

Stratford-on-Avon District Council

Review of Objectively Assessed Housing Need in Stratford-on-Avon District

Final Report

8 July 2015

Prepared by: ERM assisted by GL Hearn

Stratford-on-Avon District Council

Review of Objectively Assessed Housing Need in Stratford-on-Avon District

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For and on behalf of Environmental Resources Management
Approved by: Ian Gilder

Signed:
Position: Technical Director and Head of Planning
Date: 8 July 2015

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1 INTRODUCTION

PURPOSE

- 1.1 ERM has been commissioned to undertake a Review of Objectively Assessed Housing Need in Stratford-on-Avon District [ROAN] to take account of the Inspector's Interim Conclusions from the Stratford-on-Avon Core Strategy Examination Hearings, published in March 2015 [Interim Conclusions]. ERM had been responsible for undertaking the Consolidated Review of Housing Need and Requirement in Stratford-on-Avon District [CR], December 2014, which had formed Stratford on Avon District Council's [SoADC] evidence on housing need at those Hearings.
- 1.2 ERM takes full responsibility for the ROAN, although we acknowledge the contribution made by GL Hearn, who prepared updated housing need assessments, reported in **Annex B** and **Annex F**.
- 1.3 The Stratford-on-Avon Core Strategy Examination Hearings [CS Examination Hearings] were held between 6 and 29 January 2015. The Inspector published his Interim Conclusions on key matters, including Objectively Assessed Housing Need [OAN], on 18 March 2015. The Interim Conclusions set out four elements of further work required, in particular, in paragraph 1(i):
- 'Stratford-on-Avon District Council need to revisit the Objective Assessment of Housing Need because the labour market adjustments that are contained in the supporting evidence are not justified and fail to demonstrate that an adequate labour force supply will be available to meet the projected job growth within the District;'*
- 1.4 The Inspector raised a number of matters relating to OAN on which he did not accept the arguments set out in the CR or felt there was insufficient evidence to justify them. Thus, while the Inspector accepted the CR assessment of the demographic component of housing need, he concluded that the housing figure was not aligned to the employment growth forecast, leading to concerns that *'the Council is planning for a situation in which a key part of its labour force cannot live in the district'* (paragraph 43). He, therefore, required SoADC to *'revisit its estimate of OAN to ensure it can maintain an adequate labour force supply'* (paragraph 54).
- 1.5 This report presents the conclusions and evidence from the further work undertaken by ERM, assisted by GL Hearn, to address the Inspector's concerns in relation to OAN. The report is being published alongside the SoADC's other submission documents for a resumed Core Strategy Examination in autumn 2015.

RELATIONSHIP BETWEEN THE ROAN, THE CR, THE CWSMA AND THE CWSHMA UPDATE

- 1.6 The ROAN represents SoADC's latest evidence on OAN and generally replaces and supersedes the CR. Certain material in the CR remains relevant and has not been repeated in this report. Those sections are:
- planning policy and practice guidance as set in Section 2 of the CR. This remains the up to date policy and practice framework for considering OAN; and
 - the assessment of the employment land requirements and provision in the Core Strategy [CS] remains that set out in paragraphs 4.1.104 to 4.1.124 and 4.1.126 in the CR.
- 1.7 The Inspector in his Interim Conclusions, in paragraph 185, concluded that the *'CS is based on adequate up-to-date and relevant evidence that has properly assessed the quantitative needs of economic activity in the District'*. The ROAN concludes that the ERM Indicative Employment Forecast [IEF] set out in the CR remains robust and hence the evidence about the quantum of employment land required set out in the CR remains a robust assessment.
- 1.8 The ROAN presents updates of the housing need assessments in both the original Coventry and Warwickshire Strategic Housing Market Assessment ⁽¹⁾ [CWSHMA] and the Coventry and Warwickshire Strategic Housing Market Assessment Update ⁽²⁾ [CWSHMA Update] as they relate to Stratford-on-Avon District [SoAD] and, in relation to the demographic need assessments, for all of the Coventry and Warwickshire Housing Market Area [CWHMA] authorities. In the case of the employment-led assessments of housing need for the Strategic Housing Market Area [SHMA] as a whole, further work has been jointly commissioned from GL Hearn by the CWHMA authorities in the context of the Inspector's Findings at the Warwick Core Strategy Examination. This updated CWSHMA report is expected to be available by September 2015. The problem of maintaining consistency among districts in the SHMAs was fully recognised by the Inspector in his Interim Conclusions, in paragraph 20, but the absence of an updated analysis of employment-led housing needs for all of the CWHMA authorities is not crucial to a robust assessment of the OAN for SoAD, in line with the Inspector's Interim Conclusions.

COOPERATION WITH THE CWHMA AUTHORITIES

- 1.9 The other CWHMA authorities have been kept informed about the scope of the further work undertaken by ERM and GL Hearn for SoADC.

(1) Coventry & Warwickshire Joint SHMA, November 2013.

(2) 2012-based Sub-National Population Projections and economic Forecasts: Implications for Housing Need in Coventry & Warwickshire, September 2014 .

- 1.10 This report has also taken account, as necessary, of the Warwick District Local Plan Examination, the initial hearings for which were held on 6 to 12 May, and of the Inspector's Findings, published on 1 June 2015.

GL HEARN HOUSING NEED PROJECTIONS

- 1.11 The basis for any OAN for SoAD needs, as far as possible, to remain consistent with the approach taken in the CWSHMA and the CWSHMA Update. GL Hearn was, therefore, commissioned by SoADC to provide updated demographic projections of housing need, a series of employment-led housing need projections and an update in relation to affordable housing need for SoAD. Following discussion with the other CWHMA authorities, GL Hearn has provided updated demographic projections for all districts, but for current purposes the employment-led projections have only been produced for SoAD.
- 1.12 The work undertaken by GL Hearn is reported principally in **Annex B** and **Annex F** to this report.

SCOPE OF THE ROAN

- 1.13 The scope of the ROAN has been determined by the areas of concern raised by the Inspector in his Interim Conclusions in paragraphs 6 to 56. The Inspector's key conclusions in respect of OAN, which have influenced the approach and scope of the assessment in this further work were:
- SoADC should revisit its estimate of OAN to ensure it can maintain an adequate labour force supply and plan to meet its own projection of the growth in job numbers within its boundaries and a number of scenarios should be put forward showing varying assumptions based on the evidence (paragraph 54);
 - based on SoADC's demographic projection of 11,320, the CWSHMA's original higher end assessment of 600 dpa, might need to be surpassed in order to allow for a proportionate uplift to support the expected growth in the workforce (paragraph 55);
 - the additional work required might need to take account of the 2012-based Household Projections for England, although advice from the Department for Communities and Local Government [CLG] is clear that the publication of new projections does not automatically render housing assessments to be out of date (paragraph 55); and
 - SoADC should aim to achieve a better balance between the number of homes and jobs in SoAD by broadly maintaining the commuting ratio at around 0.96:1 recorded in the 2011 Census (paragraph 56).

1.14 All of the points raised in the Inspector's Interim Conclusions in relation to OAN, including those matters where SoADC's evidence was accepted by the Inspector, are summarised in **Annex A**.

1.15 The review has addressed the three main strands in the Inspector's Interim Conclusions in order to derive a robust revised OAN:

- (i) the level of job growth forecast for SoAD;
- (ii) the size of the labour force projected to be resident in SoAD; and
- (iii) the potential for achieving a balance between the above and the case for doing so.

STRUCTURE OF THE REPORT

1.16 The remaining sections of this report are as follows:

- **Section 2** sets out a demographic assessment of housing need setting out the principles, critical assumptions and a comparison of housing requirements from various demographic models before drawing conclusions about the 'demographic need' for housing in SoAD;
- **Section 3** sets out an assessment of future employment growth taking into account past employment trends and forecasts. It considers the local and sub-regional economic prospects and, based on the various sources of evidence, provides an Indicative Employment Forecast for SoAD from 2011 to 2031;
- **Section 4** sets out the implications of employment growth for housing need in SoAD and the case for adjusting housing need to take account of employment growth;
- **Section 5** reviews the evidence on market signals and affordable housing need, presenting an update of the affordable housing need assessment in the CWSHMA; and
- **Section 6** summarises ERM's conclusions in relation to objectively assessed housing need.

1.17 The report is supported by the following Annexes:

- **Annex A** - Summary of the Core Strategy Inspector's Interim Conclusions on OAN and how these have been addressed;
- **Annex B** - GL Hearn updated demographic projections and employment-led projections;

- **Annex C** – Economic and employment growth supporting information;
- **Annex D** – Evidence on current and potential pay levels in SoAD and comparable areas;
- **Annex E** – SoAD 2001 and 2011 commuting patterns; and
- **Annex F** – GL Hearn updated SoAD affordable housing need assessment.

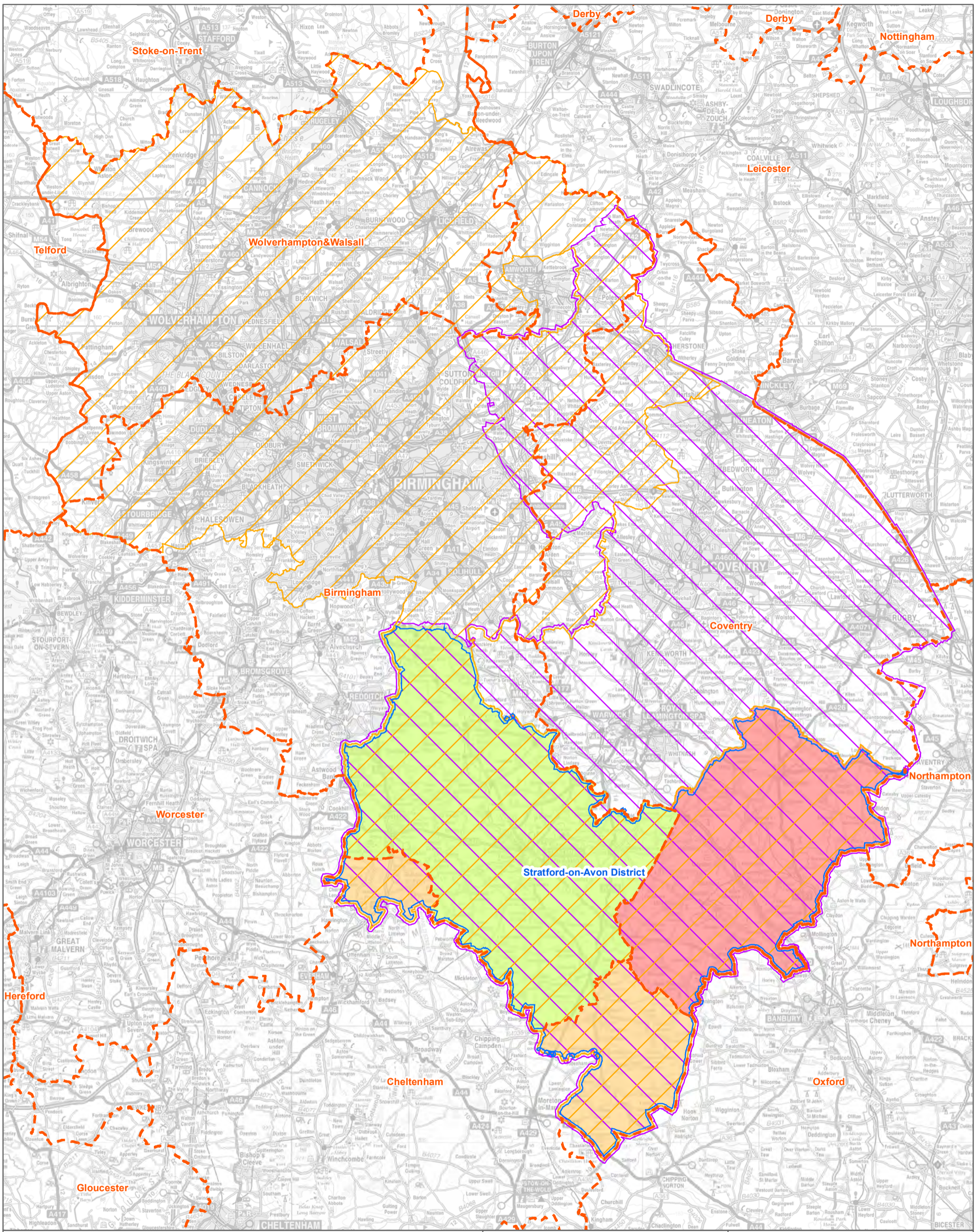
INTRODUCTION

- 2.1 Paragraph 159 of the National Policy Planning Framework [NPPF] requires local planning authorities to identify the scale of housing needed to *'meet household and population projections, taking account of migration and demographic change'*. We refer to this scale of housing as 'demographic housing need'. In principle, if all housing market areas and their constituent local planning authorities provide for a level of need indicated by local projections which sum to a control total set by projections at the national scale, all needs should be met. It is only if an area is subject to constraints that make it impractical or undesirable to meet all of its 'own' need that recourse may be had to bilateral agreements with neighbouring authorities to share any shortfall, if this would bring mutual benefits. This section sets out our assessment of the demographic housing need in SoAD, before considering in later sections whether any adjustments may be required to deal with employment growth or market signals.

HOUSING MARKET AREAS

- 2.2 The basic principle behind the National Policy Planning Framework/Planning Practice Guidance approach to assessing housing need is that each area should, on the whole, aim to meet the housing needs it generates. Paragraph 47 of the NPPF states that local planning authorities should aim to ensure that *'their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area'*. A housing market area [HMA] is defined in paragraph 10 of the Planning Practice Guidance ⁽¹⁾ [PPG] as *'a geographical area defined by household demand and preferences for all types of housing, reflecting the key functional linkages between places where people live and work'*.
- 2.3 The PPG recognises that there is no hard and fast way to identify a housing market area and that the boundaries of different market areas may overlap. Housing market areas often do not match to districts. This is reflected in the split allocation of SoAD between four different SHMAs in CLG's Geography of Housing Market Areas 2010, which is based on research into journey to work patterns. The three main strategic areas, illustrated in **Figure 2.1**, are centred on Coventry, Birmingham and Oxford respectively. The most appropriate of these for SoAD is the CWHMA, as SoAD's closest economic and commuting connections are with Warwick district which falls within this HMA. SoAD has therefore been included in the CWHMA and this is now the area for which the *'full, objectively assessed needs for housing'* for the five Warwickshire districts (including SoAD) together with Coventry have been assessed in the CWSHMA and the CWSHMA Update.

⁽¹⁾ Planning Practice Guidance Housing and Economic Development Needs Assessments, March 2015.



Stratford-on-Avon District	Birmingham HMA intersecting with Stratford-on-Avon District
Single Tier Housing Market Areas (HMA)	Cheltenham HMA intersecting with Stratford-on-Avon District
Birmingham and Black Country Housing Market Area	Coventry HMA intersecting with Stratford-on-Avon District
Coventry and Warwickshire Housing Market Area	

0 3 6 9 12
Kilometers

SCALE:
SIZE: A3
PROJECT: AZ
DATE: 02/12/2014

VERSION: A02
DRAWN: AZ
CHECKED: SG
APPROVED:

Figure 2.1
Housing Market Areas

CLIENT:

PROJECTION: British National Grid

- 2.4 SoAD has also been included in the HMA adopted by the Birmingham and Solihull Local Enterprise Partnership and Black Country local authorities, whose Joint Strategic Housing Needs Study Stage 2 report was published in November 2014. However, the Study recognises that SoAD's connection with this Greater Birmingham is very weak and states that '*it is incorrect to consider the district as a whole part of the Greater Birmingham HMA*'. Nevertheless, SoAD has an important commuting relationship with its immediate neighbour Redditch, which falls within the Greater Birmingham HMA (as well as with Wychavon, which falls within the Worcestershire HMA). This is discussed further in paragraph 4.14).

POPULATION AND HOUSEHOLD PROJECTION METHOD

- 2.5 Population projections indicate the possible size and structure of the future population, based on assumptions about the continuation of past trends in key factors. The most important elements are the rate of natural population change, comprising the difference between births and deaths, and the net rate of in-migration, ie. the difference between the number of migrants entering and leaving in each period.
- 2.6 In order to assess future housing requirements, the projected population needs to be divided into the household population and the population that will be living in institutions. The household population has then to be converted into households. The standard approach to estimating household numbers is to apply assumptions on future household representative rates (or household formation rates) for different age groups to the projected household population in order to estimate numbers of heads of household. As a proportion of the housing stock inevitably stands empty at any one time, a vacancy rate has to be applied to the number of households to assess the number of dwellings required to house the non-institutional population.
- 2.7 The assumptions adopted at each stage of this process are critical to the outcome in terms of assessed housing need. Different projections will incorporate different judgements about the expected future trajectory of key factors, derived from past trends. These may result from considering past periods with different durations or with different start or end dates or from different expectations about how demographic trends will unfold in future. It may be difficult to identify the source of differences between different sets of projections.

AVAILABLE FORECASTS OF POPULATION AND HOUSEHOLDS

- 2.8 According to the PPG on Housing and Economic Needs Assessments, the starting point for assessing housing need should be the latest set of Sub National Household Projections [SNHPs] published by the Department for Communities and Local Government [CLG].

- 2.9 The Office for National Statistics [ONS] produces biennial projections of population at local authority level built on the base of their latest annual mid-year population estimates. These Sub National Population Projections [SNPPs] provide annual population figures for local authority areas over an extended period of 25 years. The SNPPs are intended to indicate the possible size and structure of the future population of English local authorities, based on the continuation of recent demographic trends. They make assumptions on future fertility, mortality and, most significantly, migration levels, based usually on trends over a recent five year period. CLG converts the SNPPs into SNHPs by the application of household formation rates [HFRs], again based on past trends.
- 2.10 At the time of the CR and the CS Examination Hearings, the most up-to-date official demographic projections for SoAD were the ONS 2012-based SNPPs. However, these had not yet been converted by CLG into a set of equivalent SNHPs. There was substantial uncertainty about the likely future rate of change of household formation rates, long term trends in which had been significantly affected by the economic slowdown of the late 2000s. The CR, therefore, took as its starting point in assessing demographic housing need, the household projections made by GL Hearn for the CWSHMA Update, which used a set of household formation rates termed 'part return to trend' in an attempt to predict the outcome of the 2012-based SNHPs.
- 2.11 The 2012-based SNHPs were released on 27 February 2015, after the closure of the CS Examination Hearings. These now constitute the most up-to-date household projections for SoAD. There is no longer any need to use GL Hearn's or any other 'part return to trend' assumptions for HFRs as the CLG's view of HFRs is now embodied in these latest household projections. We therefore commissioned GL Hearn to re-assess SoAD's demographic housing need, taking the 2012-based SNHPs as their starting point. They have produced a set of household projections based on population data in the 2012-based SNPPs, updated to include information from the 2013 mid-year population estimates (see **Annex B**).

NET MIGRATION ASSUMPTIONS

- 2.12 Assumptions on likely future net migration rates are a key element in assessing housing need (as required by paragraph 159 of the NPPF). Projections can be based on different assumptions about how past trends in net migration may develop over the plan period. There is no 'natural' rate of net in-migration into an area. Levels of net in-migration in the past and in the future are always closely related to house-building rates and are strongly influenced by economic cycles. This is illustrated in **Table 2.1**, which shows that, for SoAD, there was no continuous linear trend during the 2000s but rather a rise to and descent from a peak in 2005-2006. The ten year average rate for the latest ten year period for which data are available, ie. 2003/4 to 2012/13 is 956 pa. The latest five year average is 384 pa.

Table 2.1 Annual Net Migrants to SoAD, mid-2001 to mid-2013

Period	Annual Net Migrants			
	Internal	International	Total	
2001/2002	1,040	-121	919	
2002/2003	933	-23	910	
2003/2004	755	-99	656	
2004/2005	1,202	387	1,589	
2005/2006	1,140	972	2,112	
2006/2007	1,337	622	1,959	
2007/2008	546	778	1,324	
2008/2009	134	248	382	
2009/2010	533	94	627	
2010/2011	803	111	914	
2011/2012	-244	0	-244	
2012/2013	316	-75	241	
2003/2004- 2012/2013 (10 yr)	total	6,522	3,038	9,560
	pa	652	304	956
2008/2009- 2012/2013 (5 yr)	total	1,542	378	1,920
	pa	308	76	384

Source: ONS, 2013 Mid-year population estimates, components of change

2.13 The SNPPs use net migration assumptions derived from an analysis of trends in the numbers of persons, by sex and age group, moving between different local authorities over the previous five years. This is a dynamic interpretation of the trend during that period, however, rather than a straight application of the average rate per annum. The Components of Change table from the 2012-based SNPP shows a gradual increase in net in-migration from 600 in 2013 to around 1,000 by 2028, with an average net in-migration of 847 pa from 2013 to 2031 (19 years). The 2012-based SNPP was based on internal migration over the period 2007-2012 and international migration over the period 2006-2012. The impact of net in-migrants on total population over the plan period is greater than the total number of net in-migrants, as each year's net in-migrants contribute an increment to the resident population and hence to its natural change in later years resulting from the surplus of births over deaths.

2.14 The new GL Hearn projections in **Annex B** present a projection based on the 2012-based SNHP, using the net in-migration assumptions from the 2012-based SNPP but commencing at the fixed start date of mid-year 2013. However, they also present projections based on net migration for the five period 2008-2013, ie. more recent than the one used in the 2012-based SNPPs, and for the ten year period 2003 to 2013. We consider a ten year period to represent the most appropriate basis for assessing demographic housing need as it is not unduly influenced by the effects of the economic

recession and better reflects the migration levels associated with SoAD's past and potential employment growth. The adoption of a ten year migration trend was supported by the Inspector in his Interim Conclusions (paragraph 20).

- 2.15 **Annex B** presents two projections for each migration scenario: a constant rate of net in-migration and a variable rate which recognises that migration within the SNPP is 'dynamic' and varies over time as the population age structure changes (not just in SoAD, but also in areas from which people might move to SoAD). We have adopted the variable projection as the most appropriate for assessing demographic housing need, as it follows the methodology in the SNHPs in dealing with migration, whereas the migration constant projections do not reflect the dynamics of inter-district migration.

HOUSEHOLD FORMATION RATE ASSUMPTIONS

- 2.16 HFRs are of fundamental importance in estimating housing need from the output of demographic models. There was substantial discussion in the CR of the most appropriate view to take on the future trajectory of HFRs, in terms of the rate at which they might be expected to return to their long term upward trend following the economic recession which had slowed down this trend. However, we now have CLG's view of the future HFR trajectory as embodied in the 2012-based SNHPs. These still represent a 'part' as opposed to a 'full' return to trend, insofar as they show some continued suppression of HFRs running through to 2031.

VACANCY RATE ASSUMPTIONS

- 2.17 In SoAD, the number of shared households is negligible, so each projected household can be assumed to require a single dwelling. At any one time, however, a certain proportion of the dwelling stock is vacant, partly as a result of activity in the market and partly because some dwellings comprise second homes, which are not normally occupied by a resident household. Vacancy rate assumptions are required to convert the projected number of households to the number of dwellings required to house them.
- 2.18 The 2011 Census found 2,886 vacant homes in SoAD, out of 54,814 household spaces, a combined rate of 5.3%, which is somewhat higher than the equivalent figure of 4.4% from the 2001 Census. The 2011 Census also found 981 households usually resident outside SoAD with a second address within the district which they stated was for working (553) or holiday (428) purposes, which was 1.8% of the total household spaces in SoAD. The CWSHMA and CWSHMA Update assume a vacancy rate of 3% in the new housing stock, in line with rates used in many Strategic Housing Market Assessments, including the Birmingham, Solihull and Black Country Strategic HMA, just published.

- 2.19 SoADC's Private Sector House Condition Survey of 2009 estimated that 1,360 dwellings or 2.9% of the private sector housing stock (both owner occupied and private rented) were vacant at that time (a figure which will have excluded second homes). The private sector housing stock was, at that time, 87% of total private and public sector stock. This suggests that the vacancy rate had probably increased during the recession by the time of the 2011 Census, although the data sources are not precisely comparable. It may be assumed that the frictional vacancy rate in the affordable or public rented sector would be no higher than this figure. Furthermore, the existing private sector stock contains a large number of long term vacant dwellings which may potentially be returned to occupation.
- 2.20 The 2009 Survey found that 800 of the private sector vacant stock had been empty for six months or more. SoADC's Empty Homes Strategy ⁽¹⁾ aims to bring back as many as possible of these 800 long term vacant dwellings into use. Given this potential source of dwellings to accommodate some net additional households, it is reasonable to assume that a total vacancy rate, including second homes, of 3% applied to the net additional housing will be sufficient to cover vacant and second homes in the new stock. The Inspector, in paragraph 18 of his Interim Conclusions, considered this to be a reasonable assumption.

HOUSING NEED OUTPUTS OF DEMOGRAPHIC MODELS

- 2.21 **Table 2.2** sets out the annual demographic housing need for SoAD and the CWHMA from 2011 to 2031, derived from the latest GL Hearn projections based on the 2012-based SNPPs and SNHPs, together with the main CWSHMA Update projections using a range of HFRs as presented in the CR. A full explanation of the derivation of these projections is given in **Annex B**.

⁽¹⁾ "From Empty Homes to New Homes: 2012 to 2015, SoADC, 2012.

Table 2.2 Housing Need from Demographic Projections for SoAD and CWHMA, 2011- 2031

Projection		Dwellings per Annum	
		SoAD	CWHMA
CWSHMA	PROJ 1A – Midpoint Headship	538	3,753
CWSHMA Update	2012-based SNPP ('Midpoint HFRs')	463	3,906
CWSHMA Update	2012-based revised HFRs ('part return to trend') in CWSHMA Update	508	4,004
2012-based SNHPs	2012-based SNPPs, 2012-based SNHP HFRs	458	4,092
5 year migration variable	2012-based SNPPs with 5 year migration, 2012-based SNHP HFRs	331	3,820
10 year migration variable	2012-based SNPPs SNPPs with 10 year migration, 2012-based SNHP HFRs	572	3,969
Note: Assuming Vacancy Rate of 3%			

2.22 **Table 2.2** shows a need for 458 dwellings per annum [dpa] based on the most recent official projections. The alternative, migration-related projections show that short-term trends indicate a lower level of need and longer-term trends higher. It is also of note that changing the start and end dates for the 5 year migration trend data can result in marked differences in the numbers of dwellings per annum. The preferred ten year variable projection shows a demographic housing need for SoAD of up to 572 dpa. Despite the difference in the source and derivation of this figure, it is very close to the figure of 566 dpa presented in the CR which the Inspector, in paragraph 24 of his Interim Conclusions, considered to be 'about right'.

2.23 **Table 2.2** also shows the demographic housing need projected for the total CWHMA under the assumptions of each of the projections. This shows that the figure from the 2012-based SNHP is 4,092 dpa, an increase of 88 dpa over the demographic housing need of 4,004 dpa estimated in the CWSHMA Update assuming part return to trend HFRs. However, it is also noteworthy that both of the two migration-related projections result in figures below 4,004 dpa.

CONCLUSION ON DEMOGRAPHIC NEED FOR SoAD

2.24 The projections by GL Hearn based on the 2012-based SNHPs and presented here replace those in the CWSHMA and CWSHMA Update in assessing the impact of natural population change and different levels of net in-migration on future housing requirements.

2.25 In our view, the best estimate of demographic housing need for SoAD is given by the 10 year migration variable projection, which shows a need for 11,440 dwellings over the period 2011 – 2031, an average of 572 dpa. This figure is based on:

- the demographic variables used in the latest ONS 2012-based SNPPs, in terms of birth and death rates, and age structure of net migrants;
- net migration assumptions derived from the ten year average from the most recent data (2004-2013), rather than based on the lower five year figures used in the ONS 2012-based SNPPs, which were significantly affected by the lower migration levels during the recession years;
- the household formation rates adopted by CLG in the 2012-based SNHPs, which represent the “official” view of the rate of prospective recovery from the suppressed household formation rates of the recession years; and
- a reasonable long term vacancy rate of 3%.

2.26 In paragraph 20 of his Interim Conclusions, the Inspector stated that the additional dwellings required to meet the needs arising from the 10 year migration trend compared with the number required to meet the assumptions underlying the 2012 SNPP should be treated as additional to the CWHMA’s total OAN, which was estimated in the SHMA Update as 4,004 dpa. In the CR this increment arising from the ten year migration period and based on GL Hearn’s part return to trend HFRs was 58 dpa for SoAD. Under the latest ROAN projections and 2012 SNHP HFRs it becomes 114 dpa. The Inspector’s instruction implies that the increment for SoAD must be sourced from districts outside the CWHMA. This would, therefore, have the effect of transferring to SoAD part of the demographic housing need from districts elsewhere in the region/country, although these places cannot be specifically identified.

2.27 In our view, this is not logical. It is perhaps a result of the Inspector assuming that the adoption of a ten year migration assumption would lead to higher demographic needs throughout the HMA. This is not the case. The CWSHMA Update assessment of demographic housing need for the CWHMA was 4,004 dpa. The 2012 SNHP re-run shows that this would be increased slightly to 4,092 dpa. However, a ‘ten year migration variable’ projection for the entire CWHMA shows a demographic housing need of 3,969 (see **Table B2** in **Annex B**). Therefore, any increase in the assumed in-migration to SoAD based on its in-migration rates would, in effect, result in a redistribution of the HMA’s demographic housing need among the constituent local authorities, rather than necessitating an increase in the overall demographic housing need. This is a view shared by ERM and GL Hearn.

INTRODUCTION

- 3.1 Paragraph 18 of the PPG states that plan makers should take employment trends into account in deriving housing requirements, proposing they *'make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age population in the housing market area'*.
- 3.2 We have undertaken a review and analysis of the CS evidence and other relevant studies in order to make a balanced judgement about the future economic and employment prospects for SoAD. The purpose of this section is to bring this material together and present it as a summary of employment growth prospects, with a particular focus on the advice in paragraph 18 of the PPG.
- 3.3 This section (augmented by **Annex C** and **Annex D**) sets out:
- district trends in job numbers from a variety of sources¹;
 - an assessment of the reliability of recent total and sectoral employment projections that have been undertaken for the CWHMA and its constituent districts by Experian and Cambridge Econometrics/Warwick Institute for Employment Research ⁽²⁾ [CE/WIE];
 - an indicative job forecast for SoAD for the period 2011 to 2031, that is appropriate for assessing OAN; and
 - a commentary on the likely type of new jobs that might be created, focusing on the proportion of them likely to be full or part time, and the range of industry sectors (from relatively high to relatively low paying sectors) with which they are likely to be associated.

PAST EMPLOYMENT TRENDS IN SoAD

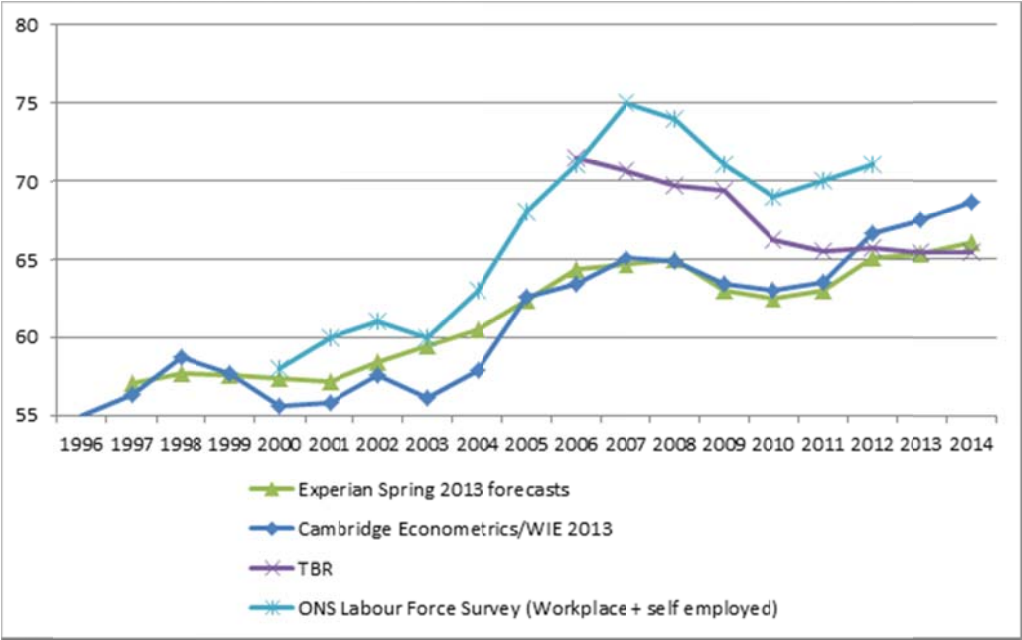
- 3.4 An overview of local employment estimates is provided in **Annex C**. Past data provides some useful insights into what is happening in a local, regional or national economy, as well as providing the basis from which future predictions may be developed.

(1) Data sources include Annual Business Survey, Annual Business Inquiry and Business Register Employment Survey.

(2) Experian data provided courtesy of GL Hearn. CE/WIE data provided courtesy of Warwickshire County Council, who hold a licence with CE/WIE.

- 3.5 The ONS is the UK's largest independent producer of official statistics and is the recognised national statistical institute, making it the 'go-to' source for economic statistics in the UK. The ONS' main sources for employment estimates at local authority level are the Business Register and Employment Survey [BRES] and the Annual Population Survey [APS], the latter includes the Labour Force Survey [LFS].
- 3.6 Alternative providers of economic statistics are also available, often in the form of private sector companies and consultancies, which provide data either estimated on the basis of econometric modelling, or assembled via some combination of bespoke surveying techniques and purchase of primary data from elsewhere. However, whether the source is ONS or another data provider, available statistics are not without their disadvantages. More discussion about official and alternative sources of data, together with a description of some of the problems inherent within them, is provided in **Annex C**.
- 3.7 There is limited choice of time series data showing long term total employment growth to 2011. What sources there are suggest different employment changes, and cover different years. Most of the sources do at least have commonalities, as shown in **Figure 3.1**. This shows total jobs within SoAD (in thousands), from 1996 – 2014, according to four sources: Experian; CE/WIE (both of these are based on econometric modelling); ONS (based on sampling and published as the LFS); and TBR (an economic research consultancy company). From the beginning of the series (with a few exceptions) data from Experian and CE/WIE and ONS show annual increases in jobs within SoAD up until 2007, when job numbers start to fall (or plateau out). All three sources have 2010 as a low point (after the 2008 recession), following which each shows job numbers recovering. The alternative data source (shown as the purple line and provided by TBR, a company basing its figures on Companies House returns), begins much later than the other streams (starting in 2006) and reports consistent year-on-year falls every year to 2011, after which numbers remain constant, but do not recover to previous levels.

Figure 3.1 Historical Changes in Total Jobs within SoAD (000s)



Source: Experian, Cambridge Econometrics, TBR and ONS

3.8 **Figure 3.1** shows that, despite presenting a broadly similar pattern, the sources do not give a consistent headcount of jobs in SoAD. Over most of the past decade there has been a range of five thousand or more jobs between the top and bottom estimates.

3.9 Average annual percentage changes for these four sources are presented in **Table 3.1**, and range from between -1.7% and 1.7% per annum. Our analysis takes account of these past trends in estimating likely employment in the future.

Table 3.1 Annual Rate of Change in Jobs within SoAD

Series	Years	Average Annual (Compound) Rate of Change (%)
CE/WIE	1996-2011	1.0
Experian	1997-2011	0.7
ONS Labour Force Survey	2000-2011	1.7
TBR	2007-2011	-1.7

Source: Experian, Cambridge Econometrics, TBR and ONS

PROJECTIONS OF FUTURE JOB NUMBERS FOR SOAD

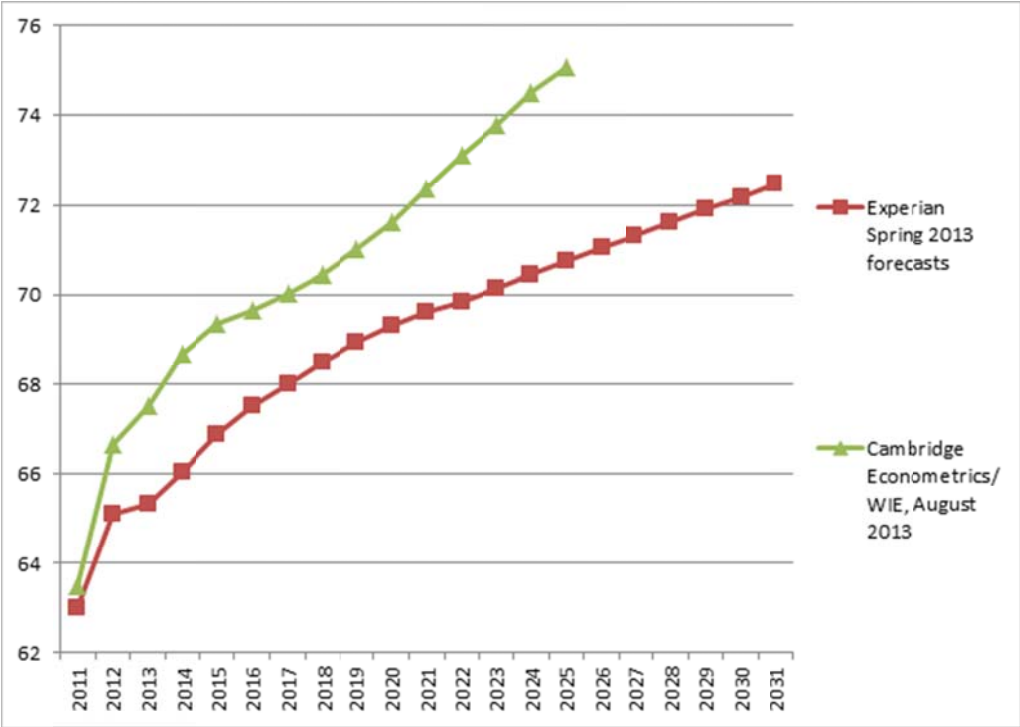
3.10 ONS does not forecast future employment and, as far as we understand from our discussion with them, the scope of TBR’s work in the CWHMA does not extend to forecasting. Econometric forecasting comes with significant health warnings (many of which have been raised at the CS Examination Hearings and are reproduced in **Annex C** under the heading *Forecasting and Projecting Job Numbers by Econometric Modelling*) but it is often the only available option for the provision of detailed long term projections of jobs and job types

in an area. Findings from specific projections for SoAD are discussed in the following paragraphs, and also in **Annex C**.

Experian and CE/WIE Forecast Job Levels

- 3.11 In order to identify an appropriate indicative forecast of employment by Standard Industrial Classification [SIC], the available econometric forecasts were examined to identify predicted future growth in labour demand, both at a disaggregated (ie. broken down by SIC) and aggregated (ie. headline) level. A range of employment forecasts for SoAD have been used by parties at the CS Examination Hearings, for example Oxford Economics (Regeneris), Experian 2014 (Turley), Cambridge Econometrics November 2013 (Pegasus) and Experian 2013 forecasts (two sets), but not all have been published in detail and none represents an 'official' CWHMA forecast.
- 3.12 The Experian Spring 2013 forecast and the Cambridge Econometrics [CE] August 2013 forecast, although not the most up to date, have the benefit of being not only available in some detail, but also of having some consistency with other work, because they are relatively widely used. The Spring 2013 Experian forecasts were considered in both the CWSHMA and the CWSHMA Update, while the August 2013 CE projections informed the Local Enterprise Partnership's [LEP] work in developing the Strategic Economic Plan [SEP], and the Coventry and Warwickshire Joint Employment Land Review and was used in the CWSHMA Update.
- 3.13 **Figure 3.2** sets out the outputs from the Experian and the CE/WIE models for SoAD. These show all jobs, with no SIC distinctions, and are the original forecasts, with the CE/WIE forecast extending to 2025, and the Experian estimate running to 2031.
- 3.14 Presenting the two aggregate job totals on the same graph enables differences in the outputs from the models to be seen. The two different starting positions are discernible at the bottom of the chart, with the CE/WIE figure starting at around 500 more than the Experian figure and finishing (in 2025) at over 4,000 more.
- 3.15 For comparison, BRES data from ONS in 2011 indicated some 59,000 jobs in SoAD, a figure too low to be included on the chart axis. However, this is consistent with reasonable expectations due to the exclusion within the BRES figure of the self-employed as well as certain individuals fitting into other minor categories.

Figure 3.2 Long Term Job Forecasts (000s), SoAD, 2011 to 2031



Source: Cambridge Econometrics/WIE August 2013 and Experian, Spring 2013

3.16 The Experian forecast runs from 2011-2031, with an increase of 9,500 jobs estimated over the period (red line with squares). The CE/WIE forecast covers 2011-2025 - six years fewer than the Experian forecast. The CE/WIE model is more optimistic, predicting that employment will rise by 11,600 over the period to 2025 ⁽¹⁾ (green line with triangles). Both sources suggests a sharp increase in employment between 2011 and 2012: Experian’s increase is 2,100 jobs, while CE/WIE’s rise is over 3,100. These rapid step changes can be seen at the bottom left of **Figure 3.2**.

ERM Indicative Employment Forecast

3.17 Our review of the Experian and CE/WIE projections was supplemented by evidence obtained from sector reports, locally prepared documentation (a summary of which appears in **Annex C**, under the heading *Other Assessments of Economic Prospects for SoAD*) and discussions with SoAD officers, the Warwickshire Observatory and Warwickshire County Council. These allowed us to develop an understanding of specific factors underlying the local economy, and assess the Experian and CE/WIE forecasts in this light. Having reviewed the evidence, we considered that it would not be appropriate to retain either of the Experian or CE/WIE forecasts in their entirety.

⁽¹⁾ GL Hearn, in the SHMA Update, extended the time period to 2031 by providing a ‘bolt on’ estimate of employment growth for the last six years, this resulted in an employment growth forecast of 15,700 jobs from 2011-2031.

- 3.18 The Experian forecast of employment growth, while methodologically sound and from a credible source, gave a relatively low projection for employment growth that was not widely backed by other evidence. The CE/WIE projections, on the other hand, included higher growth in some sectors than appeared reasonable and also terminated in 2025, six years short of the end of the plan period.
- 3.19 Our approach was to use the basic CE/WIE forecast, and amend it where necessary to derive an ERM IEF. This is in line with the advice in CE/WIE in their Local Economic Forecasting Model ⁽¹⁾ [LEFM] manual that states: ‘*The economic prospects in any particular local area will however depend on a whole host of local factors which only those ‘close to the ground will know about’.* The aim of the LEFM package is to provide a set of benchmark projections, based initially on the assumption that the local area performs in line with national or regional trends. Past relationships between local and national or regional performance are used to produce this initial projection. This basic benchmark can then be supplemented by local level information, often qualitative in nature.
- 3.20 Having, therefore, the ‘basic benchmark’, adjustments were made to the CE/WIE projections, reflecting the qualitative findings of our research and discussions. Two principal changes were made: the first related to the extrapolation of the study period beyond 2025, when the CE/WIE projections finish; and the second related to the changes in employment predicted at the individual sector level. These are addressed in turn in the following sections.

Extending the Projection Period

- 3.21 The CE/WIE projection period ends in 2025, six years before the end of the CS planning period. This is an issue that GL Hearn (in the CWSHMA Update) and Atkins (in the Coventry and Warwickshire Strategic Employment Land Study) both faced and addressed in different ways. For the CE base scenario, Atkins note that ‘*figures for 2026-31 have been extrapolated from the figures for 2011-2025*’ but there is no statement of methodology for this and the analysis is conducted at LEP level in any case. GL Hearn’s approach to populating the ‘missing’ 2026-2031 period for the CWSHMA Update was to take CE/WIE’s original projection to 2025 (11,600) and repeat the growth forecast by CE/WIE for the 2019-2025 period. This provided a total employment growth estimate of 15,700. However the resulting ‘bolt-on’ additional GL Hearn forecast of 4,000 or so jobs for the period 2025 to 2031 is not related to any national or regional control total, has no econometric underpinning and cannot be considered robust. This estimate represents twice the level of jobs forecast for 2025 to 2031 by Experian, whose model does cover this period. We believe that use of the outputs from Experian’s bespoke econometric model is preferable to merely repeating the projections which CE/WIE explicitly generated for previous years and that it would not be

⁽¹⁾ Abbreviated to LEFM, this is the name that CE/WIE gives to their proprietorial econometric model that provides economic projections at the local (usually local authority or sub-regional) level.

justifiable to base a significant element of future housing need on such a weakly based assumption.

- 3.22 Therefore, we have used the Experian forecast, based on the company's methodology detailed in **Annex C**, for the period 2025 to 2031. The Experian projection is unique in offering detailed employment projections beyond 2026 which are available for our use. In the absence of a better source, we believe it offers a more robust approach than simply repeating previous years' growth. The Experian estimate indicates growth over the period of some 2.5%, which has been added to the CE/WIE projections ending 2025 to provide for growth between 2026 and 2031.

Sectoral Growth Adjustments

- 3.23 Evidence from the official statistics and from other research (set out in **Annex C**) resulted in our making adjustments to the CE/WIE forecast for four SICs, totalling a reduction of 1,400 jobs. The impact of this reduction, however, is complicated by our view that the CE/WIE forecast is particularly unreliable for the earliest years, 2011 to 2013, for which its forecasts can be directly compared with actual data, which has since been published by ONS.

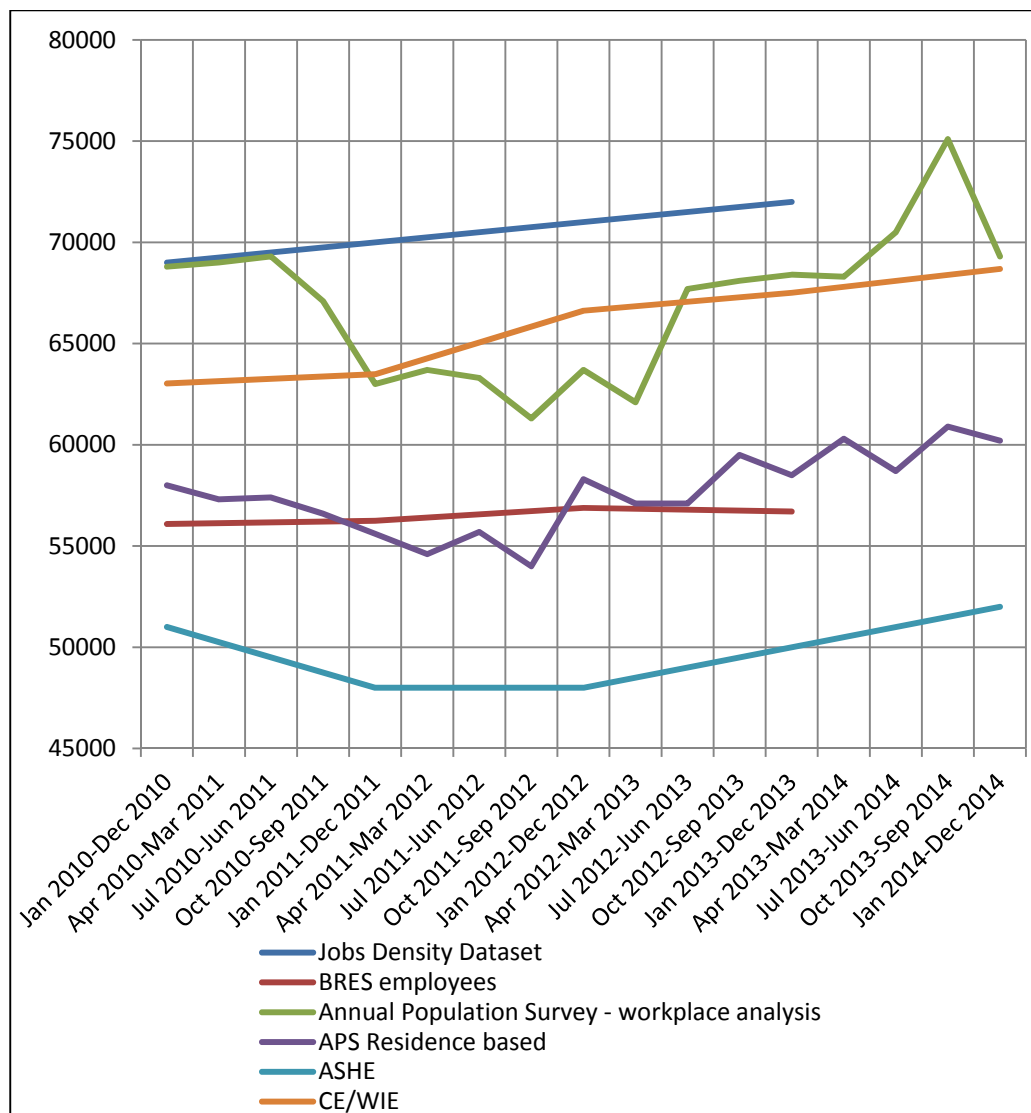
- 3.24 As shown in **Figure 3.2**, the CE/WIE forecast shows a sharp increase in employment between 2011 and 2012 of 3,140 jobs. During 2011-2012, there is evidence from ONS of an increase in the number of employed residents in SoAD and also of a reduction in the claimant count. However, the increase is not as significant as that indicated by CE/WIE or Experian, with ONS' jobs density dataset (the LFS 'official' estimate of jobs) indicating a rise of 1,000 in the number of jobs and BRES suggesting a much lower increase of around 500 ⁽¹⁾.

- 3.25 There is a similar apparent lack of consistency between the CE/WIE estimates and the official data for 2011-2013. The Jobs Density Dataset (which includes self-employment) is viewed by ONS as their best available measure of workplace jobs and this shows rises in both years (totalling 2,000 net additional jobs or 2.85% over both years), but the rises are much less than those forecast by CE/WIE over the same period (4,024 jobs or 6.3% over both years). BRES on the other hand shows no evidence of a step change between 2011-13, indicating only a 0.1% rise. The Annual Population Survey (APS), which is less reliable as its data is supplied directly by individuals rather than businesses, and also includes unpaid work where individuals choose to report it, also shows no increase between 2011 and 2012, though it does show an increase in jobs in SoAD in 2012 to 2013.

⁽¹⁾ While one would expect BRES to return a lower estimate than the econometric approaches (because it excludes the self-employed) the recovery in employment predicted by the Cambridge Econometrics/WIE modelling, is some three times the rate seen in the official figures, which appears excessive.

- 3.26 **Figure 3.3** shows CE/WIE employment figures plotted against a range of official employment figures, revealing that the step change in growth (in particular between 2011-2012) suggested by the CE/WIE figures (shown by the line plotted in orange) is not reflected in the official sources. It also illustrates the range and volatility of the main official data over the period 2011-2014, and the fact that many of the increases in 2012-2013 represent recovery of jobs previously lost in 2011 (the year being used as the reference year for the assessment of the OAN).
- 3.27 Ideally, we would have liked to compare official figures across the period 2011 to 2014 with CE's total projection of 5,190, but BRES and Job Density Dataset official data for 2014 are not yet available. APS workforce jobs data are available for SoAD and do show a substantial increase between 2011 and 2014 (mostly between 2012 and 2013) such that the APS rates of change are fairly well aligned with those projected by CE/WIE, although the absolute numbers differ substantially and APS suffers from a number of flaws affecting its reliability.
- 3.28 In summary, for this initial period, the BRES and Job Density Dataset fail to support the CE/WIE projected step change, while the other datasets (eg. APS and Annual Survey of Hours and Earnings [ASHE]) suffer from significant volatility, such that it is difficult to draw any conclusion from them. Therefore, until the more up to date official data becomes available and is able to confirm (or otherwise) the CE/WIE projections, we continue to take the view that these projections should not be treated as reliable evidence of substantial job increases in SoAD over the period 2011 to 2013.
- 3.29 The adjustment in the ERM IEF to the CE/WIE forecast made in response to the prospects in particular sectors, was divided into a reduction of 1,100 jobs in the early years (2011-2014) and 300 jobs later in the plan period. Therefore, the majority of the CE/WIE early years job growth (which is 5,200 between 2011-2014) still remains in place in the ERM IEF. The reduction made in the ERM IEF is therefore conservative. Indeed, evidence from the existing available BRES and Job Density Dataset official data (which indicates either no growth or growth of around 2,000 jobs), suggests that up to 2013 at least, the CE/WIE projection may be around 2,000 jobs too high, and the ERM IEF nearly 1,000 jobs too high.

Figure 3.3 Official and CE/WIE Job Figures, SoAD, 2011 to 2014 (000s)



Source: As stated.

Job Numbers under the ERM IEF

3.30

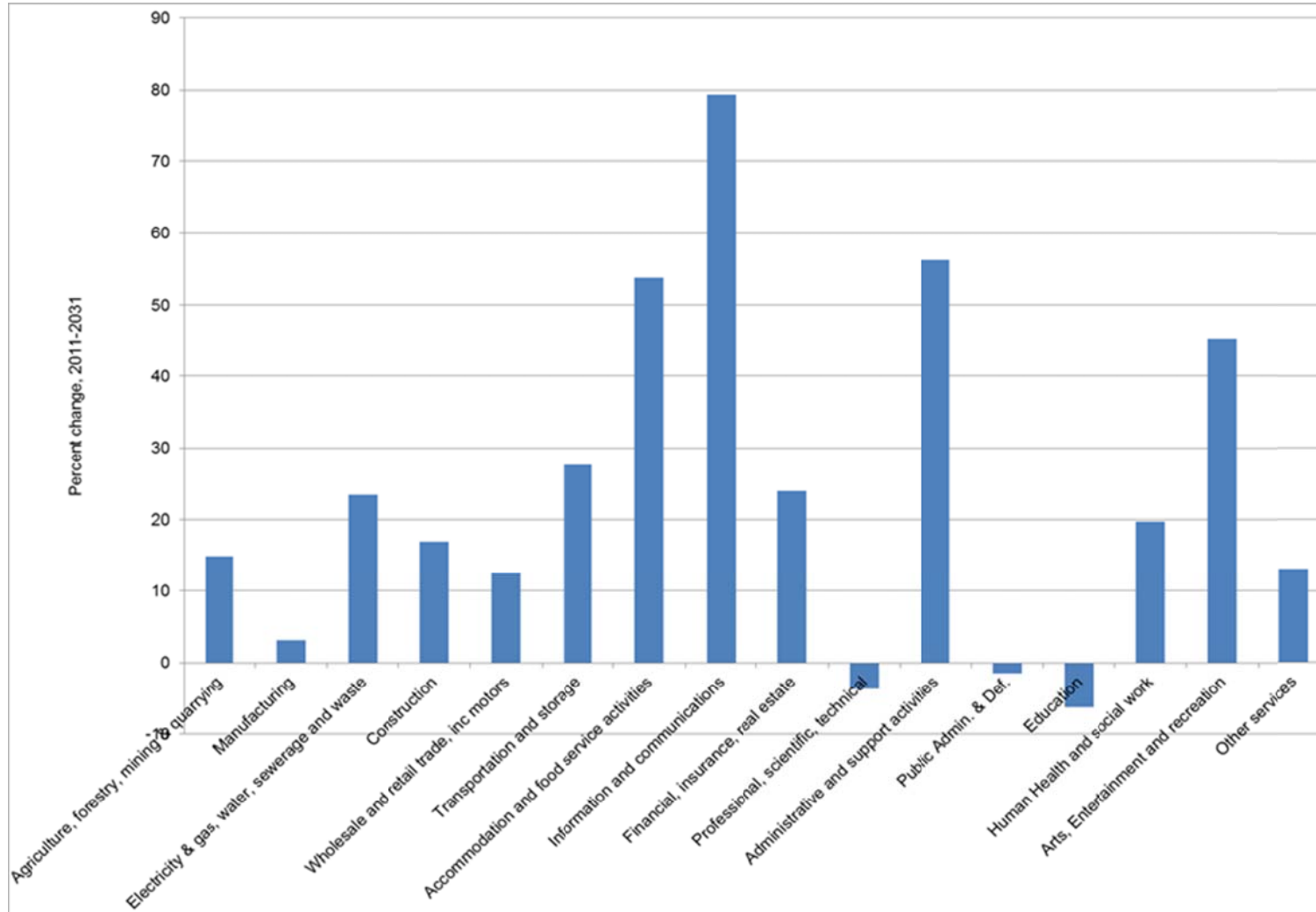
The ERM IEF for the 2011 to 2031 period is a net increase of 12,100 jobs, which is a figure retained from the CR. This estimate, taking into account additional local issues and circumstances beyond the scope of a more mechanistic statistically driven model, shows an aggregate growth in jobs between 2011-2025 of some 10,200, a reduction in jobs growth of some 1,400 compared to the original LEFM 'basic benchmark' figure, and some 2,500 higher than the corresponding Experian estimate in 2025. It is therefore a 'mid-range' figure of the available forecasts (shown in **Table C2** in **Annex C**) and close to the median average.

- 3.31 A sectoral breakdown of the total of 12,100 jobs is provided in **Figure 3.4**. This shows that of the 16 industrial sectors into which our analysis was broken down, three sectors (education, public administration and defence and professional, scientific and technical) are expected to shrink in employment terms, with the others increasing. Those with the highest proportional increases are information and communications; administrative and support activities; accommodation and food services; and arts, entertainment and recreation.

TYPES OF JOB IN FUTURE EMPLOYMENT GROWTH

- 3.32 The level of income paid in new jobs is likely to have an impact on the amount and nature of in-migration into SoAD. This is because people already living outside SoAD may not be able to re-locate to SoAD if the jobs are low paid, given the high value of residential properties in the area.
- 3.33 The output from the economic and econometric projections discussed here predict current and future employment by SIC but provide only a simple headcount or total job number. This obscures any consideration of income or the mix between part time and full time work. Both have implications for affordability of homes and the number of future additional workers able to live and work in SoAD. More 'workforce jobs' may not necessarily mean more workers; an alternative scenario is that more jobs means disproportionately more part-time jobs, and an increase in 'double - jobbing', the number of workers who have more than one job. These are important considerations when seeking to balance the evidence from employment sources with demographic housing need estimates.
- 3.34 While it is not possible to be specific about the future course of the full time /part time working mix, evidence suggests that part time work is not only rising in absolute terms but is also rising as a proportion of total employment. We make no attempt to forecast future full time/part time splits, however our examination of future job growth indicates that (based on current BRES splits and the projected distribution of new jobs by SIC) a third of the new jobs will be part time. **Annex D** explores the potential mix of full time and part time jobs within the overall ERM IEF, and the sectors in which the new jobs are likely to be created. This is of particular interest, especially when (as appears to be the case) much of the projected job growth for SoAD is likely to be either part time, or in sectors which tend to pay relatively badly, or both.

Figure 3.4 ERM Indicative Employment Forecast: % Change by Sector, 2011-2031



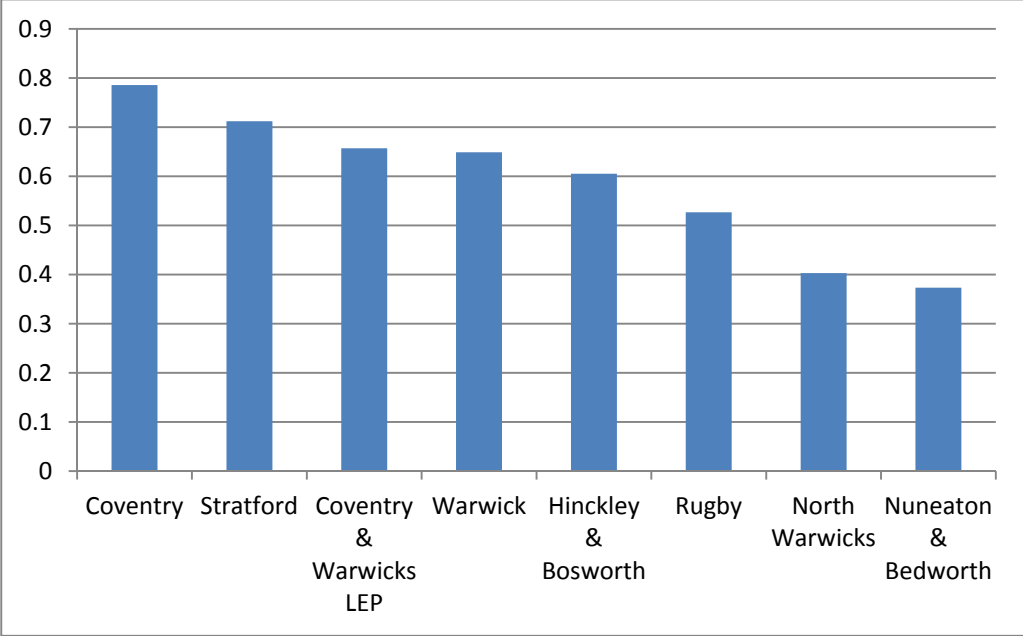
Source: ERM estimates/Cambridge Econometrics/Experian

Projections for SoAD and the Sub-Region to 2025

- 3.35 In this analysis, attention is focused on SoAD's future job growth relative to its neighbours elsewhere in the sub-region. Specifically, we explore the nature of the jobs which are to be created across the sub-region, based on typical pay levels within the SICs in which the jobs will be generated. We have ranked SICs by their annual gross pay for all employee jobs, from top to bottom. A ranking of the SICs, with their associated median average pay rates in SoAD (according to ONS) is given in **Annex D**. The ranking starts with mining and quarrying (which offered gross annual pay per employee job of nearly £37,000 in 2014) at the top, and finishes with accommodation and food services (which offered £11,232) at the bottom.
- 3.36 To compare SoAD with its neighbours and present a sub-regional analysis (rather than one for SoAD alone), it was necessary to obtain a sub-regional picture of employment growth. The only forecast broken down by SICs, which was available to ERM, is that prepared by CE/WIE, which informed the CWSHMA and SEP. Therefore, these are the forecasts which have been used. This means that the 'end point' for the sub-regional employment forecasts used below is 2025, rather than the formal end of the plan period 2031. While this is not ideal, it does allow an understanding of SoAD's position vis a vis its neighbours to be obtained, which would not otherwise have been the case. It should also be noted that CE/WIE forecasts and therefore the analysis below covers all the districts within the LEP and CWHMA, together with Hinckley & Bosworth District ⁽¹⁾. While the latter is shown on the charts, its data is not included in the averages for the CWHMA.
- 3.37 Details of the analysis are provided in **Annex D**, but two useful charts are reproduced here, **Figures 3.5** and **3.6**. These show the position for all new jobs, as forecast by CE/WIE between 2011 and 2025, without distinguishing between full time and part time jobs. Of all the geographical areas, Coventry will be most reliant on the least well paid sectors (nearly 80% of its new jobs will be created in those SICs that traditionally pay less than average). SoAD is next (71% of its jobs will be in the lowest paying sectors), then Warwick (65%). Nuneaton and Bedworth (37%) and North Warwickshire (40%) are the least dependent on low pay sectors..

⁽¹⁾ The Coventry and Warwickshire LEP area covers five Districts and Boroughs, one City Council and one County Council. Hinckley and Bosworth Borough Council is a member of the Local Authority Joint Committee, recognising the economic geography of the area, but its figures do not count towards the LEP average.

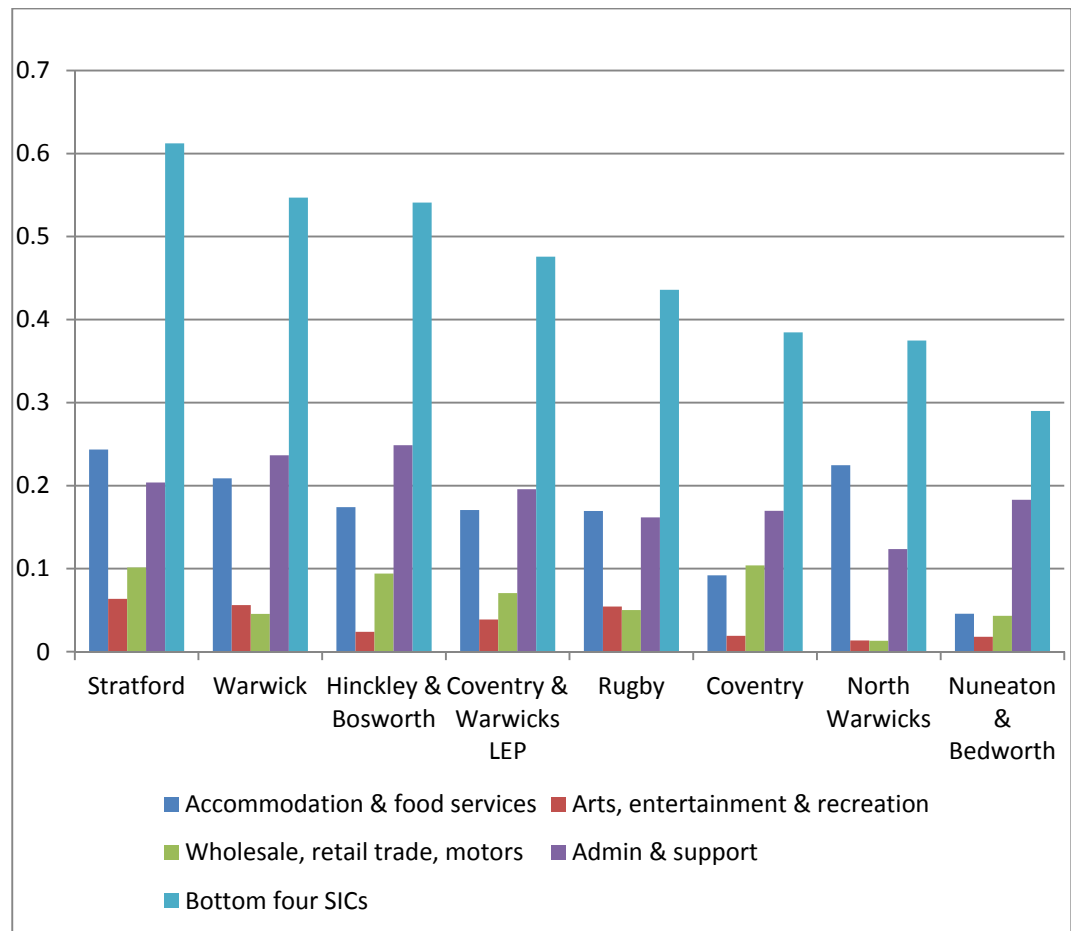
Figure 3.5 Proportion of All New Jobs Created in SICs Paying Less than the UK Median Wage



Source: CE/WIE and Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-337425>

3.38 **Figure 3.6** demonstrates that not only is SoAD expected to be dependent on those SICs that tend to pay less than the median wage for its new jobs, but it is going to be dependent on those sectors which pay least of all. The lowest paying four SICs are those shown in the chart. In terms of new jobs forecast by CE/WIE, SoAD is overrepresented in all of the four worst paying sectors (relative to the LEP average) and has a greater dependency on the worst paying three than any of its neighbouring local authorities.

Figure 3.6 Proportion of All New Jobs Created in the Four SICs Offering the Lowest UK Median Wages



Source: CE/WIE and Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-337425>

3.39 **Figure D5 in Annex D** shows the proportion of new jobs created in the better paying SICs, demonstrating that around 12% of SoAD's jobs will come from these better paying sectors (less than Warwick and North Warwickshire but comparable to the LEP average). Together, the presentations show, for each of the CWHMA area local authorities, the sectors in which the highest proportion of future jobs will be created, under the only sub-regional future jobs growth forecast available to ERM.

Conclusions on Part Time and Low Paying Job Growth in SoAD

3.40 The SEP and Coventry and Warwickshire Economic Assessment seek to promote higher paid, higher skilled jobs, and there is an aspiration that future job growth across the sub-region will be stronger in the 'higher level' occupations (managers, directors, associated professionals and technicians etc). However a sectoral level analysis for the 12,100 jobs projected to be created in SoAD suggests that this aspiration may differ from the reality.

- 3.41 Analysis using the ERM IEF data (which is presented in detail in **Annex D**) finds that though there are positive signs (for example, one of the higher paying sectors, Information and Communications, is expected to account for 12% of SoAD's job growth over the period), for the most part the outlook is much less encouraging:
- around a third of the new jobs created are likely to be part time;
 - 60% of the newly generated (2011-31) full time jobs in SoAD are likely to be in industrial sectors which pay (full time) wages lower than the national average;
 - three quarters of all the newly generated part time jobs will be in sectors which pay (part time) wages that are lower than average; and
 - about a third of all new part time jobs will be in the sector which pays the least – accommodation and food service.

3.42 While a job in a sector which tends to pay well will not necessarily be well paid and conversely a job in a relatively poorly paid sector will not necessarily be poorly remunerated, it is nevertheless reasonable to draw the overall conclusion that, unless there are significant changes over the plan period, most jobs created in the sectors which pay worse than average, will pay worse than average. The evidence presented, both here and in **Annex D**, indicates that well paid sectors will be under-represented for the newly created full time and part time jobs, and poorly paid sectors will be over-represented. The nature and complexity of these trends will influence not only the number of people working in SoAD (as against a bare forecast of job numbers) but also their choice of housing and its location.

CONCLUSION

3.43 This section, together with **Annexes C** and **D**, presents an independent review of the evidence in relation to past and present employment trends and the prospects for future employment growth in SoAD. Having researched the range of employment growth estimates that have already been made, including the Experian and CE/WIE forecasts of job growth (also used in the CWSHMA Update), we have prepared an alternative ERM IEF. Our reasons for adopting this approach included:

- our perception that the existing available projections were not suitable (Experian because of its relatively low total increase compared with past growth, and CE/WIE because of its use of unjustifiably high growth for certain SICs as well as its shortened timescale);
- the need to cover the last six years of the plan period, on the basis of available and robust econometric modelling;

- high growth predicted towards the beginning of the period (in particular under the CE/WIE model) which was insufficiently validated by official data; and
- a desire to tailor the employment forecasts more specifically to local conditions (as recommended in the CE/WIE LEFM guidance), rather than relying on an unadjusted or 'basic' model. The latter employs a mechanistic approach drawing only on past data and regional and national links, and does not take into account local factors such as sectoral competition, that were highlighted through local economic research.

3.44 The ERM IEF estimates a net total job growth in SoAD over the plan period of 12,100. In reaching this figure (and the breakdown of its constituent parts), we have undertaken significant additional work since the publication of the CR. This additional work corroborates the approach taken in the CR and maintains the same indicative forecast which we believe to be robust, neither over-optimistic nor too conservative. This projection of jobs growth in SoAD also aligns with the Inspector's Interim Conclusion that '*on balance the figure of 12,100 appears to be a reasonable estimate*' (paragraph 29).

3.45 The ERM IEF estimate of growth of new jobs reflects a fairly buoyant local economy, although it is important to consider the relationship between the number of new jobs predicted and the need for additional housing. Our analysis indicates that a significant proportion of the new jobs are likely to be either relatively low paid, part time or both. Such a mix of new jobs will have implications for the future demand for housing in a local housing market where affordability is already a challenging issue.

4 IMPLICATIONS OF EMPLOYMENT GROWTH FOR OBJECTIVELY ASSESSED HOUSING NEED

INTRODUCTION

- 4.1 In this section, we consider the extent to which the demographic housing need, set out in **Section 3**, should be adjusted to take account of employment forecasts. In doing so we are responding to the requirement in the Inspector's Interim Conclusions that *'the Council should aim to achieve a better balance between the number of homes and jobs in the District by broadly maintaining the commuting ratio at around 0.96:1'*.

ROLE OF EMPLOYMENT GROWTH IN HOUSING NEED ASSESSMENT

- 4.2 Job growth in and around SoAD may be held to generate a demand for labour, some of which may be most appropriately met within the district and thus potentially place additional demands on SoAD's housing stock. Paragraph 158 of the NPPF states that *'Local planning authorities should ensure that their assessment of and strategies for housing, employment and other uses are integrated'*. This implies that the supply of housing should take into account the future level of jobs expected in the area. This does not necessarily mean that sufficient housing needs to be planned for to provide a labour force exactly equal to the number of jobs forecast for the district. Paragraph 18 of the PPG states 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 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'*.

FUTURE EMPLOYMENT RATES

- 4.3 Assumptions on appropriate future employment rates are required in order to estimate the workforce likely to be generated by different levels of net additional population. The assessments in the CR used the age specific employment rates developed by GL Hearn in deriving employment-related housing requirements for the CWSHMA Update, although these rates had not been published in the CWSHMA Update itself. The rates reflected expected increases in pensionable age and in people working longer in future. In paragraph 33 of his Interim Conclusions, the Inspector expressed doubts about the justification for the workforce projections associated with meeting the estimated demographic housing need as presented in the CR. In consequence, GL Hearn was asked to review their employment rate

assumptions for use in labour force projections. The methods and results of that analysis are set out in **Annex B**.

4.4 There is no set method for estimating how employment rates might change in future and there are no up-to-date forecasts from Government. The last set of data from ONS took a (pre-recession) 2006 base and can no longer be relied on. To form a view about how rates might change in future, GL Hearn looked at a range of national economic forecasts of job numbers and also past age/sex specific trends in economic activity rates ⁽¹⁾. The job forecasts were then overlaid on the 2012-based national population projections to work out how employment rates would need to change for both the number of jobs and the growth in population to be achieved.

4.5 The various sources of national job projection data used were:

- EEFM 2014 (Oxford Economics) – data from the East of England Forecasting Model;
- Experian December 2014 – data from a December 2014 Experian forecast;
- CE August 2014 – a more recent CE forecast than used in the CWSHMA Update;
- Experian 2013 – an earlier Experian forecast used in CWSHMA Update;
- Trend – the implied employment rate if age/sex trends in the 2001 to 2011 period are continued; and
- Trend-APS – past trend data from the APS and LFS.

4.6 It is difficult to judge which of these national forecasts should be considered the most reliable. The 2014 Experian forecast is the most up-to-date and could arguably therefore take precedence. However, it cannot be ignored that three of the forecasts suggest a similar pattern (when taken for the whole period 2011 to 2031). The past trend analysis has the advantage of being based on actual trend data and therefore should also be given some credence. However, it does not model any short-term changes (which are generally suggested by the other forecasts) and which appear to be related to short-term changes in jobs as the Country continues to move away from recession. Such changes in the rate are likely to be linked to a latent labour-force moving back into the market ie. reducing unemployment, and not linked to changes in the population.

⁽¹⁾ The past trend analysis looked at economic activity rates rather than employment rates as it is not possible to obtain trend data from the Census for employment rates due to the different way working students are recorded in the 2001 and 2011 Censuses.

4.7 GL Hearn considered the most appropriate way of determining a realistic set of assumptions to take forward into the demographic modelling was to combine all the above sources. By doing so they have been able to develop rates specifically for SoAD. These are shown in **Table 4.1**, which gives the age/sex specific rates derived from the analysis and, for comparison, those used in the CWSHMA Update. The patterns of change in each study are similar although the latest analysis takes a marginally more positive view of potential increases in the rates. This is mainly due to the use of more up-to-date national forecasts and further information about past trends (as informed by analysis of Census data). The latter also explains why the figures for those aged 16-24 are projected to drop slightly rather than being held constant.

Table 4.1 SoAD: Estimated Resident Employment Rates by Age and Sex, 2011 to 2031

Age Group	2011 Census		2031 Estimates			
	Male	Female	ROAN		CWSHMA Update	
			Male	Female	Male	Female
16 to 24	61.9%	62.0%	60.3%	61.6%	61.9%	62.0%
25 to 34	90.6%	82.1%	90.9%	90.8%	90.9%	89.6%
35 to 49	92.7%	82.8%	94.2%	91.1%	94.0%	89.9%
50 to 64	79.7%	65.6%	86.5%	80.1%	85.6%	78.1%
65 and over	19.4%	10.3%	22.3%	13.2%	21.3%	12.6%

Source: 2011 Census and GL Hearn analysis

4.8 These figures can be translated into overall employment rates (for the population aged 16+) and summarised as follows:

- 2011 – 61.2%;
- 2031 SHMA Update – 57.2%; and
- 2031 ROAN – 58.0%.

DOUBLE JOBBING

4.9 As noted in **Section 3**, paragraph 3.34, and **Annex D**, paragraph D10, over one third of new jobs in SoAD are projected to be part time, which suggests a significant potential for ‘double jobbing’, ie. people having more than one job. Accounting for double jobbing will reduce the amount of housing needed to meet labour demand in a district. It can be calculated as the number of people working in the district divided by the number of jobs. Data from the Annual Population Survey (available on the NOMIS website) suggests that around 4.2% of workers have a second job (data averaged from data for the 2004-2014 period to recognise relatively high error margins associated with data for individual years). This gives a double jobbing ratio of 0.958 (ie. the number of jobs can be discounted by 4.2% to estimate the required change in the workforce).

COMMUTING

- 4.10 The amount of housing needed to accommodate the labour force required to meet a particular job forecast is also dependent on assumptions made about the level of net commuting into or out of SoAD. Where there is expected to be net commuting into the district, housing for some of the workforce will need to be provided in the labour source districts. In 2011, there was net in-commuting of 2,809 into SoAD, with the ratio of local resident workforce to local jobs standing at 0.96 to one, ie. 4% of local jobs are taken by in-commuters from outside SoAD, as shown in **Table 4.2**.

Table 4.2 Commuting Patterns in SoAD, 2011

Groups	Number
Living and working in SoAD	23,266
Home workers	10,476
No fixed workplace	4,835
Out-commuting	22,626
In-commuting	25,435
Net in-commuting	2,809
Total working in SoAD	64,012
Total living and working in SoAD	61,377
Ratio of resident workers to local jobs	0.96
Source: 2011 Census	

- 4.11 CS Objective 12, as proposed to be modified at the CS Examination Hearings, states that '*a sustainable balance between employment growth and housing provision will be maintained*'. In paragraph 56 of his Interim Conclusions, the Inspector made it clear that SoADC should aim to achieve a better balance between the number of homes and jobs in SoAD by broadly maintaining the ratio of resident workers to local jobs, termed the 'commuting ratio', at around the 2011 ratio of 0.96:1.
- 4.12 **Table 4.3** sets out the commuting flows in 2011 between SoAD and its main commuting source and destination districts. While there is substantial gross commuting between SoAD and other CWHMA districts, the 2011 commuting ratio of 0.96 hides the fact that there was almost no net commuting (+183) between SoAD and the rest of the HMA in 2011, ie. equivalent to a commuting ratio with the CWHMA of close to 1.0. Total net commuting is positive (+2,809) because of net commuter inflows from districts outside the HMA (+2,626), in particular from Redditch (+1,578) and Wychavon (+1,377). SoAD plays an important role in providing jobs to these two districts. SoAD has been called on to increase this role by allocating land to meet Redditch's employment needs within SoAD but just outside the Redditch borough boundary.

Table 4.3 SoAD: In and Out - Commuting Flows to/from Other Districts 2011 (ordered by scale of inflow)

District/ Council Area	Commuters				Percentage of Total	
	In	Out	Gross	Net	In	Out
Warwick	5,248	5,881	11,129	-633	20.6%	26.0%
Redditch	3,268	1,690	4,958	1,578	12.8%	7.5%
Wychavon	2,315	938	3,253	1,377	9.1%	4.1%
Birmingham	2,085	2,356	4,441	-271	8.2%	10.4%
Coventry	1,976	1,854	3,830	122	7.8%	8.2%
Solihull	1,612	1,387	2,999	225	6.3%	6.1%
Rugby	1,027	615	1,642	412	4.0%	2.7%
Cherwell	899	1,377	2,276	-478	3.5%	6.1%
Bromsgrove	762	525	1,287	237	3.0%	2.3%
Cotswold	634	786	1,420	-152	2.5%	3.5%
West Oxfordshire	189	338	527	-149	0.7%	1.5%
Nuneaton & Bedworth	470	177	647	293	1.8%	0.8%
North Warwickshire	153	164	317	-11	0.6%	0.7%
<i>HMA Total</i>	<i>8,874</i>	<i>8,691</i>	<i>17,565</i>	<i>183</i>	<i>35.2%</i>	<i>34.0%</i>
<i>listed total</i>	<i>20,638</i>	<i>18,088</i>	<i>38,726</i>	<i>2,550</i>	<i>81.1%</i>	<i>79.9%</i>
Unlisted districts	4,797	4,538	9,335	259	18.9%	20.1%
<i>non HMA total</i>	<i>16,561</i>	<i>13,935</i>	<i>30,496</i>	<i>2,626</i>	<i>65.1%</i>	<i>61.6%</i>
SoAD Total	25,435	22,626	48,061	2,809	100%	100%

Source: Location of Usual Residence and Place of Work by Age (Over 16) Census 2011 (Census/2011/WU02UK/Chart/1132462322)
Districts within the Coventry & Warwickshire HMA are shaded blue.
Note: An error in Table 5.3 of the Consolidated Review in summing the figures for the HMA Total has been corrected here.

Short Distance Cross Boundary Commuting

4.13

Short distance commuting to new jobs in SoAD does not in itself pose a problem of balance or sustainability and a high level of self-sufficiency in jobs may not be an optimum arrangement and therefore not in itself an objective worth striving for. This view is strongly supported in paragraph 6.3 of the Planning Advisory Service Technical Advice Note on OAN, June 2014, [PAS Guidance], which points out that *'many people travel to work across administrative boundaries, so planning for each district in isolation cannot produce the most efficient and sustainable relationships between the location of houses and jobs'*. The guidance goes on to point out that cross-boundary travel to work may involve shorter distance commuting than might arise within a district. This is the case with the employment land allocation for Redditch.

4.14 Analysis of small area commuting data for SoAD from the 2011 Census shows that 10% of in-commuting and out-commuting in SoAD comprises short distance cross-boundary journeys, defined as commuting between adjacent or almost adjacent Super Output Areas on either side of the SoADC boundary (equivalent to a commuting distance of up to four or five miles). This is particularly significant in the case of Redditch where 45% of the borough's commuting into SoAD and nearly 60% of out-commuting from SoAD into the borough relates to the Super Output Areas in SoAD which are immediately adjacent to the town. This is especially relevant given that Redditch accounts for a high proportion of the net in-commuting into SoAD which is considered by some parties to indicate an imbalance of jobs and workforce.

4.15 The employment allocation in SoAD to help meet the employment needs of Redditch confuses the position on the commuting ratio. These jobs are being treated as additional to the job forecasts for SoAD so, by increasing local jobs without requiring any additional local residents, this will inevitably increase the percentage of local jobs taken by in-commuters and put downward pressure on the 0.96 commuting ratio for the whole of SoAD. Since these jobs are not part of SoAD's job growth and do not contribute to SoAD's housing need this apparent divergence from the Inspector's requirement to maintain a ratio of 0.96 for the district still accord's with his intentions, that there should be sufficient housing to match local labour supply.

Maintaining a Sustainable Commuting Pattern

4.16 The commuting ratio is not in itself a useful measure of sustainability of commuting. While it indicates the direction of the net commuting movement into or out of a district, it does not imply any particular scale of movement of workers across district borders and does not indicate whether there is minimal or maximal in- and out-commuting around the net movement. We recognise, however, that the Inspector's insistence on maintaining a 2011 commuting ratio is aimed at apportioning housing provision according to an agreed criterion rather than necessarily at achieving the most sustainable commuting solution within the HMA, or indeed between SoADC and other non-SHMA districts.

4.17 The gross amount of two-way commuting into and out of a district is far more relevant to sustainability than the net figure in or out, together with measures of 'self-containment', ie. the percentage of local jobs taken by local residents and the percentage of local residents taking local jobs. These represent better indicators of the sustainability of the workforce/job balance within the local authority than the "commuting ratio".

4.18 In his Interim Conclusions, the Inspector did not accept the view set out in the CR that potential in-migrants, when considered against the likely growth sectors, pay levels and extent of part-time work, are unlikely to be able to afford the high house prices and rents in SoAD and that there would therefore be a strong risk that a high proportion of out-commuters would be attracted to

additional housing in SoAD. Further evidence about the types of new jobs likely to become available in SoAD is brought together in **Annex D**.

- 4.19 The data confirms that the industrial structure of SoAD's forecast jobs is heavily biased towards those sectors which tend to offer significantly lower pay and a higher proportion of part time work than all the other districts in the CWHMA. About a third of new jobs in SoAD are likely to be part time (by their nature offering reduced pay) and three quarters of these part time jobs will be in sectors which, even for part timers, pay poorly. Two thirds of the jobs will be full time, but only around four out of ten of the full time jobs are expected to be in sectors which pay more than average. Only a little over a quarter of all the jobs will be full time jobs in higher than average pay sectors. These results are quite striking, but reflect the patterns of the economic geography in these districts in the last twenty years.
- 4.20 The implication is that many in-coming workers wishing to take up new jobs are unlikely to be able to afford the housing on offer in SoAD. Instead, those in-migrant work seekers who are able to afford the higher priced housing in SoAD are likely to be disproportionately drawn towards higher paid jobs outside the district. Lower paid jobs inside SoAD are likely to be taken up, to a considerable extent, by workers commuting in from areas with lower housing costs. This arrangement would not affect the commuting ratio and absolute level of cross boundary net commuting, but would result in a higher level of gross commuting and poorer levels of self-sufficiency in jobs and workforce for SoAD than prevailed in 2011, implying a worsening of sustainability. This is illustrated by the following broad analysis.
- 4.21 The number of net additional jobs in the higher paid categories which would be likely to meet SoAD's housing costs is unlikely to be higher than 5,000, out of the 12,100 forecast. The remaining 7,000 or so are therefore most likely to be taken mainly by in-commuters. However, with the maintenance of the 2011 commuting pattern, implying a commuting ratio of 0.96: 1 and 60.5% of local jobs being taken by local workers, there would be less than 5,000 in-commuters in 2031. The mismatch of migrants and jobs would therefore generate 2,000 additional in-commuters balanced by an additional 2,000 out-commuters (ie 4,000 gross commuting trips), assuming a constant commuting ratio of 0.96:1.
- 4.22 Again assuming maintenance of the 2011 commuting pattern, the gross amount of commuting into and out of SoAD would be expected to increase at the same rate as jobs. Under the ERM IEF the latter are forecast to increase from 64,000 in 2011, by 12,100, to 76,000 in 2031. Gross commuting, which stood at around 48,000 in 2011, would therefore increase to 57,000 by 2031. However, taking into account the mismatch of in-migrants to local jobs, discussed above, the gross level of commuting would increase by 4,000 to 61,000, ie. by 27%. At the same time the self-containment ratio of local jobs taken by local workers would deteriorate from the 2011 level of 60.5% by over 2.5 %, to 57.9%.

- 4.23 These indicators of decreasing sustainability suggest the advisability of a conservative approach to making an employment adjustment to demographic housing need. This argument relates to the sustainability of the commuting pattern rather than OAN itself, although the lower the OAN, the less the detrimental impact on sustainable commuting. Generally, the higher the job forecast accommodated in SoAD, the higher the gross level of commuting and the lower the self-sufficiency of SoAD in terms of both jobs and labour force.

Housing the CWHMA Labour Force

- 4.24 Following the principle that, within an HMA, housing and jobs should be broadly balanced, districts which are set to accommodate more dwellings than are required to meet their own demographic need should be aiming first to accommodate surplus demographic housing need arising elsewhere in the HMA. If this were not the case, attempting to achieve a balance between jobs and population within the HMA would be purely an accounting exercise with no geographic component.

- 4.25 Furthermore, as the SNPPs are based on projecting recent demographic trends (including migration trends) within national control totals, if a local authority projects a higher housing need (for whatever reason, including to meet forecast labour demand) than indicated for it by the SNHP, this will require a corresponding reduction in the number of households from that projected in one or more local authority elsewhere in the country. Such a rebalancing can be planned for explicitly through the duty to co-operate, either within the local authority's own HMA (eg. to accommodate housing demand arising in Coventry) or across the HMA boundary (eg. potentially to accommodate housing demand arising in Birmingham). In SoAD, the distribution of HMA housing need is being negotiated through the Coventry and Warwickshire Economic Prosperity Board.

- 4.26 The surplus housing need in the CWHMA comprises mainly those households that would have formed part of Coventry's demographic need had it been possible to accommodate them and provide sufficient jobs for them in Coventry. Coventry's demographic housing need was calculated in the CWSHMA at around 1,800 dpa and according to the 2012 SNHP projection, this figure increases to around 1,900 dpa. Coventry does not have the physical capacity to accommodate this number of dwellings and its "working requirement" was set by the Coventry and Warwickshire EPB, in November 2014, at around 1,200 dpa. Furthermore, job forecasts for Coventry in the CWSHMA Update indicate a need for only 900 to 1,000 dwellings (depending on which job forecast is used), demonstrating that Coventry is forecast to be well short of jobs to meet the requirements of its demographic housing need of around 1,900 dpa. As noted in paragraph 1.8, GL Hearn has been commissioned to produce a fresh analysis at the HMA level. The expected outcome of that analysis and work underway within the HMA, as endorsed by the EPB, is the identification of aligned housing and employment need across the HMA, alongside a proposed distribution of that need across the HMA authorities that addresses any capacity issues faced by Coventry or others.

4.27 A comparison of housing affordability in SoAD and Coventry suggests that many potential in-migrants from Coventry are likely to be ill matched with the housing supply in SoAD. The CWSHMA Update states that the lower quartile house price to income ratio for SoAD stood at 8.79 in 2012 and only 5.02 in Coventry. This would suggest that it is very unlikely that the households associated with population growth in Coventry would be able to afford to become potential migrants to SoAD. This conclusion reflects the pattern of recent migration into SoAD as shown in **Table 4.4**. This shows the main sources of migrants to SoAD from inside the UK over the five years 2009 to 2013 according to the ONS Annual Population Survey. Most of these involve short cross-boundary movements from neighbouring districts, including several outside the HMA. Two represent movements out from the major urban areas of Birmingham and Solihull but it is notable that the net movement between SoAD and Coventry was minimal.

Table 4.4 Net In-migrants to SoAD 2009 to 2013 by Source Local Authority

Source LA	Net In-migrants Per Annum
Warwick	168
Birmingham	129
Solihull	103
Cherwell	46
Redditch	33
Bromsgrove	29
West Oxfordshire	25
Dudley	16
Nuneaton and Bedworth	14
South Northamptonshire	13
North Warwickshire	12
Coventry	-2
Rugby	-22
Source: ONS Annual Population Survey	
Note: Districts within the Coventry & Warwickshire HMA are shaded blue.	

4.28 While it is unlikely that part of Coventry's housing need could be met on any significant scale in SoAD, the working population in housing need there could become commuters to the lower paid jobs in SoAD, commuting from whichever district their need may eventually be transferred to through the Duty to Cooperate.

4.29 In his Interim Conclusions, the Inspector pointed out that under some job forecasts there may be no surplus workforce in Coventry. However, this was based on Gladman's Matter D Statement to the Examination and was derived from Oxford Economics job forecasts, which are substantially higher even than those of Cambridge Econometrics and are not endorsed in the Interim Conclusions. The CE/WIE job forecast for the whole CWHMA would require a workforce in total over 15,000 higher than is projected to be available in the HMA with the population expected to be present under the 2012 SNPP. In other words, for the realisation of this job forecast there would need to be a

significant level of additional in-migration from local authorities outside the HMA, which would be unaccounted for in the OAN assessments of those other local authorities.

CONCLUSION ON ADJUSTMENT FOR EMPLOYMENT NEED

4.30 The demographic housing need includes natural change and net commuting based on recent trends. This distinction between trend-based migration as ‘demographic’ and employment-led migration is artificial and is made for convenience. In reality, employment demands are a major driver of net migration, including that part which is labelled ‘demographic’. The issue is therefore whether housing numbers need to be increased to meet further employment growth above the level assumed to be met by the in-migration included in the demographic projections.

4.31 **Table 4.5** sets out the population and working population and the numbers of dwellings required to accommodate them under the latest GL Hearn projections set out in **Annex B**, compared, where applicable, with those in the SHMA Update. The level of housing need arising under equivalent projections can be seen to have decreased between the CWSHMA Update and the latest projections. This is due to the lower HFRs under the 2012-based SNHPs, the higher employment rates and the assumption of 4% double jobbing, which was not taken into account in the CWSHMA Update analysis.

Table 4.5 Increase in Population, Employed Residents and Housing Need in SoAD, 2011 to 2031 in ROAN and CWSHMA Update

Projection	Change 2011 to 2031					
	ROAN			CWSHMA Update ¹		
	Dw	Pop	Working Pop	Dw	Pop	Working Pop
Zero net migration	2,240	-7,235	-7,534	2,740	-7,023	-8,038
Zero net employment	7,161	5,525	0	8,140	5,848	-498 ²
10 year migration variable	11,434	16,727	6,482	10,160	10,683	2,188
ERM IEF labour supply	14,480 ³	24,524	11,109	N/A	N/A	N/A
Source: GL Hearn Note: 1. The CWSHA figures are unpublished data from GL Hearn 2. This figure is not zero as the projections incorporate ONS mid-year estimates for years 2011-2013 3. In order to maintain a whole number of dwellings as the housing need, this has been rounded down from 14,486 in Annex B to 14,480.						

4.32 **Table 4.5** shows that, under the latest GL Hearn demographic assumptions based on the HFRs in the 2012-based SNHPs, some 2,240 dwellings (112 dpa) would be required to provide for the needs of the 2011 population with zero net migration. These additional dwellings would be required to take account of natural increase, reduction in average household size, and differences in household size between the assumed equal numbers of

incoming and outgoing migrants. All of the demographic projections assume that in-migrants and out-migrants will have a similar age structure to those of recent migrants to and from SoAD respectively.

- 4.33 A total of 7,161 dwellings, an average of 358 dpa, would be required to bring in sufficient additional population to maintain the labour force at its 2011 level in 2031. Provision of 11,434 dwellings (572 dpa), sufficient to meet SoAD's demographic housing need, would provide a workforce sufficient to support an addition of nearly 6,500 additional jobs in SoAD, assuming a commuting ratio of 0.96:1 and 4% double jobbing.
- 4.34 In order to meet the projected labour force demand represented by the ERM IEF, SoAD's demographic housing need for 11,434 dwellings between 2011 and 2031 (572 dpa) would need to be adjusted upwards to 14,480 dwellings (724 dpa), an adjustment of 152 dpa. For information, housing need figures associated with the Experian and CE/WIE job forecasts presented in the CWSHMA Update, which were discussed in **Section 3** but rejected as inappropriate bases for estimating SoAD's OAN, are given in **Table B8** of **Annex B**.
- 4.35 Our analysis shows that the employment-related housing need figure for SoAD of 14,480 dwellings between 2011 and 2031 should be considered an upper limit. If housing were to be provided above this level, there is a strong likelihood that a higher than planned proportion of new (and existing) dwellings would be taken up by out-commuters seeking a congenial residential environment. In the latter case, while the 2011 net commuting balance might be maintained, the aggregate amount of in and out commuting would increase, leading to a less rather than a more sustainable pattern of commuting.

5 MARKET SIGNALS AND OTHER ADJUSTMENTS

GUIDANCE ON MARKET SIGNALS AND OTHER ADJUSTMENTS

- 5.1 The NPPF, in paragraph 17, and the PPG, in Section 2a, paragraphs 19 to 21, advise on how local plans should take account of market signals and other market indicators, for example, house prices and rents and affordability. If there is *'a worsening trend in any of these indicators'* a reasonable upward adjustment should be made to *'planned housing numbers compared to ones based solely on household projections'* (PPG Ref: 2a-020-20140306).
- 5.2 The PPG advises that the *'housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rents rising faster than the national/local average may well indicate particular market undersupply relative to demand'*. (PPG Ref: 2a-019-20140306).
- 5.3 Paragraph 19 identifies six relevant market signals: land prices, house prices, rents, affordability, rates of development and overcrowding. Attention should be paid to both absolute indications and trends, making appropriate comparisons across the HMA, similar demographic and economic areas and nationally. Very few of the data sources for market signals, recommended in paragraph 19 of the PPG, with the exception of average house prices, have been collected reliably or over a sufficiently long period to be used for formal projections. This is a point also made clearly in paragraph 5.38 of the Planning Advisory Service Guidance.
- 5.4 Reasonably robust house price and earnings data is available at the local level, but rental information, particularly for the private rented sector, is much less reliable. The PPG acknowledges that *'Volatility in some indicators requires care to be taken: in these cases rolling average comparisons may be helpful to identify persistent changes and trends'* (PPG Ref: 2a-020-20140306).
- 5.5 In relation to housing affordability, the PPG notes that *'assessing affordability involves comparing house costs against the ability to pay. The ratio between lower quartile house prices and the lower quartile income or earnings can be used to assess the relative affordability of housing'* and this is the most widely used indicator (PPG Ref: 2a-019-20140306).
- 5.6 The PPG suggests that the appropriate response to market signals evidence, in particular in relation to affordability, should be to *'increase planned supply by an amount that...could be expected improve affordability'*. This, in relation to affordability, can, at best, be described as an untested policy mechanism at the local or regional level, although it does reflect a Government policy aspiration.

- 5.7 The PPG deals separately with the calculation of ‘affordable housing need’ in paragraphs 22 to 29, updating previous guidance and bringing it into line with the overall approach to assessing ‘objectively assessed need’ in the PPG.

MARKET SIGNALS EVIDENCE AND THE INSPECTOR’S INTERIM CONCLUSIONS

- 5.8 SoADC’s market signals and affordable housing need evidence was set out in Section 6 of the CR, based substantially on analyses from the CWSHMA, and with additional material set out in a SoADC note that covered affordability submitted to the CS Examination Hearings..
- 5.9 The Inspector considered SoADC’s and other parties’ evidence on market signals and concluded, in paragraph 47, that while *‘there is a strong housing market in SoAD, I am not convinced that there is clear evidence of longer term increases in prices relative to national and local averages that would give rise to a compelling case to adjust the housing need figure’*. In paragraph 48, he drew a similar conclusion about rents. He saw no need to adjust the housing need figures for any other market signals.
- 5.10 The Inspector also considered the argument advanced by other parties that affordable housing need should be compared with the likely delivery of affordable housing in mixed tenure developments by application of the SoADC’s 35% policy. In the event that the affordable need would not be delivered in full, these parties argued that the overall housing need figure should be grossed up. In paragraph 53, the Inspector dismissed this argument as being *‘rather simplistic’* and *‘not a good basis to justify such an uplift’*.
- 5.11 The Inspector considered the particular issue of ‘unmet need’ from other districts and concluded, in paragraph 67, that there were no identified needs or requests from other authorities that the CS could, as yet, address. This situation has not changed since the CS Examination Hearings.
- 5.12 We have reviewed available evidence on market signals published since the CS Examination Hearings and take the view that there is nothing that should lead the Inspector to a different set of conclusions in relation to market signals, including general affordability. GL Hearn has updated the affordable housing need assessment in the CWSHMA for SoAD and this is discussed later in this section.

HOUSING AFFORDABILITY IN SoAD

- 5.13 Paragraphs 5.45 to 5.49 of the CWSHMA provide an analysis of lower quartile house price: earnings ratios within the Coventry and Warwickshire Strategic HMA and in comparator areas. The ratio in SoAD in 2012 was 8.79, which had improved by 2% between 2007 and 2012. The ratio is similar to that in Warwick District and in the adjoining districts in Worcestershire, but higher than elsewhere in the HMA, particularly in the northern parts of the HMA. The ratio in SoAD in April 2014 was 8.82, at or just below the 2007 level.
- 5.14 Table 21 of the CWSHMA records that lower quartile house prices only increased by 15% in SoAD between 2001 and 2007 and were flat between 2007 and 2012. Between 2012 and 2014, this flat trend has continued.
- 5.15 In broad terms, house prices and house price:earnings ratios in SoAD in 2014 were in the same relationship to those in Warwickshire and nationally as they were in 1997. Private sector rents have been consistently fairly high over the last few years, but these are comparable to similar prosperous districts in southern England.
- 5.16 While housing is less affordable than is desirable in SoAD, this is a similar situation to that found in comparable authorities and there is no evidence that affordability has worsened in recent years. SoADC fully acknowledges the affordability situation in the CS.

UPDATED ASSESSMENT OF AFFORDABLE HOUSING NEED

- 5.17 An updated assessment of affordable housing need has been undertaken by GL Hearn as part of the ROAN. This assessment replaces that in Section 8 of the CWSHMA for SoAD. It is fully compliant with Government guidance and seeks to identify whether there is a shortfall or surplus of affordable housing in SoAD. The full report is provided in **Annex F**.
- 5.18 The outputs of the affordable housing needs modelling in this report can be compared with those in the CWSHMA. The model that has now been followed was the same as that in the CWSHMA, although some refinements to the methodology have been made. The key changes are set out below.
- The update looks at affordable needs over the 20 year period from 2011 to 2031, while the earlier CWSHMA looked at the 18 year period to 2031. This does not make a significant difference but to allow for consistency the figures for current need in the 2013 CWSHMA have been rebased for a 20 year period.
 - The analysis of current need has been updated to more closely correlate with the categories of need highlighted in the PPG. This would be expected to have some upward impact on the assessed need.

- The CWSHMA looked at newly forming households using a ‘zero net migration’ demographic model. This was so that the analysis focussed on need arising from the within the local authority population. In the update, the analysis has been based on demographic projections that include migration. This is considered to be a better approach, particularly in SoAD, where migration is a significant component of population change.

5.19 This change in methodology does increase the overall affordable housing need above that set out in Table 66 (and paragraph 8.72) of the CWSHMA, but this higher figure is still consistent with the policy response by SoADC in the submitted CS, when the anticipated supply of affordable housing is taken into account.

5.20 **Table 5.1** compares the results of the analysis in the two reports. The CWSHMA identified a need for 133 dpa, using a zero net migration basis. This equates to the 148 dpa in the table, once the assessment period has been adjusted. Paragraph 8.72 of the CWSHMA noted that if a demographic trend based projection had been used at that time, the ‘*net need increases by around 100 per annum*’ ie. to around 248 per annum.

5.21 The ROAN has identified a higher net need than this, for 310 dpa. The difference between this figure and the 248 dpa arises from the adoption of the 2012-based SNPPs and SNHPs and from change in the supply.

Table 5.1 Estimated Annual Rates of Affordable Housing Need (2011 to 2031)

	ROAN	CWSHMA
Current need	45	28
Newly forming households	383	296
Existing households falling into need	197	123
Total Gross Need	626	447
Supply	316	299
Net Need excluding ‘development pipeline’	310	148
Source: Annex F and CWSHMA, November 2013		

5.22 The great majority of this assessed affordable need consists either of households already resident in housing which is in fit condition for use in the SoAD or outside or of ‘concealed’ households likely to already be taken into account in the demographically assessed housing need.

5.23 The CWSHMA, in paragraphs 8.42 to 8.47, assesses the current (or backlog) need as an estimated 564 households in SoAD in 2011, a total which is then taken forward into the overall affordable housing need summarised in Table 66.

5.24 The CWSHMA derived the figure of 564 households by considering the number of households living in unsuitable housing and then took account of their current tenure and earnings. Predominantly, these were existing households living in overcrowded or other unsuitable conditions, mainly in the private rented sector, who could not afford to move into market dwellings.

- 5.25 Were these households to move from their present housing, they would release an existing dwelling back into the market. Few if any of these dwellings in SoAD could not be '*made fit at reasonable expense*'. These households are not an additional element of housing need, but part of the base population taken into account in the demographic projections.
- 5.26 Paragraph F62 of **Annex F** sets out the extent to which the Private Rented Sector [PRS], with the payment of housing benefit, would be likely to meet much of the net affordable housing need for 310 dpa. This supply of lettings is estimated to continue to supply around 219 dpa, leaving a net requirement for 91 dpa. This supports the view that any supply of social or affordable rented housing above this level, delivered through planning policy or direct provision would help reduce dependence on the supply by the PRS in future. There will also be, in practice, a supply of additional affordable housing from the 'development pipeline' ie. planning permissions already granted but not yet built, equivalent to 113 dpa. If supply just from the 'development pipeline' is taken into account, the net affordable need reduces to 197 dpa.
- 5.27 Our conclusion on affordable housing need and the OAN is that the updated assessment, although identifying a numerically higher net need than that in the CWSHMA, makes no difference to the position taken by SoADC at the CS Examination Hearings and endorsed by the Inspector. Affordable housing need is already accounted for in the demographic assessment of OAN and there is no new argument or evidence for increasing the OAN above the demographic need to take explicit account of affordable need.

THE AFFORDABLE HOUSING POLICY RESPONSE IN THE CORE STRATEGY

- 5.28 The CS, in paragraph 5.3.5, summarised the affordable housing need, as assessed in the CWSHMA, as being '*around 200 households per year*'. With a policy requirement to provide 35% affordable housing in private housing developments, taking account of some potential for separate affordable housing schemes, small sites and viability considerations, this was a realistic target, based on an OAN of 565 dpa.
- 5.29 SoADC's affordable housing 'target' of 'around 200 households per year' remains sensible in the light of the updated assessment. This updated analysis suggests, taking account of the 'development pipeline', that the net affordable need in SoAD will be reduced to around 197 dpa over the plan period. The CS affordable housing policies are seeking to provide as much affordable housing as they can, taking account of viability, and this is a legitimate policy judgement that SoADC has made, which goes beyond the 'policy off' consideration of OAN. If an OAN of 724 dpa is set, SoADC's policy target of around 200 dpa should be achieved comfortably.

THE POTENTIAL MARKET IMPACT OF INCREASED HOUSING SUPPLY ON AFFORDABILITY

- 5.30 This issue was considered in some detail in the CR, in paragraphs 6.1.30 to 6.1.37, as a response to one particular CS representation, that by Regeneris, on behalf of Gladman. This line of argument was not explicitly pursued in other representations.
- 5.31 The conclusion in the CR, accepted by the Inspector in his overall view in the Interim Conclusions, is that, at the local level, there is no real evidence that modest, or even considerable, uplifts in the housing land supply would have any discernible effect in restraining or even reducing house prices or rents.

CONCLUSION ON ADJUSTMENT FOR MARKET SIGNALS AND AFFORDABILITY

- 5.32 In relation to market signals and affordable housing need, our conclusion is that no further adjustment to an employment based OAN of 724 dpa is necessary or justified. There is no new evidence that should lead the Inspector to reach a different conclusion on this point from that in his Interim Conclusions.
- 5.33 SoADC's CS policies, including the 35% affordable housing target and other measures, should be capable of delivering affordable housing for at least '*200 households per year*' over the plan period. This target remains sensible and sufficient, taking account of other sources, such as the private rented sector and the 'development pipeline', to meet the overall net need for 310 affordable dpa, set out in the updated assessment. This need reduces to 197 dpa, if the 'development pipeline' alone is subtracted.

6 CONCLUSIONS ON OBJECTIVELY ASSESSED HOUSING NEED

- 6.1 The aim of the ROAN has been to address the points raised in the Inspector's Interim Conclusion in respect of OAN and in light of these to *'revisit the Objective Assessment of Housing Need'* for SoAD.
- 6.2 The CS, as submitted, set a housing requirement of *'at least 10,800 additional homes'* over the plan period. This was updated in the CR, in the light of the CWSHMA Update, to a demographically assessed need projection of 11,300 dwellings over the plan period, an average of 565 dpa. The CR argued that it was not necessary to adjust this figure to take account of either employment forecasts for SoAD or market signals and affordability factors.
- 6.3 In this review of the OAN, demographic projections that incorporate the latest 2012 SNHPs have been adopted in place of the CWSHMA Update's projections, which used GL Hearn's 'part return to trend' HFRs. The assumption made in the Consolidated Review that the demographic 'starting point' should be based on a ten year historic rate of net in-migration has been maintained. The ROAN concludes that the demographic housing need for SoAD over the period 2011 to 2031 should be 572 dpa (11,440 dwellings in total). This allows for a level of net in-migration into SoAD requiring 456 dpa, the remaining 116 dpa being required to broadly maintain the population at its 2011 level in 2031.
- 6.4 The analysis demonstrates that adopting this approach across the CWHMA as a whole has a limited effect on total demographic housing need. Overall demographic need for the whole CWHMA, set out in the CWSHMA Update, was 4,004 dpa, while the 2012-based SNHPs give a total of 4,092 dpa and GL Hearn's projection using a ten year migration variable assumption (as adopted here for SoAD) suggests a total of 3,969 dpa. This shows that adopting this migration assumption for SoAD results in a re-distribution of the CWHMA's housing need among the constituent authorities, rather than necessitating an increase in the overall demographic need, as suggested by the Inspector.
- 6.5 Our review, in **Section 3**, of the ERM IEF (12,100 jobs) and other employment evidence, has confirmed that the IEF is robust and offers a more appropriate basis for assessing employment-related housing need than either the Experian or CE job forecasts. It has already been accepted as 'reasonable' by the Inspector. Our analysis reinforces the previous evidence presented in the CR that new jobs in SoAD are likely to be biased towards lower pay/skills and part time work and that this is expected to be more marked in SoAD than in most other districts.
- 6.6 **Section 4** examines the key question of the extent of the employment adjustment that should be proposed, starting from the demographic need of 572 dpa. The updated projection of future employment rates provided by GL Hearn confirms and refines the previous evidence about the future SoAD

employment rates and labour force. Provision of 572 dpa would be sufficient to provide a workforce to support an addition of 6,500 jobs in SoAD, assuming the Inspector's preferred 'commuting ratio' of 0.96:1 and 4% double jobbing. As 6,500 jobs is well below any of the job forecast scenarios examined in **Section 3**, some upward adjustment is called for if the 0.96:1 'commuting ratio' assumption is to be satisfied. An OAN to match the ERM IEF while maintaining the 2011 commuting ratio of 0.96 would need to be set at around 724 dpa (14,480 dwellings over the plan period).

- 6.7 Further work on the sustainability of commuting has helped clarify the relationship between commuting indicators and OAN in SoAD. It has confirmed the view expressed in the CR that projections based on simple assumptions about job to resident ratios and commuting rates are only part of the evidence and that where there is likely to be a substantial increase in job numbers, a range of housing and labour market adjustments will come into play.
- 6.8 Lower paid jobs and higher house prices in SoAD relative to much of the HMA will mean that a significant proportion of those taking new jobs in SoAD will not be able to afford to move there. Setting too high an OAN to match aspirational employment forecasts therefore has real potential dis-benefits. The higher the OAN is set, the more likely it is that new housing in SoAD will be occupied by 'wealthier' households whose working members will commute out to high paid jobs elsewhere. This will result in less sustainable high levels of gross commuting and a reduced degree of self-containment in terms of local jobs for local residents (even if it might maintain the 'preferred' commuting ratio of 0.96:1).
- 6.9 The market signals evidence for SoAD and the rest of the HMA, set out in the CWSHMA, is comprehensive and was prepared in accordance with the PPG and good practice. No new evidence has emerged since the CWSHMA that significantly amends that evidence.
- 6.10 The assessment of affordable housing need in Section 10 of the CWSHMA, summarised in Table 66, would require an average of 133 dpa, spread over the plan period. The CWSHMA notes that this assessment was based on 'zero net migration' and offers the judgement that if the needs of in-migrants were taken into account, the requirement for affordable housing would be around 100 dpa higher. The CS, in paragraph 5.3.5, reports this as an affordable housing need for '*around 200 households per year*'.
- 6.11 In relation to market signals and affordable housing need, our conclusion in **Section 5** is that no further adjustment to an employment adjusted OAN of 724 dpa is necessary or justified. There is no new evidence that should lead the Inspector to reach a different conclusion on this point from that in his Interim Conclusions.

- 6.12 SoADC's CS policies, including the 35% affordable housing target and other measures, should be capable of delivering affordable housing for at least '200 households per year' over the plan period. This target remains sensible and sufficient, taking account of other sources, such as the private rented sector and the 'development pipeline', to meet the overall net need for 310 affordable dwellings per annum, set out in the updated assessment. This need reduces to 197 dwellings per annum, if the 'development pipeline' alone is subtracted.
- 6.13 An OAN of 724 dpa for SoAD represents a significant contribution to meeting any shortfall in the capacity in other areas to meet the housing needs of the overall CWHMA, being 152 dpa above SoAD's assessed demographic housing need and 266 dpa above the dwelling need for SoAD derived directly from the 2012-based SNHPs.

OVERALL CONCLUSION ON OAN FOR SoAD

- 6.14 The overall conclusion of the ROAN is that, taking the most recent evidence into account, the objectively assessed need for SoAD is for an additional 14,480 dwellings over the plan period and that this should become the basis for SoADC's housing requirement in the CS. This equates to an OAN of 724 dpa. This addresses the Inspector's principal concern that SoAD should not be planning to fail to provide housing that would match the likely job growth in the ERM IEF. The additional evidence on sustainable commuting and the nature of job growth as regards the part time/full time split and the distribution of additional jobs between above and below average pay sectors demonstrates that an employment adjustment of 152 dpa to the demographic projection of 572 dpa is not only sufficient, but should be considered an upper limit, as any additional housing is likely to exacerbate the tendency for additional unsustainable commuting into and out of SoAD.
- 6.15 In relation to market signals and affordable housing need, our conclusion is that no further adjustment to an employment adjusted OAN of 724 dpa is necessary or justified. There is no new evidence that should lead the Inspector to reach a different conclusion on this point from that in his Interim Conclusions.
- 6.16 SoAD, with an OAN of 724 dpa, will make an appropriate contribution to meeting the housing needs of the CWHMA as a whole.

Annex A

Summary of the Core Strategy
Inspector's Interim Conclusions on
OAN and how these have been
Addressed

Table A1 Summary of the Core Strategy Inspector’s Interim Conclusions and how these have been Addressed

Inspector’s Conclusion	Comment/Response
SoADC Arguments accepted by the Inspector	
<p><i>Weight to be accorded to the SHMA Update</i> The Inspector found that the SHMA Update carried “<i>significant weight</i>” as it was based on the most up to date population projections, the 2012 SNPPs (paragraph 8). Despite being less stable at district level its indicative figures represent “<i>the most up to date projections before the examination</i>” and carry “<i>substantial weight</i>” (paragraph 14).</p>	<p>The weight the Inspector gives to the SHMA Update is noted, but as the latest CLG 2012 SNHPs were released on 27 February 2015, the latter are now the most up to date household projections, which the PPG considers should be used as the starting point in deriving OAN for a district. We have therefore re-run projections of housing need for the main scenarios contained in the SHMA Update using the HFR assumptions contained in the 2012 SNHPs rather than using the SHMA Update’s Part Return to Trend.</p>
<p><i>Relevance of the Coventry & Warwickshire Housing Market Area</i> The Inspector agreed that the CWHMA is the most relevant HMA for strategic planning purposes despite the fact that SoAD straddles other HMAs (paragraph 11).</p>	<p>The housing need of SoAD has continued to be assessed within the context of the CWHMA. However, SoAD’s commuting relationship with other LPAs outside this HMA remains important as discussed below under ‘commuting ratio’.</p>
<p><i>Household Formation Rates</i> The Inspector considered that the SHMA Update’s Part Return to Trend scenario is “<i>a reasonable assumption</i>” on household formation rates (paragraph 17).</p>	<p>With the publication of the CLG 2012 SNHPs, there is no longer any need to use GL Hearn’s or any other ‘part return to trend’ assumptions for HFR as the CLG view of HFRs is now embodied in these latest household projections. The latter still represent a ‘part return to trend’, insofar as they show some continued suppression of HFRs running through to 2031.</p>
<p><i>Vacancy Rates</i> The Inspector accepted that a 3% vacancy rate is a reasonable assumption for SoAD (paragraph 18).</p>	<p>The assessment has continued to adopt this vacancy rate in converting all projections of household numbers into the numbers of dwellings required to accommodate them.</p>
<p><i>Net in-migration Assumption</i> The Inspector endorsed the adoption of a ten year average net in-migration assumption for assessing SoAD’s demographic housing need but stated that this should not be taken to reduce the HMA wide figure for OAN (paragraph 20).</p>	<p>We are continuing to adopt a net migration assumption based on the most recent ten year period for which data is available in running new projections to assess the level of demographic housing need based on the HFRs in the 2012 SNHPs.</p> <p>GL Hearn has run projections for a series of new demographic scenarios using the 2012 SNHP HFRs, described in Annex B, including a ‘ten year migration variable’ projection for SoAD and other districts. This projection does not generally give rise to higher demographic needs throughout the HMA. Any increase in in-migration to SoAD based on its higher longer term in-migration rates would principally involve a redistribution of the HMA’s demographic housing need among the constituent LPAs.</p>

Inspector's Conclusion	Comment/Response
<p><i>Demographic Housing Need</i> The Inspector noted that “the Guidance says that the primary objective of identifying need is to identify the future quantity of housing need” and concluded that “in terms of the demographic component the Council appears to have done that satisfactorily”.</p>	<p>GL Hearn has run projections for a series of new demographic scenarios using the 2012 SNHP HFRs. These show a demographic housing need for SoAD of 572 dpa, based on the ten year variable migration rates. This figure is close to the previous figure of 566 dpa, already endorsed by the Inspector in paragraph 9 of his Interim Conclusions.</p>
<p><i>ERM's Indicative Employment Forecast</i> The Inspector stated that the ERM Indicative Employment Forecast estimate of 12,100 additional jobs for SoAD between 2011 and 2031 “appears to be a reasonable estimate”, although “its basis is not as clear as it might be” (paragraph 29).</p>	<p>A comprehensive review of the ERM IEF has been undertaken as part of the ROAN, with additional material setting out the evidence base. There is no proposed change to the ERM IEF.</p>
<p><i>Market signals and affordability</i> The Inspector endorsed the analysis in the ERM CR of house prices and rents finding ‘there is no clear evidence [that these have] risen faster than the national or local average’ (paras 47 and 48). Similarly, he found that none of the other market signals indicated that an upward adjustment was needed to OAN. He did not accept the arguments of certain other parties that an affordability uplift to a demographic OAN was necessary merely to match the amount of affordable housing that would be delivered by the policy target of 35%.</p>	<p>The latest data on market signals shows that the conclusions in the CR remain sound. However, the affordable housing need assessment in the CWSHMA has been updated using the new GL Hearn demographic projections and the latest available cost and income data. and is set out in Annex F.</p>
SoADC Arguments not accepted by the Inspector	
<p><i>Employment Rates</i> The Inspector did not consider it credible that the labour force resident in SoAD under the SNPP Part Return to Trend projection would increase by 2,188, given the agreed projected reduction in population aged 16 to 64 (paras 32 to 34, and 42).</p>	<p>GL Hearn has reviewed the economic activity rates that should be applied considering a wide range of evidence and applying professional judgments.</p> <p>This analysis endorses the original SHMA Update figure of 2,188 net additional resident workers (of all ages) as the appropriate figure under the SNPP Part Return to Trend projection. It also sets out new estimates of additional resident workers associated with the 2012 SNHP and with the revised demographic housing need estimate. A full presentation of the employment rates evidence is set out in Annex B.</p>
<p><i>Commuting Ratio</i> The Inspector considered that an increase in net in-commuting in 2031 compared with 2011 would be unacceptable. This was against Core Strategy Objective 12, which stated that net in-commuting would be reduced, with an improved balance between</p>	<p>The ROAN addresses the Inspector's concerns, while maintaining the position that the ‘commuting ratio’ is not in itself a useful measure of sustainability of commuting. As shown in Annex E, the 2011 commuting ratio of 0.96 hides the fact that there was almost no net commuting (+183) between SoAD and the rest of the HMA in 2011, ie.</p>

Inspector's Conclusion	Comment/Response
<p>homes and jobs (paragraph 35). Furthermore, the Inspector considered it would not be sustainable to rely on other districts to provide an adequate labour force to meet forecast job demand (paragraph 36) and <i>“to plan for more cross-boundary commuting seems inherently wrong”</i> (paragraph 37).</p> <p>A modification to Core Strategy Objective 12 was proposed at Examination to <i>“a sustainable balance between employment growth and housing provision will be maintained”</i>. Although an objective in this form no longer calls for zero net commuting, the Inspector makes it clear that the Council should aim to achieve a better balance between the number of homes and jobs in SoAD by broadly maintaining what he calls the ‘commuting ratio’ at around the 2011 ratio of 0.96:1.</p>	<p>equivalent to a commuting ratio of close to 1.0. Net commuting is positive overall because of net commuter inflows from districts outside the HMA, in particular from Redditch and Wychavon.</p> <p>GL Hearn has produced a new employment-led housing need projection for SoAD, based on the ERM IEF. This uses the same parameters as the demographic projections, based on the SNHP HFRs, and updated GL Hearn employment rates. The resulting housing need, assuming a commuting ratio of 0.96, is 724dpa.</p>
<p><i>Commuting to Meet Coventry's Job Need</i> The Inspector considered that if Stratford was to provide jobs for excess workers from Coventry, this would not comprise short distance commuting and that, furthermore, the scale of this labour force could not be relied upon (paragraph 38).</p>	<p>The ROAN does not assume such commuting would be direct from Coventry but will arise from whichever districts the excess housing requirement from Coventry is eventually placed in, which is likely to include districts in the CWHMA closer to SoAD.</p>
<p><i>Re-call of Commuters</i> The Inspector considered SoADC's claim that some 2,000 out-commuters from SoAD could be recalled over the local plan period to be a risky assumption and felt there is no evidence to show it is likely to happen (paragraph 39).</p>	<p>This assumption was not directed at reducing the potential level of OAN, as recall of commuters, of itself, can have no impact on OAN. The ERM argument was rather that such recall, if it occurred, would improve SoAD's degree of self-containment in terms of employment, which is a much better measure of the sustainability of commuting. In 2011, the number of out-commuters from SoAD was less than it would have been at 2001 out-commuting rates as a percentage of the resident workforce, so a degree of out-commuter recall had already occurred during this period in response to an increase in jobs in SoAD and might be expected to be repeated in the context of future job increases, particularly in the higher paid categories.</p>
<p><i>'Bounceback' Jobs</i> The Inspector rejected SoADC's claim that at least 3,000 of the job increase forecast by CE were ‘bounce back’ jobs for which the labour force was already available in the district in 2011 as these had already been taken account of in the SHMA Update projections (paragraph 40).</p>	<p>This matter is addressed fully in the ROAN. While there is conflicting evidence, ERM now consider it to be principally a job forecasting rather than a workforce issue.</p>

Inspector's Conclusion	Comment/Response
<p><i>Matching of in-migrant workers to new jobs</i></p> <p>The Inspector considered SoADC's view that if housing were to be provided above the SoADC proposed OAN of 566 dpa there would be a strong risk that a high proportion of out-commuters and retired people would be attracted was unduly pessimistic and noted that there is evidence that the younger age groups would be well represented among in-migrants (paragraph 41).</p>	<p>There is strong evidence to support the argument that there will be a high proportion of out-commuters among the net in-migrants and this still supports taking a conservative view of the employment adjustment to OAN. Further analysis of low pay/part-time jobs trends given in Annex D shows that the industrial structure of SoAD's forecast jobs is biased towards those sectors which tend to offer significantly lower pay and a higher proportion of part time work and that this bias is greater than in other CWHMA districts. This supports the view that many in-coming workers wishing to take up new jobs are unlikely to be able to afford the housing on offer in SoAD. Instead, those in-migrant work seekers, who are able to afford the higher priced housing in SoAD, are likely to be disproportionately drawn towards higher paid jobs outside SoAD.</p>

Annex B

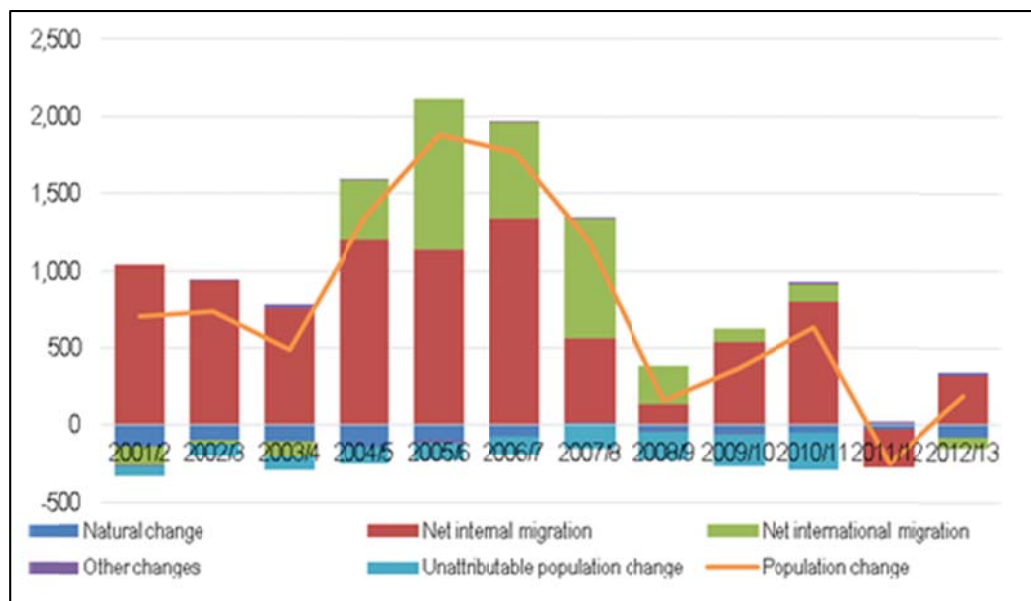
GL Hearn Updated Demographic
and Employment-led Projections

B GL HEARN UPDATED DEMOGRAPHIC AND EMPLOYMENT-LED PROJECTIONS

PAST TRENDS

B1 **Figure B1** and **Table B1** show population growth and the components of population change between 2001 and 2013. The key finding is that population growth has been very weak over the past five years after having been relatively strong in the period to 2008. The data also clearly shows that population growth has been driven by net migration.

Figure B1 Components of Population Change, mid-2001 to mid-2013, SoAD



Source: ONS

Table B1 Components of Population Change, mid-2001 to mid-2013, SoAD

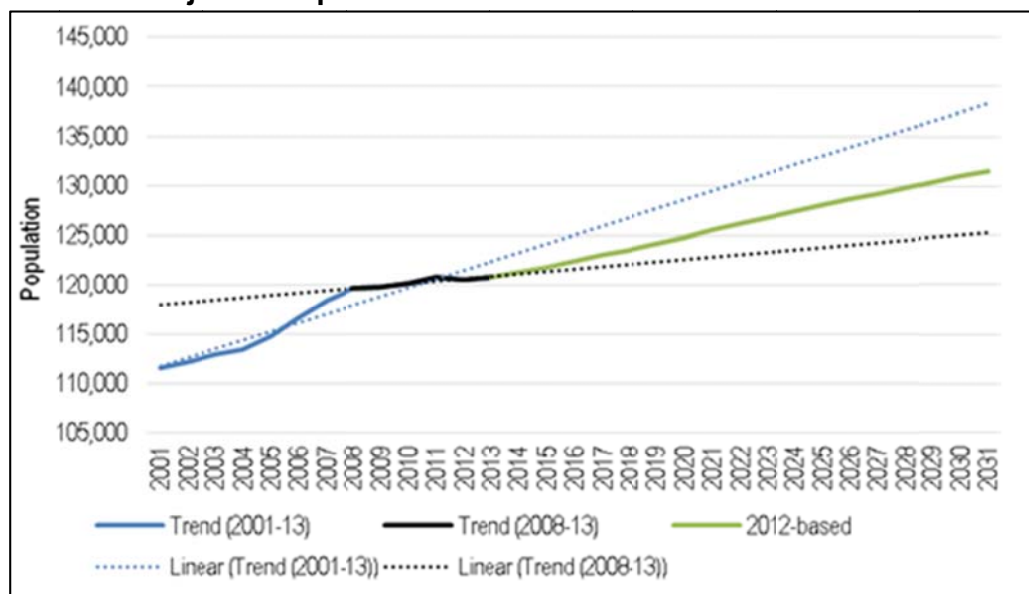
Year	Natural Change	Net Internal Migration	Net International Migration	Other Changes	Other (unattributable)	Total Change
2001/2	-140	1,040	-121	-4	-68	707
2002/3	-95	933	-23	4	-85	734
2003/4	-103	755	-99	28	-90	491
2004/5	-142	1,202	387	2	-109	1,340
2005/6	-101	1,140	972	-13	-113	1,885
2006/7	-74	1,337	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	-	-246
2012/13	-79	316	-75	27	-	189

Source: ONS

DEMOGRAPHIC HOUSING NEED

B2 The Planning Practice Guidance is clear that the latest population and household projections should be used as a start point for assessing need. **Figure B2** shows how the 2012-based SNPP sit with past trends. This shows that growth is expected to be some way above short-term trends (past 5 years) but some way below longer-term trends (shown as a 12 year period 2001-2013 in **Figure B2**).

Figure B2 Past and Projected Population Growth in SoAD



Source: ONS

B3 Five demographic based projections have been run for SoAD and for the CWHMA as a whole, all of which use the headship/household formation rates from the 2012-based CLG SNHPs. The projections are:

1. SNPP – based on population data in the 2012-based subnational population projections, updated to include information from the 2013 mid-year population estimates. The 2012-based SNPP was based on internal migration over the period 2007-12 and international migration over the period 2006-12.
2. 5 year migration constant – based on the average level of net migration to SoAD over the past five years, ie. 2008-2013. Analysed separately for internal and international migration and held constant over the period from 2013 onwards. As with the first projection, data is fixed by reference to the 2013 MYE data.
3. 10 year migration constant – based on the average level of net migration to SoAD over the past 10 years, ie. 2003-2013. Analysed separately for internal and international migration and held constant over the period from 2013 onwards. As with the first projection, data is fixed by reference to the 2013 MYE data.
4. 5 year migration variable – again based on migration trends over the five years, 2008-2013. 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 five years and the level that fed into the SNPP and models this difference for each year of the projection.
5. 10 year migration variable – again based on migration trends over the 10 years 2008-2013. 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.

B4 The two migration variable projections recognise that migration within the SNPP is 'dynamic' and varies over time as the population age structure changes (not just in SoAD, but also in areas from which people might move to SoAD). For example, if the migration trend over the latest five or ten year time period has been 400 per annum and for the time period feeding into the SNPP was 300 per annum then the modelling assumes an uplift in migration of 100 per annum. The actual level of migration in the modelling will therefore vary in line with changes expected in the SNPP.

B5 **Table B2** shows the outputs for these projections for SoAD and the CWHMA, as a whole, in terms of dwellings needed, including a 3% vacancy allowance. The data shows a need for 458 dwellings per annum based on the most recent official projections, short-term trends showing a lower level of need and longer-term trends are higher. There is a wide range between the migration-related projections as migration over the past 5 years has been modest when

B6

compared with a longer-period, hence short-term projections show a much lower level of migration and population growth (and hence housing need). The preferred alternative scenarios are the 'variable' ones and hence, using a ten year basis, the demographic housing need for SoAD would be up to 572 dwellings per annum.

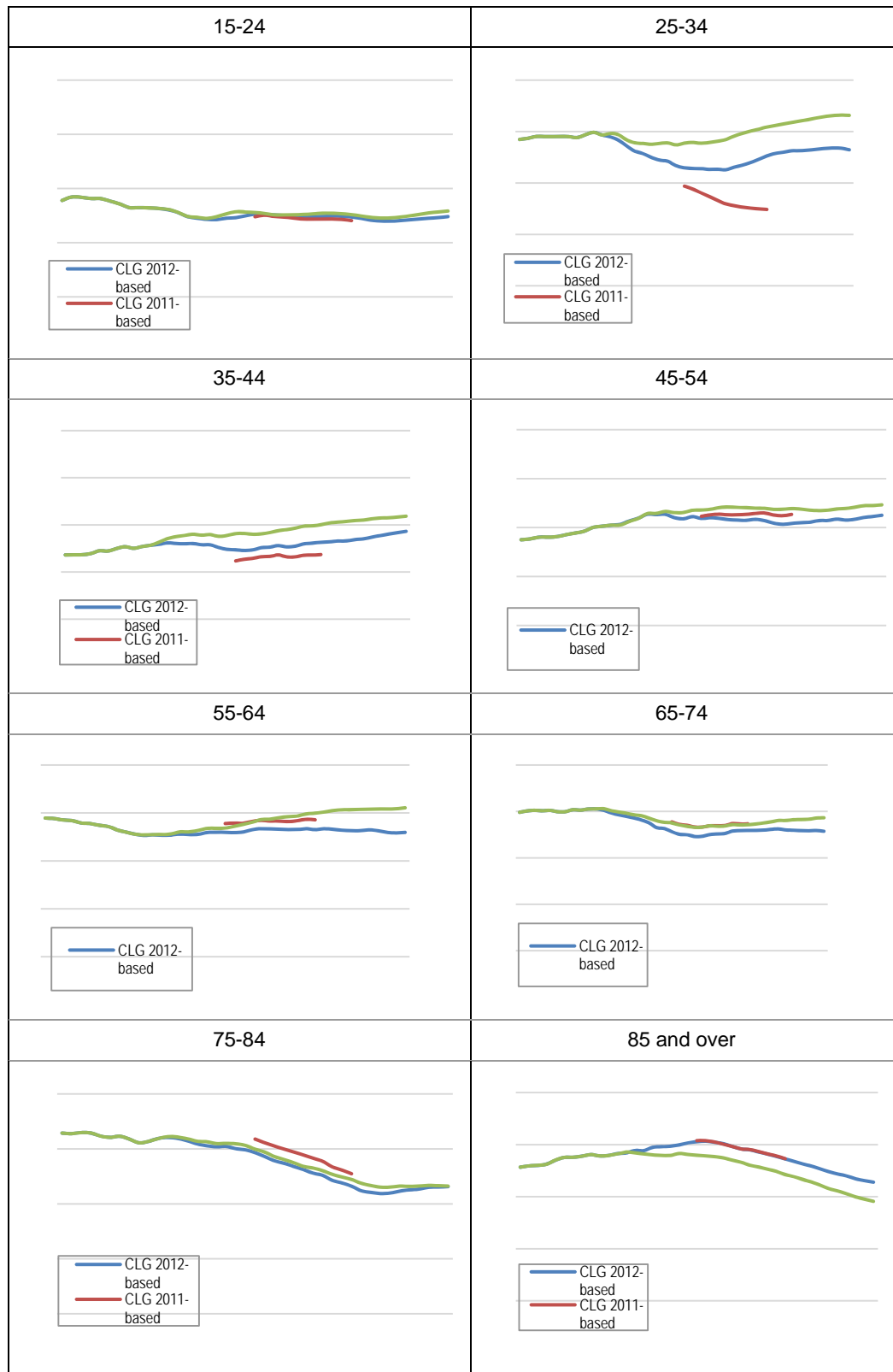
Table B2 Housing Need Under a Range of Demographic Projections

Projection	Dwellings per Annum	
	SoAD	CWHMA Total
2012-based SNPP	458	4,092
5 year migration constant	266	4,532
10 year migration constant	507	4,681
5 year migration variable	331	3,820
10 year migration variable	572	3,969
Source: GL Hearn modelling		

B7

As noted, all of these projections link to the 2012-based CLG HFRs. **Figure B3** looks at these rates on an age specific basis to establish the extent to which there has been any suppression of household formation in the past and to see whether or not the projections are building in any suppression in the future. Generally, the rates in **Figure B3** appear reasonable and do not identify a substantial level of suppression moving forward. The one exception is in the 25-34 age group, where there has been a reduction in household formation in the 2001-11 period. The new projections are suggesting some degree of recovery in the rates moving through to 2031, although the rate in 2031 would still be below that seen in 2001 (ie. the time at which the rate started to drop).

Figure B3 Projected Household Formation Rates by Age of Head of Household SoAD



Source: Derived from CLG data

EMPLOYMENT-LED HOUSING PROJECTIONS

B8 As well as looking at demographic trends when considering what the housing requirement should be, the Planning Practice Guidance, in paragraph 2-018, states that:

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

and 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 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'

B9 Projections have been undertaken to assess housing need arising from the two job forecasts for the years 2011 to 2031 which had been examined in the CWSHMA Update together with the forecast put forward by ERM in the CR. These totalled: 15,700, 9,500 and 12,100 jobs respectively.

B10 To convert jobs into growth in the labour-force, overall population growth and hence housing need, is not a simple process and the analysis takes account of:

- commuting patterns;
- double jobbing (ie. the number of people with more than one job); and
- changes to employment rates (eg. as a result of reducing unemployment or people working longer).

Commuting Patterns

B11 **Table B3** shows summary data about commuting to and from Stratford-on-Avon from the 2011 Census. The data shows that SoAD sees a small level of net in-commuting for work. Overall, there are around 4% more people who work in SoAD than live in SoAD (and are working).

Table B3 **Commuting Patterns in SoAD, 2011**

Groups	Numbers
Live and work in SoAD	23,266
Home workers	10,476
No fixed workplace	4,835
Out-commute	22,800
In-commute	25,435
Total working in SoAD	64,012

Groups	Numbers
Total living in SoAD (and working)	61,377
Commuting ratio	0.96
Source: 2011 Census	

B12 In translating the commuting pattern data into growth in the labour-force, it has been assumed that the commuting ratio remains at the same level as shown by the 2011 Census (ie. assumes that 4% (net) of additional jobs will be filled by in-commuters). In this scenario, net in-commuting to SoAD increases slowly over time.

Double Jobbing

B13 The number of people who have more than one job (double jobbing) can be calculated as the number of people working in SoAD divided by the number of jobs. Data from the Annual Population Survey (available on the NOMIS website) suggests that around 4.2% 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 0.958 (ie. the number of jobs can be discounted by 4.2% to estimate the required change in the workforce).

B14 Hence to work out the change in the resident workforce required to match the forecast number of jobs the commuting ratio can be multiplied by double jobbing factor to give a combined factor of 0.92, which is then multiplied by the number of jobs, as shown in **Table B4**.

Table B4 SoAD: Projected Job Growth and Change in Resident Workforce, 2011 to 2031

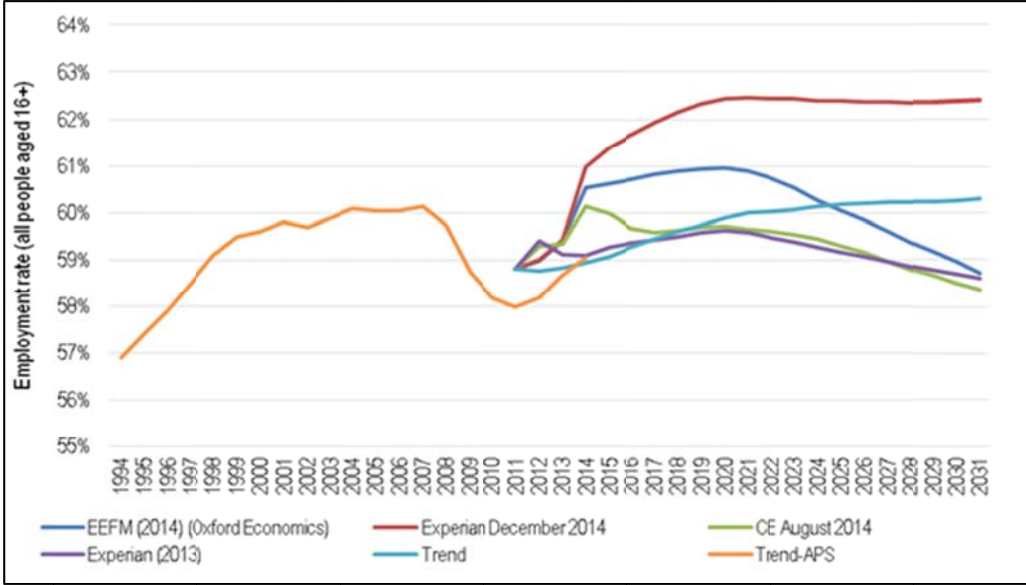
Job Forecast	Change in Jobs	Adjustment Factor	Change in Resident Workforce
Cambridge Econometrics	15,700	0.92	14,414
Experian	9,500	0.92	8,722
ERM	12,100	0.92	11,109
Source: NOMIS and 2011 Census			

Changes to Employment Rates

B15 As well as taking account of 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 there is likely to be a continuation of these trends, particularly in relation to people working longer (partly linked to pensionable ages) and the modelling assumes some increase in employment rates through to 2031.

- B16 Estimating how employment rates might change is generally the most difficult aspect of the analysis. There is no set method and there are no up-to-date forecasts from Government. The last set of data from ONS took a (pre-recession) 2006 base and can no longer be relied upon.
- B17 To form a view about how rates might change in the future, a range of national economic forecasts and also past age/sex specific trends in economic activity rates have been examined. Past trend analysis looks at economic activity rates as it is not possible to obtain trend data from the Census for employment rates due to the different way working students are recorded in the 2001 and 2011 Censuses.
- B18 To look at how rates are expected to change, we have looked at the incremental change in jobs over time and overlaid this on the 2012 based national population projections. From this it is possible to work out how employment rates would need to change for both the number of jobs and the growth in population to be achieved.
- B19 **Figure B.4** shows how the various sources of information are implicitly expecting rates to change in the future. In line with general convention, the employment rate has been plotted as the number of people in employment as a proportion of the total population aged 16 and over. A past trend in the employment rate has also been provided, based on data from the Annual Population Survey and the Labour Force Survey. The forward projection data has all been controlled to a consistent 2011 start point based on rates shown in the 2011 Census. For clarity, the lines on the graph are:
- EEFM (2014) (Oxford Economics) – data from the East of England Forecasting Model;
 - Experian December 2014 – data from a December 2014 Experian forecast;
 - CE August 2014 – Cambridge Econometrics;
 - Experian (2013) – an earlier Experian forecast;
 - Trend – the implied employment rate if age/sex trends in the 2001 to 2011 period are continued; and
 - Trend-APS – past trend data from the Annual Population Survey and Labour Force Survey.

Figure B4 Past Trends and Projected Employment Rates in England, Range of Different Scenarios



Source: Derived from a range of economic forecasts, Census data, national population projections and APS/LFS data

B20 The data shows some variation between different forecasts. Over the whole of the 2011 to 2031 period, the EEFM, CE and Experian (2013) forecasts suggest that the rate will remain roughly constant (albeit increasing in the short-term and decreasing over the longer-term). The three forecasts also show different views in the short-term, with the EEFM and CE forecasts in particular suggesting a sharp increase in the rate up to about 2014. The 2014 Experian forecast suggests a much higher employment rate moving forward, which is driven by a significant increase to 2014, followed by a modest increase to about 2020, and a levelling off thereafter. The forecast linked to past trends shows a modest increase in the rate throughout the period.

B21 It is difficult to judge which of these national forecasts should be considered the most reliable. The 2014 Experian forecast is the most up-to-date and could arguably therefore take precedence. However, it cannot be ignored that three of the forecasts suggest a similar pattern (when taken for the whole period 2011 to 2031). The past trend analysis has the advantage of being based on actual trend data and therefore should also be given some credence. However, it does not model any short-term changes (which are generally suggested by the other forecasts) and which appear to be related to short-term changes in jobs as the Country continues to move away from recession. Such changes in the rate are likely to be linked to a latent labour-force moving back into the market ie. reducing unemployment, and not linked to changes in the population.

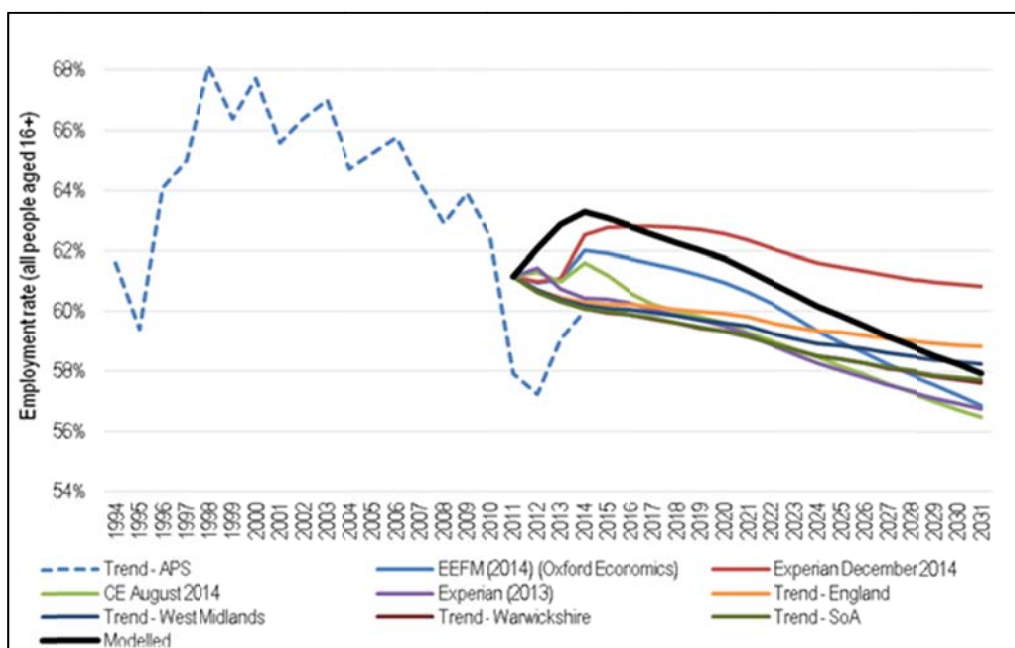
B22 In our view, the most appropriate way of determining a realistic set of assumptions to take forward into the demographic modelling is probably to combine all the sources analysed. In using these assumptions we are able to develop rates specifically for SoAD and **Figure B5** shows how the overall employment rate is projected to change in the future. For reference, the implied position linked to the other forecasts above have been added, as well

as Census trend data for a range of different areas (England, the West Midlands, Warwickshire and SoAD). Past trend data from the APS has also been included, but should be treated with some caution due to the large error margins associated with the data at a small area level.

B23 The data indicates that the estimated employment rate in 2031 is not dissimilar to the rate that might be expected if past trends in the 2001-2011 period were to be repeated. Overall, it is considered that the changes to rates are reasonable. They are slightly higher than the rates used in the CWSHMA Update as more recent national economic forecasts (eg. by Experian, CE, OE) all suggest by implication a higher increase in employment rates.

B24 The data in **Figure B5** is all based on modelling linked to the 2012-based SNPP, and it should be noted that slightly different levels would be shown if data from alternative population projections had been used.

Figure B5 Past Trends and Projected Employment Rates in SoAD, Range of Different Scenarios



Source: Derived from a range of economic forecasts, Census data, sub-national population projections and APS/LFS data

B25 **Table B5** shows the age/sex specific rates assumed in the analysis. As noted above these have been based on consideration of a range of different forecasts and also take account of the 2011 Census and trends over the period since 2001. We consider these figures represent a reasonable set of assumptions.

Table B5 SoAD: Resident Employment Rates by Age and Sex, 2011 to 2031

Sex	Year	Aged 16 to 24	Aged 25 to 34	Aged 35 to 49	Aged 50 to 64	Aged 65 and over
Male	2011	61.9%	90.6%	92.7%	79.7%	19.4%
	2031	60.3%	90.9%	94.2%	86.5%	22.3%
Female	2011	62.0%	82.1%	82.8%	65.6%	10.3%
	2031	61.6%	90.8%	91.1%	80.1%	13.2%
Source: 2011 Census and GL Hearn analysis						

B26 To put these figures into context, **Table B6** shows how economic activity rates changed in a range of areas from 2001 to 2011. This uses Census data and is based on economic activity rather than employment due to difficulties in getting comparative data on employment from the two Censuses. The data shows that all areas show broadly similar patterns, with typically there being some decline in rates for younger people (particularly males), increases for females aged 25 and over and increases in age groups 50+ (for both sexes).

B27 This provides support for the suggested age sex changes used in the modelling. It should be noted that the upper age band is 65-74 rather than 65+, because it is not possible to obtain completely consistent data from the Census for the 65+ age group.

Table B6 SoAD and Other Areas: Changes to Economic Activity Rates, 2001 to 2011

Age Group	Stratford-on-Avon					
	Males			Females		
	2001	2011	Change	2001	2011	Change
16-24	76.1%	71.4%	-4.6%	70.1%	68.5%	-1.6%
25-34	95.2%	94.6%	-0.6%	80.6%	85.0%	4.4%
35-49	95.4%	95.3%	-0.1%	80.6%	85.1%	4.5%
50-64	80.8%	82.6%	1.9%	60.5%	67.3%	6.8%
65-74	19.0%	28.3%	9.4%	9.5%	17.7%	8.2%
Age Group	Warwickshire					
	Males			Females		
	2001	2011	Change	2001	2011	Change
16-24	71.9%	66.0%	-6.0%	66.5%	64.0%	-2.4%
25-34	94.0%	93.4%	-0.6%	78.6%	83.0%	4.4%
35-49	93.4%	94.0%	0.7%	80.7%	85.3%	4.6%
50-64	77.9%	80.1%	2.2%	58.0%	65.9%	7.9%
65-74	13.4%	21.9%	8.5%	7.2%	13.9%	6.6%
Age Group	West Midlands					
	Males			Females		
	2001	2011	Change	2001	2011	Change
16-24	68.0%	63.7%	-4.3%	60.3%	59.5%	-0.8%
25-34	90.9%	90.3%	-0.6%	72.6%	75.9%	3.3%
35-49	89.9%	90.6%	0.7%	75.9%	80.5%	4.7%
50-64	72.9%	76.4%	3.5%	53.0%	61.7%	8.7%
65-74	10.7%	19.1%	8.4%	5.8%	12.2%	6.4%
Age Group	England					
	Males			Females		
	2001	2011	Change	2001	2011	Change
16-24	68.3%	64.3%	-4.1%	62.1%	61.2%	-0.9%
25-34	91.0%	91.2%	0.2%	73.7%	78.9%	5.2%
35-49	90.2%	91.1%	0.9%	75.8%	80.8%	5.0%
50-64	72.8%	76.9%	4.1%	54.3%	62.9%	8.7%
65-74	11.6%	20.3%	8.7%	6.3%	13.0%	6.6%
Source: Census 2001 and 2011						

B28 The outputs from the employment-led projections in **Table B7** show that for the resident workforce to increase in line with the forecast number of jobs would require between 646 (Experian) and 833 (Cambridge Econometrics) dwellings per annum to be delivered, 2011 to 2031. Under the ERM IEF, the analysis suggests a need for 724 dwellings per annum.

Table B7 Housing Need with a Range of Job-led Projections

Projection	Dwellings per Annum	Dwellings (2011-2031)
Cambridge Econometrics	833	16,666
Experian	646	12,912
ERM	724	14,486
Source: GL Hearn modelling		

OUTPUT OF DEMOGRAPHIC AND EMPLOYMENT-LED PROJECTIONS OF HOUSING NEED

B29 **Table B8** provides a summary of the main outputs from the full range of GL Hearn demographic and housing need projections undertaken for the ROAN.

Table B8 Increase in Population, Employed Residents and Housing Need in SoAD, 2011 to 2031 under GL Hearn ROAN Projections

Projection	Population Increase	Housing Need		Employed Residents	Housing need from equivalent SHMA Update projection (dpa)
		Total	Dwellings pa		
2012-based SNPP	10,683	9,150	458	3,016	508
5 year migration constant	754	5,327	266	-2,832	
10 year migration constant	12,780	10,140	507	4,493	
5 year migration variable	4,701	6,621	331	-843	
10 year migration variable	16,727	11,434	572	6,482	
Zero net-migration	-7,235	2,240	112	-7,534	137 (i)
Zero employment growth	5,525	7,161	358	0	407 (i)
ERM IEF labour demand	25,339	14,801	740	11,586	
ERM IEF labour supply	24,524	14,486	724	11,109	
Experian labour demand	21,081	13,159	658	9,096	778
Experian labour supply	20,441	12,912	646	8,722	764
CE labour demand	31,234	17,073	854	15,033	938
CE labour supply	30,176	16,666	833	14,414	915 (ii)
Source: GL Hearn modelling					
Note (i) Unpublished data from GL Hearn					
(ii) The dwelling figure for CE labour supply from the SHMA Update differs from that shown in Figure 12 of that report (976 dpa = 19,520 dwellings total), as the latter was erroneously based on the 2001 commuting ratio of 1.06, an error which has been corrected here.					

Annex C

Economic and Employment Growth Supporting Information

C ECONOMIC AND EMPLOYMENT GROWTH SUPPORTING INFORMATION

INTRODUCTION

- C1 This annex provides the supporting material for **Section 3** of the main report. It begins with a review of local employment data sources, including those provided by ONS and alternative private sector data providers. Past and present data, as well as future projections, are associated with particular challenges and some of these are highlighted here.
- C2 A basic description of the approach employed in econometric modelling is then provided, including a review of the methodologies used by three of the main forecasting houses (all of which have provided evidence on future employment growth to the CS Examination Hearings). A range of forecasts for SoAD are presented, and finally some of the supporting material describing the local economy is presented. This includes the SoADC Retail Study Update, evidence from which was used to inform our decision to adjust downwards future growth in the retail and wholesale sector.

LOCAL EMPLOYMENT DATA SOURCES

ONS

- C3 The ONS is the UK's largest independent producer of official statistics and is the recognised national statistical institute for the UK. ONS notes about itself that it *'is responsible for collecting and publishing statistics related to the economy, population and society at national, regional and local levels. It also conducts the census in England and Wales every ten years'* (www.ons.gov.uk). ONS plays a leading role in national and international good practice in the production of official statistics and for most purposes is the 'go-to' source for economic statistics in the UK.
- C4 ONS publishes two sources of employment estimates for local authorities – the BRES and the APS. BRES is an annual business survey which asks firms to respond with information about employee numbers, turnover, sites and area of business activities. The APS is a quarterly household survey undertaken with individuals, usually within their homes. It includes the LFS and enquires about respondents' employment status, industry, hours, travel to work, job(s) etc. Neither of these sources of employment estimates are censuses, instead both are undertaken as samples. There is no UK census of employment.
- C5 Both these official sources provide valuable information about employment from local level upwards. However, both have their drawbacks. BRES, for example, is a business survey, completed by business owners, and as such, it excludes self-employed people. Likewise, businesses which are not registered for VAT and PAYE (which tend to be quite small) are also excluded, meaning that the owners of these businesses are not counted in the BRES figures. Others, such as armed forces personnel and those on official government training schemes, are also excluded. Thus, while employees are

well covered, a small minority of other workers are not. There are also issues with continuity: BRES replaced the Annual Business Inquiry (conducted between 1998 and 2007) which itself developed out of its predecessor the Annual Employment Survey. Time series data from these sources is not available as a single dataset and there are inconsistencies of approach between them.

- C6 Turning to the APS, this covers all UK adults (with the exception of some living in institutions), and includes the related LFS which focuses on labour and work issues. Because it covers all adults, the self-employed and other missing groups are included. The APS/LFS are personal surveys, undertaken with respondents, usually in their homes. As the questions are asked of the individual rather than the business, there is arguably greater scope for confusion regarding the industrial sectors in which respondents are working. This is particularly the case because the LFS has a high proportion of proxy interviews (c.30%) when compared with other surveys such as the General Household Surveys (c.5%). Proxy interviews are carried out with another member of the household if the respondent is unavailable.
- C7 Both BRES and the APS have the advantage of distinguishing between the SICs in which respondents work ⁽¹⁾. However the scope of each does not coincide exactly. Furthermore, one person with two jobs could show up twice on BRES, once in each of their employers' returns.
- C8 To avoid these issues, another ONS measure of employment at local level is the jobs density dataset. Available from NOMIS (www.nomisweb.co.uk, ONS's official Labour Market Statistics website) this provides a measure of employment with all the self-employed included and is recommended by ONS's LFS team as their 'official' job estimate. Unfortunately, it is a measure of total jobs only and does not show the industrial sectors in which people are employed.
- C9 Therefore, in order to consider employment by industry using official statistics, one or other of the two main sources listed above is preferred. But in putting together a dataset, there is another challenge. SIC codes, which represent categories of economic activity within an economy, are restructured occasionally to accommodate new industrial sectors. In recent years, there have been SIC code revisions in 1980; 1992; 1997; 2003 and 2007. Sometimes changes are relatively minor, with new activities being added under existing headings (eg. in 2007 'manufacture of basic pharmaceutical products and pharmaceutical preparations' was added within manufacturing). However in other cases changes are more significant, such as when, also in 2007, a new section (J), comprising 'Information and Communication' was created. The consequence of these alterations is that generally data composed under different SIC regimes are either not comparable, or perhaps only comparable for one or two transition years, where ONS statisticians have

⁽¹⁾ The Standard Industrial Classification (SIC) was first introduced into the UK in 1948 for use in classifying business establishments and other statistical units by the type of economic activity in which they are engaged. Examples at the highest level include Manufacturing; Construction; Accommodation and food service activities; Education; Transport and storage etc. For a full breakdown, see *UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007), Structure and Explanatory Notes*, Office of National Statistics.

linked together data relating to the original and revised SIC codes. This latter is a complex task, as although there are only 21 industrial sectors, each may have up to four orders of sub-headings underneath them. As ONS notes, *'the introduction of some new concepts at the section level, for example the 'Information' section or the grouping of activities linked to environment, makes easy overall comparison between SIC (2007) and its previous version impossible.'* This has the effect of limiting the length of comparable time series datasets to a few years only.

Alternative Data Sources

- C10 Because of the difficulties in obtaining up to date, reliable and complete statistics over reasonable time periods (especially at a local level), a number of specialist economic and data consultancies have developed products to fill the gaps in economic data, finding there is a ready market up and down the country, especially among local authorities, LEPs and other public agencies or public/private partnerships. Some such products look to alternative sources for data, such as in-house databases assembled over many years of business operation, Companies House or specialist information services companies.
- C11 One company operating in this area, TBR, has been working in recent years with the Coventry and Warwickshire LEP to provide detailed economic data regarding employment, gross value added [GVA], company start-ups, firm closures and the number of firms, all of which are available by the main sector headings of the 2007 SIC. TBR describe their approach as 'bottom up', and use their national database of around three million firms to inform their analysis. Their approach is to develop long time series data sets using material submitted on an annual basis to Companies House. This includes information about economic activity, business performance, employment, directors and share capital. Where data is missing, such as in the case of sole traders and limited liability partnerships, TBR impute it based on known patterns, and/or buy it in from Dun and Bradstreet or other core data providers. The result is a detailed set of economic data regarding firms in the Coventry and Warwickshire LEP area, which can be interrogated by local authority area or by rural/urban location, as well as by SIC code.
- C12 It should be clear that because the approach employed by TBR is different to that of ONS, the company's estimates of the amount of economic activity (defined by employment, firm numbers or GVA) are not the same as those prepared by ONS, via BRES and the LFS. However TBR do have something else in common with ONS, and that is like ONS, TBR do not produce forecasts, rather the focus is on gaining a better understanding of local labour markets.
- C13 Beyond the survey methods employed by ONS, and the data sifting undertaken by companies such as TBR, the third and final key technique used for estimating local employment is the tool of econometric modelling. Econometric modelling is generally employed as a technique for forecasting future levels of employment (and/or the distribution of job types), and in this context, it is discussed in the section below. However, because econometric modellers update their projections once real data (usually from ONS) becomes

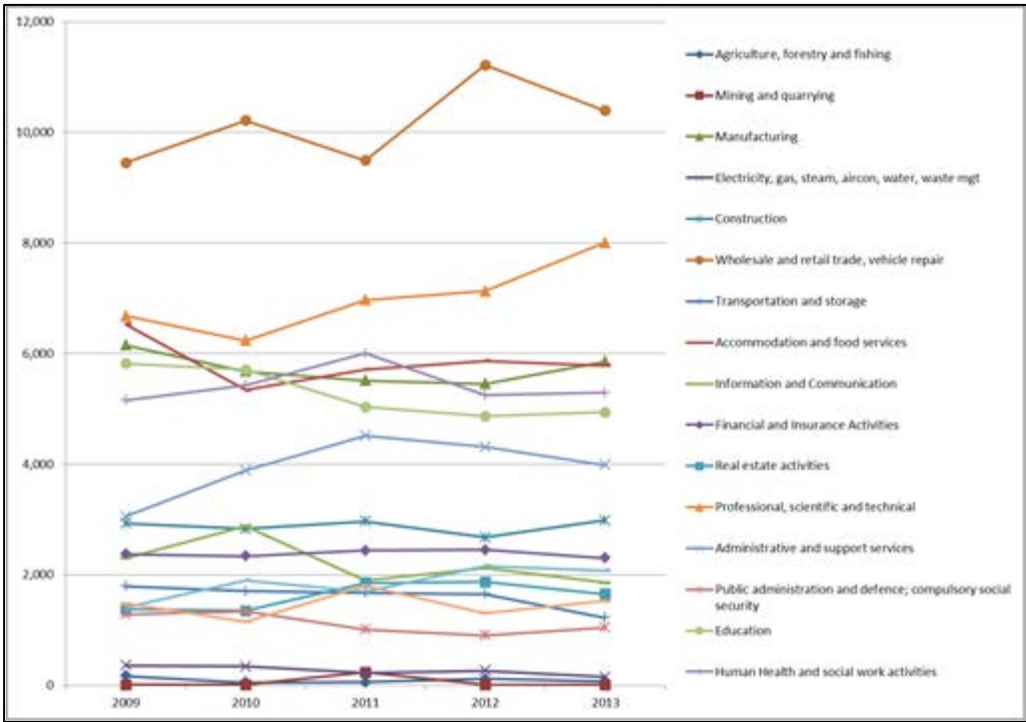
available, their past employment data (which is a blend of both modelled and official data) can function as an additional source of area employment data.

Employment by SIC

- C14 Industrial activity is categorised by SICs ⁽¹⁾, a nomenclature for the cataloguing and classification of economic activity. Sorting industries or activities by type enables and measuring their performance allows patterns to be spotted and facilitates economic planning. One challenge in putting together time series data of economic activity by industry (ie. by SIC) is common to all statistical datasets. That challenge is that industrial activities evolve over time (eg. due to technological progress), and this evolution and development of new industrial activities (to include, for example, newly operational services in creative industries, mobile services industries, personalised medicine industries, space science and renewable energy to name a few) moves more quickly than the SIC framework that categorises them. As a consequence, some innovative activities may be ‘mis-classified’, causing growth to be allocated to the wrong sectors.
- C15 To address this problem it is necessary for the SIC cataloguing framework itself to adapt. Though this usually happens fairly infrequently, perhaps only once or twice a decade, this itself creates complications. This is because when there are changes in the SIC framework – to facilitate the introduction of new SICs and/or merge or switch activities between sectors, it causes a loss of data connectivity in the sectors, over time. Unless these disjoints are laboriously repaired, the result is to upset the continuity in time series data. On top of this there is also the problem of timing: carefully put together statistics necessarily suffer from a time lag, meaning data is sometimes not as up to date as desired.
- C16 So while historical and current statistical evidence is not without its problems, the development of a benchmark or starting point demonstrating ‘where we are now’ is a critical first step, not just in taking a view of a local economy’s structure, but also in predicting and planning for its future. Indeed, it is analysis such as this which has documented the trend in SoAD (also reflected elsewhere in the UK and in other developed economies) by which employment in manufacturing, for example, has been moving towards services and in particular, towards retail and to knowledge intensive services such as finance, professional services and ICT.
- C17 Because of the challenges involved in overcoming the regular SIC code changes and methodological alterations in statistical data collection, long term time series of official and other data are difficult to put together and consequently hard to find. **Figure C1** gives ONS data showing recent changes in the employment structure of the SoAD economy. Observations start in 2009, which is the first full year of data which is consistent with later years (following a methodological change in 2008).

⁽¹⁾ The Standard Industrial Classification (or SIC) is the nomenclature by which industrial activities are classified.

Figure C1 Employment by Industrial Sector in SoAD, 2009 to 2013



Source: ONS, Business Register and Employment Survey

FORECASTING AND PROJECTING JOB NUMBERS BY ECONOMETRIC MODELLING

- C18 ONS does not forecast future employment and the scope of TBR’s work in the LEP does not extend to forecasting either. Econometric forecasting is often the only available option for the provision of long term projections of jobs and job types in an area and it has been applied specifically in the SoAD context, where it is the only approach that includes the provision of a forecast.
- C19 Econometric models are statistical models used to predict the behaviour of (usually economic) variables. An econometric model is generally predicated on a set of relationships between variables that are believed to hold true, for example, the relationship between economic growth, population, income, expenditure and employment. These relationships are defined by many mathematical equations within the model, which together seek to ‘model’ or reflect the way in which a real economy functions.
- C20 Econometric models can be created to reflect a national or macroeconomic view, a regional view or a more local picture. They are often linked together so that some internal consistency is offered. The types of models employed at a local authority district level may be described as local or sub-national econometric models to distinguish them from larger scale macroeconomic or national models.
- C21 Effective econometric models provide a vehicle for bringing together relevant information about the economy, and presenting it in a form which offers some hope of reasonable interpretation. At the same time, they provide a mechanism for drawing out the future implications of a continuation of past

trends, as well as enabling 'what if' scenarios to be developed. However, no one has a crystal ball. Employment forecasts produced through the use of econometric modelling, while useful in giving a broad indication (or a 'direction of travel') of economic potential in a region or area, are not a reliable source for projecting future demand for labour in an individual local authority area such as SoAD. Some of the evidence behind this statement has already been presented elsewhere ⁽¹⁾⁽²⁾, but it is repeated here for completeness.

C22 Firstly, such models indicate broad potential within a sub-regional context and are not responsive to the local geography and planning context within a district. They are not intended to provide job targets for a 'predict and provide' style of local planning and their reliability is generally considered to be less at a local level than at a regional or national level. In fact local 'benchmark' projections may be intended more as indicative estimates, to be used as a basis for producing specific local area forecasts against local qualitative information.

C23 Secondly, they are highly sensitive to their input assumptions, especially on the prospects for the national economy. The forecasts are heavily dependent on current views of long term prospects, which change frequently and often substantially in response to more immediate global, national and regional factors. The impact from alterations in the economic environment that provides the inputs into these models is one of the issues that produces a variation between models in future job forecasts. Another issue that produces variation between models at the end of the period is that even if two different models have the same start date, it is most unlikely that they will agree on the same job numbers to start with, either in total, or by SIC. This is because it is not just future job forecasts that are modelled, but also present and past job numbers. There is no absolute consensus on starting positions of job numbers, even once the data has been collected and validated. This applies to official job estimates as well as figures provided by the econometric modellers, each of whose models tend to suggest different job numbers even for years for which data is available.

C24 Thus, there is often some difficulty establishing the current position, let alone forecasting the future. Furthermore there are other drawbacks to econometric modelling, which may threaten the accuracy of its results. These include:

- within overall social sciences (and especially economics) there are still major gaps in predicting how systems and individuals are likely to behave. Often people and firms may respond to stimuli in apparently irrational ways, or ways which do not meet theoretical expectations;
- past behaviour is not always a good guide as to how things will develop in future;

(1) Appeal by Gladman Developments Ltd, Welford on Avon. Rebuttal Proof of Evidence of Ian Gilder in response to Proof of Evidence of Ricardo Gomez, October 8 2014.

(2) Appeal by A C Lloyd Homes Ltd Against the Non-Determination by Stratford-on-Avon District Council of an Application for Residential Development of 28 Units, at Godsons Lane, Napton-on-the-Hill. Proof of Evidence of Ian Gilder in relation to Objectively Assessed Housing Need and Requirements, 7 October 2014.

- there are technical difficulties in forecasting which are often ignored due to data limitations; and
- many events are inherently unpredictable. These include natural events, political events and so forth, but also major one off local investments (for example, on the part of a large local employer such as Jaguar Land Rover). Such events and investments, if not specifically considered and addressed by the modellers, are not predicted by a model's output, because forecasts depend on past experience.

C25 While these drawbacks together amount to severe limitations, it is important also to recognise that with something as complex as forecasting the future, no single method will be flawless. Econometric forecasts are generally intended to provide a 'benchmark projection', initially drawing on the assumption that the local area will perform in line with national or regional trends. There is, and should be, no pretence that the model has 'the answer'. Rather, in the words of the CE/WIE manual ⁽¹⁾, '*Forecasts are not precise estimates of the future but should provide an indication of the direction, scale and pace of change. Having said that, most forecasters regard their latest forecast as the most likely outcome, given the information in their possession. They may hedge this with some alternative but less likely scenarios around the central view. Forecasts should be regarded as intelligent guesses rather than accurate predictions*' (page 5).

Econometric Modelling Methodologies

C26 Econometric models are generally developed by specialist consultancies focusing on economic modelling or data analysis. A range of employment forecasts were presented by parties at the Core Strategy Examination, for example, Oxford Economics (Regeneris), Experian 2014 (Turley), Cambridge Econometrics Nov 2013 (Pegasus) and Experian Autumn 2013. However most have not been published in detail and none are the 'official' CWSHMA forecasts.

C27 The Experian Spring 2013 forecast and the CE/WIE August 2013 forecast, although not the most up to date, have the benefit of being not only available in detail sufficient to facilitate sectoral analysis, but also of having some consistency with other work, because they are relatively widely used, such as in the November 2013 CWSHMA report, the Coventry and Warwickshire Joint Employment Land Review and the CWSHMA Update. Meanwhile the Oxford Economics forecast shown below, while lacking 'official' status, nonetheless included a useful sectoral breakdown. The developers of each of these projections are also the market leaders (whose work has been alluded to at the CS Examination Hearings) and therefore it is worth considering the methodologies used by each.

⁽¹⁾ Local Economy Forecasting Model (LEFM) Version 9, Description and User Manual, November 2012, Cambridge Econometrics and the Warwick Institute of Employment Research.

The Experian Local Economic Forecasting Model

- C28 Some of the outputs from employment forecasts provided by Experian, dated May 2013, which were used by GL Hearn, in the CWSHMA and the CWSHMA Update, have been made available to ERM. This forecast runs until 2031 and includes each individual local authority covering the Coventry and Warwickshire area, including SoAD. The following paragraphs explore the approach used by Experian; ERM is indebted to Experian for taking the time to explain its approach to us in detail.
- C29 To produce regional forecasts, Experian uses a 'heavily customised version' of the National Institute of Social and Economic Research's [NISER] model to produce a core macroeconomic forecast. The resulting Experian national model forecasts multiple variables (including aggregate output, expenditure, income and employment) and draws on UK National Accounts data published by the ONS. Sectoral forecasts are derived through disaggregation of the total into consumption, investment, government spending, stocks, imports and exports, which produces a demand forecast. The demand forecast is split into industrial sectors through use of input-output figures from ONS (input-output tables are matrices which are used to illustrate the links or relationships between industrial sectors – a certain spend in Sector N is associated with quantified expenditure in Sectors X, Y and Z, for example).
- C30 The Experian data made available to us was at the 12 SIC level, and included:
- Agriculture, Forestry & Fishing;
 - Extraction & Mining;
 - Manufacturing;
 - Utilities;
 - Construction;
 - Wholesale & Retail;
 - Accommodation, Food Services & Recreation;
 - Transport & Storage;
 - Information & Communication;
 - Finance & Insurance;
 - Professional & Other Private Services; and
 - Public Services.
- C31 The headings do not match the Standard Industrial Classification 2007 but a matching table in the Experian published guide enables comparison between sectors, and between Experian's figures and those of other forecasters. At the regional level, data on employment tends to be among the better data sets available, and Experian takes advantage of this, making employment one of its key focus areas, and using it to derive the other variables produced in regional models. Employment forecasts depend on two main drivers, the first of which is the number of hours worked. Initially based on the ONS' ASHE, this survey breaks hours worked into the main 20 SIC headings (A-T). Experian then uses evidence from ONS' BRES to extrapolate the 20 SIC headings up to 38 SIC headings. The second key driver, after hours worked,

is population, for which official ONS projections are used, at least initially ⁽¹⁾. Population feeds into the labour force but also generates its own demand for labour (more people need more haircuts, education, building, retail opportunities and so on). A regional forecast of hours worked (and through this, associated jobs) is obtained from a 'blend' of local population forecasts and national forecasts of hours worked, the latter informing regional hours through a forecasting mechanism which ensures the sum of all regional hours work cannot exceed the total national figure.

- C32 Local (district) datasets are more restricted than regional datasets and compromises are more often necessary, including the use of techniques to interpolate data and smooth over the data volatility which is more commonly found at local levels. Experian again makes use of ONS' annual BRES data to estimate the demand for jobs by industry sector while provisional employment demand forecasts also draw on population and the historical performance of the district relative to the rest of the sub-region. On the supply side, population, working population and participation rates help in the development of a provisional labour supply estimate. Experian's models then derive an equilibrium, based on the interaction between the demand and supply elements, and taking into account the size of labour supply relative to demand, with (historical) levels of commuting also built in.
- C33 The local and regional models are 'constrained upwards' so that the respective regional and national totals for all key variables act as a 'cap'. The whole methodology is necessarily complex, relying on a range of advanced assumptions and inputs. For this reason, Experian continues to redevelop and re-visit its models, so that abnormal events such as those which have taken place in recent years (including, for example, step changes in population produced by ONS revisiting earlier estimates, or macroeconomic changes caused by external shocks) can be accommodated, and recalibrated into local, regional and national models accordingly.
- C34 The company regularly releases documentation explaining the workings of its model (for example the Experian Data Guide, UK Regional Planning Service, September 2014). However, the exact functioning of the model, and many of the relationships within it, are not, so far as ERM is aware, publicly known, so that there are necessarily elements within the model that remain essentially a 'black box' process which from the outside cannot be fully appreciated.

CE/WIE Local Economy Forecasting Model

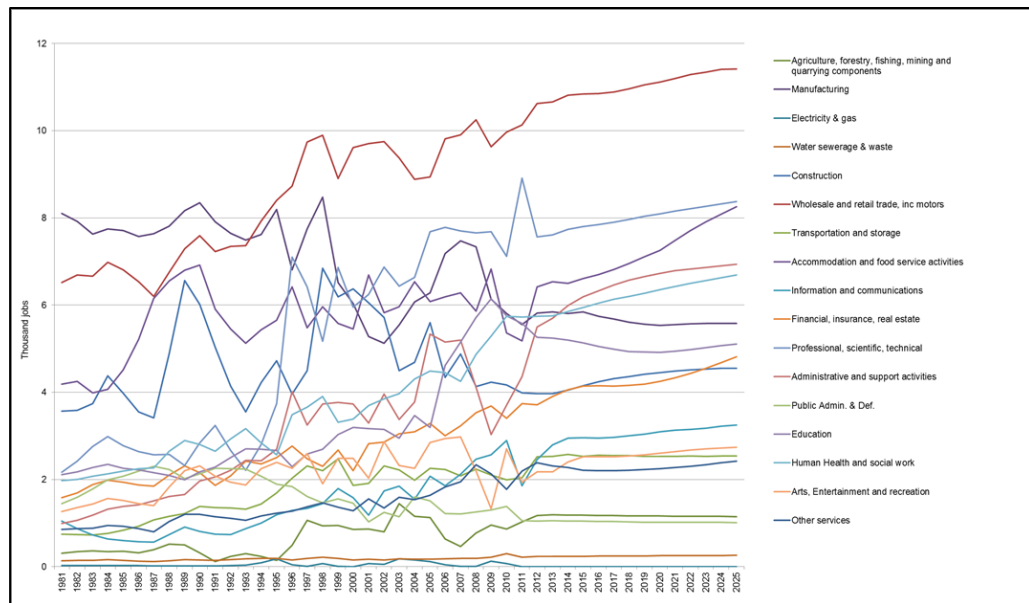
- C35 CE/WIE forecasts (August 2013) have been supplied to us with permission from Warwickshire County Council. Like the Experian forecasts above, the CE/WIE's forecasts are for SoAD and are from the LEFM. We have liaised a number of times with staff from CE both in the preparation of the following and

⁽¹⁾ ONS Population projections are used to establish a starting population. It is not clear whether either the CE/WIE model or the Experian model (or both) makes use of ONS population projections further into the modelling period, or whether population forecasts are generated within the model. However, Experian in their data guide note that '*Population projections are a key driver in the forecast*'. Retrospective revisions to official population projections (which are made by ONS from time to time – eg. a recent change in migration figures resulted in a step change in total population) have impacts on the econometric models which are then recalibrated with the revised ONS data.

over wider issues and are grateful for the input of the company in these matters.

- C36 As in the Experian approach, the LEFM, jointly developed by Cambridge Econometrics and the Warwick Institute for Employment Research, is linked to the more general national and regional forecasts prepared by CE/WIE, which provide the model's key inputs. As in the Experian case, the CE/WIE approach draws on ONS data and ensures that the local/regional/national models are internally consistent. For example, aggregate economic activity in a region's local authority areas cannot exceed total economic activity in the region, and all regional activity combined cannot exceed all economic activity nationally.
- C37 As with Experian, the CE/WIE methodology follows the standard national accounting structure, considering consumers' expenditure, investment, government spending, investment and trade flows.
- C38 Locally, assumptions for trends in industries' shares of the local market and of national production inform the model, as do the levels of population. At the regional and local level, there tends to be a concentration on population and employment statistics (where data sets tend to be good), with limited local information on, for example, household expenditure and investment. The latter tend to be imputed from data available at a national level, and/or from the national model.
- C39 There is some discussion of data quality in the LEFM Manual, which alludes to the consistency problems mentioned above as well as issues of data availability and timeliness. The discussion confirms that the problematic issues with data described affect not just ONS but the econometric modelling approaches too.
- C40 The CE/WIE data provided to us was at a greater level of detail than that from Experian, extending to 45 sectors too numerous to mention. The CE/WIE standard model projection for SoAD is shown in **Figure C2**. Having the data at this level of detail has facilitated a more detailed sectoral level analysis and allowed for this data to be interrogated against other local employment information. This enabled adjustments to be made reflecting specific local issues. **Figure C2** demonstrates the leading sectors for employment in 2014 are wholesale and retail trade; professional, scientific and technical; accommodation and food services; and administrative and support.

Figure C2 Indicative SIC Sector Employment Forecasts, CE/WIE (000s), SoAD, 2011 to 2025



Source: Cambridge Econometrics/WIE 2013

C41 There is considerably volatility in these series, with one of the notable movements being a significant jump in employment in professional, scientific and technical services (this is reflected in an inverted blue 'V' in the blue line, second from the top). This activity reflects an apparent one off increase in employment in the architectural and engineering activities; technical testing and analysis SIC (this sub sector also includes engineering design and technical consulting). This data point shows employment under this heading rising by 900 in 2011 and then promptly dropping back to its original position in 2012. Whether this is an outlier or a reflection of real activity (the former is suspected) it has the effect of creating a high starting point, such that the sector has not recovered lost employment numbers by the end of the plan period.

Oxford Economics

C42 Oxford Economics is a leading data analysis and forecasting business, which as well as offering national and regional forecasting packages, also offers detailed data, forecasts and analysis on 19 industries in more than 450 local authority districts.

C43 The information below is derived from published sources, the Core Strategy representation and inquiry evidence submitted by Regeneris Consulting. The material also benefited from insights and explanations which were willingly provided by Oxford Economics [OE] and we are grateful for the time they spent with us, helping us to gain a better understanding of their work.

- C44 The business provides forecasts generally based on data going back to 1991 for UK local authority districts. This means that their local data does not extend as far back as their regional data, nor as far as the CE/WIE data.
- C45 The approach employed by OE is very similar to that used by Experian and CE/WIE. OE's Local Authority District Forecasting Model sits within the company's suite of forecasting models and, as with the other econometric models described above, is informed by changes/alterations feeding through from elsewhere, most notably:
- OE's Global Economic Model (this feeds into the LA District Forecasting Model directly and also into OE's two national models which are their UK macro model and their UK industry (85 industrial sectors) model); and
 - OE's regional model for the West Midlands (itself informed by the two national models above, ie. the UK macro model and UK industry model).
- C46 Through the interaction with these models, a mechanism for accommodating national and international effects is built into the local models. However as with any econometric approach, projections are based on past data, and therefore external shocks, major investment schemes, natural disasters or other unforeseen 'one off' events are essentially out of scope for future projections.
- C47 We understand that **Table C1** indicates the results of a forecasting exercise carried out by OE in respect of SoAD job levels in early 2014.

Table C1 Forecast Job Levels in SoAD (Workforce Jobs), Change 2011 to 2031

Sector	Change 2011-2031 (000s)	% Change
Agriculture, forestry & fishing, mining, quarrying	-0.41	-18%
Manufacturing	-1.25	-22%
Utilities	0.01	5%
Construction	1.70	39%
Wholesale and retail trade	3.97	39%
Transportation and storage	0.65	34%
Accommodation and food service	1.88	32%
Information and communication	0.91	39%
Financial and insurance, real estate	1.42	35%
Professional, scientific and tech	3.40	42%
Administrative and support	1.85	38%
Public administration and defence	-0.15	-13%
Education	0.37	7%
Human health and social work	0.48	8%
Arts, entertainment and rec	1.82	93%
Other service activities	0.35	14%
Total	17.00	
Source: Oxford Economics from Regeneris Consulting		

C48 This forecasting exercise, which was presented by Regeneris Consulting during the CS Examination Hearings, is the only one we have seen that shows a SIC breakdown from OE. It suggests growth of 17,000 jobs over the plan period, and as such, is close to the top of the range of projections.

ECONOMETRIC PROJECTIONS FOR SOAD

C49 **Table C2** shows a summary of job growth in SoAD, as estimated by econometric projections. For comparison the ERM IEF is also included.

Table C2 Forecast Job Growth, SoAD, 2011 to 2031

Source	Date	Growth	Notes
Experian	Spring 2013	9,502	Provided to ERM by GL Hearn
Experian	Autumn 2013	10,351	Provided to ERM by GL Hearn
CE/WIE	November 2013	10,800	Presented by Persimmon Homes, et al/Pegasus Core Strategy Examination. Contains no SIC breakdown
CE/WIE	August 2013	11,600	Only extends to 2025
ERM	Autumn 2014	12,100	
CE/WIE/GLH	August 2013	15,700	Shown in SHMA Update; includes GL Hearn 2025-31 'bolt-on'
Oxford Economics	Undated	17,000	Presented in evidence by Regeneris.
Oxford Economics	August 2014	17,500	Presented in evidence by Gladman Developments and Development Economics. Contains no SIC breakdown.
Source: As stated			

OTHER ASSESSMENTS OF ECONOMIC PROSPECTS FOR SOAD AND THE SUB-REGION

Coventry and Warwickshire LEP: Strategic Economic Plan and Employment Land Study (March 2014)

- C50 The Coventry and Warwickshire Strategic Economic Plan [CWSEP], being produced by the LEP, is written from the point of view of the LEP area rather than SoAD. The CWSEP focuses on the development of employment sites (including Gaydon in SoAD); encouraging investment in housing; investing in transport infrastructure and negotiating a Local Growth Deal with the Government.
- C51 Building on local strengths, there is an emphasis on the Advanced Manufacturing and Engineering [AME] sector, with the document reinforcing the sector's potential and outlining the vision that Coventry and Warwickshire *'will be recognised as a major global centre for research and development in Advanced Manufacturing and Engineering and particularly Automotive Technologies'*. The Coventry and Warwickshire LEP commissioned Regeneris to undertake an economic impact assessment of their vision for the area to be a *'global hub in Advanced Manufacturing and Engineering'*. Regeneris indicated that there would be an increase in direct employment within AME of 8,835 people by 2025. There is also a vision for a *'high performing economy with innovative businesses competing internationally'* and employment opportunities for all residents, the latter being accompanied by support to unemployed residents in skills acquisition and retraining. This

reflects an understanding that the sub-region accommodates significant differences in income and opportunity.

- C52 The Coventry and Warwickshire Strategic Employment Land Study [CWSELS] was commissioned by the Coventry and Warwickshire LEP with the partial objective of assisting in the preparation of the CWSEP. The work, undertaken by Atkins was completed and published in a final report dated October 2014. The report supports the CWSEP's view that the availability of employment sites is fundamental in supporting the sub-region's competitive edge, highlighting a list of primary sub-regional and secondary sub-regional employment sites. Thus, the CWSELS validates and supports the selection and scale of strategic employment sites across the LEP area, however only one of these, Gaydon, is located in SoAD.
- C53 The report, in noting that predicting employment land requirements is not an exact science, states *'it is important not to be overly prescriptive in the application of numerical estimates of need'*, but notes that quantitative estimates can provide an important 'rule of thumb' in setting out the potential scale of land needed for future employment.
- C54 CWSELS notes the high aspirations for growth within the sub-region and stresses the need for flexibility in supply, before concluding that a minimum quantity of additional employment land to be made available should be 129ha, though there should be an aspiration to deliver more (see Table 4.19 of CWSELS). There is no split provided among individual local authority areas.
- C55 This recommendation is set out as part of 'Scenario 2 baseline+'. Atkins defines this as the 'Cambridge Econometrics Base Scenario' for the LEP (which runs from 2011-2025) with an additional extrapolation to take the end year to 2031, but the report does not indicate the methodology employed for this. Finally, the scenario also includes an additional 12,570 jobs in the AME sector. 8,800 of these jobs are sourced to the Coventry and Warwickshire City Deal (page 1) and the Coventry and Warwickshire LEP Draft Strategic Economic Plan (page 17) and represent the CW LEP's ambitions to grow the AME sector. The balance of AME growth jobs is from the extrapolation undertaken by Atkins to get the CE/WIE forecast (which end in 2025) to a 2031 level.

Coventry and Warwickshire Economic Assessment (March 2011)

- C56 The Coventry and Warwickshire Economic Assessment, (<http://www.cwlep.com/userFiles/coventrywarwickshireeconomicassessment2011.pdf>), is an objective assessment of the sub-regional economy, taking into account wider issues such as population, income, poverty and housing as well as employment, economic structure and so on.
- C57 The report identifies a sub-regional 'north-south divide' between the more prosperous southern districts (it cites Warwick and SoAD, in particular) which have stronger local economies and growth rates, and Coventry and the northern part of the sub-region which have seen much slower rates of growth, and are affected by the legacy of their economic past. This results in a 'mid-table' performance for the sub-region as a whole, with evidence presented

indicating that the sub-region is underperforming with an estimated productivity gap of 9.3% in 2008, or £1.7 billion, compared to the England average. The reason for this is partly because of significant differences in prosperity and deprivation across the sub-region, but also because of lower than average productivity levels, which are reported to be prevalent across the sub-region, and not just in the northern areas.

- C58 Looking forward, the report strikes an optimistic note in observing that a national (and international) move towards renewable energy and the low carbon economy, together with a renaissance in advanced manufacturing, could bring benefits across the whole of the Coventry and Warwickshire LEP area.
- SoADC Retail Study Update (March 2014)*
- C59 Colliers International has carried out a series of Retail Studies for SoADC, the most recent of which was a March 2014 further update of the Comparison Goods and Convenience Goods Retail Studies (the Retail Study Further Update), commissioned partly to take account of revised population forecasts.
- C60 Following the 2008 recession which significantly affected retailers nationally, the document highlights Colliers' general view that *'it will be some time before retail floorspace and expenditure across the country return to something like equilibrium'*.
- C61 The document cites the now common concern for the health of town centres (which applies across many districts and is not specific to SoAD). On a positive note, the document does take time to observe that Stratford-upon-Avon town centre itself is perhaps less vulnerable than others, because of its prime position within its own urban area and a rural hinterland, as well as its significant visitor numbers (attracted through the town's tourism destination status).
- C62 However a key consideration mentioned in the report and which overshadows future retailing in SoAD is the major Banbury Gateway Scheme, which is under construction. Anchored by Marks and Spencer, who are taking 100,000 sq ft, with Primark and Next accounting for a further 60,000 and 40,000 sq ft respectively ⁽¹⁾, the development is said to be 90% let, with its completion programmed for late 2015. Colliers note that the scheme, located in a 30 minutes' drive time from the town of Stratford-Upon-Avon, is creating *'fundamental uncertainty... for retail planning for Stratford upon Avon town centre.'* In particular the report notes that for non-bulky comparison goods, Banbury Gateway has the potential to absorb all the headroom potential for SoAD in the early years of the Plan and retain a considerable element throughout the Plan period.
- C63 As regards bulky goods shopping, the report notes that 'it is not considered that specific provision needs to be made for the first half of the plan period' (ie. to 2021). Meanwhile, regarding supermarkets and superstores, Colliers note that *'the new developments of supermarkets/superstores, consistent with*

⁽¹⁾ <http://banburygateway.co.uk/home.htm>

advice in earlier Study reports, have met to a significant degree both quantitative and qualitative needs’.

- C64 The Retail Study Further Update notes that relative to previous reports, overall retail growth rates have been moderated, both in the recent past and in projections, and that changes in store productivity are also forecast which suggest that lower rates of growth for all categories are expected.

SoADC Employment Land Study, Final Report (August 2011)

- C65 The latest Employment Land Study for SoAD [Stratford ELS] was undertaken by GL Hearn and Regeneris Consulting. The Stratford ELS contains a wealth of valuable local material, much of which remains valid, including references to low worklessness, relatively high labour market skills, strong levels of local enterprise, a good base of businesses and employment activity spread across a relatively wide range of sectors.

- C66 The Stratford ELS identifies Gaydon Proving Ground as a strategic employment site of regional and national significance for specific purposes and recommends that SoADC’s planning policy recognises this.

- C67 The plan period in the report runs from 2008-2028. The report recommends the provision of 25-30ha (net) of employment land over the plan period. Building on SoAD’s strong level of self-employment, the report also recommends that SoADC’s planning policy should support the conversion of residential and garage space, as well as the conversion of farm and other rural buildings for employment generating use. Weaknesses in the economy ‘namely housing supply/affordability and transport infrastructure (highways and public transport)’ should also be addressed.

Stratford-Upon-Avon Destination Tourism Strategy 2011-2015 (January 2012)

- C68 Tourism is a significant contributor to the UK economy and SoAD is well placed to capitalise and share in the growth of this industry, holding as it does the unique internationally renowned asset of Stratford-upon-Avon, Shakespeare birthplace and home of the RSC, which attracts some 4.9m visitors per annum.

- C69 The Stratford-Upon-Avon Destination Tourism Strategy [Stratford Tourism Strategy] recognises tourism as a vital component within SoAD’s economy which, although it does not constitute a recognised SIC in itself, cuts across many others, including retail, accommodation and food, arts, entertainment and recreation, transport and so on. The Stratford Tourism Strategy identifies a historic ‘disconnect’ between the public and private sector in local tourism management. To address this, and in so doing, to improve the contribution that tourism makes locally, the strategy implements a move towards a partnership approach of working. This involves establishing a Destination Steering Group made up of stakeholders representing the interests of the wider destination to lead on the development and delivery of destination management.

C70

The Stratford Tourism Strategy outlines a vision of a 'world class' destination and sets out some targets, including an increase in sector turnover, the creation of some 1,200 'tourism supported' new jobs, and the re-establishment of Stratford-upon-Avon in the top 20 UK towns and cities list for domestic and international visitors.

Annex D

Evidence on Current and Potential
Pay Levels in SoAD and
Comparable Areas

D EVIDENCE ON CURRENT AND POTENTIAL PAY LEVELS IN STRATFORD-ON-AVON AND COMPARABLE AREAS

INTRODUCTION

D1 This annex provides supporting material for **Section 3** of the main report. It is divided into three sections. The first section considers the distribution of jobs in SoAD, within industrial sectors ranked by average pay. The data is presented alongside comparator areas (the CWLEP, West Midlands and UK) and uses sectoral employment figures from CE/WIE for 2011. The second section presents the distribution of jobs within the same industrial sectors ranked by average pay, but this time for SoAD in 2031. The ERM IEF is used as the forecast for the split of jobs by SIC and the sectoral rankings use ONS 2014 data. The third part of this annex provides material supporting the analysis of SoAD's employment distribution in 2025 relative to the other LEP local authorities; this analysis appears in **Section 3** of the main report.

LOCAL EMPLOYMENT CONTEXT: INDUSTRIAL SECTORS AND MEDIAN PAY

D2 The pay levels in **Table D1** are based on an analysis of median average pay rates by SIC, and a comparison of the number of new jobs that are projected to be generated within the different SICs. The approach has been to rank industrial sectors by median average gross pay, starting at the top of the list with those sectors having the highest average pay, and finishing at the bottom of the list with those sectors which pay the least. Where possible, sectors have been ranked on a regional basis (ie. industrial sectors have been ranked on the basis of average pay levels in the West Midlands). However where this has not been possible (for example where data is withheld or not available at the regional level), sectors have been ranked on the basis of average pay nationally. Allocating the number of new jobs into the SICs (ranked by pay) provides a guide as to the likely indicative pay rates provided to those people who secure the new jobs.

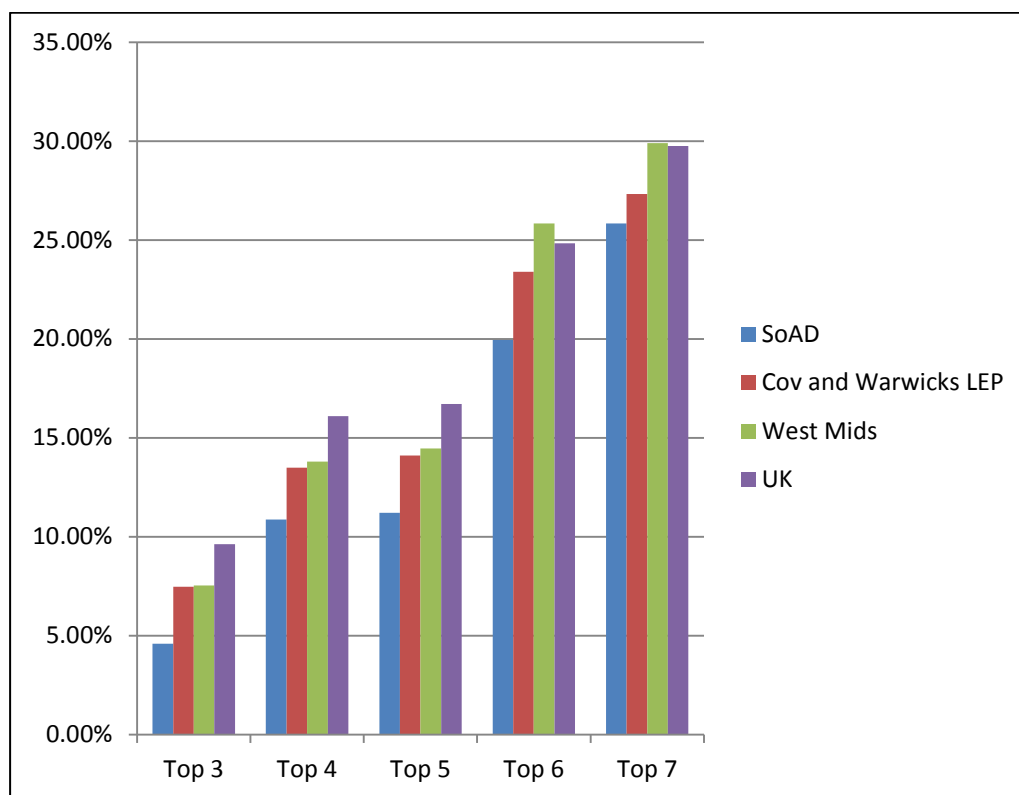
D3 The highest paying sectors in the West Midlands are shown in **Table D1**.

Table D1 Annual Pay (Gross) for all Employee Jobs, West Midlands, 2014

Sector	All Jobs, Median Pay (£000s)
Electricity, and gas;	37.8
Information and communications	30.0
Public administration and defence	29.2
Construction	26.1
Water supply, sewage and waste	26.0
Manufacturing	25.3
Finance & insurance	25.1
Professional, scientific and technical	25.0
Source: Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-337425	
Note: Figures are for all jobs, so account for part time working	

D4 **Figure D1** shows the proportion of jobs in the higher paying sectors in 2011, at the beginning of the plan period, in each of the geographical areas concerned. It is based on the ranking of SIC sectors by annual gross pay at the regional (West Midlands) level shown in **Table D1**.

Figure D1 Proportion of SoAD Jobs in Higher Paying Sectors, 2011



Source: Cambridge Econometrics/ Warwick Institute of Employment Research (August 2013 model run), Annual Survey of Hours and Earnings (2014, Provisional).

D5 As **Figure D1** shows, at the beginning of the plan period, higher paying sectors were not well represented in SoAD, when compared to local and national benchmarks such as the Coventry and Warwickshire LEP, the West Midlands region and the UK. The first block (labelled 'Top 3') shows the proportion of jobs in 2011 in each area within the top three highest paying sectors (these are Electricity and Gas; Information and Communications and Public Administration and Defence); the second block shows the proportion of jobs in each area in the top four highest paying sectors, the third block for jobs in the top five sectors and so on.

D6 The lowest paying sectors are shown in **Table D2**. In the case of some of these sectors, data is not available at the regional level, therefore sectors are ranked according to UK rather than regional averages.

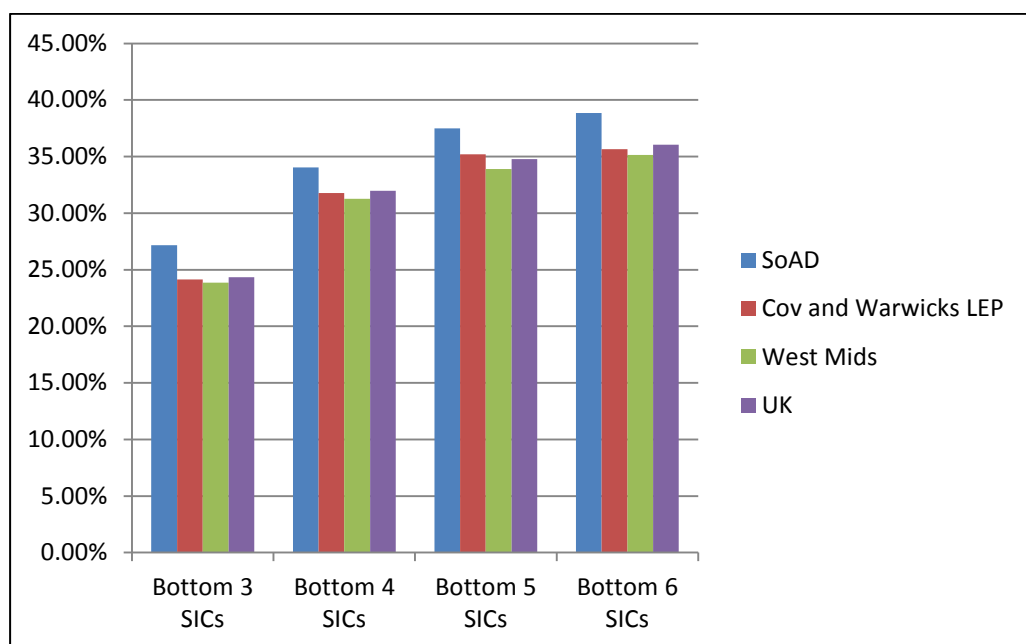
Table D2 Annual Pay (Gross) for all Employee Jobs in Lower Paying Sectors, UK, 2014

Sector	All Jobs, Median Pay (£000s)
Accommodation and food	11.2
Arts, entertainment, recreation	15.4
Wholesale and retail trade, inc motors	16.1
Admin and support	17.6
Other services	17.9
Agriculture, food and forestry	18.5
Health and social work	18.9

Source: Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-337425>
 Note: Figures in **Table D2** are for all jobs, so include part time working. UK figures are used as regional data for some SICs shown in the table are restricted.

D7 **Figure D2** shows the proportion of jobs in the lower paying sectors at the beginning of the plan period. To repeat, the sectors are ranked by UK averages, regional pay for some of the sectors not being available.

Figure D2 Proportion of SoAD Jobs in Lower Paying Sectors, 2011



Source: Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-337425>
 Note: Figures are for all jobs, so account for part time working. UK figures are used as data for some SICs at regional level are restricted.

D8 All of the lowest paying sectors represented in the **Figure D2** (which comprise those listed in **Table D2**) pay less than the average median wage in the UK of £22k – some substantially less. In 2011, as **Figure D2** shows, those sectors tending to pay relatively poorly (those which pay the least are accommodation and food; arts, entertainment and recreation; and wholesale/retail trade including motors) were over-represented within SoAD relative to the comparator areas of the Coventry and Warwickshire LEP, West Midlands and the UK.

PROJECTIONS FOR SoAD FOR THE PERIOD 2011 TO 2031

D9 Turning to the projected growth in jobs over the plan period, an analysis of the detail indicates that the reliance on sectors which tend to pay relatively poorly for most of the jobs is expected to continue. Average wages are influenced by the degree of part time working in a sector, and therefore we have attempted to consider the spread of part time and full time working. No econometric projections of part time/full time splits have been made available to us and therefore we have taken splits from BRES (2013) which reports on full time and part time splits, by SIC, for employees. We have then applied these ratios to the projected number of new jobs in 2031. This means that the splits are assumed to be static (ie. they remain constant throughout the plan period) and they are assumed to be the same for both employees and self-employed workers.

D10 Using the ERM IEF, which suggests some 12,100 net additional jobs will be created in SoAD between 2011-31, and applying the BRES part time/full time splits to the sectoral breakdown produces an estimated ratio of new jobs in the proportion of one part time job to every two full time jobs. After some minor rounding, this converts to a breakdown in the projected jobs of some 8,000 full time jobs and 4,000 new part time jobs. Full time jobs are addressed first.

Projections of Growth in Full Time Jobs

D11 As full time jobs are being addressed first, it is useful to consider the best and worst paying sectors, gauged on full time gross pay rates for employee jobs. The UK median wage for a full time worker in 2014 was £27,195 ⁽¹⁾, with the following sectors paying more than that:

- Electricity, gas and air conditioning supply;
- Mining and quarrying;
- Financial and insurance activities;
- Information and communication;
- Professional, scientific and technical activities;
- Public administration and defence;
- Education;
- Water supply, sewerage, waste;
- Construction;
- Manufacturing; and
- Transportation and storage.

D12 Median full time wages in these sectors range from £37,922 in electricity, gas and air conditioning supply, to £27,716 in transportation and storage.

⁽¹⁾ Note that in general (though not always), wages in the West Midlands and Stratford are likely to be lower than the UK average. The median average wage for a full time worker in the West Midlands is £24,927, 8.3% lower than the national figure. UK averages are used here due to the suppression of data for certain SICs at regional level, and are only used to 'rank' the ordering of sectors by pay rates. All wage data is taken from the Annual Survey of Hours and Earnings (2014), ONS.

D13 The remaining SICs offer lower wages to full time workers, which are less than the UK median wage for full time workers. These are:

- Human health and social work;
- Other service activities;
- Administrative and support;
- Wholesale and retail, motor vehicle repair;
- Arts, entertainment, recreation;
- Agriculture, forestry, fishing; and
- Accommodation and food service.

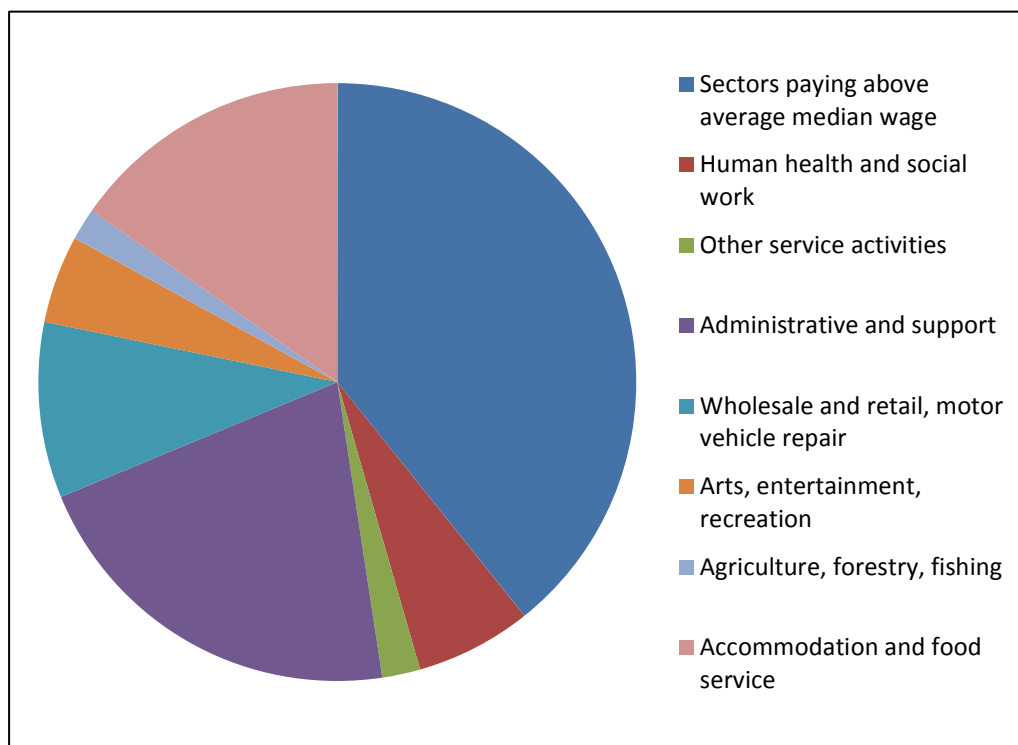
D14 Median full time wages in these sectors range from £24,823 for human health and social work to £16,517 in the accommodation and food service sector.

Full Time Jobs by Sector

D15 Again, sectors are ranked according to their average annual gross pay rates, this time for full time jobs. UK figures are used, due to missing or withheld data at regional level.

D16 **Figure D3** summarises how the newly created full time jobs are expected to be distributed between SICs. Sectors are presented in order, with those SICs paying above the average median wage (shown in mid blue) responsible for creating just under four out of 10 new full time jobs. Moving clockwise from this, all the remaining sectors pay (on average) less than the median wage. Human health and social work (shown in russet) pays the highest of the 'below average' sectors, at £24,823, but will only account for a small proportion of the new jobs. Next comes other service activities (green) – which pays relatively well, but employs even fewer people. After this comes more than half of all the full time jobs, which between them are expected to be created in sectors which pay between £16k and £22.5k, on average, and are therefore in the bottom five (out of 17).

Figure D3 Newly Created Full Time Jobs, by SIC Sector, 2011-31



Source: ERM IEF and Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-337425>

Projections of Growth in Part Time Jobs

D17

As with the separate treatment of full time jobs, part time job rates have been considered separately, in order to better understand the nature of the part time jobs that are expected to be created. The UK median wage for a part time worker in 2014 was £9,000⁽¹⁾. Actual rates across the different SICs differ, due to the different mixes of skills, job types and labour market conditions that prevail. The following sectors (in order) are those which pay part time workers the most:

- Financial and insurance (£13,581);
- Electricity, gas and air conditioning supply;
- Public administration and defence;
- Transport and storage;
- Manufacturing;
- Water supply, sewage;
- Human health and social work;
- Information and communication;
- Education; and
- Professional, scientific and technical (£9,796).

⁽¹⁾ In the West Midlands, the rate was £8,873.

D18 The remaining SICs offer lower wages to part time workers, with the following all offering (on average per part time job), less than the UK part time median wage:

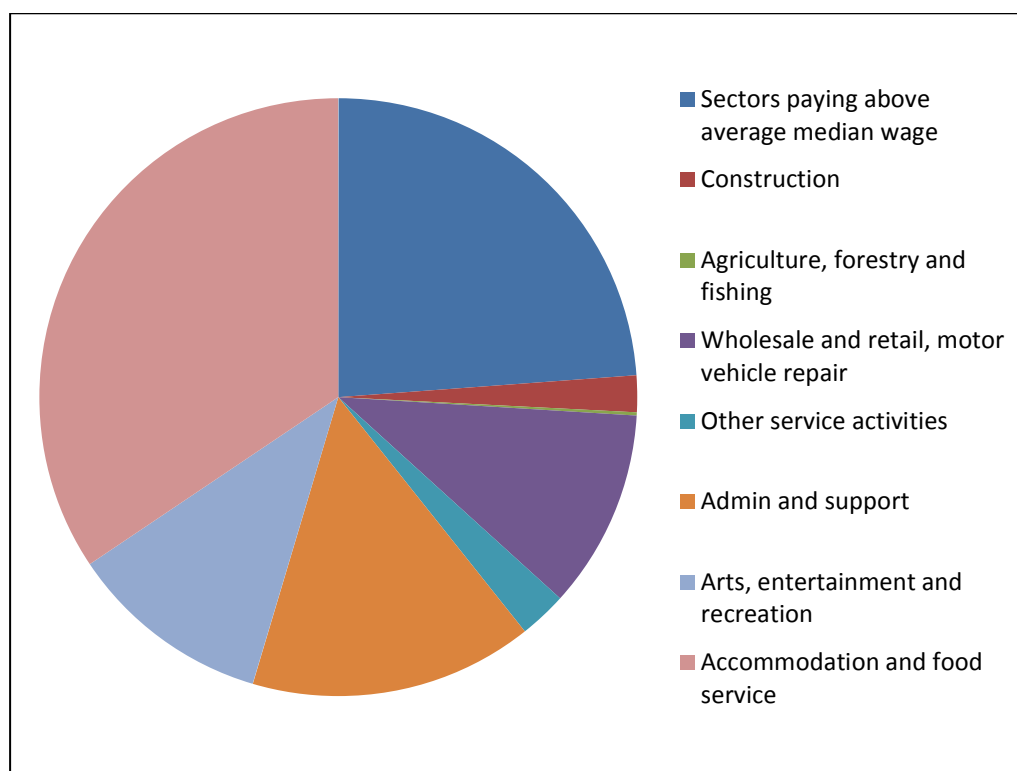
- Construction;
- Agriculture, forestry and fishing;
- Wholesale and retail, motor vehicle repair;
- Other service activities;
- Admin and support;
- Arts, entertainment and recreation; and
- Accommodation and food service

D19 At the top of the 'below average' list, median wages for a part time worker in the construction sector are £8,789, with median wages for a part time worker in the accommodation and food service being £6,084.

Part Time Jobs by Sector

D20 **Figure D4** is presented in the same format as **Figure D3**, so that the best paying SICs, all paying more than the median average wage of £9,000, are grouped together and shown in mid-blue. This segment can be seen in the top right of the pie chart. Moving round (clockwise), each subsequent segment pays less on average than the previous one, so that construction (in russet) appears next (paying some £8,789) and the last segment (in pink) is accommodation and food service, which pays £6,084 (in fact, £5,088 in the West Midlands), and on average is the least paid of all. Notably, it is this sector, which in 2014 was the lowest well paid, which is projected to create more part time jobs than any other sector (34% of all new part time jobs). Of the new part time jobs, fewer than a quarter (24%) are expected to be created in the higher paying sectors, with around three quarters in the bottom half of **Table D3**.

Figure D4 Newly Created Part Time Jobs, by SIC Sector, 2011-31



Source: ERM IEF and Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-337425>

Table D3 Annual Pay (Gross) for all Employee Jobs, UK, 2014

Sector	All jobs, Median Pay (£000s)
Mining and Quarrying	36,832
Electricity, Gas, Steam and Air Conditioning	36,207
Information and Communication	34,169
Financial and Insurance	33,607
Professional, scientific and technical activities	28,970
Public admin and defence	28,441
Water supply, sewage and waste	27,556
Construction	27,118
Manufacturing	26,599
Transportation and Storage	26,015
Real Estate	22,958
Education	21,901
Human health and social work	18,913
Agriculture, forestry, fishing	18,447
Other service activities	17,923
Admin and support services	17,630
Wholesale and retail, repair of motor vehicles	16,109
Arts, entertainment and recreation	15,390
Accommodation and food services	11,232

Source: Annual Survey of Hours and Earnings, 2014 (Provisional), Table 4, <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-337425>

Note: Figures are for all jobs, so account for part time working. UK figures are used as regional data for some SICs shown in the table are restricted.

PROJECTIONS FOR SOAD AND OTHER AUTHORITIES IN THE LEP AREA 2011 TO 2025

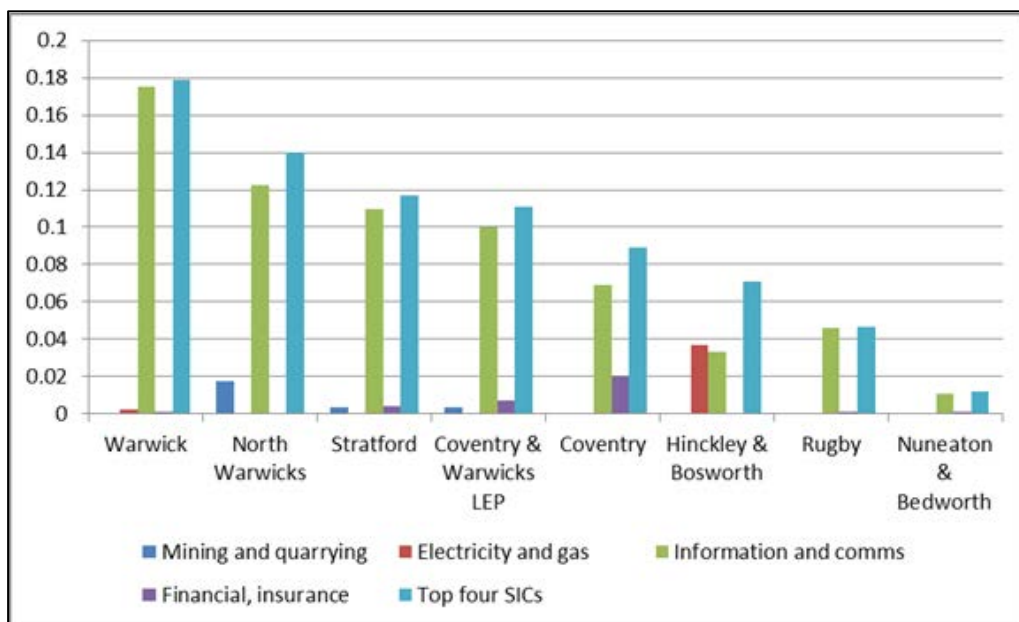
- D21 The material here supports the findings that are presented in **Section 3** of the main report under the same heading as above. This is a consideration of potential future job growth in SoAD, and also in the other Local Authority areas which comprise the Coventry and Warwickshire LEP ⁽¹⁾. In that sense, it is a progression from paragraphs D2-D8, which looked at 2011 employment in SoAD and the wider LEP by SIC, and paragraphs D9-D19, which addressed how the situation within SoAD could potentially change, once the new jobs projected under the ERM employment growth scenario (of 12,100 jobs between 2011-2031) materialise.
- D22 As this section seeks to consider a future scenario in SoAD and the other LEP authorities, it requires an internally consistent employment forecast for those areas. The only employment forecasts covering the sub-region, to which we have access, are those developed by CE/WEI which informed the CWSHMA and SEP and so these are the forecasts that have been used. This means that the end point for the sub-regional employment forecasts is 2025, rather than the formal end of the plan period, in 2031.
- D23 This analysis uses UK rankings for SICs by average pay (rather than a combination of UK and West Midlands rankings) used in the first section of this annex. Consequently the results deriving from this analysis (which largely appear in **Section 3** of the main report) although similar, are not directly comparable.
- D24 To simplify the sub-regional analysis, the part time/full time analysis which accompanied the work using the ERM IEF above was set aside and, instead, the 'all jobs' approach used in the first section looking at SoAD relative to selected geographical comparators was used.
- D25 The lowest paying SICs remain as shown in **Table D2** while the top paying SICs are those presented in **Table D1**, although in some cases the ranking differs, because **Table D1** uses regional data which is not available across all SICs. Even though part time and full time splits are not explicitly considered, the use of part time workers feeds through to lower median average pay rates, so that industries in which part time work is more prevalent have their pay rates adjusted downwards accordingly (and vice-versa for industries in which full-time work prevails).
- D26 The results showing how SoAD fares alongside other LEP authorities (and Hinckley and Bosworth) in creating jobs in the lower paid sectors to 2025 are shown in **Section 3** of the main report. The results showing job creation at the opposite end of the scale (ie. jobs in the better paying sectors) are discussed in the following section.

(1) The Coventry and Warwickshire LEP area covers five districts and boroughs, one City Council and one County Council. Hinckley and Bosworth Borough Council is a member of the Local Authority Joint Committee, recognising the economic geography of the area, but its figures do not count towards the LEP average.

D27

Using the CE/WIE figures of employment growth to 2025, SoAD does better relative to neighbouring authorities at creating jobs in the better paying SICs rather than those in sectors which tend to pay worse. However this is a relative improvement as SoAD still fails to reach the LEP average. **Figure D5** shows the proportion of new jobs that are projected to come from the four highest paying sectors. Mining and quarrying and electricity and gas are the top paying sectors, however only in the case of Hinckley and Bosworth do either of these make any substantive contribution to future job growth (growth is shown in the brown/russet columns, second from the left in each block, but is really only visible for Hinckley and Bosworth). The third best paying sector on average (ranked on UK median all wages) is information and communications. Growth in this sector is shown by the green columns (third from the left in each block). Growth in this sector is the strongest of the four top sectors (especially in Warwick, where it should provide some 17.5% of new jobs). North Warwickshire will draw some 12.2% of its future growth from this source while SoAD gets 10.9% of its job growth from information and communications, slightly above the LEP average of 10%.

Figure D5 Proportion of All New Jobs Created in the Four SICs Offering the Highest Median Wages



Source: ERM, based on ASHE, 2014 and CE/WIE

D28

The fourth best paying sector is financial and insurance (purple column, second from the right of each block). However only in Coventry's case does this sector make any meaningful contribution to new job growth. As, with the exception of Hinckley & Bosworth and Coventry, total growth is largely provided by information and communications, ranking by the combined 'top four' SICs is essentially determined by the ranking of growth in the information and communications sectors in each area. SoAD ranks third in terms of growth provided by information and communications, second only to Warwick and North Warwickshire and therefore ranks third overall.

CONCLUSIONS

- D29 While it is not possible to be specific about the wages of the jobs that are projected to be created, it is possible to make some sound observations. The ERM IEF estimates additional employment in SoAD over the plan period of some 12,100 jobs. Assuming the ratio of part time work to full time work remains broadly the same as it is now, this would imply that around two thirds of the newly created employment will be full time jobs while a third of it will be part time.
- D30 Considering the full time jobs first, 39% are expected in those sectors which, in 2014, paid more than the median wage, while 61% will be created in the sectors which pay less than the median wage. Of the part time jobs, more than a third will be created in accommodation and food service. This sector is an important sector in SoAD's local economy but tends to offer the lowest wages. Fewer than a quarter of the new part time jobs will be created in those sectors tending to be better payers, such as financial and insurance, human health and social work, and information and communication. Across the board, among those sectors contracting will be professional, scientific and technical activities, public administration and defence, and education.
- D31 In summary, six out of ten of the newly generated (2011-2031) full time jobs in SoAD are likely to be in industrial sectors which pay (full time) wages that are lower than the national average. Meanwhile, three quarters of all the newly generated part time jobs will be in sectors which pay (part time) wages that are lower than average. About a third of all part time jobs will be in the sector which pays the least (accommodation and food service).
- D32 Clearly it is possible, if very unlikely, that the newly created jobs in those sectors which are currently offering lower than average remuneration, may 'buck the current trend', and turn out to be better than average paid. They could all turn out to be high end director/manager/senior official jobs, or professional occupations, or associate professional/technical occupations. Alternatively, the high growth, but currently low paying sectors, such as accommodation and food; arts, entertainment and recreation; and wholesale and retail, might experience rapid increases in productivity, associated with improved pay rates. However, to rely on the newly created jobs having a completely different mix of skills/qualifications and remuneration relative to the current empirical evidence seems unrealistic. While a few sectors may experience a rapid increase in pay rates, for most sectors, their position in the pay hierarchy has been remarkably stable over the past twenty years. It is unrealistic to assume that there will be widespread change in the future.

Annex E

SoAD 2001 and 2011 Commuting Patterns

E SOAD 2001 AND 2011 COMMUTING PATTERNS

- E1 **Table E1** sets out an analysis of the number of commuters travelling into and out of SoAD, in 2001 and 2011, from the Census of Population, together with the gross two way flows, the net flows and the change over the period.
- E2 SoAD changed from being a net exporter of commuters (-3,748) in 2001 to a net importer (+2,809) in 2011. This change comprised two elements:
- total in-commuting increased from 18,806 to 25,435 (+35%), while
 - total out-commuting remained stable at 22,554/22,626.
- E3 The change had two geographic components:
- 1) Intra-HMA flows. A net outflow of -4,051 to other LPAs within the HMA in 2001 changed to close to an even balance (+182) in 2011. This included a net outflow to Warwick of -3,162 in 2001 reducing to -633 in 2011. In-commuting from Warwick increased by 1,900 (+57%) and out-commuting to Warwick decreased by 629 (-10%). A similar pattern occurred with Coventry, with an increase in in-commuting (+85%) and reduced out-commuting (-8%).
 - 2) Extra-HMA flows. An overall balance (+303) of flows with non HMA LPAs in 2001 changed to a net inflow (+2,626) in 2011. Major contributors to this change were Redditch from which the net inflow increased by 509, Birmingham (+1,012) and Solihull (+497). In the latter two cases, however, this change led to close to an even balance in 2011, whereas Redditch substantially increased its deficit with SoAD.
- E4 The broad result of these changes by 2011 was an even balance between SoAD and the rest of the HMA, with almost all the net inflow arising from outside the HMA, most notably from Redditch (+1,578) and Wychavon (+1,377). The latter two districts account for all the net inflow to SoAD in 2011. As zero net commuting equates to a commuting ratio of 1.0, this means that the hypothetical commuting ratio for SoAD within the HMA would be close to 1.0.
- E5 Similarly, without the contribution of Redditch and Wychavon, the hypothetical commuting ratio for SoAD outside the HMA would also be close to 1.0, rather than the overall ratio in 2011, which was 0.96.

Table E1 Commuting Into and Out of SoAD, 2001 and 2011

District	Commuters 2001				Absolute Change 2001 to 2011				Commuters 2011			
	In	Out	Gross	Net	In	Out	Gross	Net	In	Out	Gross	Net
Warwick	3,348	6,510	9,858	-3,162	1900	-629	1271	2529	5,248	5,881	11,129	-633
Redditch	2,897	1,828	4,725	1,069	371	-138	233	509	3,268	1,690	4,958	1,578
Wychavon	2,261	746	3,007	1,515	54	192	246	-138	2,315	938	3,253	1,377
Birmingham	1,371	2,654	4,025	-1,283	714	-298	416	1012	2,085	2,356	4,441	-271
Coventry	1,067	2,019	3,086	-952	909	-165	744	1074	1,976	1,854	3,830	122
Solihull	1,193	1,465	2,658	-272	419	-78	341	497	1,612	1,387	2,999	225
Rugby	515	582	1,097	-67	512	33	545	479	1,027	615	1,642	412
Cherwell	653	1,190	1,843	-537	246	187	433	59	899	1,377	2,276	-478
Bromsgrove	624	399	1,023	225	138	126	264	12	762	525	1,287	237
Cotswold	630	633	1,263	-3	4	153	157	-149	634	786	1,420	-152
West Oxfordshire	149	275	424	-126	40	63	103	-23	189	338	527	-149
Nuneaton & Bedworth	332	170	502	162	138	7	145	131	470	177	647	293
North Warwickshire	123	155	278	-32	30	9	39	21	153	164	317	-11
<i>HMA Total</i>	<i>5,385</i>	<i>9,436</i>	<i>14,821</i>	<i>-4,051</i>	<i>3489</i>	<i>-745</i>	<i>2744</i>	<i>4234</i>	<i>8,874</i>	<i>8,691</i>	<i>17,565</i>	<i>183</i>
<i>listed total</i>	<i>15,163</i>	<i>18,626</i>	<i>33,789</i>	<i>-3,463</i>	<i>5,475</i>	<i>-538</i>	<i>4,937</i>	<i>6,013</i>	<i>20,638</i>	<i>18,088</i>	<i>38,726</i>	<i>2,550</i>
Unlisted districts	3,643	3,928	7,571	-285	1,154	610	1,764	544	4,797	4,538	9,335	259
<i>non HMA Total</i>	<i>13,421</i>	<i>13,118</i>	<i>26,539</i>	<i>303</i>	<i>3140</i>	<i>817</i>	<i>3957</i>	<i>2323</i>	<i>16,561</i>	<i>13,935</i>	<i>30,496</i>	<i>2,626</i>
SoAD Total	18,806	22,554	41,360	-3,748	6629	72	6701	6557	25,435	22,626	48,061	2,809

Annex F

GL Hearn Updated SoAD Affordable
Housing Need Assessment

F GL HEARN UPDATED AFFORDABLE HOUSING NEED ASSESSMENT

INTRODUCTION

- F1 This annex presents an analysis of affordable housing need in SoA], which is an update of the assessment presented in Section 8 of the CWSHMA.
- F2 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*'.
- F3 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 guidance. 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.
- F4 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 (eg. 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).

COMPARISON WITH PREVIOUS AFFORDABLE NEEDS ASSESSMENT

- F5 The outputs of the affordable housing needs modelling in this report can be compared with those in the CWSHMA, November 2013. The model that has now been followed was the same as that in the CWSHMA, although some refinements to the methodology have been made. The key changes are set out below.
- This report looks at affordable needs over the 20 year period from 2011 to 2031, the CWSHMA looked at the 18 year period to 2031. This does not make a significant difference but to allow for consistency the figures for current need in the CWSHMA have been rebased for a 20 year period.
 - The analysis of current need has been updated in this report to more closely correlate with the categories of need highlighted in the PPG. This would be expected to have some upward impact on the assessed need.

- The CWSHMA looked at newly forming households using a ‘zero net migration’ demographic model. This was so that the analysis focussed on need arising from within the local authority population. In this report, the analysis has been based on demographic projections that include migration. This is considered to be a better approach, particularly in SoAD where migration is a significant component of population change.

F6 This change in methodology does increase the overall affordable housing need above that set out in Table 66 (and paragraph 8.72) of the CWSHMA, but this higher figure is still consistent with the policy response by SoADC in the submitted CS, when the anticipated supply of affordable housing is taken into account.

KEY DEFINITIONS

F7 We begin by setting out key definitions relating to affordable housing need, affordability and affordable housing.

- Affordable housing need [AHN] 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 (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 is 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

F8 Affordability is assessed by comparing household incomes, based on income data modelled using a number of sources including CACI and the English Housing Survey [EHS], against the cost of suitable market housing (to either buy or rent). Separate tests are applied for home ownership and private renting (in line with the SHMA Guidance) and are summarised below:

- 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 (2.9) and those with a single income (3.5), 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; and

- 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 30% of gross income. The choice of an appropriate threshold is an important aspect of the analysis and the 2007 SHMA guidance suggested that 25% of income is a reasonable starting 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 30% for the core analysis but also undertakes a sensitivity test on the level of affordable need at different percentages (from 25% to 40%).

F9 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

F10 The NPPF provides the definition of affordable housing (as used in this report). The following is taken from Annex 2 of the 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; and*
- *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.'*

F11 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.'

F12 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."

F13 The definition of intermediate housing is:

'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 (eg. HomeBuy), other low cost homes for sale and intermediate rent but does not include affordable rented housing.'

F14 As part of our analysis in this report we have therefore studied the extent to which social rented, intermediate and affordable rented housing can meet affordable housing need in SoAD.

LOCAL PRICES AND RENTS

F15 An important part of the analysis of affordable housing need 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.'

F16 This section therefore establishes the entry-level costs of housing to both buy and rent across SoAD. The approach has been to analyse Land Registry and VOA data to establish lower quartile prices and rents. For the purposes of analysis (and to be consistent with CLG guidance) lower quartile prices and rents have been taken to reflect the entry-level point into the market.

F17 **Table F1** shows estimated lower quartile property prices by dwelling type. The data shows that entry-level costs to buy are estimated to start from about £115,000 for a flat and rising to £295,000 for a detached home. The overall 'average' lower quartile price was £186,750.

Table F1 SoAD: Lower Quartile Sales Prices by Type (all sales in 2014)

Dwelling Type	SoAD
Flat	£115,000
Terraced	£170,000
Semi-detached	£198,000
Detached	£295,000
All dwellings	£186,750
Source: Land Registry, 2014	

F18 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) of £625 per month in **Table F2**.

Table F2 SoAD: Lower Quartile Private Rents by Size and Location (year to March 2015) per month

Dwelling Size	SoAD
Room only	-
Studio	£400
1 bedroom	£500
2 bedrooms	£650
3 bedrooms	£795
4+ bedrooms	£1,100
All dwellings	£625
Source: Valuation Office Agency	

COST OF AFFORDABLE HOUSING

F19 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). **Table F3** illustrates the rental cost of lettings of social rented properties by size in 2013/2014. 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 data in the **Table F3** include service charges.

Table F3 SoAD: Lower Quartile Monthly Social Rent Levels

Dwelling Size	SoAD
1 bedroom	£364
2 bedrooms	£410
3+ bedrooms	£460
All dwellings	£403
Source: CoRe, 2014	

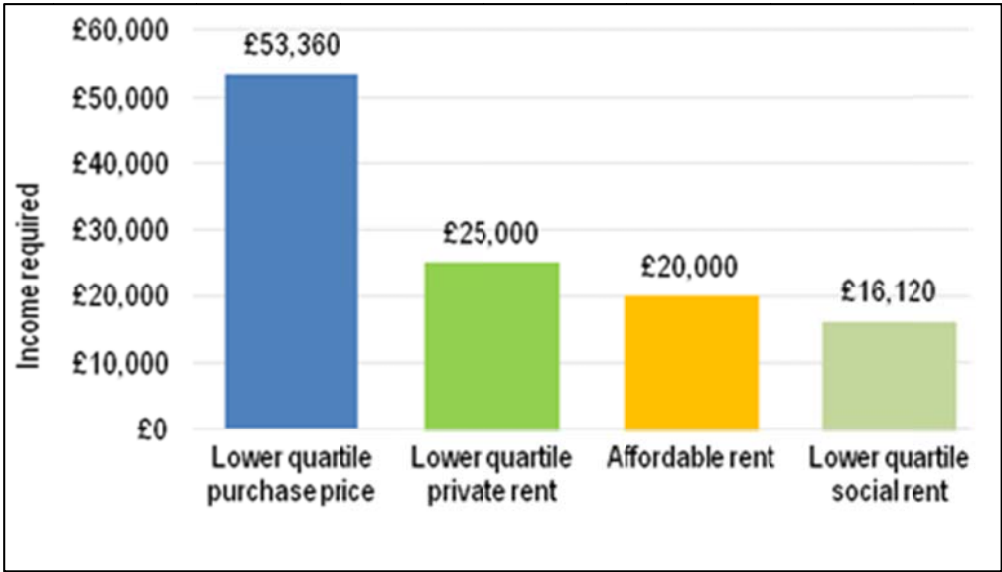
F20 Changes in affordable housing provision has seen the introduction of a new tenure of affordable housing (affordable rented). Affordable rented housing is defined in the NPPF as being *'let by local authorities or private registered providers of social housing to households who are eligible for social 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)'*.

F21 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 it is 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

F22 **Figure F1** estimates how current prices and rents might equate to income levels required to afford such housing. It is 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 (ie. including all property sizes). For illustrative purposes the calculations are based on 3.5 times household income for house purchase and 30% 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 F1 SoAD: Indicative Income Required to Purchase/Rent without Additional Subsidy



Source: Land Registry, VOA and CoRe

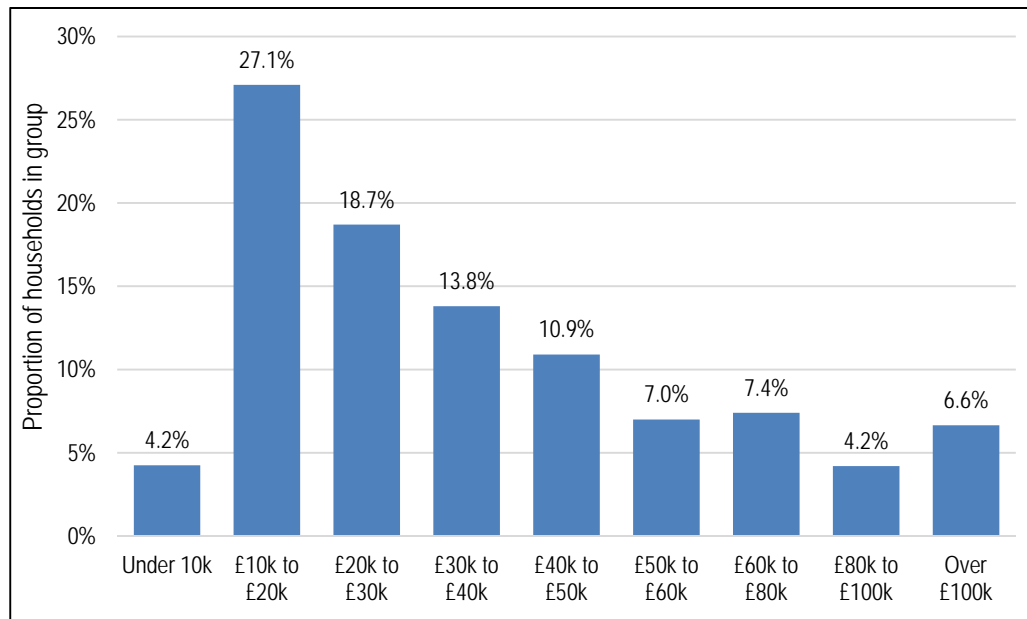
INCOME LEVELS AND AFFORDABILITY

F23 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 SoAD. The key sources of data include:

- CACI from Wealth of the Nation 2012 – to provide an overall national average income figure for benchmarking;
- EHS – to provide information about the distribution of incomes (taking account of variation by tenure in particular);
- 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); and
- ONS modelled income estimates – to assist in providing more localised income estimates (ie. for SoAD).

F24 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 in **Figure F2** shows that around a third (31%) of households has 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 SoAD is estimated to be around £30,000 with a mean income of £39,400.

Figure F2 Distribution of Household Income in SoAD



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

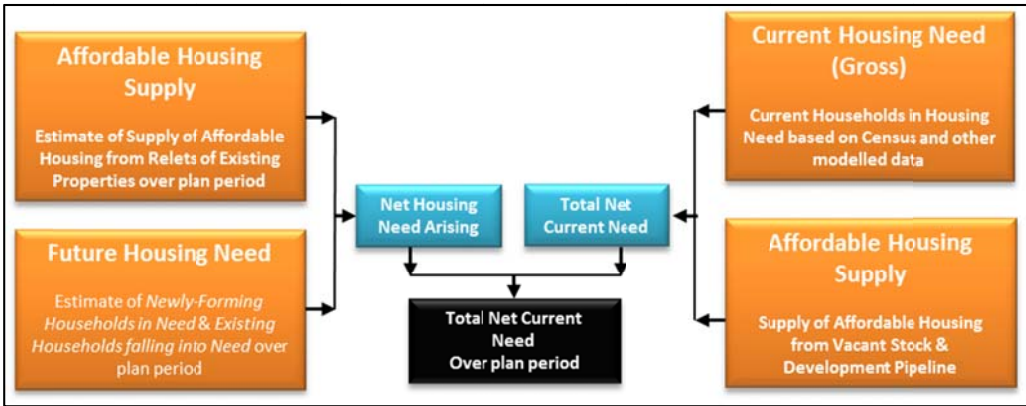
F25 To assess affordability we have looked at households ability to afford either home ownership or private rented housing (whichever is the cheapest), without financial support. The distribution of household incomes is then used to estimate the likely proportion of households who are unable to afford 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.

F26 Different affordability tests are applied to different parts of the analysis depending on the group being studied (eg. 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

F27 Affordable housing need has been assessed using the Basic Needs Assessment Model, in accordance with the CLG Practice Guidance. This model is summarised **Figure F3**.

Figure F3 Overview of the Affordable Housing Needs Assessment Model



Source: GL Hearn

F28 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 in the following sections.

METHODOLOGICAL ISSUES

F29 The analysis is based on secondary data sources only and, in consequence, a number of assumptions 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

F30 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/JGC 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 SoAD (eg. 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 SoAD. Where possible, data has also been drawn from national surveys (notably the EHS).

F31 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 (eg. Census, national surveys) to inform their assessment which are identified within the guidance'.

F32 CLG guidance 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

F33 In line with the 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 set out in paragraph 023 of the PPG which is reproduced in **Box F1**.

Box F1 What Types of Households are Considered in Affordable Housing Need?

<p>The types of households to be considered in housing need are:</p> <ul style="list-style-type: none">• homeless households or insecure tenure (eg. housing that is too expensive compared to disposable income);• households where there is a mismatch between the housing needed and the actual dwelling (eg. overcrowded households);• households containing people with social or physical impairment or other specific needs living in unsuitable dwellings (eg. accessed via steps) which cannot be made suitable in-situ;• households that lack basic facilities (eg. a bathroom or kitchen) and those subject to major disrepair or that are unfit for habitation; and• households containing people with particular social needs (eg. escaping harassment) which cannot be resolved except through a move. <p>Source: PPG [ID 2a-023-20140306]</p>
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F34 This list of potential households in need is then expanded 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. **Table F4** sets out the data used in each part of the assessment.

Table F4 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 (eg. insecure tenure)
Households from other tenures in need	Modelled data linking to past survey analysis	
Source: PPG [ID 2a-024-20140306]		

F35 **Table F5** 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 2,481 households in SoAD living in unsuitable housing (or without housing). This is 4.8% of the estimated total number of households living in SoAD in 2011.

Table F5 Estimated Number of Households Living in Unsuitable Housing

Category of ‘need’	Households
Homeless households	0
Those in priority need who are currently housed in temporary accommodation	23
Households in overcrowded housing	847
Concealed households	456
Existing affordable housing tenants in need	146
Households from other tenures in need	1,009
Total	2,481
Source: CLG Live Tables, Census, 2011 and data modelling	

F36 In taking this estimate (2,481) forward, the 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.

F37 **Table F6** shows that, as at mid-2011, it is estimated that there were 1,355 households living in unsuitable housing (excluding current social tenants and the majority (90%) of owner-occupiers). This represents 2.6% of all households in SoAD in 2011.

Table F6 Unsuitable Housing by Tenure and Numbers Taken Forward into Affordability Modelling

	In Unsuitable Housing	Number Taken Forward for Affordability Testing
Owner-occupied	735	73
Social rented	460	0
Private rented	807	803
No housing (homeless/concealed)	479	479
Total	2,481	1,355
Source: CLG Live Tales, Census, 2011 and data modelling		

F38 Having established the figure of 1,355, it needs to be considered that a number of these households should be able to afford market housing without the need for subsidy, because they can 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.

F39 Overall, around two-thirds 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 910 households as shown in **Table F7**.

Table F7 Estimated Current Need

Area	In Unsuitable Housing (Taken Forward for Affordability Test)	% Unable to Afford	Revised Gross Need (including Affordability)
SoAD	1,355	67.1%	910
Source: CLG Live Tables, Census 2011, data modelling and affordability analysis			

NEWLY-ARISING NEED

F40 To estimate newly-arising (projected future) need we have looked at two key groups of households based on the CLG SHMA Guidance. These are:

- newly forming households; and
- existing households falling into need.

Newly-Forming Households

F41 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 number of newly-forming households is 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 (eg. due to relationship breakdown) although the number is expected to be fairly small when compared with formation of younger households.

F42 The estimates of gross new household formation have been derived from the 2012 based SNPP/SNHP demographic projection for SoAD reported in **Table B2** in **Annex B**. In looking at the likely affordability of newly-forming households, we have drawn on data from a range of 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 EHS data at a national level).

F43 The household income distribution in SoAD has therefore been adjusted 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. By doing this, we are able to calculate the proportion of households unable to afford market housing without any form of subsidy (such as Local Housing Allowance/housing benefit). Our assessment suggests that overall around half of newly-forming households will be unable to afford market housing and that a total of 383 new households will have a need on average in each year to 2031 (**Table F8**).

Table F8 Estimated Level of Affordable Housing Need from Newly Forming Households (per annum)

Area	Number of New Households	% Unable to Afford	Total in Need
SoAD	773	49.6%	383
Source: Projection Modelling/Income analysis			

Existing Households Falling into Affordable Housing Need

F44 The second element of newly arising need is existing households falling into need. To assess this, information from CoRe has been used. 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 (eg. 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.

F45 This method for assessing existing households falling into need is consistent with the 2007 SHMA guidance, which notes 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)’.*

F46 Following the analysis through suggests a need arising from 197 existing households each year. This is about 0.4% of all households living in SoAD in 2011.

SUPPLY OF AFFORDABLE HOUSING

F47 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.

F48 The PPG 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 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).

F49 On the basis of past trend data it has been estimated that 305 units of social/affordable rented housing are likely to become available each year moving forward (**Table F9**).

Table F9 Analysis of Past Social/Affordable Rented Housing Supply (per annum – past 2 years)

	Total Lettings	% as Non-new Build	Lettings in Existing Stock	% Non-Transfers	Sub-total	% non-Temporary Housing	Total Lettings to New Tenants
SoAD	639	86.6%	554	55.0%	305	100.0%	305
Source: CoRe							

F50 The supply figure is for social/affordable rented housing only and while the stock of intermediate housing in SoAD is not significant compared to the social/affordable rented stock, it is likely that some housing does become available each year (eg. re-sales 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 new build. From this it is estimated that around 12 additional properties might become available per annum. The total supply of affordable housing is therefore estimated to be 316 per annum as set out in **Table F10**.

Table F10 Supply of Affordable Housing from Relets

	Social/Affordable Rented Relets	Intermediate Housing 'Relets'	Total Supply (per annum)
SoAD	305	12	316
Source: CoRe			

NET AFFORDABLE HOUSING NEED

F51 **Table F11** sets out the 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. While most of the data in the model are annual figures, the current need has been divided by 20 to make an equivalent annual figure.

F52 The data shows an overall need for affordable housing of 6,191 units over the 20 year period (310 per annum). The net need is calculated as follows:

$$\text{Net Need} = \text{Current Need} + \text{Need from Newly-Forming Households} + \text{Existing Households falling into Need} - \text{Supply of Affordable Housing}$$

Table F11 SoAD: Estimated Level of Affordable Housing Need (excluding the ‘Development Pipeline’), 2011-2031

	Per Annum	2011 - 2031
Current need	45	910
Newly forming households	383	7,663
Existing households falling into need	197	3,939
Total Gross Need	626	12,511
Supply	316	6,320
Net Need	310	6,191
Source: Census 2011/CoRe/Projection Modelling and affordability analysis		

F53 The ‘development pipeline’ in SoAD, which we have only taken to include planning permissions yet to be built in April 2015, is expected to deliver 2,257 dwellings (113 per annum) which will reduce the overall net need, 2011 to 2031, to 3,934 dwellings or 197 per annum.

SENSITIVITY TO INCOME THRESHOLDS

F54 A 30% rent to income threshold for affordability has been used in the main modelling, but it is worthwhile considering the implications of alternative thresholds. To understand the implications of the income threshold, a sensitivity test has been undertaken which assumes different proportions of income spent on housing costs. **Table F12** 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 168 households per annum (down from 310 using a 30% threshold). As noted previously, it is the case that both Government policy and typical letting agent practice would support the use of a higher 40% threshold as potentially being reasonable.

Table F12 SoAD: Estimated Level of Affordable Housing Need (per annum) at Variant Income Thresholds

	@ 25%	@ 30%	@ 35%	@ 40%
Current Need	50	45	41	36
Newly forming households	453	383	326	280
Existing households falling into need	210	197	183	167
Total Need	713	626	549	484
Supply	316	316	316	316
Net Need	397	310	233	168
Source: 2011 Census/CoRe/Projection Modelling and affordability analysis				

RELATING AFFORDABLE HOUSING NEED AND OAN

F55 The analysis in **Table F12** indicates that there will be a significant continuing need for affordable housing in SoAD. The 2012 based SNPP demographic need (for all tenures) is for 440 dwellings per annum [dpa] (excluding vacancy reserve) and on this analysis, some 70% of the need is for affordable housing (based on a 30% affordability threshold). If housing provision was to follow the ERM preferred employment-led projection, this percentage falls to 43% of the total need of 703 dpa. However, neither of these direct comparisons between affordable housing need and overall housing need is considered to be a robust way to understand the link between affordable need and OAN. This point was very clearly made in the Planning Advisory Service [PAS] Technical Advice Note, Objectively Assessed Need and Housing Targets, June 2014, where it states (in paragraph 2.12) that '*affordable housing need is a different kind of number from total need (the OAN), so the two numbers are not directly comparable*'. In understanding the link between affordable need and the OAN, there are two important considerations, namely the:

- extent to which households in need are already living in housing; and
- role played by the private rented sector in meeting need.

Households Already Living in Housing

F56 The first issue to consider is to note that a proportion of those included in the model will already be living in housing (albeit not housing that it suitable for them for some reason, such as size or cost). If these households were to move to an affordable home, then their current dwelling would become available for another household and there would be no net need for an additional dwelling.

F57 This point was picked up in the PAS Guidance. In paragraph 7.3, it recognises that:

'As defined in the PG, affordable need also includes housing for existing households – including those that are currently in unsuitable housing and those who will 'fall into need' in the plan period (ie. their housing will become unsuitable for them). For the most part the needs of these households are not for net new dwellings, except for those who are currently homeless or 'concealed'. If they move into suitable housing

they will free an equivalent number of existing dwellings, to be occupied by people for whom they are more suitable. If the affordable needs of existing households are included in the OAN, the resulting figure will [be] too large’.

F58 Looking on this basis at the need for affordable housing, the net need for affordable homes in SoAD as expressed in **Table F11** is 87 per annum (403-316). This figure is calculated by taking the supply of affordable housing away from the estimated number of newly forming households in need each year plus that element of the current need without separate housing (which amounts to some 20 of the 45 per annum current need – the 87 figure is therefore 383+20-316).

The Role of the Private Rented Sector [PRS]

F59 As well as considering the types of household in need it is important to examine the extent to which the PRS, through the Local Housing Allowance [LHA] system, is meeting the needs of households in the area. Whilst the role of the PRS is not specifically mentioned in the NPPF or PPG, it has been recognised in the earlier SHMA guidance. The 2007 guidance states that *‘some households in need may choose to live in the private rented sector (possibly with the use of housing benefit) or housing that would be classified as unsuitable, even though they are eligible for affordable housing’* (page 49). The same page continues by posing a *‘research question’* of *‘how is the private rented sector used to accommodate housing need?’*

F60 It is therefore clear that CLG does recognise the role played by the private rented sector and would expect this to be considered in analysis. Whilst the 2007 guidance has now been replaced by the PPG, there is no evidence that there has been any change in approach to this topic. Indeed it is clear that Government does see a role for the private rented sector. If it didn’t then there would be no benefit system available for those unable to access the market and local authorities would not be able to discharge their homelessness duties into the sector. In short, the private rented sector cannot be ignored as a source of supply as it is an integral part of the overall operation of a housing market.

F61 We have therefore used data from the Department of Work and Pensions [DWP] to look at the number of LHA supported private rented homes. As of February 2015, it is estimated that there were 1,688 benefit claimants in the Private Rented Sector. This figure has remained largely unchanged over the past five years or so.

F62 What this information does not tell us is how many lettings are made each year to tenants claiming benefit as this will depend on the turnover of stock. From EHS data, we estimate that the proportion of households within the private sector who are ‘new lettings’ each year (ie. 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 us an estimate of 219 private sector lettings per annum to new LHA claimants in SoAD. This figure is derived from claimants rather than

households and it is possible that there are a number of multiple LHA claimant households (ie. in the HMO sector).

- F63 The overall estimated number of lettings in the LHA part of the PRS can therefore be seen to be 71% of the total net need derived through the affordable housing needs analysis, using the conservative 30% affordability threshold. Furthermore, if this 'supply' were netted off from the overall affordable need of 310 per annum then there would be a net need for 91 dwellings (21% of the overall need shown through demographic modelling and just 13% of the figure for housing need derived from the ERM job-growth forecast.
- F64 However, national planning policy does not specifically seek to meet the needs identified through the Basic Needs Assessment Model through the PRS. There are wider factors which need to be considered in relying on this as a source of supply; including that there is no certainty that landlords will relet properties to households on LHA. In particular future growth in households living within the PRS and claiming LHA cannot be guaranteed.
- F65 What the PPG sets out is that consideration needs to be given to increasing overall housing delivery where it might contribute to delivering the identified need for affordable housing. This is to some extent a 'policy choice.'
- F66 If the reliance on the private rented sector as a means of meeting affordable housing need were to halve (ie. to provide about 110 lettings per annum) then the estimated affordable need would reduce from 310 down to 200 per annum. This would be about 45% of the overall need identified in the demographic analysis (using the 2012 based SNHP) and 28% of the need derived from the ERM job-growth forecast. While the modelling shows a high level of affordable need, it is clear that the private rented sector is sufficient in size to be able to meet much of this need. On the basis of the figures set out in this section, it looks as if there will be an opportunity to reduce the reliance on the private rented sector over time.

The Link between Affordable Need and the OAN

- F67 The analysis above has shown that a substantial proportion of the affordable need is expected to arise from households who are already living in accommodation (existing households). Furthermore, there is a clear current and on-going role of the private rented sector in meeting affordable need. There is also a committed supply of affordable housing through planning permissions already granted but not implemented. Taking these points together, the analysis suggests that the affordable need does not provide any evidence of a requirement to increase overall housing provision in SoAD (over and above the need shown by demographic modelling or that derived from the ERM job-growth forecast).
- F68 In coming to this conclusion, we are also mindful of the general logic behind increasing housing numbers in an area. If one area were to decide to provide more housing than is shown to be required by the demographic projections then this would be expected to generate a higher level of in-migration. Such

migration has to come from somewhere else and would therefore drive a lower need in those locations. This would potentially need to be agreed through the Duty to Cooperate and is, in any case, a 'policy-on' position.

NEED FOR DIFFERENT TYPES OF AFFORDABLE HOUSING

F69 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 the provision of different housing products. The income information presented earlier in this section is used 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; and
- social rent.

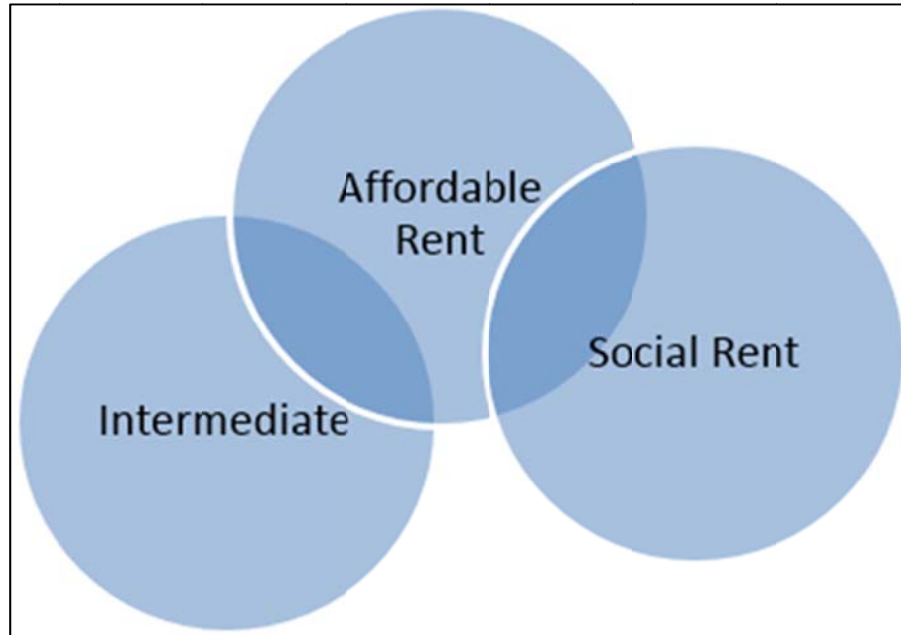
F70 While the process of separating households into different income bands for analytical purposes is quite straightforward, this does not necessarily tell us what sort of affordable housing they might be able to afford or occupy.

F71 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).

F72 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).

F73 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 **Figure F4** shows.

Figure F4 Overlap between Affordable Housing Tenures



Source: GL Hearn

F74 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; and
- 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).

F75 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 SoADC) 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.

F76 We do not have detailed information on households' savings. We have assumed that around half 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.

F77 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 14% of housing could be intermediate with the remaining 86% being either social or affordable rented (**Table F13**).

Table F13 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
SoAD	55	12	44	570	305	266
% of total	14%			86%		
Source: Affordable Housing Needs Analysis						

F78 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 CONCLUSIONS

F79 **Table F14** summarises the updated assessment and compares it with that reported in the CWSHMA. The CWSHMA, in Table 66, identified a need for 133 dpa, using a 'zero net migration' basis. This equates to the 148 dpa in the table, once the assessment period has been adjusted. Paragraph 8.72 of the CWSHMA noted that if a demographic trend based projection had been used at that time, the *'net need increases by around 100 per annum'* ie. to around 248 per annum.

F80 The ROAN has identified a higher net need than this, for 310 dpa. The difference between this figure and the 248 dpa arises from the adoption of the 2012-based SNPPs and SNHPs and from small increase in the likely supply.

Table F14 Estimated Annual Rate of Affordable Housing Need, 2011 to 2031

	2015 Update AHN	CWSHMA AHN
Current need	45	28
Newly forming households	383	296
Existing households falling into need	197	123
Total Gross Need	626	447
Supply	316	299
Net Need (excluding 'development pipeline')	310	148
Source: Updated analysis and CWSHMA, November 2013		

- F81 The great majority of this assessed affordable need consists either of households already resident in housing which is in fit condition for use in SoAD or outside of 'concealed' households likely to already be taken into account in the demographically assessed housing need.
- F82 The CWSHMA, in paragraphs 8.42 to 8.47, assesses the current (or backlog) need as an estimated 564 households in SoAD in 2011, a total which is then taken forward into the overall affordable housing need summarised in Table 66 and re-stated in **Table F14**.
- F83 The CWSHMA derived the figure of 564 households by considering the number of households living in unsuitable housing and then took account of their current tenure and earnings. Predominantly, these were existing households living in overcrowded or other unsuitable conditions, mainly in the private rented sector, who could not afford to move into market dwellings.
- F84 Were these households to move from their present housing, they would release an existing dwelling back into the market. Few if any of these dwellings in SoAD could not be 'made fit at reasonable expense'. These households are not an additional element of housing need, but part of the base population taken into account in the demographic projections.
- F85 Paragraph F62 above sets out the extent to which the PRS, with the payment of housing benefit, would be likely to meet much of the net affordable housing need for 310 dpa. This supply of lettings is estimated to continue to supply around 219 dpa, leaving a net requirement for 91 dpa. This supports the view that any supply of social or affordable rented housing above this level, delivered through planning policy or direct provision would help reduce dependence on the supply by the PRS in future. There will also be, in practice, a supply of additional affordable housing from planning permissions already granted, but not yet built, equivalent to 113 dpa.
- F86 Our conclusion on affordable housing need and the OAN is that the updated assessment, although identifying a numerically higher net need than that in the CWSHMA, makes no difference to the position taken by SoADC at the Core Strategy Examination and endorsed by the Inspector. Affordable housing need is already accounted for in the demographic assessment of OAN and

there is no new argument or evidence for increasing the OAN above the demographic need to take explicit account of affordable need.

THE AFFORDABLE HOUSING POLICY RESPONSE IN THE CORE STRATEGY

- F87 The CS, in paragraph 5.3.5, summarised the affordable housing need, as assessed in the CWSHMA, as being *'around 200 households per year'*. With a policy requirement to provide 35% affordable housing in private housing developments, taking account of some potential for separate affordable housing schemes, small sites and viability considerations, this was a realistic target, based on an OAN of 565dpa.
- F88 SoADC's affordable housing 'target' of 'around 200 households per year' remains sensible in the light of the updated assessment. This suggests, taking account of the 'development pipeline', that the net affordable need in SoAD will be 197 dpa over the plan period. The CS affordable housing policies are seeking to provide as much affordable housing as they can, taking account of viability, and the 'target' is a legitimate policy judgement that SoADC has made, which goes beyond the 'policy off' consideration of OAN. If an OAN of 724 dpa is set, SoADC's policy target of around 200 dwellings per year should be achieved comfortably.

CONCLUSION

- F89 In relation to affordable housing need, our conclusion is that no further adjustment to an employment based OAN of 724 dpa is necessary or justified. There is no new evidence that should lead the Inspector to reach a different conclusion on this point from that in his Interim Conclusions.