on-Avon	8.89	8.62	0.27
Warwick	7.82	7.33	0.49
England	6.45	6.72	-0.27

Source: CLG

5.38   The evidence base provides some indication of affordability pressures, but the picture within the
        HMA is mixed. The table below summarises key conclusions.

Table 31:   Key Findings regarding Market Signals

Local Authority	Market Signals
Coventry	• House prices and rental costs below national and regional averages. No substantive growth in rents in real terms. House prices have fallen since 2008 in real terms. • Most affordable area within HMA, with LQ affordability ratio of 4.7 which is below national averages. Ratio has fallen over last decade, with notable improvements in affordability since 2008.
North Warwickshire	• House prices similar to West Midlands, but below national averages. Rental costs below both regional and national average. Rental costs have not risen in real terms. House prices fallen since 2008 in real terms. • LQ affordability ratio is below HMA and national averages at 6.4. Ratio has remained relatively stable over the last decade.
Nuneaton & Bedworth	• House prices below national and regional averages. Rents below regional average. Rents have not risen in real terms. House prices fallen since 2008 in real terms. • LQ affordability ratio is below the HMA and national averages at 5.3. Affordability has improved over the last decade, with the ratio falling since 2006.
Rugby	• Houser prices and rental costs which sit between the West Midlands and national averages. Rental costs have grown in real terms in the short-term since 2011. House prices fallen since 2008 in real terms. • LQ affordability ratio of 6.1 which is below the HMA and national averages. Affordability is relatively similar to 2004, but with evidence that the ratio has been increasing since 2011.

Stratford-on-Avon	• House prices are above national and regional averages, influenced in part by housing mix. Rental costs also above national/ regional averages, with evidence of real term growth in rents in the short-term since 2011. House prices fallen since 2008 in real terms. • Higher LQ affordability ratio in the HMA, at 8.9, which is above national and regional averages; but no evidence of substantial deterioration in affordability over the last decade.
Warwick	• House prices and rents above national and regional average. Evidence of above inflation rental growth since 2011. House prices since 2008 have remained stable in real terms. • LQ affordability ratio of 7.8 which is above HMA and national averages, but evidence that affordability has improved and the ratio fallen modestly over the last decade.

5.39   Within any Housing Market Area house prices and rental costs will be higher in some areas than others. Across the HMA there is no evidence that there has been a relatively stronger increase in housing costs, and deterioration in affordability, over the last decade relative to national trends. The evidence from market signals does not justify any substantial adjustments to overall housing provision.

5.40   In drawing conclusions, it is however appropriate to consider demographic evidence and the extent to which household formation might be suppressed. Evidence from this section reflecting market signals also needs to be considered alongside that regarding the affordable housing need; in that a deterioration in the affordability of market housing can be expected to contribute to an increase in the need for affordable housing (and visa-versa).

5.41   GL Hearn considers that there is a need to consider how changes in the housing affordability have influenced demographic trends. Both interrogation of trends within the Coventry and Warwickshire HMA and nationally suggest a link between these; whereby a decline in housing affordability over the period since 2001 has resulted in a fall in household formation, and more households sharing or living with parents for longer. The impacts of these can be seen in declining household formation rates, particularly for younger households in their late 20s and early 30s.

5.42   On this basis, it would be reasonable to assume that a key impact of an improvement in affordability would be manifest in an increase (or recovery) in household formation rates for households in these age groups over time. Drawing together the evidence in this section, and in Section 6, we have sought in Section 7 to quantify what scale of increase in housing supply might be necessary to facilitate this improvement in household formation amongst younger households.

6 UPDATED ASSESSMENT OF AFFORDABLE HOUSING NEED

6.1 In this section we discuss levels of affordable housing need in Coventry/Warwickshire and the six local authorities. Affordable housing need is defined in the NPPF as *'social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market'*.

6.2 The PPG sets out a model for assessing affordable housing need. The model is essentially identical to that set out in 2007 SHMA Guidance, and with the earlier guidance providing more detail about specific stages of the modelling, reference is also made in this section to the 2007 guide. The analysis is based on secondary data sources. It draws on a number of sources of information including 2011 Census data, demographic projections, house prices/rents and income information.

6.3 The affordable housing needs model is based largely on housing market conditions (and particularly the relationship of housing costs and incomes) at a particular point in time – the time of the assessment – as well as the existing supply of affordable housing which can be used to meet housing need. The base date for analysis is 2014 (e.g. data about housing costs and incomes is for 2014). However, it is recognised that the analysis should align with other research and hence estimates of affordable housing need are provided in this section on an annual basis for the 20-year period between 2011 and 2031 (to be consistent with the demographic modelling undertaken within this report.

6.4 Housing market circumstances, data and government policy change over time and will need to be kept under review by the authorities. Meaningful changes in circumstances may require elements of the analysis to be updated.

Key Definitions

6.5 We begin by setting out key definitions relating to affordable housing need, affordability and affordable housing.

Current Affordable Housing Need

6.6 Current affordable housing need is defined as the number of households who lack their own housing or who live in unsuitable housing and who cannot afford to meet their housing needs in the market.

Newly-Arising Need

6.7 Newly-arising (or future) need is a measure of the number of households who are expected to have an affordable housing need at some point in the future. In this assessment we have used trend data

from CoRe along with demographic projections about the number of new households forming (along with affordability) to estimate future needs.

Supply of Affordable Housing

6.8   An estimate of the likely future supply of affordable housing is also made (drawing on secondary data sources about past lettings). The future supply of affordable housing is subtracted from the newly-arising need to make an assessment of the net future need for affordable housing.

Affordability

6.9   Affordability is assessed by comparing household incomes, based on income data modelled using a number of sources including CACI, ASHE, the English Housing Survey (EHS) and ONS data, against the cost of suitable market housing (to either buy or rent). Separate tests are applied for home ownership and private renting and are summarised below:

a. *Assessing whether a household can afford home ownership: A household is considered able to afford to buy a home if it costs 3.5 times the gross household income – CLG guidance suggests using different measures for households with multiple incomes (2.9x) and those with a single income (3.5x), however (partly due to data availability) we have only used a 3.5 times multiplier for analysis. This ensures that affordable housing need figures are not over-estimated – in practical terms it makes little difference to the analysis due to the inclusion of a rental test (below) which tends to require lower incomes for households to be able to afford access to market housing;*

b. *Assessing whether a household can afford market renting: A household is considered able to afford market rented housing in cases where the rent payable would constitute no more than 35% of gross income. The choice of an appropriate threshold is an important aspect of the analysis, CLG guidance (of 2007) suggested that 25% of income is a reasonable start point but also notes that a different figure could be used. Analysis of current letting practice suggests that letting agents typically work on a multiple of 40% (although this can vary by area). Government policy (through Housing Benefit payment thresholds) would also suggest a figure of 40%+ (depending on household characteristics). This assessment uses 35% for the core analysis but also undertakes a sensitivity test on the level of affordable need at different percentages (from 25% to 40%).*

6.10   It should be recognised that a key challenge in assessing affordable housing need using secondary sources is the lack of information available regarding households' existing savings. This is a key factor in affecting the ability of young households to purchase housing particularly in the current market context where a deposit of at least 10% is typically required for the more attractive mortgage deals. The 'help to buy' scheme is likely to be making some improvements in access to the owner-occupied sector although at present this is likely to be limited (although the impact of recent extensions to this scheme to include the second-hand market should be monitored moving forward). In many cases households who do not have sufficient savings to purchase have sufficient income to rent housing privately without support, and thus the impact of deposit issues on the overall assessment of affordable housing need is limited.

Affordable Housing

6.11   The NPPF provides the definition of affordable housing (as used in this report). The following is taken from Annex 2 of NPPF.

"Affordable housing includes social rented, affordable rented and intermediate housing, provided to specified eligible households whose needs are not met by the market. Affordable housing should:

- Meet the needs of eligible households including availability at a cost low enough for them to afford, determined with regard to local incomes and local house prices;
- Include provision for the home to remain at an affordable price for future eligible households or, if these restrictions are lifted, for the subsidy to be recycled for alternative affordable housing provision."

6.12   Within the definition of affordable housing there is also the distinction between social rented affordable rented, and intermediate housing. Social rented housing is defined as:

"Rented housing owned and managed by local authorities and registered social landlords, for which guideline target rents are determined through the national rent regime. It may also include rented housing owned or managed by other persons and provided under equivalent rental arrangements to the above, as agreed with the local authority or with the Homes and Communities Agency as a condition of grant."

6.13   Affordable rented housing is defined as:

"Rented housing let by registered providers of social housing to households who are eligible for social rented housing. Affordable Rent is not subject to the national rent regime but is subject to other rent controls that require a rent of no more than 80 per cent of the local market rent."

6.14   The definition of intermediate housing is shown below:

"Intermediate affordable housing is 'Housing at prices and rents above those of social rent, but below market price or rents. These can include shared equity products (e.g. HomeBuy), other low cost homes for sale and intermediate rent but does not include affordable rented housing."

6.15   As part of our analysis in this report we have therefore studied the extent to which both social rented, intermediate housing and affordable rented housing can meet affordable housing need in Coventry/Warwickshire.

Local Prices & Rents

6.16   An important part of the SHMA is to establish the entry-level costs of housing to buy and rent – this data is then used in the assessment of the need for affordable housing. The affordable housing needs assessment compares prices and rents with the incomes of households to establish what proportion of households can meet their needs in the market, and what proportion require support and are thus defined as having an 'affordable housing need.'

6.17   In this section we establish the entry-level costs of housing to both buy and rent across the study area. Our approach has been to analyse Land Registry and Valuation Office Agency (VOA) data to establish lower quartile prices and rents. For the purposes of analysis (and to be consistent with CLG guidance) we have taken lower quartile prices and rents to reflect the entry-level point into the market

6.18   Table 32 below shows estimated lower quartile property prices by dwelling type. The data shows that entry-level costs to buy are estimated to start from about £70,000 for a flat in Nuneaton & Bedworth and rising to £315,000 for a detached home in Warwick. The overall 'average' lower quartile price varies between £105,500 in Nuneaton & Bedworth up to £186,750 in Stratford-on-Avon

Table 32:   Lower Quartile Sales Prices by Type (2014)

	Flat	Terraced	Semi-detached	Detached	All dwellings
Coventry	£75,250	£106,000	£130,000	£209,500	£109,500
North Warwickshire	£78,000	£109,000	£125,000	£200,000	£120,000
Nuneaton & Bedworth	£70,000	£89,950	£117,400	£170,000	£105,500
Rugby	£90,000	£120,000	£153,250	£230,000	£135,000
Stratford-on-Avon	£115,000	£170,000	£198,000	£295,000	£186,750
Warwick	£127,900	£182,950	£201,000	£315,000	£180,000

Source: Land Registry (2014)

6.19   A similar analysis has been carried out for private rents using Valuation Office Agency (VOA) data – this covers a 12-month period to March 2015. For the rental data information about dwelling sizes is provided (rather than types); the analysis shows an average lower quartile cost (across all dwelling sizes) varying from £425 in Coventry and Nuneaton & Bedworth up to £625 in Stratford-on-Avon.

Figure 49:   Lower Quartile Private Rents by Size and Location (year to March 2015) – per month

	Room only	Studio	1 bed-room	2 bed-rooms	3 bed-rooms	4+ bed-rooms	All dwellings
Coventry	£308	£298	£425	£485	£575	£750	£425
North Warwickshire	-	-	£351	£495	£550	£738	£495
Nuneaton & Bedworth	£286	£303	£380	£460	£550	£750	£425
Rugby	£325	£390	£425	£525	£625	£800	£495
Stratford-on-Avon	-	£400	£500	£650	£795	£1,100	£625
Warwick	£329	£445	£550	£695	£800	£1,175	£550

Source: Valuation Office Agency

Cost of Affordable Housing

6.20   Traditionally the main type of affordable housing available in an area is social rented housing and the cost of social rented accommodation by dwelling size can be obtained from Continuous Recording (CoRe) – a national information source on social rented lettings. The table below illustrates the rental cost of lettings of social rented properties by size in 2013/14. As can be seen the costs are below those for private rented housing indicating a gap between the social rented and market sectors. This gap increases for larger properties. The figures in Table 33 include service charges.

Table 33:   Monthly Lower Quartile Social Rent Levels

	1 bedroom	2 bedrooms	3+ bedrooms	Lower quartile (all sizes)
Coventry	£311	£371	£415	£334
North Warwickshire	£301	£335	£352	£319
Nuneaton & Bedworth	£288	£327	£362	£319
Rugby	£321	£365	£384	£349
Stratford-on-Avon	£364	£410	£460	£403
Warwick	£308	£345	£388	£336

Source: CoRe (2014)

6.21   Changes in affordable housing provision has seen the introduction of a new tenure of affordable housing (Affordable Rented). Affordable rented housing is defined in the NPPF as being *'let by local* authorities or private registered providers of social housing to households who are eligible for social rented housing. Affordable Rent is subject to rent controls that require a rent of no more than 80% of the local market rent (including service charges, where applicable)'. In the short-term it is likely that this tenure will replace social rented housing for new delivery.

6.22   Affordable Rented housing can therefore be considered to be similar to social rented housing but at a potentially higher rent. The 80% (maximum) rent is to be based on the open market rental value of the individual property and so it is not possible to say what this will exactly mean in terms of cost (for example the rent for a two-bedroom flat is likely to be significantly different to a two-bedroom detached bungalow). In addition, market rents for new-build homes are likely to be higher than within the existing stock and may well be in excess of 80% of lower quartile rents. However, for the purposes of analysis we have assumed that the 80% figure can be applied to the lower quartile private rented cost data derived from VOA information.

Gaps in the Housing Market

6.23   Figure 50 estimates how current prices and rents in the six local authorities might equate to income levels required to afford such housing. The figures are based on the figures derived in the analysis above and include four different tenures (buying, private rent, affordable rent and social rent) and

are taken as the lower quartile price/rent across the whole stock of housing available (i.e. including all property sizes). For illustrative purposes the calculations are based on 3.5 times household income for house purchase and 35% of income to be spent on housing for rented properties. The figures for house purchase are based on a 100% mortgage for the purposes of comparing the different types of housing.

Figure 50: Indicative Income required to Purchase/Rent without additional subsidy

Source: Land Registry, VOA and CoRe

Income Levels and Affordability

6.24   Following on from our assessment of local prices and rents it is important to understand local income levels as these (along with the price/rent data) will determine levels of affordability and also provide an indication of the potential for intermediate housing to meet needs. Data about total household income has been modelled on the basis of a number of different sources of information to provide both an overall average income and the likely distribution of incomes in each area. The key sources of data include:

* CACI from *Wealth of the Nation 2012* – to provide an overall national average income figure for benchmarking
* English Housing Survey (EHS) – to provide information about the distribution of incomes (taking account of variation by tenure in particular)
* Annual Survey of Hours and Earnings (ASHE) – to assist in looking at how incomes have changed from 2012 to 2014 (a 2.4% increase was identified from this source for the West Midlands region)
* ONS modelled income estimates – to assist in providing more localised income estimates (i.e. for each of the local authority areas

6.25   Drawing all of this data together we have therefore been able to construct an income distribution for the whole of the study area for 2014. The data shows that around a third (37%) of households have an income below £20,000 with a further third in the range of £20,000 to £40,000. The overall average (median) income of all households in Coventry/Warwickshire is estimated to be around £26,100 with a mean income of £34,500.

Figure 51: Distribution of Household Income in Coventry/Warwickshire
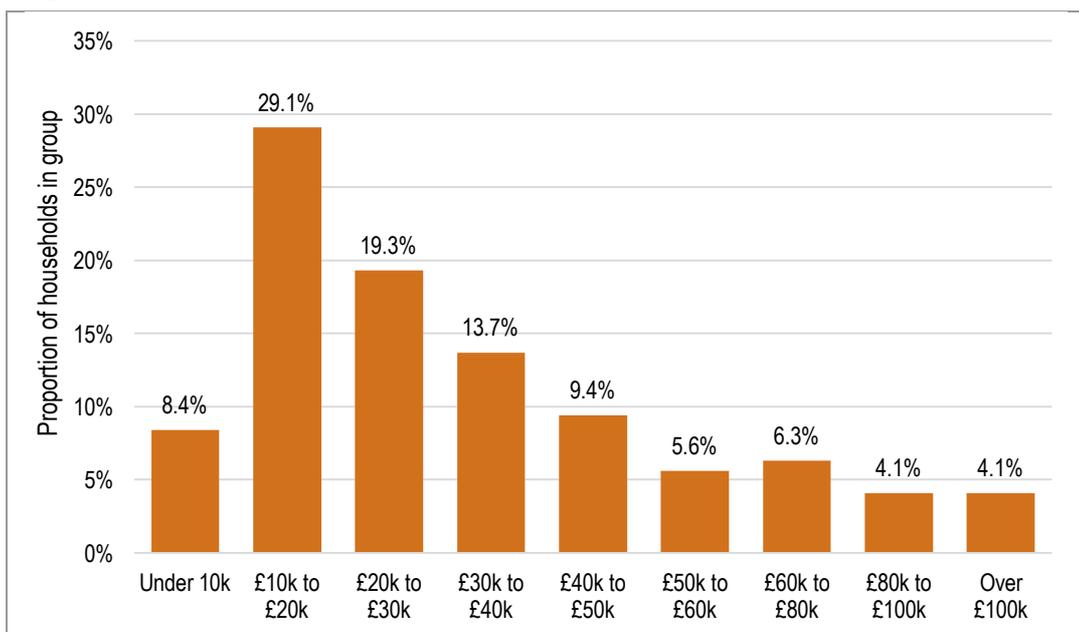
Source: Derived from ASHE, EHS, CACI and ONS data

6.26   Table 34 below shows how income levels vary for each of the three local authorities. Incomes were found to be highest in Stratford-on-Avon and lowest in Coventry.

Table 34:   Income Levels by Local Authority

	Mean income	Median income
Coventry	£30,141	£22,925
North Warwickshire	£34,116	£25,948
Nuneaton & Bedworth	£33,434	£25,429
Rugby	£36,873	£28,045
Stratford-on-Avon	£39,438	£29,996
Warwick	£39,344	£29,925
Coventry/Warwickshire	**£34,543**	**£26,057**

Source: Derived from ASHE, EHS, CACI and ONS data

6.27   To assess affordability we have looked at households ability to afford either home ownership or private rented housing (whichever is the cheapest), without financial support. The distribution of household incomes is then used to estimate the likely proportion of households who are unable to afford to meet their needs in the private sector without support, on the basis of existing incomes. This analysis brings together the data on household incomes with the estimated incomes required to access private sector housing.

6.28   Different affordability tests are applied to different parts of the analysis depending on the group being studied (e.g. recognising that newly forming households are likely on average to have lower incomes than existing households). Assumptions about income levels are discussed where relevant in the analysis that follows.

Affordable Housing Needs Assessment

6.29   Affordable housing need has been assessed using the Basic Needs Assessment Model, in accordance with the CLG Practice Guidance. This model is summarised in the chart below.

Figure 52: Overview of Basic Needs Assessment Model
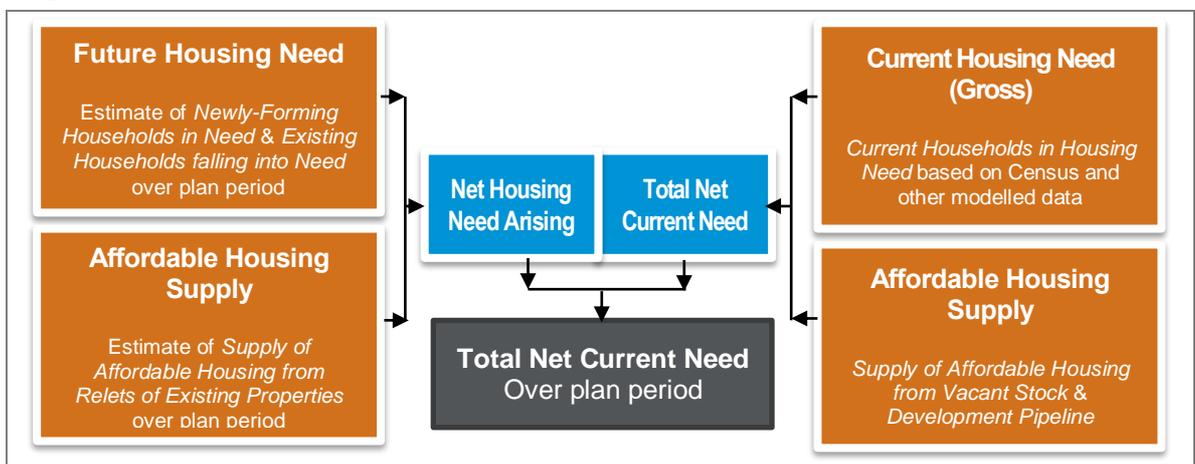
6.30   The figures presented in this report for affordable housing needs have been based on secondary data sources including analysis of 2011 Census data. The modelling undertaken provides an assessment of affordable housing need for a 20-year period (which is then annualised). Each of the stages of the affordable housing needs model calculation are discussed in more detail below.

Methodological Issues

6.31   As the analysis is based on secondary data sources only, there are a number of assumptions that need to be made to ensure that the analysis is as robust as possible. Key assumptions include considering the number of households who have a need due to issues such as insecure tenancies or housing costs – such households form part of the affordable need as set out in guidance (see paragraph 023 of the PPG for example) but are not readily captured from secondary data sources. Assumptions also need to be made about the likely income levels of different groups of the population (such as newly forming households), recognising that such households' incomes may differ from those in the general population.

6.32   To overcome the limitations of a secondary-data-only assessment, additional data has been taken from a range of survey-based affordable needs assessments carried out by GL Hearn over the past five years or so. These surveys (which cover a range of areas and time periods) allow the assessment to consider issues such as needs which are not picked up in published sources and different income levels for different household groups. This data is then applied to actual data for Coventry/Warwickshire (e.g. from the Census) as appropriate. It is the case that outputs from surveys in other areas show remarkably similar outputs to each other for a range of core variables (for example the income levels of newly forming households when compared with existing households) and are therefore likely to be fairly reflective of the situation locally in Coventry/Warwickshire. Where possible, data has also been drawn from national surveys (notably the English Housing Survey).

6.33   It should also be stressed that the secondary data approach is consistent with the PPG. Specifically, guidance states that:

> *'Plan makers should avoid expending significant resources on primary research (information that is collected through surveys, focus groups or interviews etc. and analysed to produce a new set of findings) as this will in many cases be a disproportionate way of establishing an evidence base. They should instead look to rely predominantly on secondary data (e.g. Census, national surveys) to inform their assessment which are identified within the guidance'.*

6.34   The PPG also suggests that the housing register can be used to estimate levels of affordable housing need. Experience working across the country is that housing registers can be highly variable in the way allocation policies and pointing systems work. This means that in many areas it is difficult to have confidence that the register is able to define an underlying need. Many housing

registers include households who might not have a need whilst there will be households in need who do not register (possibly due to being aware that they have little chance of being housed). For these reasons, the method linked to a range of secondary data sources is preferred.

Current Affordable Housing Need

6.35 In line with PPG, the current need for affordable housing need has been based on considering the likely number of households with one or more housing problem. A list is initially set out in paragraph 023 of the PPG and provides the following.

What types of households are considered in affordable housing need?

The types of households to be considered in housing need are:

- homeless households or insecure tenure (e.g. housing that is too expensive compared to disposable income);
- households where there is a mismatch between the housing needed and the actual dwelling (e.g. overcrowded households);
- households containing people with social or physical impairment or other specific needs living in unsuitable dwellings (e.g. accessed via steps) which cannot be made suitable in-situ
- households that lack basic facilities (e.g. a bathroom or kitchen) and those subject to major disrepair or that are unfit for habitation;
- households containing people with particular social needs (e.g. escaping harassment) which cannot be resolved except through a move.

Source: PPG [ID 2a-023-20140306]

6.36 This list of potential households in need is then expanded on in paragraph 24 of the PPG which provides a list of the categories to consider when assessing current need. This assessment seeks to follow this list by drawing on a number of different data sources. The table below sets out the data used in each part of the assessment.

Table 35:   Main Sources for assessing the Current Unmet Need for Affordable Housing

	Source	Notes
Homeless households	CLG Live Table 784	Total where a duty is owed but no accommodation has been secured
Those in priority need who are currently housed in temporary accommodation	CLG Live Table 784	Total in temporary accommodation
Households in overcrowded housing	Census table LC4108EW	Analysis undertaken by tenure
Concealed households	Census table LC1110EW	Number of concealed families (all ages and family types)
Exiting affordable housing tenants in need	Modelled data linking to past survey analysis	Will include households with many of the issues in the first box above (e.g. insecure tenure)
Households from other tenures in need	Modelled data linking to past survey analysis	

Source: PPG [ID 2a-024-20140306]

6.37   The table below therefore shows the initial estimate of the number of households who potentially have a current housing need. These figures are before any consideration of affordability has been made and has been termed 'the number of households in unsuitable housing'. Overall, the analysis suggests that there are currently some 26,300 households living in unsuitable housing (or without housing) – this is 7.3% of the estimated total number of households living in the HMA in 2011.

Table 36:   Estimated Households Living in Unsuitable Housing

Category of 'need'	Households
Homeless households	478
Those in priority need who are currently housed in temporary accommodation	107
Households in overcrowded housing	12,477
Concealed households	4,341
Exiting affordable housing tenants in need	1,170
Households from other tenures in need	7,727
Total	26,300

Source: CLG Live Tales, Census (2011) and data modelling

6.38   In taking this estimate (26,300) forward, the data modelling estimates housing unsuitability by tenure. From the overall number in unsuitable housing, households living in affordable housing are excluded (as these households would release a dwelling on moving and so no net need for affordable housing will arise). The analysis also excludes 90% of owner-occupiers under the assumption (which is supported by analysis of survey data) that the vast majority will be able to afford housing once savings and equity are taken into account. A final adjustment is to slightly reduce the unsuitability figures in the private rented sector to take account of student-only households – such households could technically be overcrowded/living in unsuitable housing but

would be unlikely to be considered as being in affordable housing need. Once these households are removed from the analysis, the remainder are taken forward for affordability testing.

6.39   Table 37 below shows that as of mid-2011 it is estimated that there were 14,170 households living in unsuitable housing (excluding current social tenants and the majority (90%) of owner-occupiers) – this represents 3.9% of all households in the HMA in 2011.

Table 37:   Unsuitable housing by tenure and numbers to take forward into affordability modelling

	In unsuitable housing	Number to take forward for affordability testing
Owner-occupied	7,382	738
Social rented	4,871	0
Private rented	9,121	8,506
No housing (homeless/concealed)	4,926	4,926
Total	26,300	14,170

Source: CLG Live Tales, Census (2011) and data modelling

6.40   Having established the figure of 14,170, it needs to be considered that a number of these households might be able to afford market housing without the need for subsidy, because they could afford a suitable market housing solution. For an affordability test the income data has been used, with the distribution adjusted to reflect a lower average income amongst households living in unsuitable housing – for the purposes of the modelling an income distribution that reduces the level of income to 69% of the figure for all households has been used to identify the proportion of households whose needs could not be met within the market (for households currently living in housing). A lower figure (of 42%) has been used to apply an affordability test for the concealed/homeless households who do not currently occupy housing. These two percentage figures have been based on a consideration of typical income levels of households who are in unsuitable housing (and excluding social tenants and the majority of owners) along with typical income levels of households accessing social rented housing (for those without accommodation). These figures are considered to be best estimates, and likely to approximately reflect the differing income levels of different groups with a current housing problem.

6.41   Overall, over half of households with a current need are estimated to be likely to have insufficient income to afford market housing and so the estimate of the total current need is reduced to 7,661 households. Table 38 below shows how current need is estimated to vary across local authority areas.

Table 38:   Estimated Current Need

Area	In unsuitable housing (taken forward for affordability test)	% Unable to Afford	Revised Gross Need (including Affordability)
Coventry	6,999	54.3%	3,803
North Warwickshire	718	57.1%	410
Nuneaton & Bedworth	1,581	50.5%	798
Rugby	1,318	50.9%	671
Stratford-on-Avon	1,355	60.3%	817
Warwick	2,199	52.8%	1,162
Coventry/Warwickshire	**14,170**	**54.1%**	**7,661**

Source: CLG Live Tales, Census (2011), data modelling and affordability analysis

Newly-Arising Need

6.42   To estimate newly-arising (projected future) need we have looked at two key groups of households based on the CLGs SHMA Guidance. These are:

- Newly forming households; and
- Existing households falling into need.

Newly-Forming Households

6.43   The number of newly-forming households has been estimated through the demographic modelling with an affordability test also being applied. This has been undertaken by considering the changes in households in specific 5-year age bands relative to numbers in the age band below 5 years previously to provide an estimate of gross household formation. This differs from numbers presented in the demographic projections which are for net household growth. The numbers of newly-forming households are limited to households forming who are aged under 45 – this is consistent with CLG guidance (from 2007) which notes after age 45 that headship (household formation) rates 'plateau'. There may be a small number of household formations beyond age 45 (e.g. due to relationship breakdown) although the number is expected to be fairly small when compared with formation of younger households.

6.44   The estimates of gross new household formation have been based on outputs from our core demographic projection. In looking at the likely affordability of newly-forming households we have drawn on data from previous surveys. This establishes that the average income of newly-forming households is around 84% of the figure for all households. This figure is remarkably consistent across areas (and is also consistent with analysis of English Housing Survey data at a national level).

6.45   We have therefore adjusted the household income distribution in each local authority to reflect the lower average income for newly-forming households. The adjustments have been made by changing the distribution of income by bands such that average income level is 84% of the all household average. In doing this we are able to calculate the proportion of households unable to afford market housing without any form of subsidy (such as LHA/HB). Our assessment suggests that overall around 37% of newly-forming households will be unable to afford market housing and that a total of 2,841 new households will have a need on average in each year to 2031.

Table 39:   Estimated Level of Affordable Housing Need from Newly Forming Households (per annum)

Area	Number of new households	% unable to afford	Total in need
Coventry	3,551	37.0%	1,312
North Warwickshire	419	38.2%	160
Nuneaton & Bedworth	992	32.3%	321
Rugby	822	34.8%	286
Stratford-on-Avon	773	42.2%	326
Warwick	1,194	36.6%	436
Coventry/Warwickshire	**7,751**	**36.7%**	**2,841**

Source: Projection Modelling/Income analysis

Existing Households falling into Affordable Housing Need

6.46   The second element of newly arising need is existing households falling into need. To assess this we have used information from CoRe. We have looked at households who have been housed over the past two years – this group will represent the flow of households onto the Housing Register over this period. From this we have discounted any newly forming households (e.g. those currently living with family) as well as households who have transferred from another social rented property. An affordability test has also been applied, although relatively few households are estimated to have sufficient income to afford market housing.

6.47   This method for assessing existing households falling into need is consistent with the 2007 SHMA guide which says on page 46 that *'Partnerships should estimate the number of existing households falling into need each year by looking at recent trends. This should include households who have entered the housing register and been housed within the year as well as households housed outside of the register (such as priority homeless households applicants)'*.

6.48   Following the analysis through suggests a need arising from 2,021 existing households each year – this is about 0.6% of all households living in the HMA (in 2011).

Table 40:   Estimated level of Housing Need from Existing Households (per annum)

Area	Number of Existing Households falling into Need	% of Need
Coventry	1,237	61.2%
North Warwickshire	60	3.0%
Nuneaton & Bedworth	206	10.2%
Rugby	159	7.9%
Stratford-on-Avon	183	9.0%
Warwick	178	8.8%
Coventry/Warwickshire	2,021	100.0%

Source: CoRe/affordability analysis

Supply of Affordable Housing

6.49   The future supply of affordable housing is the flow of affordable housing arising from the existing stock that is available to meet future need. It is split between the annual supply of social/affordable rent relets and the annual supply of relets/sales within the intermediate sector.

6.50   The Practice Guidance suggests that the estimate of likely future relets from the social rented stock should be based on past trend data which can be taken as a prediction for the future. We have used information from the Continuous Recording system (CoRe) to establish past patterns of social housing turnover. Our figures include general needs and supported lettings but exclude lettings of new properties plus an estimate of the number of transfers from other social rented homes. These exclusions are made to ensure that the figures presented reflect relets from the existing stock. Additionally an estimate of the number of 'temporary' supported lettings have been removed from the figures (the proportion shown in CoRe as being lettings in direct access hostels or foyer schemes (of which there were relatively few in the study area)).

6.51   On the basis of past trend data is has been estimated that 3,714 units of social/affordable rented housing are likely to become available each year moving forward.

Table 41:   Analysis of Past Social/Affordable Rented Housing Supply (per annum – past 2 years)

	Total lettings	% as non-newbuild	Lettings in existing stock	% non-transfers	Sub-total	% non-temporary housing	Total lettings to new tenants
Coventry	3,970	93.2%	3,702	75.5%	2,795	75.6%	2,114
North Warwickshire	266	93.0%	248	58.0%	144	100.0%	144
Nuneaton & Bedworth	792	91.9%	728	65.3%	475	100.0%	475
Rugby	527	91.0%	479	61.9%	297	100.0%	297
Stratford-on-Avon	639	86.6%	554	55.0%	305	100.0%	305
Warwick	650	94.6%	615	65.7%	404	94.1%	380
Coventry/Warwickshire	6,843	92.4%	6,324	69.9%	4,419	84.0%	3,714

Source: CoRe

6.52   The supply figure is for social/affordable rented housing only and whilst the stock of intermediate housing in the HMA is not significant compared to the social/affordable rented stock it is likely that some housing does become available each year (e.g. resales of shared ownership). For the purposes of this assessment we have again utilised CoRe data about the number of sales of homes that were not newbuild. From this it is estimated that around 70 additional properties might become available per annum. The total supply of affordable housing is therefore estimated to be 3,783 per annum.

Figure 53: Supply of Affordable Housing

Area	Social/affordable rented relets	Intermediate housing 'relets'	Total supply (per annum)
Coventry	2,114	26	2,140
North Warwickshire	144	5	148
Nuneaton & Bedworth	475	6	481
Rugby	297	10	307
Stratford-on-Avon	305	12	316
Warwick	380	12	392
Coventry/Warwickshire	**3,714**	**70**	**3,783**

Source: CoRe

Net Affordable Housing Need

6.53   Table 42 shows our overall calculation of affordable housing need. This excludes supply arising from sites with planning consent (the 'development pipeline'). The analysis has been based on meeting affordable housing need over the 20-year period from 2011 to 2031 to allow comparison against the demographic projections. Whilst most of the data in the model are annual figures the current need has been divided by 20 to make an equivalent annual figure.

6.54   The data shows an overall need for affordable housing of 29,200 units over the 20-year period (1,462 per annum). The net need is calculated as follows:

Net Need = Current Need + Need from Newly-Forming Households + Existing Households falling into Need – Supply of Affordable Housing

Table 42:   Estimated level of Affordable Housing Need (2011-31)

	Per annum	20-years
Current need	383	7,661
Newly forming households	2,841	56,816
Existing households falling into need	2,021	40,427
Total Gross Need	5,245	104,904
Supply	3,783	75,660
Net Need	**1,462**	**29,244**

Source: Census (2011)/CoRe/Projection Modelling and affordability analysis

6.55   In the modelling undertaken, it should be noted that no allowance has been made for committed affordable housing supply, such as on sites with planning consent. Whilst this is a supply-side factor, consideration should be given to its inclusion within estimated of net affordable housing need, following the approach in the PPG.

6.56   Table 43 below shows estimates of overall (annual) affordable housing need for the 2011-31 period by local authority. All areas show a need for affordable housing with the highest need being seen in Coventry – this is however to some degree influenced by the larger number of households living in the City and also the relatively high level of household growth with the CLG projections – this in turn leads to a higher level of household formation.

Table 43:   Estimated level of Affordable Housing Need per annum – by location

Area	Current need	Newly forming households	Existing households falling into need	Total Need	Supply	Net Need
Coventry	190	1,312	1,237	2,739	2,140	600
North Warwickshire	20	160	60	240	148	92
Nuneaton & Bedworth	40	321	206	566	481	85
Rugby	34	286	159	478	307	171
Stratford-on-Avon	41	326	183	549	316	233
Warwick	58	436	178	672	392	280
Coventry/Warwickshire	**383**	**2,841**	**2,021**	**5,245**	**3,783**	**1,462**

Source: 2011 Census/CoRe/Projection Modelling and affordability analysis

Sensitivity to Income Thresholds

6.57   A 35% rent to income threshold for affordability has been used in the main modelling, it is however worthwhile considering the implications of alternative thresholds. To understand the implications of the income threshold, a sensitivity test has been undertaken which assumes different levels of income spent on housing costs. Table 44 below summarises the findings. In particular, it can be seen with an assumption of households spending 40% of gross income on housing costs that the need falls to 773 households per annum (down from 1,462 using a 35% threshold).

Table 44:   Estimated level of Affordable Housing Need (per annum) at Variant Income Thresholds

	@ 25%	@ 30%	@ 35%	@ 40%
Current Need	492	436	383	339
Newly forming households	4,080	3,379	2,841	2,383
Existing households falling into need	2,415	2,229	2,021	1,834
Total Need	6,987	6,044	5,245	4,556
Supply	3,783	3,783	3,783	3,783
Net Need	3,204	2,261	1,462	773
Coventry	1,463	998	600	253
North Warwickshire	177	131	92	60
Nuneaton & Bedworth	298	183	85	1
Rugby	345	250	171	104
Stratford-on-Avon	397	310	233	168
Warwick	523	389	280	186

Source: 2011 Census/CoRe/Projection Modelling and affordability analysis

Relating Affordable Housing Need and OAN

6.58   The analysis above indicates a clear need for affordable housing. The table below sets out the annual affordable housing need as a proportion of the need identified from the demographic-based projections. The affordable need represents 35% of the demographic-need based on the 2012-based SNPP and Household Projections (as amended). These figures are however calculated in different ways and are not strictly comparable.

Table 45: Affordable Need as % Demographic-based Projections

	Demographic-based Need	Affordable Need	Affordable Need as % Demographic Need
Coventry	2099	600	29%
North Warwickshire	163	92	56%
Nuneaton & Bedworth	423	85	20%
Rugby	464	171	37%
Stratford-on-Avon	449	233	52%
Warwick	600	280	47%
HMA	4197	1462	35%

6.59   The affordable housing need however represents a higher percentage of the demographically-based need in North Warwickshire, Stratford-on-Avon and Warwick District. In these areas some adjustment to overall housing provision might be appropriate to increase delivery of affordable housing (subject to consideration of wider factors as detailed below).

6.60   The Planning Practice Guidance sets out how it expects the affordable housing need to be considered as part of the plan-making process. It outline in Paragraph 029 that:

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

6.61   The likely delivery of affordable housing on mixed market housing-led developments will be influenced both by affordable housing policies (themselves influenced by development viability evidence), the mix of homes which are delivered and the viability of individual development schemes. Some schemes will not be able to viably deliver policy-compliant levels of affordable housing.

6.62   It should be borne in mind that besides delivery of affordable housing on mixed-tenure development schemes, there are a number of other mechanisms which deliver affordable housing. These include:

- National Affordable Housing Programme – this (adminsted by the HCA) provides fuding to support Registered Providers in delivering new housing including on sites owned by RPs;
- Building Council Homes – following reform of the HRA funding system, Councils can bring forward affordable housing themselves.
- Empty Homes Programmes – where local authorities can bring properties back into use as affordable housing. These are existing properties, and thus represent a change in tenure within the current housing stock;
- Rural Exception Site Development – where the empasis is on delivering affordable housing to meet local needs.

6.63   Funding for specialist forms of affordable housing, such as extra care provision, may also be available from other sources; whilst other niche agents, such as Community Land Trusts, may deliver new affordable housing. Net changes in affordable housing stock may also be influenced by estate regeneration schemes, as well as potentially by factors such as the proposed extension of the Right to Buy to housing association properties. Affordable housing can be met by changes in the ownership of existing housing stock, not just by new-build development.

6.64   In interpreting the relationship between affordable need and total housing provision, it is important to understand the basis of the affordable housing needs model. As the Planning Practice Guidance sets out, the calculation of affordable need involves *"adding together the current unmet housing need and the projected future housing need and then subtracting this from the current supply of*

affordable stock." The affordable housing need does therefore not represent an assessment of what proportion of additional households might require affordable housing. Instead the model considers:

- What need can be expected to arise from both existing and newly-forming household who require financial support to access suitable housing;
- This is then compared with the projected supply of affordable housing expected to arise from the turnover of existing stock, and affordable housing in the development pipeline.

6.65 The affordable housing model thus includes supply-side factors. The net need figures derived are influenced by the current stock of affordable housing and turnover of this, together with pipeline supply. This has been influenced by past policies and investment decisions (at both the national and local levels). Funding mechanisms for affordable housing have influenced past delivery, which in turn influence the need today.

6.66 With relatively modest growth in affordable housing stock over the last 15 years, the Private Rented Sector has in effect taken on an increasing role in providing housing for households who require financial support in meeting their housing needs, supported by Local Housing Allowance.

6.67 Whilst the Private Rented Sector (PRS) does fall within the definition of "affordable housing," it has evidently been playing a role in meeting the needs of households who require financial support in meeting their housing need. Government recognises this, and indeed legislated through the 2011 Localism Act to allow Councils to discharge their "homelessness duty" through providing an offer of a suitable property in the PRS.

6.68 Data from the Department of Work and Pensions (DWP) has been used to look at the number of LHA supported private rented homes. As of February 2015 it is estimated that there were 19,995 benefit claimants in the Private Rented Sector. This figure has remained largely unchanged over the past five years or so (although individual local authorities have seen it either go up or down). Given changes to how Local Housing Allowance is calculated, there can however be no guarantee that the PRS will be able to support a further increase in households with LHA.

6.69 The analysis is based on the current situation. What this information does not show is how many lettings are made each year to tenants claiming benefit as this will depend on the turnover of stock. From English Housing Survey it is estimated that the proportion of households within the Private Rented Sector who are "new lettings" each year (i.e. stripping out the effect of households moving from one private rented property to another) is around 13%. Applying this to the number of LHA claimants in the Private Rented Sector gives an estimate of 2,599 private sector lettings per annum to new LHA claimants in the District. This figure is derived from claimants rather than households and it is likely that there are a number of multiple LHA claimant households (i.e. in the HMO sector and shared accommodation. The table below summarises key data.

Table 46:   LHA Claimants in the Private Rented Sector

	Claimants (Feb 2010)	Claimants (Feb 2015)	Change 2010-2015	% change from 2010	Estimated lettings (per annum)
Coventry	10,118	10,718	600	5.9%	1,393
North Warwickshire	1,051	1,117	66	6.3%	145
Nuneaton & Bedworth	2,884	3,318	434	15.0%	431
Rugby	1,616	1,517	-99	-6.1%	197
Stratford-on-Avon	1,733	1,688	-45	-2.6%	219
Warwick	1,984	1,637	-347	-17.5%	213
Coventry/Warwickshire	19,386	19,995	609	3.1%	2,599

Source: DWP

6.70   Based on current dynamics, the annual supply of homes available to households who have a current need for support in meeting their housing need is of 3,783 affordable housing properties and an estimated 2,599 private rented properties. The PRS thus contributes about a third of available supply to such households. If the PRS properties were counted as current available supply, the net need for affordable housing shown would be much reduced.

6.71   However, national planning policy does not specifically seek to meet the needs identified through the Basic Needs Assessment Model through the Private Rented Sector. Government's benefit caps may reduce the contribution which this sector plays in providing a housing supply which meets the needs of households identified in the affordable housing needs model herein. In particular future growth in households living within the PRS and claiming LHA cannot be guaranteed. **This report includes no reliance on future supply from the Private Rented Sector.**

6.72   Secondly, and perhaps more critically, it is important to recognise that the model includes needs arising from both new households and existing households. Part of the needs included are from households who might require an additional home, such as:

- Newly-forming households;
- Those in temporary accommodation;
- Concealed households; and
- Homeless households.

6.73   But the figures also include needs arising from households who will require a different form of home, but who – by moving to another property – would release an existing property for another households. These households do not generate a need for more dwellings overall but from a housing strategy perspective are likely to require a different size or type of property. They include households who need to move as they are:

- Overcrowded;
- Coming to the end of a tenancy;

- Living in unsuitable housing; and
- Cannot afford to remain in their current home.

6.74   Such households do not generate a net need for additional homes, as by moving they would release a home for other households. On this basis, these elements of the affordable housing need are not directly relevant to considering overall housing need and housing targets (which are typically measured in terms of net dwellings).

6.75   In considering the overall need for housing, only those who are concealed or homeless would result in potentially an additional need for housing. Numbers of newly-forming households in the modelling are established specifically from the demographic projections. Addressing needs of concealed and homeless households would be manifest, in demographic terms, in an increase in household formation rates.

6.76   The analysis undertaken provides some evidence to justify considering an adjustment to the assessed housing need to address the needs of concealed households, and support improvements household formation for younger households. We return to consider the scale of adjustment appropriate later in the report, taking account of the evidence herein and from analysis of market signals.

Need for Different Types of Affordable Housing

4.76   Having studied housing costs, incomes and affordable housing need the next step is to make an estimate of the proportion of affordable housing need that should be met through provision of different housing products. We therefore use the income information presented earlier in this section to estimate the proportion of households who are likely to be able to afford intermediate housing and the number for whom only social or affordable rented housing will be affordable. There are three main types of affordable housing that can be studied in this analysis:

- Intermediate
- Affordable rent
- Social rent

6.77   Whilst the process of separating households into different income bands for analytical purposes is quite straightforward, this does not necessarily tell us what sort of affordable housing they might be able to afford or occupy.

6.78   For example a household with an income close to being able to afford market housing might be able to afford intermediate or affordable rent but may be prevented from accessing certain intermediate products (such as shared ownership) as they have an insufficient savings to cover a deposit. Such a household might therefore be allocated to affordable rented or intermediate rented housing as the most suitable solution. However we would expect that few Registered Providers

would build intermediate rented homes, given that the level of potential occupants for affordable rented homes is greater (as it includes households who could claim housing benefit to supplement their incomes).

6.79   The distinction between social and affordable rented housing is also complex. Whilst rents for affordable rented housing would be expected to be higher than social rents, this does not necessarily mean that such a product would be reserved for households with a higher income. In reality, as long as the rent to be paid falls at or below LHA limits then it will be accessible to a range of households (many of whom will need to claim housing benefit). Local authorities' tenancy strategies might set policies regarding the types of households which might be allocated affordable rented homes; and many authorities will seek to avoid where possible households having to claim higher levels of housing benefit. This however needs to be set against other factors, including viability and the availability of grant funding. Over the current spending period to 2015 grant funding is primarily available to support delivery of affordable rented homes. A significant level of affordable housing delivery is however through developer contributions (Section 106 Agreements).

6.80   For these reasons it is difficult to exactly pin down what proportion of additional affordable homes should be provided through different affordable tenure categories. In effect there is a degree of overlap between different affordable housing tenures, as the figure below shows.

Figure 54: Overlap between Affordable Housing Tenures
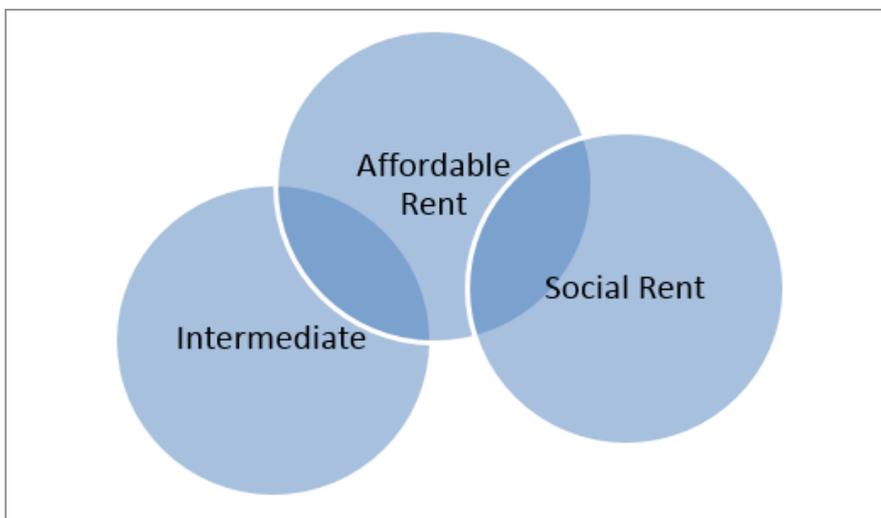
6.81   Given this overlap, for analytical purposes we have defined the following categories:

- Households who can afford 80% or more of market rent levels;
- Households who would potentially be able to afford more than existing social rent levels but could not afford 80% of market rents;

- Households who can afford no more than existing social rent levels (or would require housing benefit, or an increased level of housing benefit to do so).

6.82   The first of these categories would include equity-based intermediate products such as shared ownership and shared equity homes. The latter two categories are both rented housing and in reality can be considered together (both likely to be provided by Registered Providers (or the Council) with some degree of subsidy). Additionally, both affordable rented and social rented housing is likely to be targeted at the same group of households; many of whom will be claiming Housing Benefit. For this reason the last two categories are considered together for the purposes of drawing conclusions.

6.83   We do not have detailed information on households' savings. We have assumed that around a third of households with an income which would allow them to afford 80% or more of market rents would represent the potential market for equity-based intermediate products such as shared ownership and shared equity homes with the remainder needing a rented product.

6.84   Taking the gross numbers for affordable housing need and comparing this against the supply from relets of existing stock, the following net need arises within the different categories. Overall the analysis suggests around a fifth of housing could be intermediate with the remaining four-fifths being either social or affordable rented – there are some variations by area in terms of the proportion of intermediate housing, with Nuneaton & Bedworth in particular showing a high potential need (48%).

Figure 55: Estimated level of Affordable Housing Need (per annum) by type of affordable housing

	Intermediate			Social/affordable rented		
	Total need	Supply	Net need	Total need	Supply	Net need
Coventry	192	26	167	2,547	2,114	433
North Warwickshire	18	5	13	222	144	79
Nuneaton & Bedworth	47	6	41	520	475	45
Rugby	37	10	27	441	297	144
Stratford-on-Avon	37	12	25	513	305	208
Warwick	52	12	40	620	380	240
Coventry/Warwickshire	**383**	**70**	**314**	**4,862**	**3,714**	**1,148**

Source: Affordable Housing Needs Analysis

6.85   The chart below summarises the findings in respect of the need for different types of affordable housing.

Figure 56: Split of Need for Affordable Housing by Type
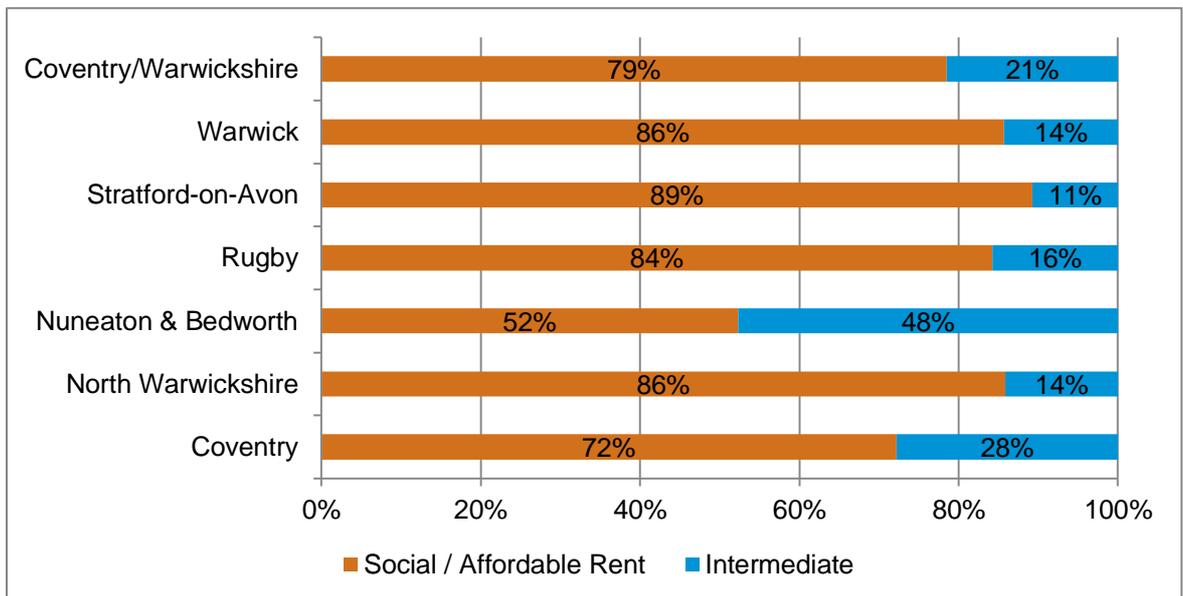
6.86   There is a clear overlap between the need for social rented and affordable rented housing, and the two categories of homes are targeted at similar households. A key difference between these tenures relates to development viability. The 2013 SHMA provided an indicative split of need between households who could afford more than existing social rents, and those who likely could not. We would expect the proportional split of need set out therein to hold true.

6.87   In determining policies for affordable housing provision on individual sites, the analysis in the table above should be brought together with other local evidence such as from the Housing Register. Consideration could also be given to areas with high concentrations of social rented housing where additional intermediate housing might be desirable to improve the housing mix and to create 'housing pathways'.

Affordable Housing Need: Implications

• An assessment of affordable housing need has been undertaken which is compliant with Government guidance to identify whether there is a shortfall or surplus of affordable housing in Coventry/ Warwickshire. This has estimated current housing need of 7,661 households, excluding existing social housing tenants where they would release a home for another household in need. The affordable housing needs model then looked at the balance between needs arising and the supply of affordable housing. Each year an estimated 4,862 households are expected to fall into affordable housing need and 3,783 properties are expected to come up for relet.

• Overall, in the period from 2011 to 2031 a net deficit of 29,200 affordable homes is identified (1,462 per annum). There is thus a requirement for new affordable housing in the study area and the Councils are justified in seeking to secure additional affordable housing.

• The link between the affordable housing need and the overall need for housing (or the objectively

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assessed need) is complex. The affordable housing needs model includes needs arising from existing households who require a different size or tenure of accommodation, but who by moving would not result in a net need for additional housing overall as they would release an existing property for another households. Additional needs could arise only from concealed or homeless households. The impact of addressing these needs would be to increase household formation rates, particularly amongst younger households. The 2012-based Household Projections already 'build in' some improvements to household formation.

- As previously discussed some additional housing could potentially be considered as part of adjustments to help improve household formation amongst younger households. Such an uplift would however be modest and would not be expected to generate any significant population growth as it would specifically target an improvement to household formation rates of 25-34 year olds within the existing population, who may otherwise remain living at home with their parents or reside in temporary or shared accommodation.

7 CONCLUSIONS

7.1 In this section we seek to draw conclusions on overall housing need. We have sought to draw conclusions at both a housing market area and local authority level. We have also sought to make a distinction between OAN figures, which may be of relevance in a "policy off" context in respect of five year land supply issues; and of how housing need should be treated as part of the plan-making process. These nuances reflect in particular the implications of a number of recent legal cases.

Demographic Starting Point

7.2 This report has examined demographic trends, taking account of the latest official population and household projections, and the latest available information.

7.3 The table below sets out the results of the 2012-based Population and Household Projections and the sensitivity analysis undertaken. Following the approach in the PPG, the "starting point" for considering housing need are these latest official household projections. At the HMA level, these show a need for 4,200 homes per year.

7.4 Projections based on linear 10 year migration trends are stronger than shown by the latest official projections. However the official projections are dynamic, and take account of how changes in the age structure of the population can be expected to influence in- and out-migration over time. The evidence also suggests that migration level may have been over-estimated in the past. We cannot be precise as to what degree of impact this will have had, but the evidence would point to this potentially having a greater impact prior to 2006, reflecting improvements in recording of migration amongst other factors.

7.5 The sensitivity analysis suggests that there is a potential error margin which sits around the official projections, with growth which could be from -13% to +20% either side of the SNPP. However growth at either of these extremes is unlikely.

Table 47: Projected Housing Need (per annum) in Core Demographic-led and Sensitivity Projections, using 2012-based headship Rates

Housing Need per Annum, 2011-31	2012-based SNPP	2014 updated	UPC adjustment	10-year migration (constant)	10-year migration (variable)
Coventry	2,099	2,435	1,485	3,018	2,024
North Warwickshire	163	155	151	99	168
Nuneaton & Bedworth	423	328	477	322	400
Rugby	464	319	550	567	469
Stratford-on-Avon	449	351	397	484	551
Warwick	600	524	589	550	745
Coventry/Warwickshire	4,197	4,113	3,648	5,040	4,358

7.6   At a local authority level, the distribution of population growth within the HMA has changed over time. We have seen a shift over the period since 2000, with lower growth in the Warwickshire authorities; and stronger growth in Coventry. This has evidently helped to support urban regeneration.

7.7   In projecting growth in households, the 2012-based Household Projections indicate more positive rates of new household formation than previous projections at the HMA level (either the official projections or our previous work). Stronger growth in households is particularly expected in Coventry. Whilst the analysis herein is based on the latest official data, we would note that further data releases regarding projected household formation are due from Government later in the year. The Councils may wish to consider the implications of these in due course.

7.8   The demographic analysis does highlight that accurately projecting population growth for Coventry is more difficult than for other areas; and subject to therefore a larger potential margin of error (particularly in terms of the scale of population growth / housing need). This should be recognised in interpreting the analysis.

7.9   The demographic evidence overall suggests that the 2012-based SNPP / Household Projections provide a strong "starting point" for considering housing need. The resultant need for housing is shown in Figure 57 below.

Figure 57: Assessed Demographic "Starting Point" for Considering Housing Need – Homes per Year, 2011-31
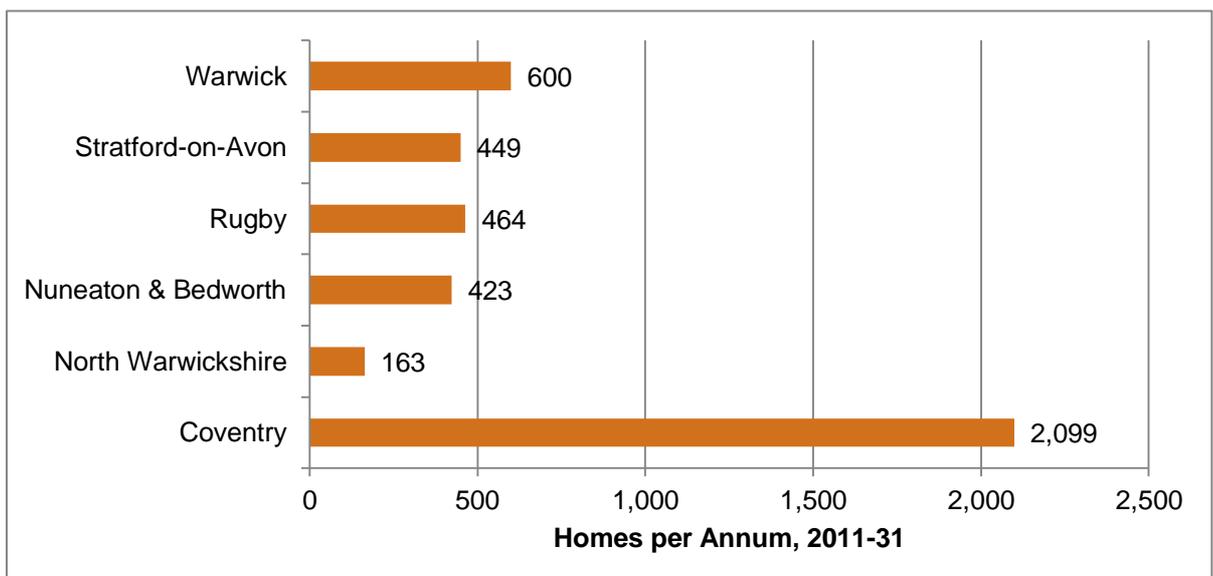
Considering Economic Growth Potential

7.10   Through this report we have considered a range of economic information and forecasts. We have considered the implications of three different sets of econometric forecasts on housing need, namely:

- Experian 2013;
- Cambridge Econometrics 2013; and
- Cambridge Econometrics 2015.

7.11   Consideration has also been given to Oxford Economics forecasts from the Nuneaton and Bedworth Forecast Model.

7.12   Over the 2014-25 period (this being the period which all of the forecasts cover), the forecasts are relatively similar. The Experian 2013 forecasts expect employment growth of 0.6% per annum across the HMA. Both sets of Cambridge Econometric forecasts expect growth of 0.7% per annum, with the 2013 set indicating marginally stronger employment growth in the HMA over this period.

7.13   It is appropriate to consider the forecasts first at the HMA level, as it is at this level which the economy operates; and national planning policy is clear that economies should be considered as operating across functional economic areas such as this.

7.14   GL Hearn consider that the Cambridge Econometrics 2015 forecasts provide an appropriate basis for considering growth potential at the HMA level. This would require provision of an average of between 3,600 – 3,800 homes per annum (looking over the 2011-31 period as a whole)[6]. This sits at least 10% below the housing need identified based on past demographic trends, indicating that economic growth is unlikely to place upward pressure on housing need.

7.15   At a local authority level, as we might expect, the distribution of employment growth could influence the potential distribution of housing provision. To understand distribution issues, it is important to acknowledge differences in the age structure of the population between areas. Within the HMA it is notable that Coventry has a much younger population structure. Population growth in the City will therefore support strong growth in the workforce. In contrast, North Warwickshire and Stratford-on-Avon have a notably older workforce. Trend-based demographic projections therefore do not support growth in the workforce as strongly in these areas, and either migration (or commuting) to these areas may need to increase to support economic growth.

7.16   Table 48 shows the level of housing need arising from each of the three economic scenarios considered in this report.

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[6] The range is influenced by how the distribution of employment growth might vary

Table 48:   Housing Need arising from Economic-driven Scenarios

	Experian	CE 2013	CE 2015
Coventry	1,437	1,409	1,207
North Warwickshire	260	320	285
Nuneaton & Bedworth	438	453	410
Rugby	423	536	425
Stratford-on-Avon	569	697	654
Warwick	549	648	602
Coventry/Warwickshire	3,675	4,061	3,584

7.17   The Nuneaton and Bedworth Forecast Model is slightly more positive than the above scenarios in respect of employment growth in the Borough. To support this would require 496 homes per annum.

7.18   Based on a review of a range of existing evidence and our understanding of factors which may influence the future distribution of employment growth, we consider that Coventry's economy has the potential to perform more strongly than shown in baseline forecasts, whilst North Warwickshire is unlikely to perform as strongly as it has in the past in the absence of further supply-side decisions to bring forward further land for strategic distribution/ logistics floorspace.

7.19   The analysis in Section 6 drew conclusions regarding the expected scale of economic growth in different parts of the HMA, and the resultant implications for housing need. This is driven by a demand-based assessment of economic growth potential, and does not seek to make policy decisions regarding economic growth targets or take explicit account of supply-side factors including employment land provision.

Table 49:   Housing Need to Support Expected Economic Growth

|	Employment Growth 2014-31	Economic-Driven Housing Need, per Annum 2011-31
Coventry	16,700	1,350
North Warwickshire	3,000	210
Nuneaton & Bedworth	4,800	496
Rugby	4,800	425
Stratford-on-Avon	9,000	650
Warwick	9,900	600
Coventry/Warwickshire	48,200	3730

7.20   The PPG is clear that within a housing market area, employment growth can be met by agreeing an alternative distribution of housing, or through investment in infrastructure which links areas where there is labour force supply and where there is demand for labour, setting out:

"Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan

makers will need to consider how the location of new housing or infrastructure development could help address these problems."

7.21   The evidence suggests no need to increase housing provision overall across the HMA. However it does suggests that the distribution of housing may need to be considered. Higher housing provision, relative to the demographically-based need, is shown to be needed in Nuneaton and Bedworth, Stratford-on-Avon, and in North Warwickshire. The economic-driven need is lower in the other authorities, and particularly in Coventry.

7.22   The distribution of housing need to support economic growth (which would impact on future migration assumptions) would need to be agreed through the Duty to Cooperate.

7.23   GL Hearn considers that where an authority is meeting unmet needs from another, this will support population and workforce growth within the receiving authority's area. On this basis it is important not to double count unmet needs and provision to meet economic growth.

Figure 58: Comparing Housing Need arising from Demographic and Economic-led Projections (Homes per Year, 2011-31)
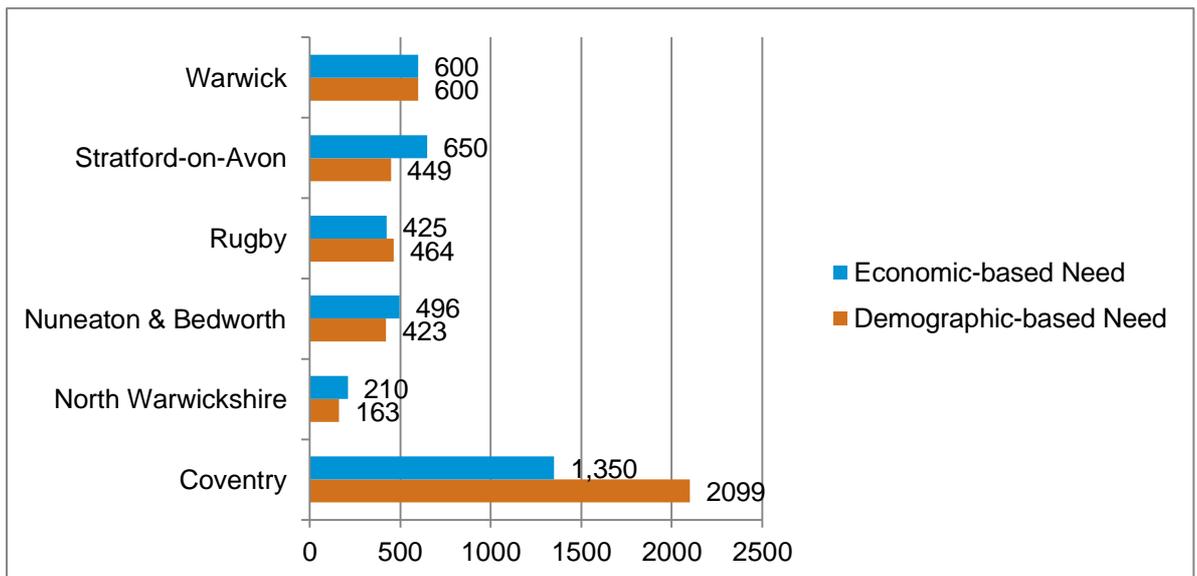
Market Signals

7.24   Paragraph 17 in the NPPF sets out that consideration should be given to market signals; with the PPG setting out further detail on relevant indicators to consider and outlining that where market signals point to evidence of worsening affordability and supply/demand imbalance, relative to wider benchmarks, housing need should be adjusted upwards from that based on household projections.

7.25   Over the 2007-12 period, stripping out inflation, the value of housing fell in all areas in the HMA. Growth over 2013-14 was stronger, but following a period of real term decline. Overall the 6 year 2008-14 period, the value of housing has fallen overall in all of the HMA authorities besides Warwick where growth was broadly in line with inflation. Looking at house prices by type, trends over the last couple of years since the preparation of the 2013 SHMA have been very mixed, with values for some house types increasing and others falling.

7.26   Sales volumes for private homes have begun to improve since 2012, but remain well below longer-term trends. This provides a clear indication of effective demand for market housing. Stratford-on-Avon District has seen a slightly stronger recovery than in other parts of the HMA.

7.27   The analysis undertaken shows that over the period since the SHMA was prepared, terraced house prices have increased outside of Coventry; detached prices have however decreased in all of the local authorities besides Rugby. Semi-detached prices fell in North Warwickshire, Nuneaton and Bedworth and Rugby, but rose in other authorities.

7.28   Rents following a similar pattern across the HMA to purchase prices across the HMA, with the highest rents in Stratford-on-Avon, followed by Warwick District. Over the period since 2011, rental values have fallen in Coventry and the northern parts of the HMA; but have grown (at a rate above inflation) in Warwick, Stratford-on-Avon and Rugby.

7.29   Affordability ratios have risen over the last 15 years in the HMA, as has been the case across England. The average lower quartile price to income ratio in the HMA is equal to the national average at 6.5 (based on 2013 data). It is above this in the southern parts of the county, with a ratio of 6.5 in Warwick and 7.8 in Stratford-on-Avon District. However there is no evidence that it has materially worsened over time.

7.30   Overall, the evidence points to market conditions which are very much "average" relative to the national position. Affordability is similar to the national average. The average house price is below the national average, as is the average rental cost.

7.31   The evidence does however show that affordability declined over the decade to 2007. It suggests a relationship between this and household formation amongst younger households.

Affordable Housing Need

7.32   The report includes an updated assessment of the need for affordable housing, following the approach set out in the Planning Practice Guidance. Overall a net need for affordable housing of 1,462 per annum is identified. This represents the level of housing provision which would be

needed if all households who required some form of financial support were to be allocated an affordable home.

7.33 Table 50 below sets out the net need for affordable housing and compares this with the demographic projections, and the economic-led projections where these are higher. The annual affordable need shown in the second column represents the OAN for affordable housing.

Table 50: Affordable Need relative to Demographic- and Economic-led Projections

Housing Need per Annum, 2011-31	Annual Affordable Need	2012-based SNPP	Affordable as % SNPP	Economic-led Need	Affordable as % Economic-led Need
Coventry	600	2,099	29%	1,350	44%
North Warwickshire	92	163	56%	210	44%
Nuneaton & Bedworth	85	423	20%	496	17%
Rugby	171	464	37%	425	40%
Stratford-on-Avon	233	449	52%	650	36%
Warwick	280	600	47%	600	47%
Coventry/Warwickshire	1,462	4,197	35%	3,731	39%

7.34 Each Council should consider in drawing together evidence as part of the plan-making process how it can meet the need for affordable housing. In doing so, consideration should be given to increasing the overall housing provision where it would help to meet the identified need for affordable housing.

Adjustments to Improve Affordability

7.35 Taking account of the evidence of affordable housing need and the market signals analysis, there is some basis for considering the case for adjustments to the overall housing need in order to improve affordability.

7.36 The projections so far developed have used data from the 2012-based CLG household projections. It is important to consider how these housing market trends relate through to demographic projections in considering, as the Planning Practice Guidance recommends, whether there is a case for adjusting levels of housing provision in effect to improve affordability over the longer-term.

7.37 National research undertaken for the RTPI by the Neil McDonald and Peter Williams at Cambridge University indicates a particular effect of the decline in affordability between 2001 and 2011 and the economic recession has been young adults living within a parental home for longer or living in shared accommodation rather than separate accommodation. The impact of this, their research shows, has been most significant for the 25-34 age group.

7.38   A detailed interrogation of demographic dynamics in Coventry/Warwickshire indicates that in demographic terms, the deterioration in affordability of market housing and the economic recession over the 2001-11 decade is likely to have influenced – at least in part – a decline in household formation rates in younger people, particularly amongst those aged between 25 and 34. When we consider age-specific data it is notable that those aged 25-34 have lower headship rates than has been seen historically (e.g. in 2001, the point at which the rate started to decline) – rates have dropped considerably from 2001 to 2011.

7.39   GL Hearn considers that a key impact of improving affordability, and of increasing the supply of affordable housing, in respect of demographics and overall housing need would be to increase household formation amongst younger households – reducing numbers living with parents or in shared accommodation. There is a clear evidential link between declining affordability and household formation; with the expectation therefore that an improvement in affordability would result in a recovery in household formation amongst those in their late 20s and early 30s.

7.40   We have therefore run a sensitivity analysis which considers and seeks to quantify the implication of returning the household formation rates of the 25-34 age group back to 2001 levels by 2025 (from 2015). This assumes that headship rates will improve between 2015 and 2025 and then track the 'trends' suggested in the 2012-based CLG household projections thereafter.

7.41   This sensitivity in effect seeks to consider a scenario in which affordability and access to housing for younger households improves, and quantifies what level of housing provision might be associated with this, all other factors being equal. It would address the levels of concealed and homeless households shown in the affordable housing analysis.

7.42   Figure 59 shows headship rates for people aged 25-34 under a range of different scenarios. The data clearly shows that in the 2011-based projection there was expected to be a continued decrease in formation rates, the main demographic-led projections see an increase moving forward whilst our market signals uplift shows an improvement which takes the formation rate back towards that in the 2008-based projections. Compared with the 2012-based projections, with this adjustment to improve affordability, we would be expected to see a stronger level of household formation from younger households (all other factors being equal).

7.43   The adjustments considered here, as shown in Figure 59, are to household formation rates (how likely people are to be a head of a household). These differ from the adjustments considered to support economic growth, which is based on adjusting migration rates and thus the expected population growth. There is no double counting between the two.

Figure 59: Sensitivity Analysis - Adjusting Household Formation Rates for those aged 25-34 – Coventry/Warwickshire
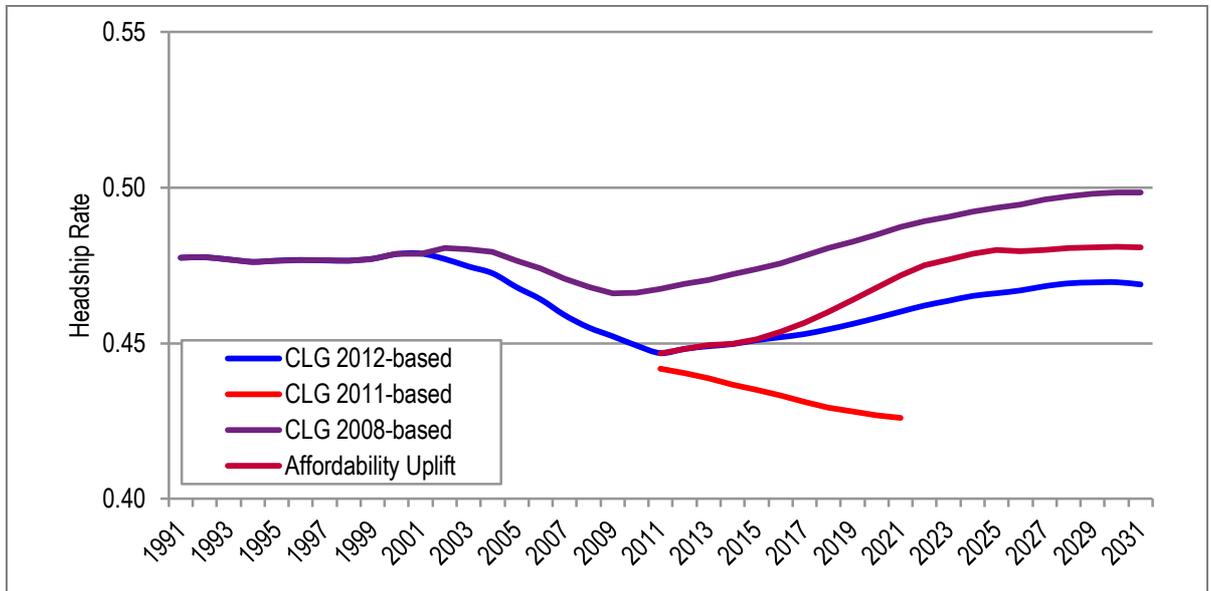
Source: Derived from CLG data

7.44   In reality, other factors such as real growth in disposable income (allowing people to save), the availability of and access to mortgage finance, interest rates and economic confidence will all influence trends in household formation. There is a complex set of factors at play, and it is difficult to predict how these factors might interact in the future and the impact on household formation rates (in the absence of any supply-side constraints). Furthermore part of the changes in household formation rates for this age group may have been due to international migration.

7.45   The sensitivity analysis indicates that, all other things being equal, an uplift of around 75 homes per annum across the HMA (over and above previous projections considered) would support an improvement in affordability and household formation rates amongst younger households. The uplift for each authority area is shown in the table below. It is only really in North Warwickshire that a significant uplift is shown.

7.46   Table 51 expresses the implications of an improvement to affordability for this age group in two ways – as an increase on current headship rates; and as an increase on the household formation assumptions in the 2012-based Household Projections (which in a number of areas expect some increase in headship rates amongst this group). The table shows the additional housing provision that would be needed to increase household formation rates for those aged 25-34 to 2001 levels by 2031, calculated from a position of constant headship (i.e. if current household formation rates were to persist); and based on using the headship rates in the 2012-based Household Projections (which in most areas assume some recovery). It thus disaggregates the improvements in household

formation for this age group which is implicit within the base demographic projections; and the adjustments modelled in the sensitivity analysis.

7.47   In drawing conclusions on overall housing need below, for some local authorities we are assuming stronger population growth than in the SNPP, in order to support economic growth. The adjustment to improve affordability is recalculated for these projections, where necessary, and shown in Table 51.

Table 51:   Adjustments for Improvements in Affordability

Additional Housing Need per Annum, 2011-31	Adjustment from Constant Headship		Adjustment from 2012-based Projections	
Coventry	63	3%	21	1%
North Warwickshire	-1	-1%	27	13%
Nuneaton & Bedworth	19	5%	6	1%
Rugby	10	2%	16	3%
Stratford-on-Avon	11	3%	9	1%
Warwick	14	2%	0	0%
Coventry/Warwickshire	116	3%	75	2%

7.48   The scale of adjustments made to housing need addresses in full homeless and concealed households identified in the affordable housing needs model. Other households in the affordable housing needs modelling are either considered already in the demographic analysis (in the case of newly-forming households) or would release a property for another household by moving (such as those in overcrowded accommodation, those needing to move due to insecurity of tenure or existing households falling into need).

Drawing the Analysis Together

7.49   Drawing the analysis together, we can derive the following conclusions on overall housing need at an HMA and local authority level. We do so by layering the following layers of analysis:

- Baseline demographic-led need from 2012-based Household Projections;
- Adjustments to support economic growth (more people);
- Adjustments to improve affordability (increasing household formation).

HMA-level Conclusions

7.50   At an HMA level, the 2012-based Household Projections show a need for 4,197 households per annum. There is no case for making upward adjustments to the housing need to support economic growth. To improve affordability the evidence suggests an upward adjustment of 75 households per annum. **The full objectively-assessed need (OAN) for housing is thus for 4,272 homes per annum.**

7.51   The need should be reviewed as appropriate based on new evidence. As identified the need is particularly sensitive to demographic dynamics within Coventry.

Figure 60: OAN for Coventry and Warwickshire HMA, Homes per Annum 2011-31
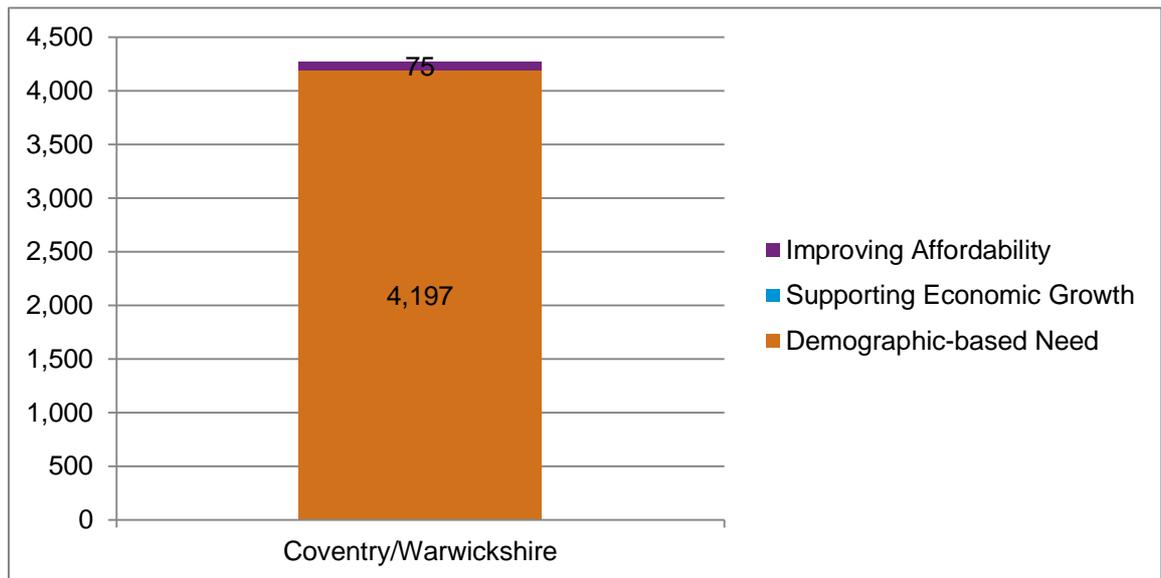

Conclusions for Individual Local Authorities

7.52   We have used a similar process to draw conclusions for individual local authorities. For the purposes of defining the OAN for development management purposes in advance of the adoption of a plan, provision should be made for supporting employment growth.

7.53   In a plan-making context, upward adjustments to housing provision to meet unmet housing needs from other areas will support workforce growth within the recipient district. Care should be taken to avoid double counting.

Table 52:   Overall OAN for Housing, per Annum 2011-31
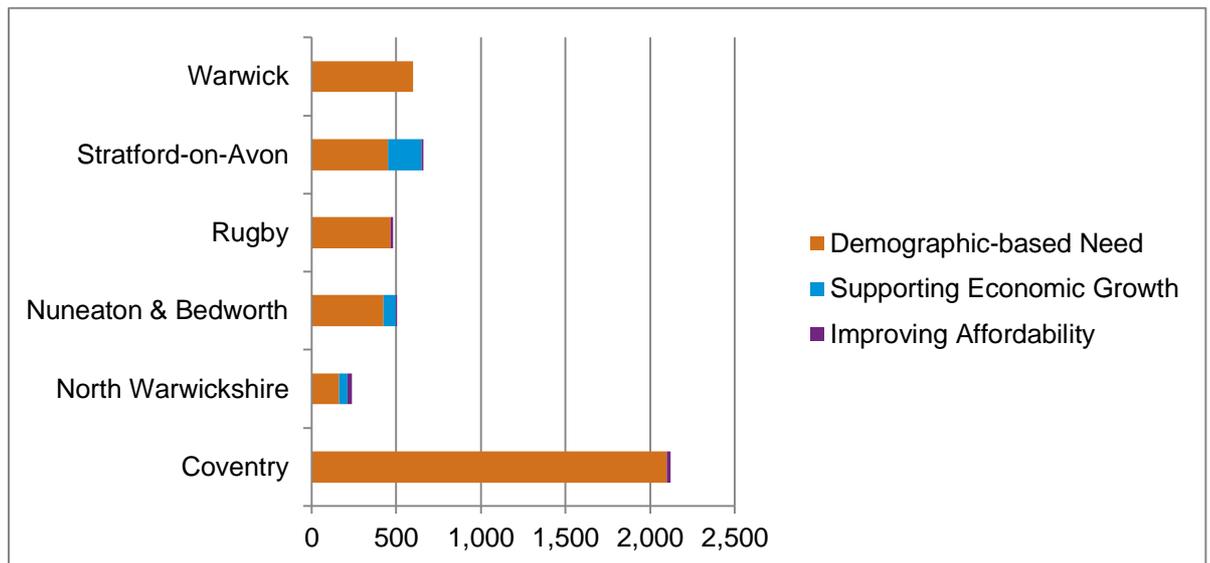
Table 53:   Components of OAN, Homes per Annum 2011-31

	Demographic-based Need	Supporting Economic Growth	Improving Affordability	Total
Coventry	2,099	0	21	2,120
North Warwickshire	163	47	27	237
Nuneaton & Bedworth	423	73	6	502
Rugby	464	0	16	480
Stratford-on-Avon	449	201	9	659
Warwick	600	0	0	600
Coventry/Warwickshire	4,197	-	75	4,272

7.54   In the context of considering five year land supply in a development management context (rather than plan-making) in advance of the adoption of local plans, it would be appropriate to take account of adjustments to economic growth in drawing conclusions on full OAN for housing.

7.55   OAN figures do not represent plan targets. They represent a starting point for considering housing provision within local plans. It is for the plan-making process to overlay issues related to land availability, development constraints and infrastructure; and to consider other policy factors. The figures set out however provide an important starting point for plan-making, following national policy.

Considerations in assessing Housing Distribution

7.56   It is for the local authorities to consider the 'policy on' distribution of housing provision within the HMA, taking account of wider factors including available land supply, environmental, infrastructure and other development constraints. The Councils will need to collaborate with one another through the Duty to Cooperate to consider the distribution of housing provision.

7.57   It is evident that Coventry is unlikely to be able to meet its housing needs in full. In considering what contribution other authorities in the HMA might make to Coventry's unmet housing needs, there are clearly a range of factors which need to be considered including supply-side factors which are beyond the scope of this report. The evidence herein suggests that a revised distribution of housing provision across the HMA could help to support employment growth in some areas – in particular in North Warwickshire, and Stratford-on-Avon, and thus contribute positively to economic growth for the HMA/ LEP area as a whole.

7.58   The wider economic analysis considered in this report highlights the growth potential of the HMA's economy. Coventry sits centrally within the HMA and is the largest component of the sub-regional economy; its "economic heart" as it were. There is a clear basis for seeking to focus economic investment in the Coventry area, reflecting its economic attributes, including the universities, key companies and R&D facilities, and in particular its strong expected workforce growth. In addressing issues regarding unmet needs, there is also a case for seeking what additional growth could be brought forward in areas which are close to Coventry, or are accessible from it by sustainable transport modes. The evidence also suggests that the jobs-homes balance in Nuneaton and Bedworth could potentially be improved.

7.59   We would recommend that consideration is given to the strategic rationale for the distribution of growth across the HMA. This report can provide an input to this; however there are wider influences dealing with land availability, constraints and infrastructure which clearly are relevant in considering these issues.
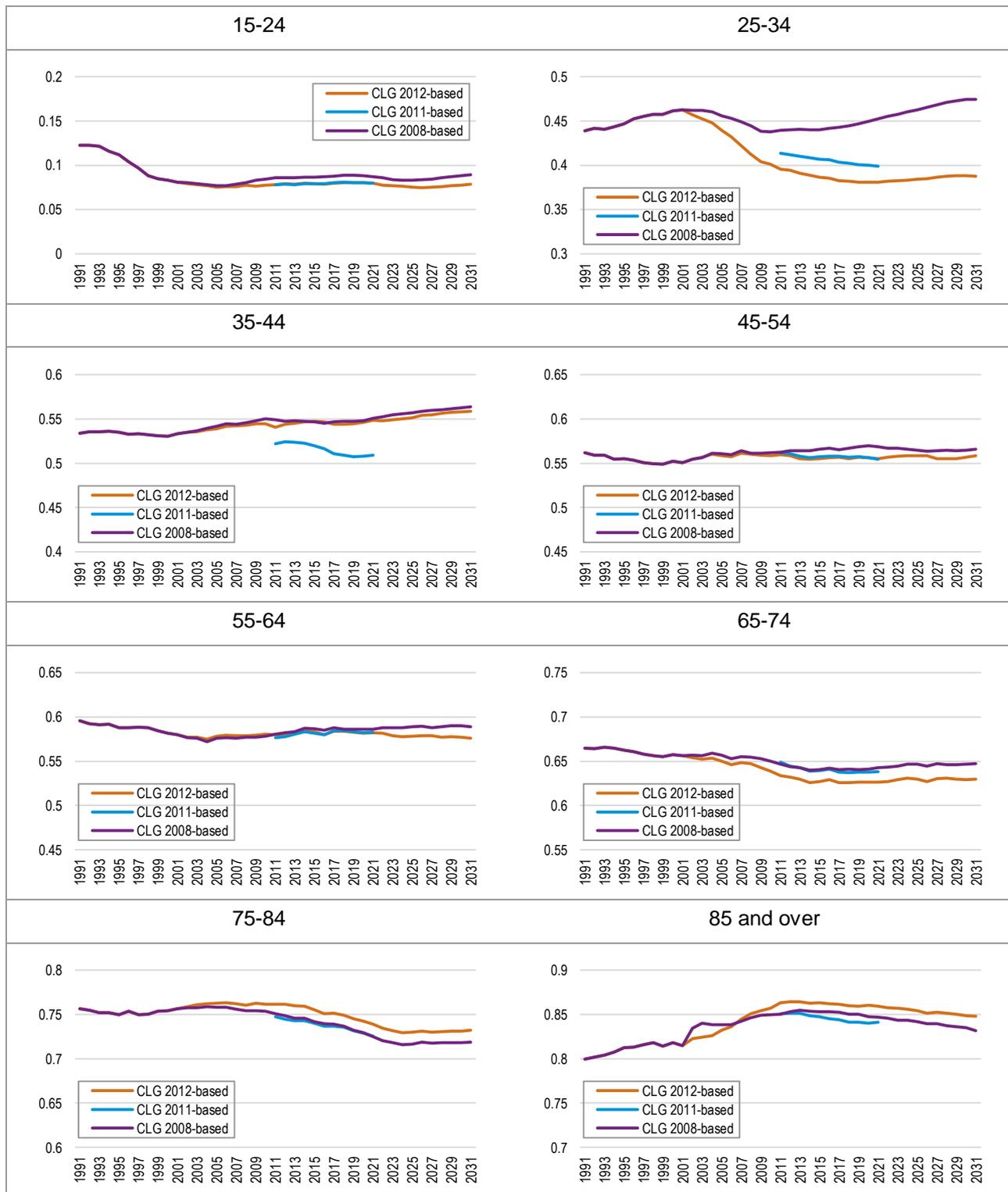
APPENDIX A: Household Formation Rates by Age in each Local Authority

Figure 1:   Projected household formation rates by age of head of household – Coventry
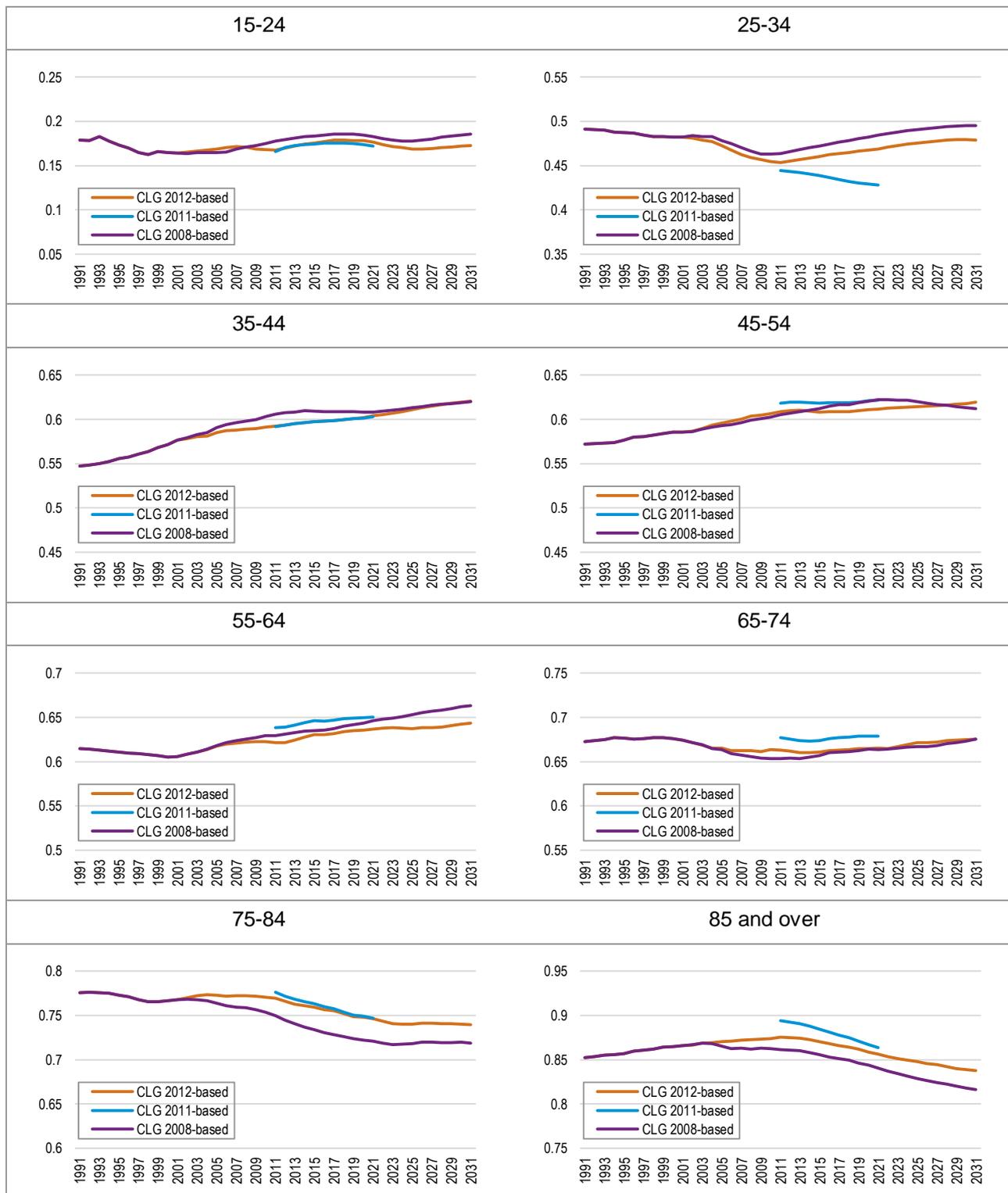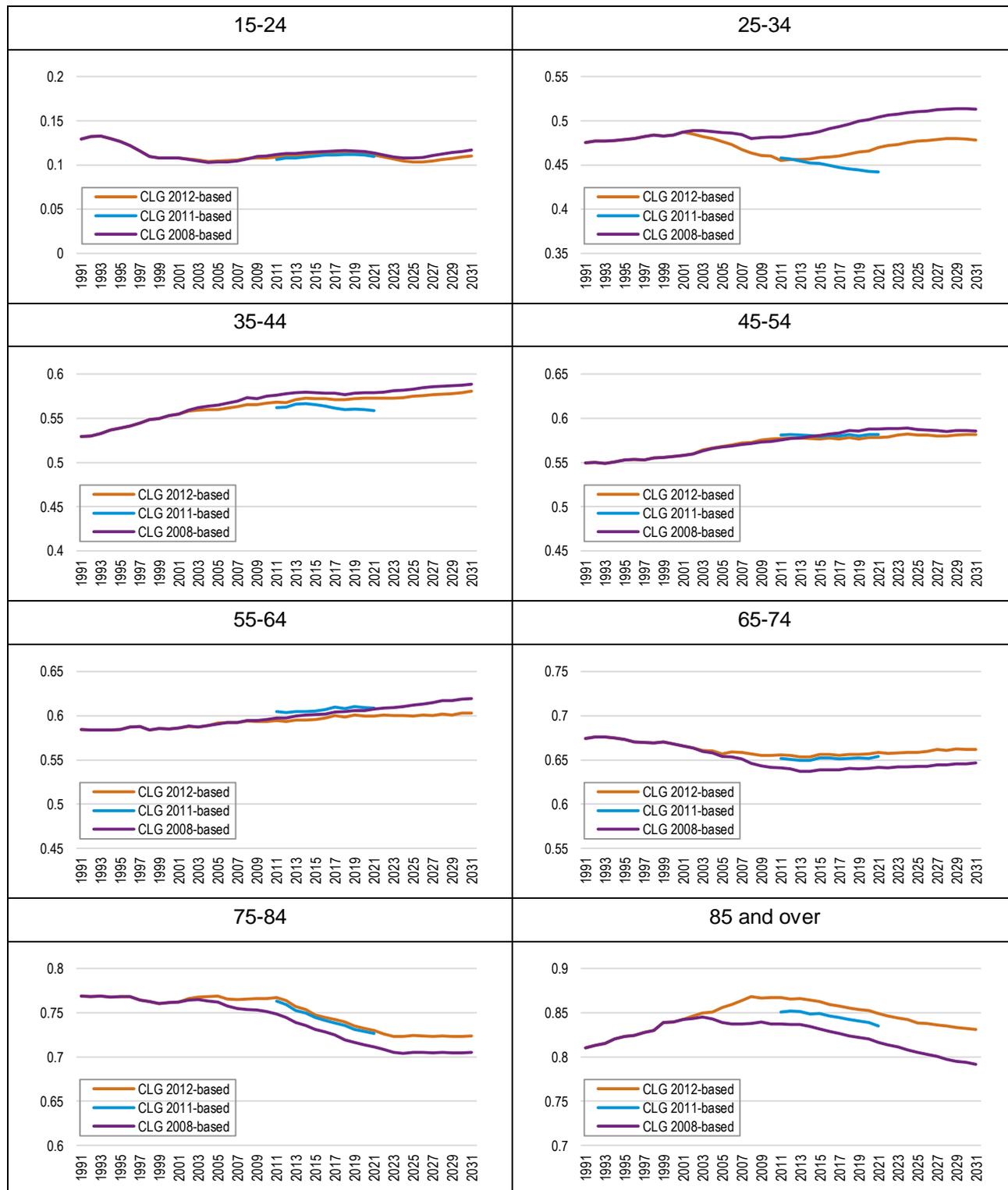

Source: Derived from CLG data

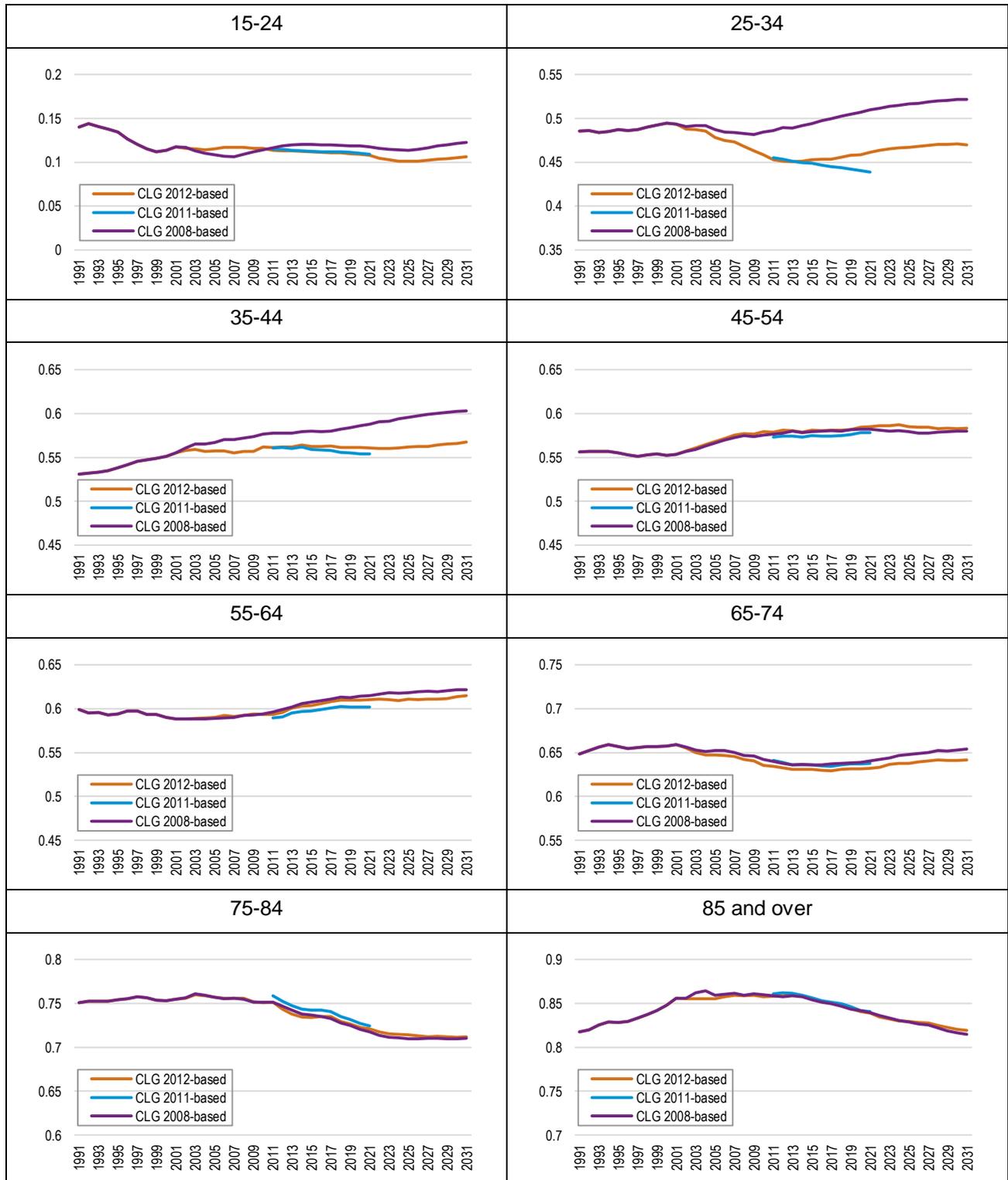**Figure 2:   Projected household formation rates by age of head of household – North Warwickshire**

Source: Derived from CLG data

Figure 3: **Projected household formation rates by age of head of household – Nuneaton & Bedworth**
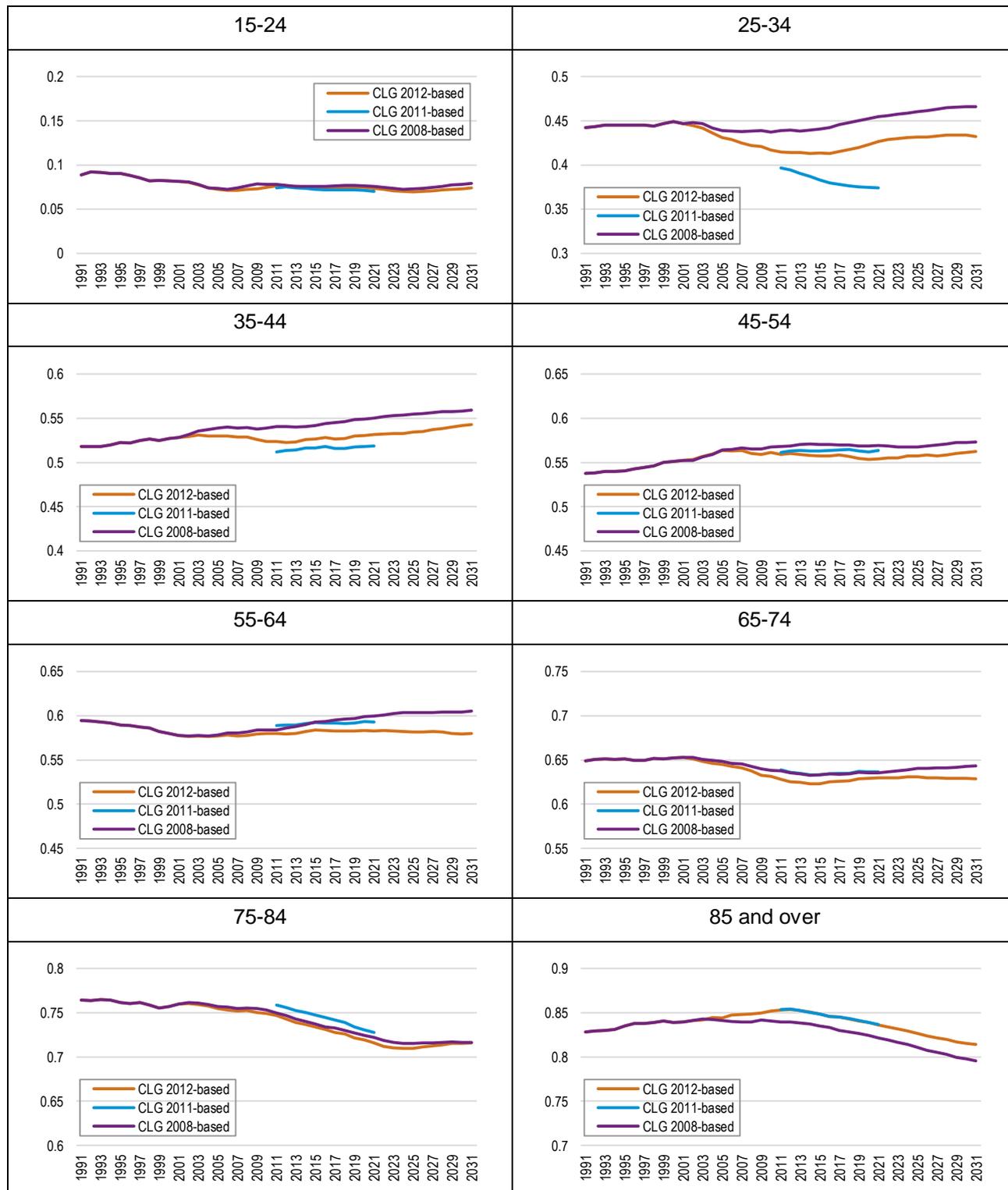

Source: Derived from CLG data

Figure 4:   Projected household formation rates by age of head of household – Rugby
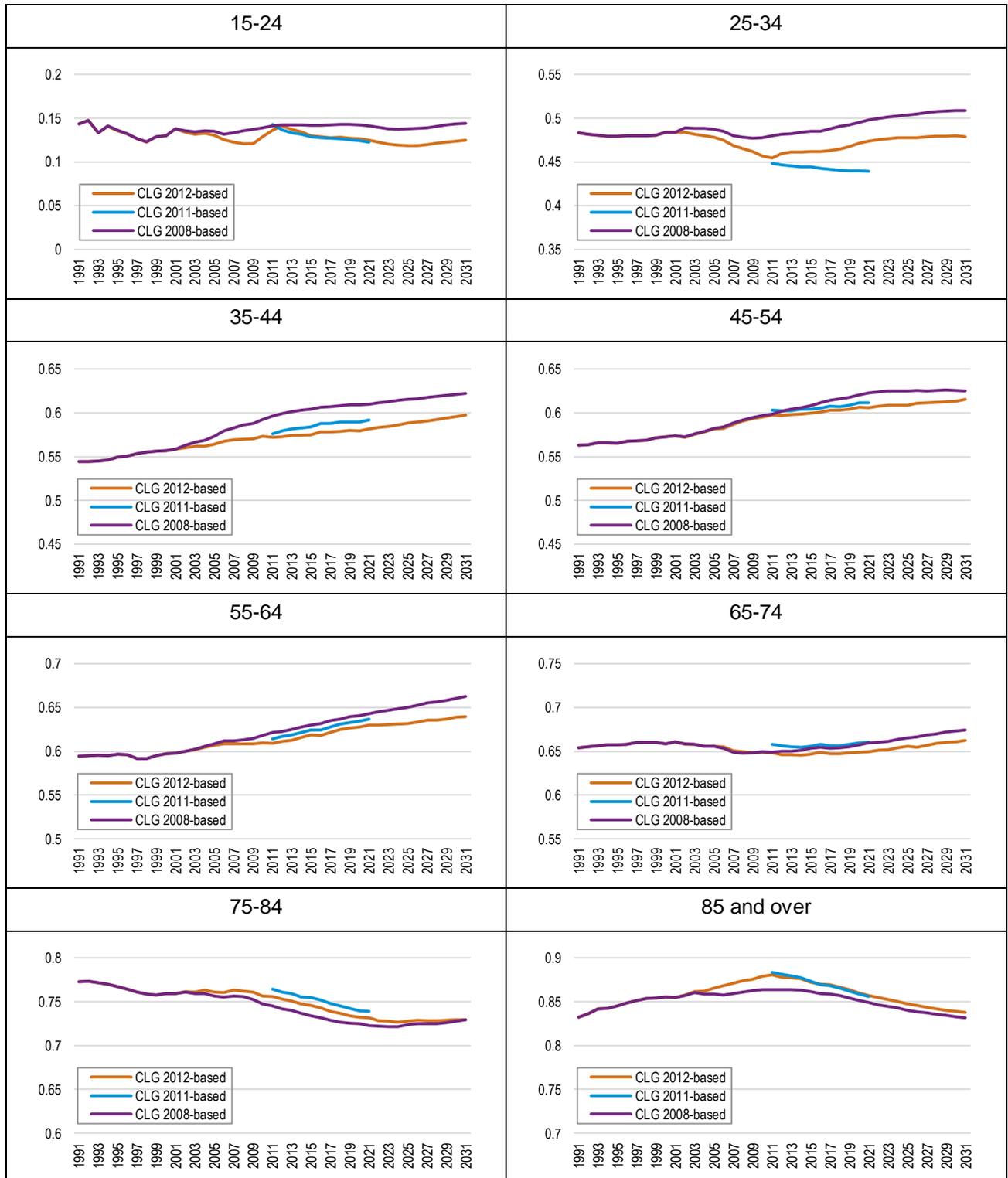

Source: Derived from CLG data

Figure 5:   Projected household formation rates by age of head of household – Stratford-on-Avon

Source: Derived from CLG data

Figure 6:   Projected household formation rates by age of head of household – Warwick

Source: Derived from CLG data