A review of future housing requirements for Cotswold District

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Foreword

The first edition of this report was completed in February 2013 to inform the preparation of the Cotswold draft Local Plan. This updated version will continue to provide evidence support for the draft Plan as it moves towards submission to the Secretary of State for subsequent examination. Changes include updates to the economic and demographic context for the housing requirement to be addressed by the Plan. The results of the DCLG's interim household projections to 2021 are taken into account, but it has unfortunately not been possible to include material from the 2011 Census' detailed migration and travel to work "flows" data which were until recently expected to be published in February 2014. Other data series have been updated except in some cases where an additional year's data, made available since the February 2013 report, makes little or no difference to the general argument made in the text.

Please note that, at the time of writing, the Office for National Statistics have very recently indicated that the information will not now be released until "the second quarter" of 2014, apparently owing to the need further to improve data confidentiality. Other relevant data to be published this year includes the ONS 2012 based sub national population projections to 2037 which are currently timetabled for May/June 2014. Updated DCLG household projections using this 2012 base are now most likely to become available in late 2014.

About the author

Keith Woodhead is an independent planning consultant specialising in strategic planning policy and research matters, demographic and economic research, strategic planning for housing, town centres and rural development. The practice was founded in 2010 building on his wide experience in Planning and local government since 1972. Full biographical details are provided in Appendix 6 at the end of this report.

Review of housing requirements evidence for Cotswold District
Updated February 2014

1. Purpose of this Study

1.1 This report addresses a requirement by Cotswold District Council for a robust and independent review of the derivation of the housing and population requirement 2011 to 2031 identified in evidence prepared for the district's emerging Local Plan. Taken together with the Gloucestershire Strategic Housing Market Assessment update (Draft October 2013),[1] it addresses the requirement set out in National Planning Policy Guidance to ensure that the Local Plan "*meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework*".[2] It also conforms with the new National Planning Practice Guidance published on 6th March 2014.[3]

1.2 The original report was completed in February 2013 and since that time further information concerning trends affecting the area has become available. This version of the housing requirements study updates the 2013 paper.

1.3 In its original brief the Council required that the study would:

- Review recent evidence relating to changing requirements for housing numbers, including demographic change such as migration, population ageing, household formation, the impacts of economic change and credit availability, and the potential socio-economic implications of these factors;

- Include an assessment against the latest available Census figures.

- Examine the numerical results and the implications including any risks associated with the alternative approaches to calculating the numbers and recommendations to the Council.

1.4 The report needed to include a final independent recommendation of an appropriate and robust methodology using projections/forecasts/figures that the Council should use as the basis for future Plan development.

1.5 The study will examine the evolving background to the draft housing requirements being prepared for the Local Plan. Particular account will be taken of the changing planning environment over the past six years. This will cover the impacts of both the Government's planning reforms and its wider economic policies, and also the implications of current and longer term prospects both in the sub-region and nationally.

1.6 Key elements of the evidence used are derived from ONS' release of Census Data (second release) the first tranche of which was published in December 2012. The final recommendations

[1] HDH (2013) Local Authorities of Gloucestershire: Strategic Housing Market Assessment Update, HDH Planning & Development Ltd Draft Oct 2013. This document is awaiting finalisation at the time of writing (March 2013).
[2] NPPF para 47.
[3] NPPG http://planningguidance.planningportal.gov.uk/blog/guidance/housing-and-economic-development-needs-assessments/the-approach-to-assessing-need/

are also compared with the DCLG's forthcoming set of 2011-based sub-national household projections published in April 2013. Inevitably, further information will become available during the course of 2014. In particular the ONS sub national 2012 based population projections are currently timetabled for release in May or June 2014.[4] Although the publication timetable for the corresponding DCLG 2012 based sub national household projections has not yet been announced, previous timing of these figures would suggest a release date sometime during the autumn of 2014.

2. Background to the housing requirement figures

2.1 The Local Plan (formerly Core Strategy) covers the 20 year period 2011 to 2031. Initial consultation on issues and options for a Core Strategy for Cotswold was carried out in late 2007. Consultation on a more detailed second issues and options report was subsequently held from December 2010 to March 2011. At this time work on the Core Strategy had to have due regard to the considerable weight still accorded to the draft RSS, as the Coalition Government's reform of the planning system had yet to become statute. While preparatory work continued, it was confirmed through planning appeal decisions made during 2011 that the current Development Plan Documents for the District are the Gloucestershire Structure Plan Second Review and the Cotswold District Local Plan, both covering the period up to 2011.

2.2 Since consultation on these documents was carried out, of course, the economic environment did not improve at the rate expected, although the position since mid 2013 has so far been that of a definite, if still fragile, recovery.[5] Recovery from the 2008/09 recession has been slower than at any time in the preceding century and in February 2013 it was still estimated that GDP was 4% below the last peak in early 2008.[6] By the 4th quarter (Oct-Dec) 2013 (2013 Q4) GDP was estimated to be 1.3% below the peak in Q1 2008. From its peak in Q1 2008 to the trough in Q2 and Q3 2009, the economy shrank by 7.2%.[7] Real household incomes had been falling until 2013 and remain well below pre recession level. Also the supply of easily obtained mortgage credit has diminished. By the end of 2012, turnover in the housing market nationally had dropped to about half that of the period preceding 2008 and housing starts and completions had slumped in response. Over the past year the housing market has revived to some degree as economic growth has returned and in response to Government initiatives such as the Home Buy mortgage guarantee scheme. The house building rates have shown a small upward improvement in response (see below para 4.25 et seq) but an acceleration of house prices and private sector rents during 2013 has again emphasised concerns about affordability, average prices having now passed the peak reach in January 2008.[8]

2.3 Taken overall, these conditions are without precedent in the UK in the period following the second World War and it is against this difficult background that the emerging Local Plan has to

[4] See http://www.statistics.gov.uk/hub/release-calendar/index.html?newquery=*projections&lday=2&lmonth=2&lyear=2014&uday=&umonth=&uyear=&theme=Population&source-agency=Office+for+National+Statistics&pagetype=calendar-entry

[5] Compare for example the Office for Budget Responsibility's budget forecasts for the Chancellor's emergency budget of June 2010 with those of the March 2012 Budget and those in the Chancellor's latest Autumn Statement Nov 2013. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263942/35062_Autumn_Statement_2013.pdf

[6] ONS "Understanding and Interpreting the Quarter Four 2012 Gross Domestic Product Preliminary Estimate" 25/1/13 http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/articles/2011-present/understanding-and-interpreting-the-quarter-four-2012-gdp/index.html

[7] ONS (2014) Gross Domestic Product Preliminary Estimate Q4 2013 (28/1/14).

[8] ONS (2013) House Price Index, December 2013 Release; Figure 2. http://www.ons.gov.uk/ons/rel/hpi/house-price-index/december-2013/stb-december-2013.html

allocate housing for the next twenty years in order to meet the District's housing needs. Against this background, Cotswold District Council has proposed a figure of 6,000 dwellings, to be completed between 2011 and 2031.[9] At 300 units per annum, this is in line with both the twenty year requirement to 2011 of 6,150 (307 pa) dwellings set out in the former Local Plan,[10] based on the Gloucestershire Structure Plan,[11] and also that of 6,000 (300 pa) set out in the Submission Draft of the Regional Spatial Strategy for the South West in 2006.[12]

2.4 In 2006 and 2008 revised sub-national household projections were produced by the DCLG.[13] These presented higher projected rates of household growth throughout the South West based on trends apparent since the 2001 Census. As a result, the total building requirement for Cotswold was subsequently raised to 6,900 (345 dw pa) in the RSS Examination in Public Panel Report recommendations and retained in the Secretary of State's Proposed Changes to the RSS.[14] The DCLG projections suggested somewhat higher rates of trend growth in household for Cotswold than the final recommendation in the Proposed Changes RSS. Since that time two further sets of DCLG household projections have been produced.

2.5 The first (2008 based, published in November 2010) is totally dependent on pre recession trend data but shows lower levels of trend household growth 2006-26 compared with the 2006 based projections (7,700 compared with 9,000). The latest available DCLG projections are the Interim 2011 based set published in April 2013, but only for the period 2011-21. These show a greatly decreased rate of household growth for Cotswold resulting in a projected increase of only 2,600 for this more limited period, a crude equivalent of only 5,200 over twenty years. While it was able to take on board much of the then newly released 2011 Census data, this projection is still dependent on earlier migration information. This situation will only be corrected late in 2014 with the release of the DCLG 2012 based household projections to 2037.

2.6 It is essential to note that the official projections are just a reflection of trends which are current at the base year for the projection. A particularly critical issue is that all of the available DCLG projections use trends pre-dating the onset of severe and continuing recession from 2008 until the present. Even the later 2008 based figures cannot include the impact of recession, neither do they include the results of the most recent Census in 2011. Echoing official guidance published by ONS, the RSS Proposed Changes document itself set out a succinct summary of the position when it stated that:

"The figures are not derived directly from one mathematical model or set of projections. Rather they are the result of the range of evidence and debate that has been considered through the process of preparing the Strategy and latest evidence about household growth in the region including:

- *household projections (CLG 2003-based and 2004-based);*
- *the needs of the regional economy having regard to economic scenarios and projections;*
- *evidence about the affordability of housing;*
- *the findings of the Sustainability Appraisal, Appropriate Assessment and other information about environmental capacity; the likely impact on transport and other infrastructure; and*

[9] Cotswold District Council Second Issues and Options Paper: LDF Core Strategy December 2010, para 7.9.
[10] Cotswold District Local Plan 2001-2011 Adopted 2006, para 3.2.6.
[11] Gloucestershire Structure Plan Second Review 1991-2011 adopted 1998, Policy H2.
[12] The|Draft Regional Spatial Strategy for the South West 2006-2026, Policy HO1, Table 4.1.
[13] Respectively 2003 based and Revised 2004 based sub-national household projections for England.
[14] RRS for the SW EiP Panel Report Dec 2007, Appendix A(ii): Draft Revised RSS for the South West, incorporating the Secretary of State's Proposed Changes July 2008, Table 4.1.

- *evidence about the availability of suitable land."*[15]

2.7 The remainder of this study will focus on the process behind the Issues and Options paper proposal for 6,000 additional dwellings in Cotswold District 2011-31 and whether this meets the requirements of national planning policy. It also compares the approach used with accepted planning practice in general, reviews the evidence and then makes recommendations regarding the housing requirement identified in the Preferred Strategy document.

3. Requirements for planning growth policies
A) Meeting national policy requirements

3.1 The Localism Act 2011 has set out the key parameters for the Government's reforms of the planning system. These aim to make the system clearer, more democratic and ultimately more effective, by encouraging local planning policy and decisions to be more fully rooted in local communities. Regional Strategies have been revoked and cross boundary issues are to be dealt with through a duty to co-operate with neighbouring local authorities and other public bodies.[16]

3.2 The National Planning Policy Framework was published in March 2012 and reflects the underlying principles of the Act. It sets out the criteria that will be used when the new Local Plans, together with the remaining LDF Core Strategies at an advanced stage in the system when the 2011 Act came into effect, are assessed as to whether they are "sound".[17] These are that the Plan should be:

- **Positively prepared** – the plan should be prepared based on a strategy which seeks to meet objectively assessed development and infrastructure requirements, including unmet requirements from neighbouring authorities where it is reasonable to do so and consistent with achieving sustainable development;

- **Justified** – the plan should be the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence;

- **Effective** – the plan should be deliverable over its period and based on effective joint working on cross-boundary strategic priorities; and

- **Consistent with national policy** – the plan should enable the delivery of sustainable development in accordance with the policies in the Framework.

3.3 The Council's position on the first three criteria is set out in the second Issues and Options paper.[18] This describes a Vision for the District, a series of strategic objectives dealing with the themes of Climate Change, Place Shaping/Communities, Housing, Economy, Access, recreation and rural services, Environment, Infrastructure, Cotswold Water Park, Cirencester, and how the objectives, underpinned by the central requirement for sustainable development, are to be met. These objectives are set out below in Appendix 1. In the progression from a LDF Core Strategy issues and options consultation paper to a consultation draft new style Local Plan as set out in the

[15] RSS Proposed Changes para 4.1.87.
[16] DCLG (2011) A Plain English Guide to the Localism Act , pp14-17.
[17] NPPF 2012 para 182.
[18] Cotswold District Council Second Issues and Options Paper: LDF Core Strategy December 2010, Sections 3 & 4.

NPPF, comprehensive justification for the strategy will be provided consistently and incrementally throughout the document. Finally, the alternative strategies will be subjected to independent sustainability testing during the process of developing the Plan.

3.4 All these are requirements of the NPPF, as they were for the preceding system of national Planning Policy Statements and Planning Policy Guidance documents. As far as new, or re-emphasised NPPF requirements are concerned:

3.4.1 Duty to co-operate: The conversion to the new Local Plan format requires that in preparing the plan the planning authority can demonstrate that is has worked with other relevant bodies, including neighbouring local planning authorities and that strategic/cross-boundary issues have been considered. Cotswold demonstrates the extent of co-operative working in its latest monitoring report.[19] Importantly it shares key areas of the evidence base with neighbouring authorities, including the jointly commissioned Gloucestershire Housing Evidence Review.[20] Even prior to the 2011 Localism Act, however, Cotswold can demonstrate a continuous history of working with its neighbours in Gloucestershire, including participation on the Joint Study Area team in preparation for the former Section 4(4) Authorities' advice on the RSS in 2004-2005, and more recently throughout the period of Core Strategy development. It is important to note that the 2011 Act does not say that local authorities must agree with their neighbours on every issue, but that they have taken steps to consult with them while addressing the other requirements of the NPPF.

3.4.2 **Neighbourhood planning**: The draft strategy's overall spatial vision and the vision for each of the District's 17 towns and villages identified for development provides a clear context for neighbourhood plans and greatly assists the national objective to promote an approach that reflects localism.

3.5 A further, and in the current context, particularly salient NPPF requirement is that of **delivering a wide choice of high quality homes and boosting supply**[21] based on a "proportionate" (i.e. relevant and adequate) shared **evidence base**. This is to ensure that the Plan "meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework" (i.e. the NPPF), including identifying key sites which are critical to the delivery of the housing strategy over the plan period.[22] Local planning authorities should have a clear understanding of housing needs in their area. They should prepare a Strategic Housing Market Assessment (SHMA) to assess their full housing needs, working with neighbouring authorities where indicated by housing market area boundaries. A scale, mix of housing tenures and types, including affordable required over the Plan period should be identified, that "meets household and population projections, taking account of migration and demographic change ....addresses the need for all types of housing, including affordable housing....and caters for housing demand and the scale of housing supply necessary to meet this". In addition, it is necessary to prepare a Strategic Housing Land Availability Assessment (SHLAA) "to establish realistic assumptions about the availability, suitability and the likely economic viability of land to meet the

[19] Cotswold District Monitoring Report – December 2012, Section 3.2. See: http://consult.cotswold.gov.uk/portal/cotswold_district_annual_monitoring_report_-_december_2012?pointId=s1357226390823#section-s1357226390823

[20] For example see Gloucestershire County Council, op cit (May 2011)

[21] NPPF para 47

[22] NPPF para 158

identified need for housing over the plan period." [23] This report establishes the overall housing requirement and the SHMA 2013 update[24] identifies the tenure mix, affordable housing need and the mix of housing types and sizes.

3.6 The Cotswold strategy has access to an up-to-date housing evidence base, shared with other local authorities in Gloucestershire, as part of work on the Housing Market Evidence Review which was carried out in 2011 and comprised an analysis of past trends relating to housing demand, revised demographic projections and the commissioning of a housing affordability model from Heriot Watt University.[25] This is based on statistical analysis of the relationship between aspects of the housing market, labour market and demographics and will allow forecasting for a variety of indicators of housing 'need', using scenarios for housing policy and economic growth. This work updates and complements the original Gloucestershire SHMA completed in 2008 and a further assessment for Cotswold published in 2009. The process of evidence gathering and updating is of course a continuous process and an updated SHLAA document was published in late 2012.[26] The Gloucestershire Housing Affordability Model was updated in 2013 using the latest projections and delivery rates for the districts within the HMA. In addition, a full SHLAA review will be published in 2014.

3.7 We conclude from this part of the review that Cotswold's approach to date covers the overall requirements for scope set out in the NPPF, although work to some of the more detailed requirements for an emerging consultation draft Local Plan are still clearly in progress. Also, this necessarily is a developing picture as the evidence base evolves and increases in sophistication. The next section looks at how far the evidence base can support the proposal for 6,000 additional dwellings 2011-31.

B) Cotswold's projected growth prospects

Dealing with changing circumstances – achieving a robust plan

3.8 It is inevitable that more up-to-date information appears during the period required to develop and consult on any major plan. Sometimes this may be due to a pre-planned revision to an existing statistical source such as the publication of new data from a recent Census, although completely new major sources of data are rare. At other times it can be due to a review of an existing series in the light of change in external circumstances representing a significant deviation from formerly prevailing conditions. Often these changes have relatively slight consequences for the plan in question apart from a possible adjustment to the information base. At other times the consequences can be more far reaching and represent a significant test of the plan's underlying robustness.

3.9 The consequences of the world credit crisis of 2007-08 followed by severe recession in 2008-09 and then a long, and still continuing, period of depressed economic growth during the period of comparative recovery from mid 2009 is an extreme example of this. We are all familiar with the

[23] NPPF para 159

[24] HDH (2013) op cit.

[25] Gloucestershire County Council, op cit (May 2011); Fordham Research Cotswold housing needs assessment Nov 2009. Gloucestershire County Council Gloucestershire Housing Affordability Model: Introduction and baseline results report, October 2011; for further details see :http://www.gloucestershire.gov.uk/extra/article/107556/Gloucestershire-Housing-Evidence-Review

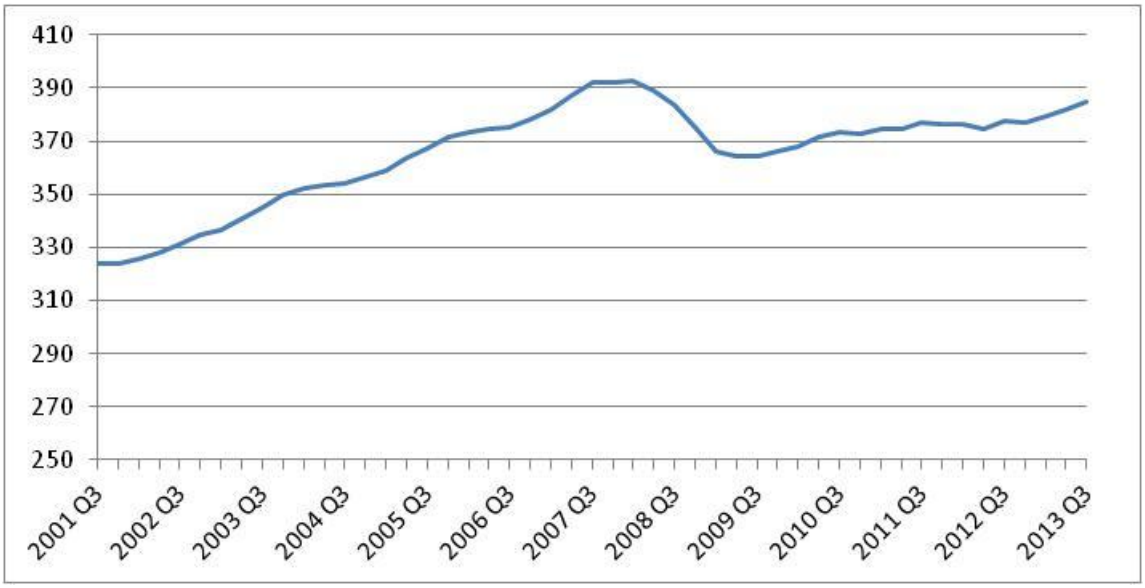
[26] INSERT REFERENCE

uncertainties involved in trying to predict the future.[27] Often the lags involved in data and other substantial evidence becoming available means that a period of considerable uncertainty exists while there is an awareness that a major change to the plan's environment is occurring, but we are left in the limbo of knowing neither the severity of the event nor its short term consequences. This means that not only is there much uncertainty involved in looking ahead ten to fifteen years, but also an unusual degree of uncertainty about some aspects of where we are now and how things are likely to change in the near future.

3.10 Plans undergoing the final stages of preparation at the current time are facing a peculiarly trying set of circumstances, reflecting all of these issues. The full impact of the recession and the credit crisis that triggered it is only now becoming apparent. The path of recovery since 2009 is also so far slower than all but the most pessimistic forecasters at that time anticipated. ONS estimates at the end of the third quarter of 2013[28] indicate that national GDP remains 1.3% below the pre recession peak in Q1 of 2008 (Fig 1). It is now expected that, at current progress, the 2008 peak will be matched before the autumn of 2014.[29] This compares with the forecast of the Office for Budget Responsibility (OBR) less than four years' ago in June 2010 [30] which forecast that 2011 growth of 2.3% would be followed by 2.8% in 2012 and 2.9% in 2013 (Fig 2).

Figure 1 UK GDP at 2008 prices

£ millions, chained volume measures, seasonally adjusted



Source: ONS preliminary estimate 2013 Q3

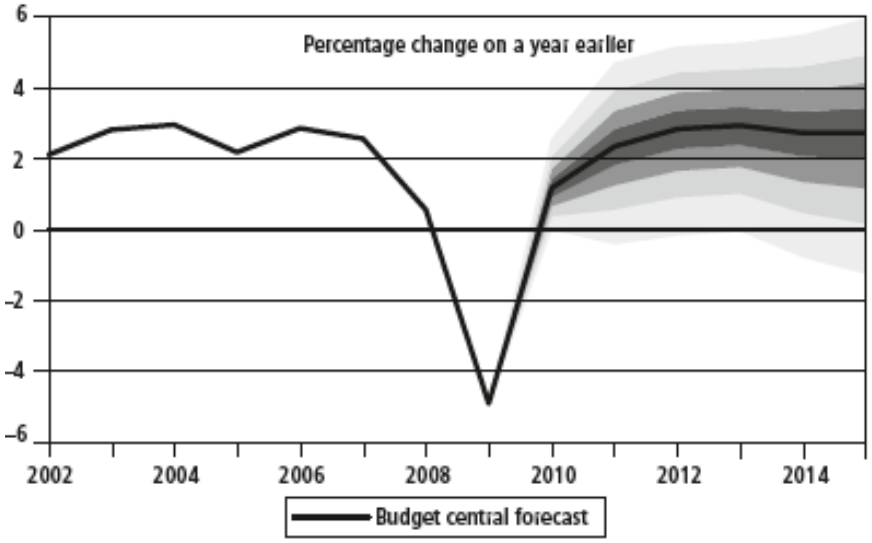
[27] Sometimes this is likened to attempting to driving a car by looking only in the rear view mirror, due to the necessity of depending on past information only.

[28] ONS Statistical Bulletin: Gross Domestic Product: Preliminary Estimate, Q1 2012 25/04/12

[29] NIESR February 2014 GDP estimate. http://niesr.ac.uk/media/february-2014-gdp-estimate-11766#.UwpoTGTivIU

[30] OBR Budget June 2010

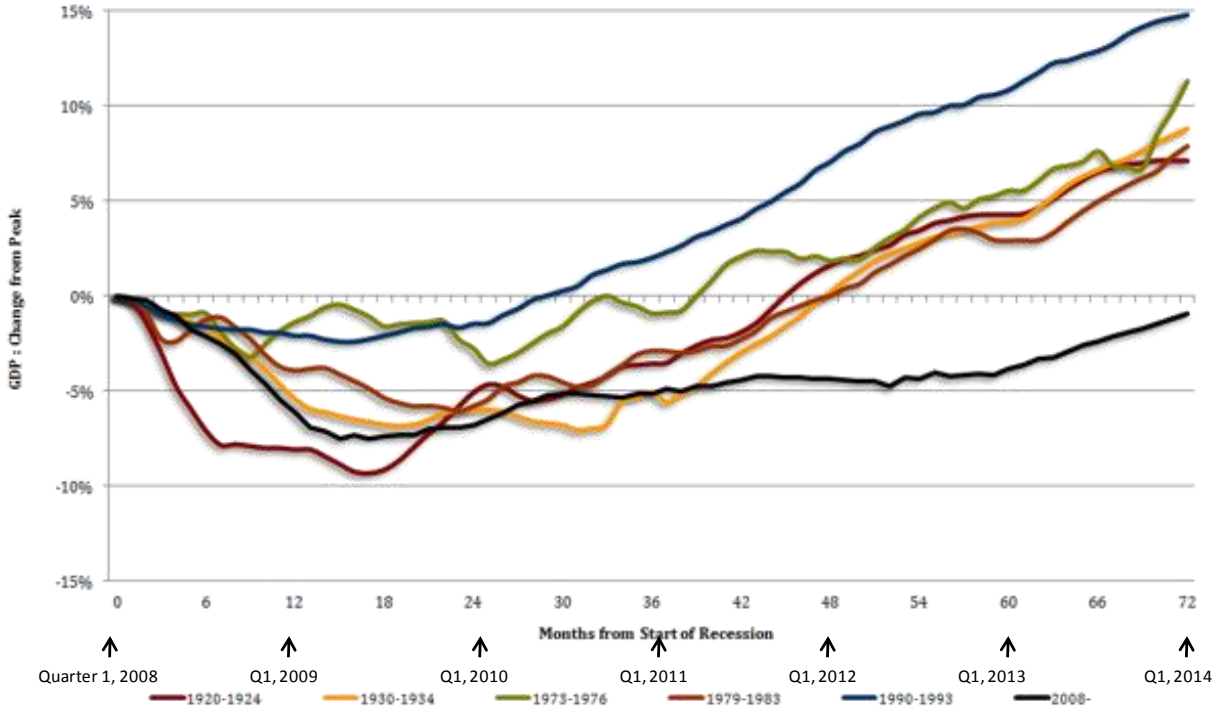
Figure 2 OBR Budget Forecasts June 2010



Source: HM Treasury

3.11 A comparison between Figs 2 and 3 shows that GDP is currently below even the OBR's lowest 2010 based growth scenario. The UK economy has now experienced more than 24 consecutive three monthly periods ("Quarters") when GDP has been below the pre recession economic peak in Quarter 1 (Q1) of 2008.[31] Figure 3 shows how the current situation compares with previous recessions. The period of depressed output now exceeds all previous recessions since, and including, that of the early 1930s. Assuming GDP reaches the 2008 peak by Q3 2014, the level of economic output growth lost during this period will have reached a conservatively estimated 17%.[32]

Fig 3 Comparing the current with past recessions since 1920



Q1= end of Quarter 1 (January – March)

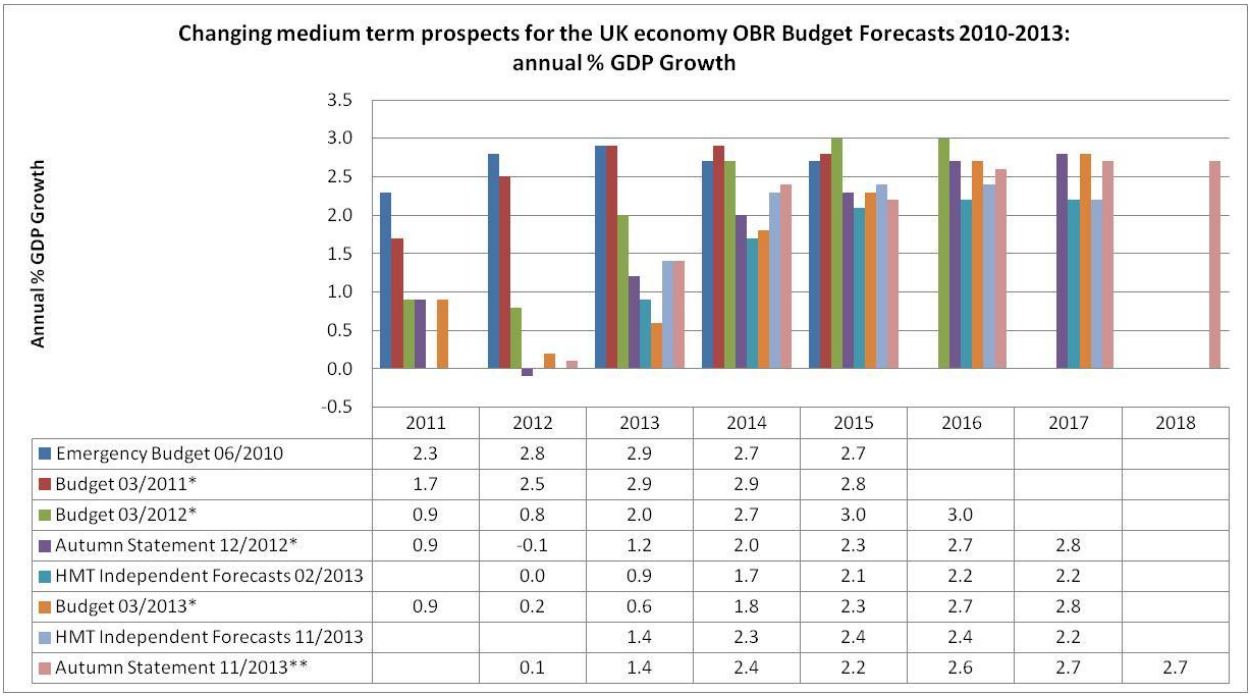
[31] ONS Gross Domestic Product: Preliminary Estimate, Q1 2012 25 April 2012

[32] This assumes the long term (1981-2008) GDP growth average (including recessions) of 2.4%, as opposed to the shorter term trend level of 2.7% p.a. from 1999-2004 used in the RSS.

3.11 As already shown, it cannot be said that growth during the period has been held back by undue pessimism on the part of the Treasury. The expected sharp upturn in economic growth normally expected at the end of a period of recession has proved elusive. Accordingly, official forecastsin the space of only two and a half years have progressively moved back the return to more "normal" (i.e. historically more usual) rates of growth in the wider national economy from 2012[33] to 2016[34] (Fig 4). This is of considerable relevance to local planning as changes affecting local economic prospects significantly influence the functioning of housing and employment markets. They are therefore also likely to affect migration pressures locally and therefore the rates of population change that must be planned for.

3.12 A further cause of uncertainty is the fact that official ONS/ DCLG population and household projections using the final results of the 2011 Census of Population are yet to be released and some critical elements of the data series on which we depend for planning ahead are still partially rooted in the previous census in 2001. Even so, revisions to data series on which the Plan projections depend are being made as past discrepancies in population and related estimates come to light. The impact of this on the Cotswold proposals will be examined in detail later in this report.

Fig 4 The changing medium term prospects for the UK economy



	2011	2012	2013	2014	2015	2016	2017	2018
Emergency Budget 06/2010	2.3	2.8	2.9	2.7	2.7			
Budget 03/2011*	1.7	2.5	2.9	2.9	2.8			
Budget 03/2012*	0.9	0.8	2.0	2.7	3.0	3.0		
Autumn Statement 12/2012*	0.9	-0.1	1.2	2.0	2.3	2.7	2.8	
HMT Independent Forecasts 02/2013		0.0	0.9	1.7	2.1	2.2	2.2	
Budget 03/2013*	0.9	0.2	0.6	1.8	2.3	2.7	2.8	
HMT Independent Forecasts 11/2013			1.4	2.3	2.4	2.4	2.2	
Autumn Statement 11/2013**		0.1	1.4	2.4	2.2	2.6	2.7	2.7

*Note: 2011 figure is outturn data. ** 2011& 2012 figures are outturn. Source: HM Treasury

Approaches to calculating housing requirements

3.13 Different methods of assessing housing requirements may be appropriate under different circumstances. This section looks at the various broad methodologies available.

3.14 Projections of requirements can be grouped into two main types:

[33] OBR's figures in the Chancellor of the Exchequer's Emergency Budget June 2010
[34] OBR in the Chancellor's Autumn Statement December 2012

- "Demand" driven projections. These are trend projections of demand/ need, where future rates of provision are linked to a projection where the conditions affecting growth pressures in the relatively recent past are broadly assumed to continue into the future. The basis for this might be a projected household number or the need to provide for the estimates of market requirements and housing need emerging from a Strategic Housing Market Assessment.

- "Supply" driven projections typically based on local capacity driven estimates of growth. These may be "actual" capacity limits (however defined), for example the scale of land available for development, generally subject to policies that define availability, for example for environmental protection reasons. In other circumstances they can allow policy induced increases in growth rates above recent trend, for example measures taken to boost jobs and retain population in areas experiencing economic decline. Other valid constraints might be the capacity of the local economy to provide additional employment to meet a growing workforce, or well recognised limits on the ability of the construction industry locally to increase production beyond a certain point.

3.15 Factors determining which method should be used are influenced to a degree by the geographical scale of the area being planned. At the national or regional scale it is not possible for development planning policies to exert a great influence on the level of growth. People will want to move freely to any part of the country, assuming they have the ability, financial or otherwise, to do so. In this case trend growth projections of population growth and, therefore housing requirements, are generally the best solution. At the very local level such as an electoral ward, however, it is capacity in terms of developable land that almost entirely determines housing provision.

3.16 At intermediate levels varying elements of both demand and supply approaches are used. In reality, most plans at local authority level take a more multi dimensional approach, looking at both constraints and at trends. In the case of the now abandoned Regional Spatial Strategy, at least in its earlier drafts, the regional figure was determined more by a demand/ established trend approach, but the distribution of that growth to local authorities was based partly on a number of local supply factors and partly on policies such as strategic urban growth points. The local factors included data from housing land availability studies and also projected rates of local economic/ employment growth.

<u>Changes to demographic drivers</u>

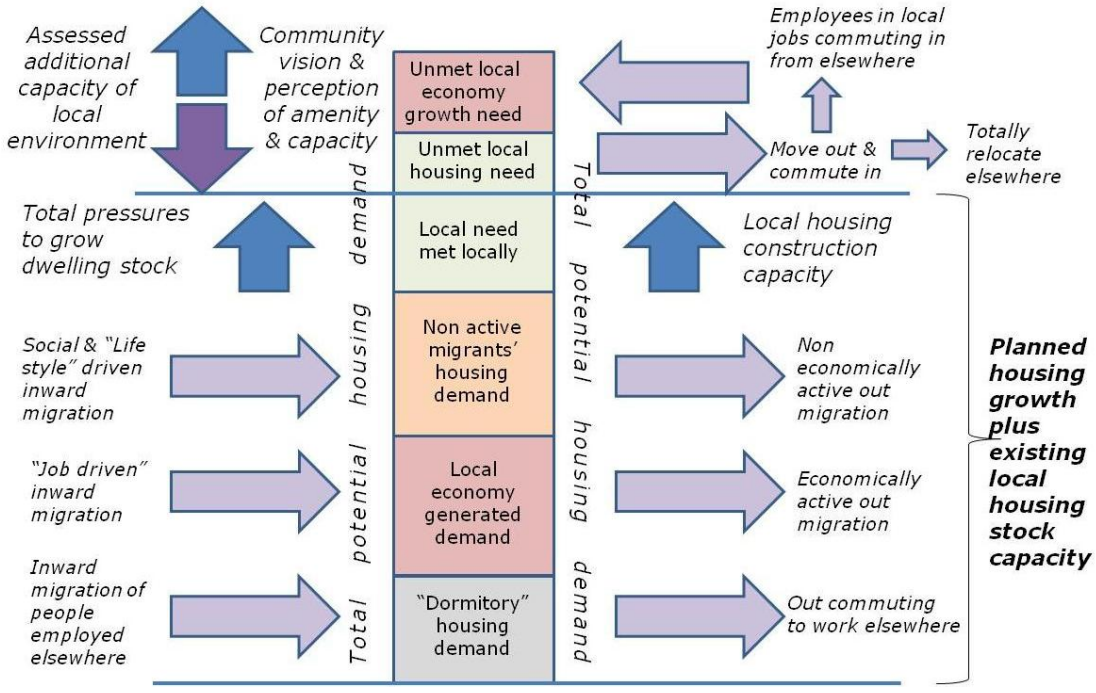
3.17 The first issue is to determine whose need it is that the plan is attempting to meet. No area covered by a Core Strategy or Local Plan is a self-contained and independent entity. People are free to move places of work and residence as they see fit and as their finances allow, so if new housing is provided in one district there is nothing except economic and social factors to prevent people from elsewhere moving to take up opportunities intended in the plan to meet the needs of "local people" or perhaps people in local jobs. For convenience we usually look at the future contribution of <u>net</u> migration change and forget that, from the point of view of an individual, much larger numbers of people in the population are moving in and out of the district all of the time. Typically, even in a rapidly growing area, the gross migration flows in and out can be five or more times the scale of the net flow. In an area experiencing low growth or a slight decline, the gross migration flows can total

many more times the net change. These flows react to a whole range of needs and opportunities that influence the changing make-up of an area's population.

3.18 The process of identifying the housing requirements of any plan area therefore needs to bear in mind the dynamics of the local housing market as an open system. This view should contain the broad processes shown in Figure 5. Addressing the relationships shown in a realistic and balanced way is a key part of conforming with the NPPF's requirement for meeting objectively assessed needs for housing.[35]

3.19 In practice this is normally carried out through the integration of a wide range of analyses. Usually this is done in a fairly loosely structured way taking into account population growth trends, results of SHMA and SHLAA exercises, environmental designations and capacities and projections of economic prospects and employment change. The results of all of these are weighed up individually before a final housing requirement is reached. Sometimes the approach follows a more defined format as in, for example, the HEaDROOM methodology recently used by the NLP consultancy and applied to Gloucester, Cheltenham, Tewkesbury Joint Core Strategy Area and elsewhere such as Torbay, Winchester and Leeds. Other approaches, more typified by the contribution made to planning debates by commercial development interests, will use a simpler methodology, such as that of using trend projections of population and household growth without directly subjecting the results critically to examination against the housing market and various capacity data. In the latter case this does not really address the need so much as seeks a local distribution of a historic demand for housing.

Fig 5 How growth in housing stock addresses local need, locally and externally driven demand and the requirements of local economic growth



[35] NPPF para 47.

The Cotswold approach

3.20 The general methodology used by Cotswold is described in the Housing Paper Working Draft of June 2012.[36] This outlines the range of factors, in line with NPPF, that are taken into account in determining the level of housing growth in the Cotswold District Core Strategy:

i. Evidence of past completion rates in the District;

ii. Technical assessment of housing need, covering the use of recent completions monitoring, SHMA data and affordability modelling data;

iii. Technical assessment of population growth, including local population projections for Gloucestershire Districts[37];

iv. Recent changes to National Policy through the Localism Act and National Planning Policy Framework;

v. Strategic objectives for the authority;

vi. Testing against Sustainability Appraisal;

vii. Detailed technical evidence about how much growth the area can accommodate;

viii. The views of the community gained through extensive public consultation;

ix. Assessment of the infrastructure required to deliver growth and its planned delivery

3.21 While many of these factors represent on-going areas of work as new evidence emerges and as plan preparation proceeds, significant progress is shown by publications on the Council's website in most areas with the current possible exceptions of vi) and ix) above. One notable omission, however, is consideration in the draft Housing Report so far of data from up to date ONS/DCLG projections. Although this is not specifically required by the NPPF,[38] it has been established at both development plan examinations and at planning appeals that the Government's own projections are an essential part of the requirement for an up to date evidence base. However, the omission appears to be due entirely to the unfinished nature of the Housing Paper as the data is mentioned under a list of NPPF requirements. This omission is dealt with below. Otherwise, the NPPF requirements in terms of topic coverage at least have been addressed. The next section of this report deals with the actual content of the evidence and will be taken into account by the Council when considering the final housing requirement in the Local Plan.

[36] Cotswold Council Housing Paper; Core Strategy Evidence Base June 2012 (Working Draft), Section 3.
[37] Gloucestershire CC Housing trends and population and household projections (May 2011)
[38] NPPF para 159 simply states that the local authority should have a clear understanding of local needs based on a SHMA which identifies the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period which " meets household and population projections, taking account of migration and demographic change".

4. The Issues and Options report housing total: Evidence review

Evidence (1) Demand / trend growth based factors

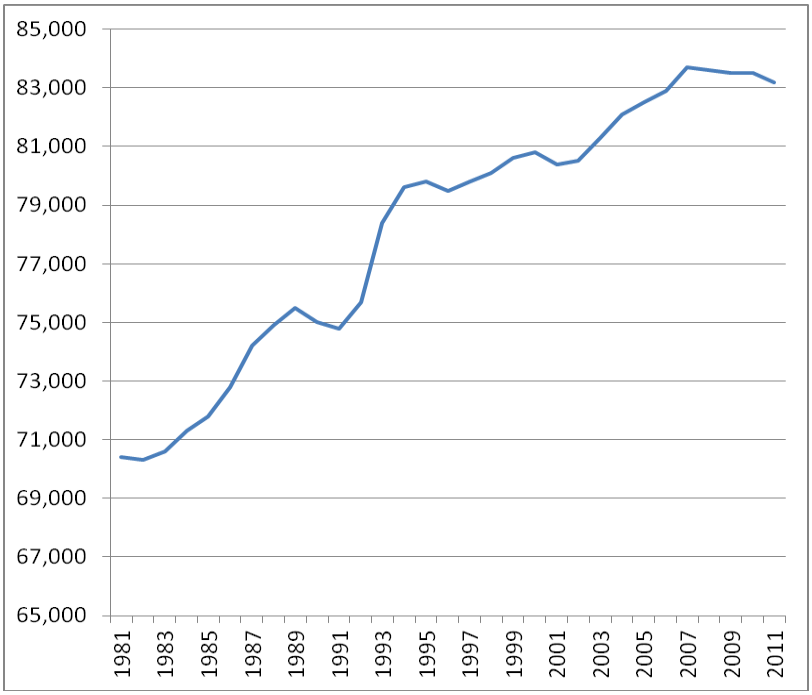
ONS/ DCLG Projections

4.1 The latest full longer term set of DCLG sub-national household projections is 2008 based and was published in November 2010.[39] As already mentioned above, these and the 2008 based ONS sub national population projections (SNPP) from which they are derived, are a reflection of past trends projected forward 25 years to 2033. These all pre-date the onset of the recession in 2008 and the period of depressed growth that has occurred since. In April 2013 a set of interim sub national household projections was made available by DCLG but only looking forward 10 years instead of the usual 25 as used in the 2008 based set. It has been noted above that these will be replaced later in 2014 following on from 2012 based sub national population figures due for publication in May/ June 2014.

4.2 It was noted at the time of the first edition of this report in January 2013 that use of the 2008 based household projections to derive the housing total could be argued to be in line with interpretations of the NPPF by some the Planning Inspectors.[40] The 2008 based household projections are the most recent available from DCLG and therefore must be taken seriously into account. However, since these were produced, a new set of 25 year 2010 based ONS population projections, and later interim 10 year 2011 based population as well as household figures have been released. Having a later base, these are at least able to reflect some of the impacts of economic events that have occurred since 2008

4.3 The first question is how does the rate of population growth projected in the 2010 and 2011 SNPPs compare with past experience? This is shown in Tables 1, 2 and Fig 6.

Fig 6 Cotswold total population trends: 1981-2011



Source: ONS

[39] REFERENCE

[40] For example see Appeal Decision APP/X1165/A/11/2165846 Riviera Way, Torquay, June 2012.

Table 1 Cotswold total population: ONS Mid Year estimates and projections

	1981	1986	1991	1996	2001	2006	2011	2016	2021	2026	2031	2033	2035
ONS Mid Year Estimate	70,400	72,800	74,800	79,500	80,400	82,900	83,200						
2008 based SNPP						83,000	85,000	87,300	90,000	93,200	96,200	97,200	
2010 based SNPP							83,200	83,800	84,800	86,200	87,800	88,400	88,800
Interim 2011 based SNPP							83,200	84,900	86,900				

Source: ONS

4.4 Population growth in Cotswold averaged 440 people a year during the 1980s and accelerating from 1985-90 reflecting the high levels of housing construction during the second half of that decade. The rate of growth increased again following the recession of the early '90s slowing from the late 1990s until the early 2000s. Growth picked up again to an average of 640 persons p.a. from 2002-07 as construction levels rose again and the housing market boom, which started in the late 1990s, continued. It is noteworthy that the three Census of Population dates of 1991, 2001 and 2011 are associated with an apparent fall in the population figure. This is likely to be due entirely to the correction to the mid-year estimate provided by the actual Census count and probably does not indicate an actual drop that year. What it does suggest, however, is that the estimation process in the case of Cotswold has tended typically to overestimate growth on a year by year basis, the effect obviously being greatest in the years immediately before a census. The fall in the estimates every year from a peak of 83,900 in 2006 to 83,200, however, probably does indicate a genuine slight decline in population numbers as well as the effect of the 2011 Census correction.

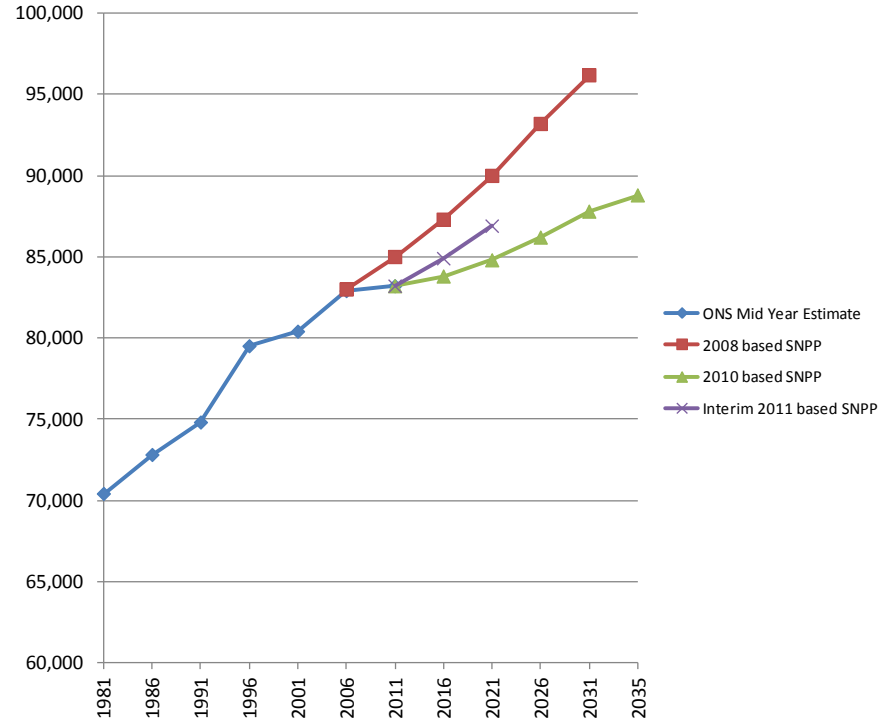
Table 2 Cotswold total population: Actual & projected rates of change 1981-2026

ONS Mid Year Estimate	Change 1981-91 = 4,400 Av. Change p.a. = 440 % change p.a. = 0.61%	Change 1991-2006 = 8,100 Av. Change p.a. = 540 % change p.a. = 0.69%
ONS 2008 based SNPP	Change 2006-26 = 10,200 Av. Change p.a. = 510 % change p.a. = 0.58%	Change 2011-2031 = 11,200 Av. Change p.a. = 560 % change p.a. = 0.62%
ONS 2010 based SNPP	Change 2011-21 = 1,600 Av. Change p.a. = 160 % change p.a. = 0.19%	Change 2011-2031 = 4,600 Av. Change p.a. = 230 % change p.a. = 0.27%
Interim 2011 based SNPP	Change 2011-21 = 3,700 Av. Change p.a. = 370 % change p.a. = 0.44%	

Source: ONS

4.5 How do these past growth trends compare with recent ONS sub-national population projections (SNPP)? The immediate pre-2007/8 trends are naturally reflected in the 2008 based SNPP which shows an average annual increase of 510 people between 2006 and 2026 (Tables 1 and 2). Fig 7 indicates that from 2016 onwards, the 2008 based figures show a noticeable acceleration in the growth trend. This gives an annual average increase of 560 persons p.a. over the 2011-31 period, a rate slightly higher than even that of 1991-2006.

Fig 7 Cotswold total population: ONS Mid Year estimates and projections



Source: ONS

4.6 The effects of the downturn in rates of growth in the District since 2006, which has intensified immediately after the onset of the credit crisis in 2007 and that of recession in 2008, are apparent in the difference of 1,800 persons between the 2008 based projection for 2011 and the lower Census based figure of 83,200 (Table 1). Even allowing for this, the average rate of growth to 2031 shown by the 2010 based projection at 230 p.a. is less than half that of the earlier 2008 based set (Table 2). This is almost entirely due to the effects of lower net migration projected for the area which may of course be attributed to the adverse economic situation leading to a reduction in net migration. The 2011 based interim projection however suggests a slightly less pessimistic figure of 370 persons p.a. growth and represent a growth trajectory roughly midway between that given by the 2008 and 2010 based figures. This rate, while still modest, is somewhat closer to previous growth figures for the district shown in the upper part of Table 2 than that of the 2010 based projection. Unfortunately, the 2011 interim projection does not go beyond 2021, and does not reveal details of migration figures used. Nevertheless, this middle growth path is informed by more of the detail of the 2011 Census results and must be regarded as strongly indicative of ONS' current thinking.

4.7 The ONS population projections are always the starting point for the equivalent set of household projections produced by DCLG. As indicated earlier, the latest set of these is the 2008 based set and these, unavoidably, uses the same obsolete population base information as the 2008 based SNPP. Table 3a summarises the results of the 2008 household projections for Cotswold showing the total number of households, the population in private households[41] and the change in average household size. The total number of households projected is the result of the application of the rates at which people of differing age and gender will tend to head a separate household (known as "household representative rates" or HRRs)[42] to the projected population in private

[41] I.e. the total population of the district less those living in institutional settings such as old people's homes, student hostels and military barracks.

[42] Formerly usually known as "household headship rates"

households classified by age and gender. Table 3b compares the 2008 based household projection for 2011 with comparable Census data.

Table 3a 2008 based sub national household projections summary (mid year - unrounded data)

	2006	2011	2021	2026	2031
Average h/hold size	2.26	2.23	2.13	2.10	2.07
2008 based h/hold population	81,433	83,419	88,358	91,381	94,169
Total h/holds 2008 based	35,956	37,480	41,566	43,701	45,704
Additional h/holds since 2011	-	-	4,086	**6,221**	**8,224**

Source: DCLG

4.8 Table 3a shows that the 2008 based projection predicted a total growth of 8,200 additional households in Cotswold between 2011 and 2031 and 7,700 for 2006-26. Even before making additional allowances for the effect of vacant and second homes in the housing stock, these are substantially higher rates than the interim figure of 6,000 dw proposed in the Issues and Options report from 2011 onwards. It also exceeds that of the Proposed Changes RSS (2008) for the 2006-26 period (6,900 dw), as well as the 6,150 dw required for the 1991-2011 period in the Gloucestershire Structure Plan. The lower rate of actual population and household growth compared with the 2008 based projections is shown in the 2011 Census data in Table 3b. Actual total households in 2011 were 1,300 fewer than in the 2008 based figures.

Table 3b Comparison of Census 2011 data with 2008 based & estimated 2010 based household projections

Cotswold	Hholds	Hhold popn	Average hhold size
2011 Census	**36,200**	**81,300**	**2.24**
2008 based	37,500	83,400	**2.23**

Source: ONS

4.9 It should be noted that the Proposed Changes RSS was based on the presumption of UK average economic growth throughout the period 2006 of 3.1% GVA[43] p.a. Now, however, once the actual impact of the recession is taken into account, even if the latest OBR forecasts in the Chancellor's 2013 Autumn Statement (Fig 4) turn out to be correct, total economic growth over the period 2006-

[43] Gross Value Added – i.e. the sum of all goods and services traded in the economy.

26 will be little more than half that of the Proposed Changes RSS.[44] It seems highly unlikely under current circumstances that such a significantly higher construction rate than the 2008 RSS document could be justified on economic growth grounds. This is a subject that will be examined more closely below (see Section 5).

Table 4 Interim 2011 based sub national household projections summary (mid-year unrounded data)

	2011	2021
Average h/hold size	2.24	2.19
2011 based h/hold population	81,617	85,209
Total h/holds 2011 based	36,368	38,952
Additional h/holds since 2011	-	2,584

Source: DCLG

4.10 Comparing the 2008 and Interim 2011 projections (Tables 3a and 4), we can see that the latter projects a rise of just 2,584 additional households in Cotswold 2011-21, (a 7.1% as opposed to 5.9% growth 1,500 fewer than the 2008 based set). The private household population rises by 3,600 (+4.4%) compared with 4,100 (+10.9%) in the 2008 based set. Average household size in the 2011 projection is projected to decline to 2.19 persons whereas the 2008 set shows a much steeper fall to 2.13. This indicates both the impact of the Census correction to the 2001 to 2008 estimated base data together with the impact of the recession on household formation rates and, in particular, the projected fall in the rate among 25 to 34 year olds.[45]

4.12 How significant are these changes? It has already been noted that the 2008 projection were based on data trends set during what has been described elsewhere as the debt fuelled boom of the early 2000s and when the high risk mortgage lending that led to the ensuing credit crisis and then recession was at its height. However, it could also be argued that the 2011 Census results and the interim 2011 projection is rooted in trends established since the recession which might be expected to moderate if not return to pre-recession levels. This issue has been raised by the Cambridge Centre for Housing and Planning Research (CCHPR):

"The 2011 census raises big issues for planners. In particular, average household size had not fallen as expected between the censuses but stayed constant. It seems likely that the 2011 census results – and so official household projections by DCLG for England – were influenced by both the economic downturn and the effects of a long period of poor housing affordability. In turn, this suggests that planning on the basis of these projections could lead to an under-provision of housing in some areas. In the light of this, should planners assume that household size will remain stable or resume, at least

[44] Assuming that the OBR's assumption of 2.7% p.a. GVA growth (a fairly high long term rate in historic terms) is held after 2018, overall UK GVA would grow by about 46% in real terms 2006-26. At the Proposed Changes RSS UK assumption of 3.1% p.a., however, total growth would be 84%.

[45] See also Appendix 5 Table 4.

in part, the previous, falling trend? For some authorities that choice could affect the number of homes required by 30% or more." [46]

4.13 The CCHPR team go on to say that there are two reasons why those recent trends may not continue unchanged:

- *"Increased international migration in the first decade of this century may have been responsible for a significant proportion of the changes to previous trends in household formation patterns. The further increases in international migration that would be needed for this factor to continue to apply are perhaps unlikely. (A continuation of recent rates of international migration should not have a further effect on household formation rates.)*

- *"It seems likely that the 2011 census results were influenced by both the economic downturn and the effects of a long period of poor housing affordability. If conditions in the housing market and the economy more generally improve there may be a return towards previous trends. "* [47]

4.14 High numbers of overseas migrants have been identified as one reason why average household size in England led to a fall only from 2.37 in 2001 to 2.36 in 2011.[48] In Cotswold's case, the number of foreign residents is very small; only 2.9% of the local population held passports from outside the UK and Irish Republic in 2011 and it is notable that household size in the District dropped from an average of 2.9 persons in 2001 to 2.4 in 2011.[49] This is projected to fall to 2.19 persons by 2021 in the Interim 2011 based sub national population projections (SNPP) a very slightly higher drop than during 2001-11. At the same time, it is not anticipated that Cotswold's characteristic high house prices, low waged service based economy will experience a significant improvement in housing affordability to help mobilise higher realisable housing demand from local people in the foreseeable future. This is a topic that will be examined in more detail later in this report, alongside that of the general growth prospects for the local economy as a whole. As we shall see, poor affordability an endemic problem and one that not going to be resolved without major change in fiscal policy on the part of Government. As far as Cotswold is concerned, poor affordability of housing is almost certain to have a continued dampening effect on household formation locally for the foreseeable future.

4.15 It is worth noting the results of the spreadsheet tool that Neil McDonald of the CCHPR has produced to help with critical scrutiny of the differences between the pre-recession based 2008 based and the Interim 2001 based projections.[50] The analysis for Cotswold is reproduced in Appendix 5. This shows that far from being pessimistic about the prospect for net migration gain in population over the 2011-21 period, the Interim 2011 projections are based on an assumption of an average annual growth of 513 persons p.a. While this compares with 377p.a. during the recession affected 2006-11 period, it is still considerably higher than the 460 p.a. during the five entirely pre-recession years of 2002-06 inclusive (Appendix 5 Chart 8 and Table 7).

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[46] N. McDonald et al. (2014) Planning for housing in England: Understanding recent changes in household formation rates and their implications for planning for housing in England Cambridge Centre for Housing and Planning Research Jan 2014 (RTPI Research Report No. 1), p1.
[47] Ibid pp1-2.
[48] A Holmans (2013) New estimates of housing demand and need in England, 2011 to 2031 TCPA Tomorrow Series Paper 16.
[49] Key Statistics Tables, Census 2001 and 2011.
[50] N. McDonald (2014) "Understanding the latest DCLG household projections" . http://www.rtpi.org.uk/briefing-room/centenary-blog/planning-for-housing-in-england-–-using-the-latest-official-household-projections-well/

4.16 Comment: On the analysis of evidence so far, Cotswold's proposed total of just over 6,000 dwellings for the plan period appears to be a reasonable position to take. There is a sharp difference between the 2008 based household and population projections and the later population only 2010 and interim 2011 population and household projections from ONS/DCLG. Even if we ignore the details of the trend of change shown between 2011 and 2021, simply doubling the Interim projections household increase to arrive at a 2011-31 figure we get 5,168, equivalent to 5,406 dwellings with a 4.6% vacancy rate.[51] The CCHPR are undoubtedly right to flag up the potential problems with using the Interim 2011 projections, but we have seen that there are equal risks with the 2008 based figures. Post recession trends will have undoubtedly influenced the 2011 figures but, as we shall see in the following pages, there is highly unlikely to be an early return to the typical sustained levels of growth that we saw from 1992 until 2008. Also, given the fact that the 2008 based projections were based on the pre-recession credit boom, the argument could equally be made that consumer investment motives and an easy credit market rather than pure need for putting a roof over new households' heads were playing a significant part in driving the property market between 2000 and 2008. This is not a firm basis for setting future planning requirements.

4.17 There is, of course, no simple "right" answer to the question of what is the dwelling requirement and it is necessary to look at where a number of strands of evidence point before arriving at a conclusion. The next section of this report therefore looks at the evidence. It will first look at other "demand" or trend based evidence additional to the ONS/DCLG projections before moving on to consideration of "supply" or capacity based factors. It will then draw some conclusions as to which of the several available projections appears to provide the most stable basis for obtaining the preferred strategy housing total.

Other demand / trend growth based evidence

4.18 When we compare the two projections with relatively recent Gloucestershire CC trend and employment based projections[52] further issues come to light. A summary of the four projections is set out in Table 5. The first problem is that the GCC trend population starts from a higher population figure than either of the ONS projections (85,400 compared with a 2010 SNPP / ONS mid year estimate for Cotswold of 83,200). That aside, the trajectory of growth for the GCC projection is, however, similar to that of the 2010 SNPP, with which it converges to some extent after the end of the present plan period in 2026.

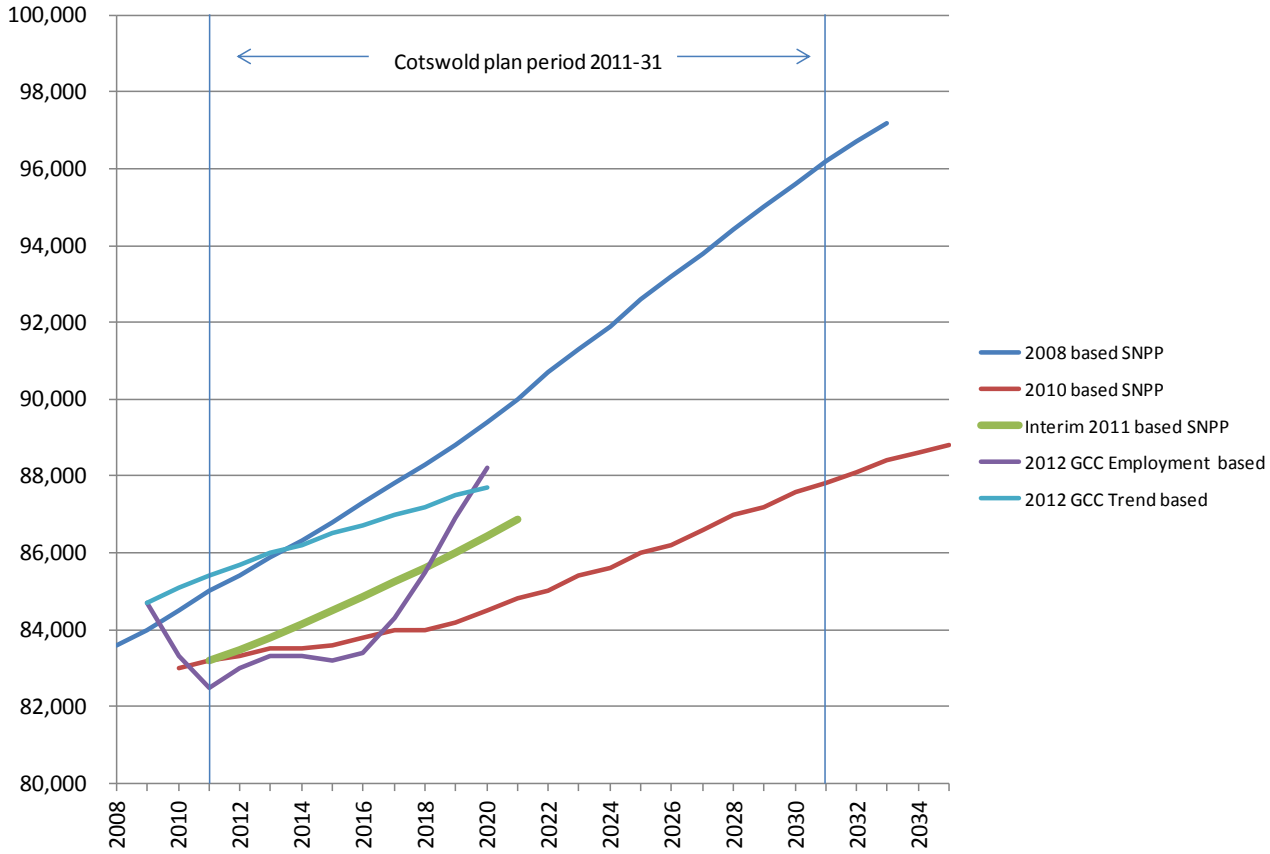
Table 5 ONS 2008 based, 2010 and interim 2011 based SNPPs & GCC projections

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2026	2031
2008 based SNPP	85,000	85,400	85,900	86,300	86,800	87,300	87,800	88,300	88,800	89,400	90,000	93,200	96,200
2010 based SNPP	83,200	83,300	83,500	83,500	83,600	83,800	84,000	84,000	84,200	84,500	84,800	86,200	87,800
Interim 2011 based SNPP	83,180	83,474	83,796	84,133	84,495	84,861	85,230	85,612	86,013	86,431	86,875		
2012 GCC Employment based	82,500	83,000	83,300	83,300	83,200	83,400	84,300	85,500	86,900	88,200			
2012 GCC Trend based	85,400	85,700	86,000	86,200	86,500	86,700	87,000	87,200	87,500	87,700			

[51] Vacancy rate based on NOMIS Council Tax data.

[52] Gloucestershire CC (2011)Housing trend analysis & population and household projections Final report (May 2011) pp . Strictly speaking, the GCC employment based projection is a "supply" or constraint based projection. However, as it is closely associated with the GCC trend based projections it is more useful to consider it here.

Fig 8 Cotswold: Comparison of 2008, 2010 and interim 2011 based ONS SNPP with Gloucestershire CC projections



4.19 The short data series from the GCC employment based scenario is quite another story, however. Starting from a very slow rate of growth in line with short to medium term economic prospects, a postulated recovery in economic growth leads to more explosive growth in the projection (by 4,800) between 2016 and 2020. This is equivalent to a compound growth of 1.4 % per annum and compares with an average of only 0.69% p.a. during the period of relatively rapid growth experienced between 1991 and 2006. This is shown by the sudden upward shift in the growth trajectory of the GCC Employment trend projection in Fig 8. It is not possible to ascertain the exact reasons for the sudden upward swing in these GCC figures from the documentation available. One possible reason could lie with sudden shifts in size and relative age structure of the main working age groups, although why this should happen on such a scale is not obvious. We conclude from this it would be unwise to use the GCC Employment based figures to support the case for a particular house building total, whereas the GCC trend projection appears much more stable and, as a result, more believable apart from the rather high starting figure.

4.20 Overall, on the "demand" based evidence we would conclude that the ONS 2010 based sub national population projections (and the 2011 based interim SNPP for the period 2011-21) for Cotswold appear to provide a more realistic basis for any derived household projections, at least on the evidence presented so far. The problem of course is that the DCLG has not yet published its 2011 based household figures based on these. This problem will be addressed later following an examination of how further "supply" based evidence might or might not provide further support for using the 2010 and 2011 based data as a starting point for setting the housing totals.

Evidence (2): Supply/ capacity based factors

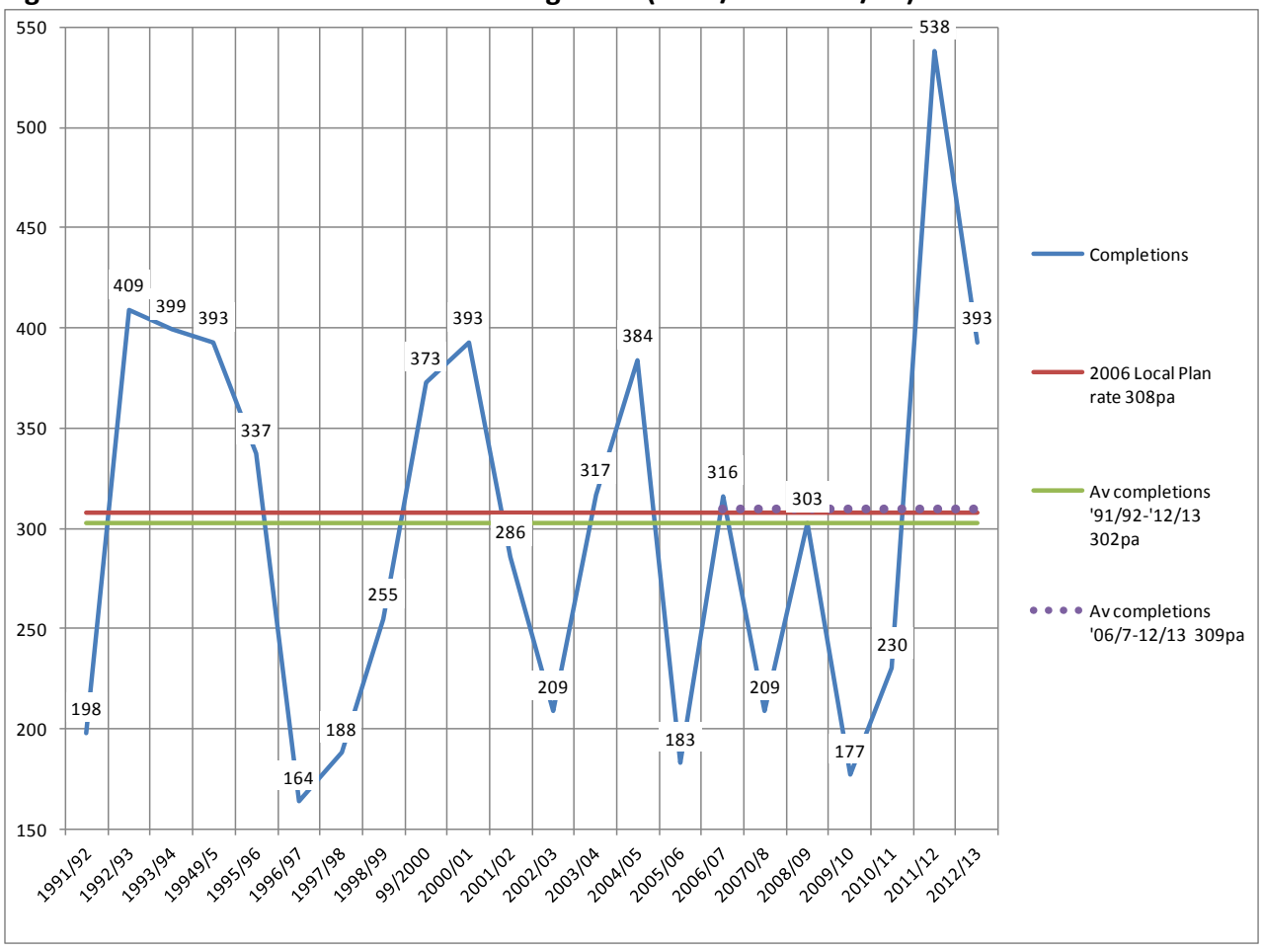
House building and land supply

4.21 This section will focus mainly on three elements: land capacity, economic growth capacity and housing supply and affordability.

4.22 The issue of land capacity has been addressed extensively in the Cotswold SHLAA 2012 update[53] and can be dealt with quickly here. The SHLAA identifies a theoretical five year housing capacity in the District of 2,368 dwellings for the first five years. To the Local Plan (2006) rate of 308 dw p.a. must be added any undersupply of housing from the Gloucestershire Structure Plan (1991-2011). This amounts to a total undersupply of just 90 dw.[54] The pattern of construction in the District since 1991 is shown in Fig 9.

4.23 The SHLAA 2012 update identifies a theoretical five year land supply, including current permission not yet started, sufficient for 2,368 dw. However, this will undergo a complete review in 2014.

Fig 9 Cotswold: Net Additions to Dwelling Stock (1991/92 – 2012/13)



Source: 2002/03 onwards Cotswold DC AMR; 1996/97 - 2001/02 RPG10 AMR (SW Regional Observatory Planning Module). 1991-96 estimated data for financial years based on actual calendar year completions.

[53] Cotswold District Council (2012) Cotswold District Strategic Land Availability Assessment Review October 2012, Section 4. Also see Cotswold District Annual Monitoring Report December 2012, Section 2.2, Output Indicators.

[54] Note that the figures here are presented differently to those in the Council's own documents. The latter take the delivery position for the years up to 2011, and then from 2011 onwards. .

4.24 Alongside this data, the Council's Annual Monitoring Report of December 2012 [55] sets out a much tighter definition of the five year supply 2012-17 which shows a supply of 1,724 dw against a requirement at the Local Plan / Structure Plan rate plus historic construction shortfall of 1,627 (i.e. a rate of 325.3 dw p.a.). This provides a five year supply of 106% of the requirement, just over the 5% NPPF buffer. Given the potential for providing further deliverable sites from the additional theoretical sites capacity identified in the SHLAA, it appeared at the time that the land supply position in the District is just sufficient for a reasonable range of requirements projected on the basis of recent ONS/DCLG data. This position was not, however, subsequently supported at an appeal decision the Secretary of State in February 2013 who added a 20% additional buffer to the District's 5 year land supply requirement instead of the standard 5%.[56]

Housing affordability

4.25 The Cotswolds are an area of immensely attractive landscape and architectural environment. This, together with its relative ease of access to London and south east England in general, has made it a popular location for wealthy house buyers seeking a main or a second home. A consequence of this is the inevitable fact that house prices in Cotswold District are the least affordable in Gloucestershire (Fig 10). The onset of recession in 2008 saw a temporary drop in prices but the situation has now stabilised and prices have again been recently on the rise again. In reality, these falls have done little to change the situation for most local people as the ratio of price to income for the lowest quartile prices to the lowest quartile of local earnings has remained around eleven times income.

4.26 The extent to which local average prices may be attributable to the physical attractiveness of the area is suggested by comparison with prices in the neighbouring West Oxfordshire District which shares many landscape similarities being dominated by the eastern extent of the Cotswold Hills. This is shown by the pecked line in Fig 10 which, although consistently a little lower than that of Cotswold District since 2003, still exceeds prices in the other Gloucestershire Districts by a considerable margin.

4.27 There have been four recent exercises looking at the impact of this on housing need and construction requirements. The earliest of these was the housing needs assessment (HNA) carried out by Fordham and Co during 2008 and 2009.[57] Based to a large extent on local household survey information, Fordham identified a gross need for 862 houses annually during the first five year period including 109 units to meet the existing backlog of unmet need. Of these, there was an annual net need for 535 affordable dwellings (i.e. once relets in the affordable housing stock had been taken into account). Over a twenty year plan period total implied by these figures amounts to 15,605 dw of which 9,065 should be affordable. The HNA acknowledged that this latter figure alone

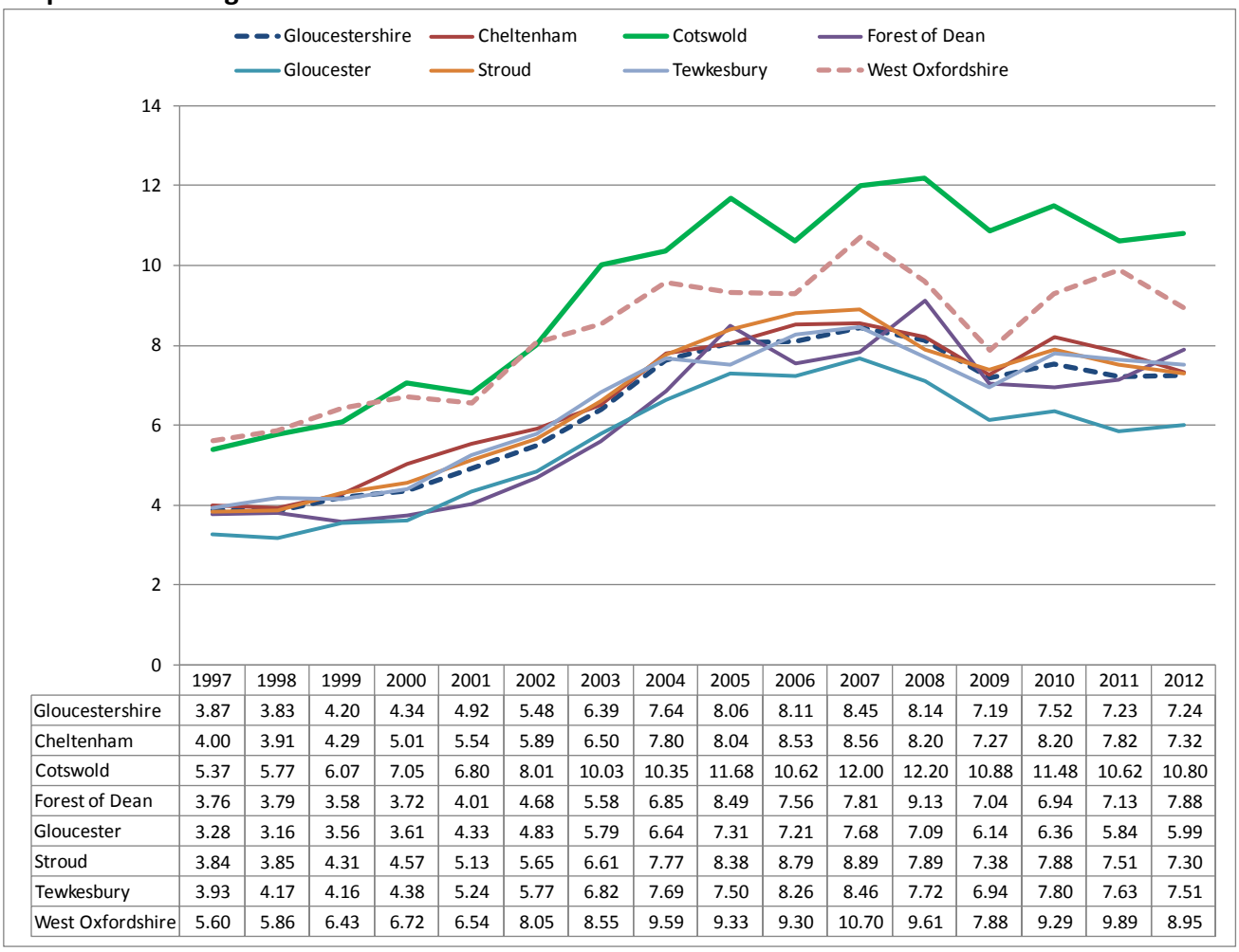
[55] AMR 2012 para 2.77.

[56] NPPF para 47. This states that Where there has been a record of persistent under delivery of housing, local planning authorities should increase the buffer to 20%. The Secretary of State in a recovered appeal decision relating to development at Highfield Farm Tetbury (APP/F1610/A/11/2165778 13 Feb. 2013) upheld the Planning Inspector's view that the Proposed Changes RSS housing five year supply figure of 2,022 dw should be the basis for judging delivery requirements in this case and therefore the five year supply could not be demonstrated. This then put the Council in the position of consistently under-delivering. With the resulting 20% additional buffer, this raised the requirement to 2,426 dw. The reasons for erratic delivery since 2007 at least are mainly due to the unprecedented depth and duration of severe economic recession and its impact on the housing market and were therefore beyond the control of both the Council and the house builders.

[57] Fordham Research Group Ltd (2009) Cotswold District Council housing needs assessment. Final Report (Jan2009) – updated in 2010 with a further section using further household survey evidence (Ch 16).

was higher than the total house building in the District in almost any year in the past, and therefore the private rented sector by default would need to make up the shortfall. In fact, at the percentage of 35% of total build set out in the RSS for affordable housing (RSS Policy H1) the total housing figure to deliver this many affordable homes would be 1,295 p.a. or a massive 25,900 over the twenty year plan period. This is not in any sense a realistic prospect.

Fig 10 Gloucestershire Districts & W Oxfordshire: Ratio of lowest quartile house prices to lowest quartile earnings



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Gloucestershire	3.87	3.83	4.20	4.34	4.92	5.48	6.39	7.64	8.06	8.11	8.45	8.14	7.19	7.52	7.23	7.24
Cheltenham	4.00	3.91	4.29	5.01	5.54	5.89	6.50	7.80	8.04	8.53	8.56	8.20	7.27	8.20	7.82	7.32
Cotswold	5.37	5.77	6.07	7.05	6.80	8.01	10.03	10.35	11.68	10.62	12.00	12.20	10.88	11.48	10.62	10.80
Forest of Dean	3.76	3.79	3.58	3.72	4.01	4.68	5.58	6.85	8.49	7.56	7.81	9.13	7.04	6.94	7.13	7.88
Gloucester	3.28	3.16	3.56	3.61	4.33	4.83	5.79	6.64	7.31	7.21	7.68	7.09	6.14	6.36	5.84	5.99
Stroud	3.84	3.85	4.31	4.57	5.13	5.65	6.61	7.77	8.38	8.79	8.89	7.89	7.38	7.88	7.51	7.30
Tewkesbury	3.93	4.17	4.16	4.38	5.24	5.77	6.82	7.69	7.50	8.26	8.46	7.72	6.94	7.80	7.63	7.51
West Oxfordshire	5.60	5.86	6.43	6.72	6.54	8.05	8.55	9.59	9.33	9.30	10.70	9.61	7.88	9.29	9.89	8.95

Source: DCLG Live housing tables (Table 576)

4.28 in the second study published in 2009, P Smith Research and Consulting to produce a Strategic Housing Market Assessment (SHMA) concluded that, allowing for social rented stock relets, Cotswold's net affordable housing requirement was 189 p.a. (i.e. 3,780 in total over a 20 year period).[58] Of these, 163 dwellings p.a. (3,260 total) could be regarded as fulfilling a "priority" need. Including market housing, Cotswold's total housing net requirement was calculated to be 339 p.a. or 6,780 over 20 years.

4.29 The third study relating to the issue of housing need is a jointly sponsored venture by the Gloucestershire local authorities. In this, a housing affordability model, the GAM model, has been commissioned from a team led by Prof Glen Bramley, Heriot Watt University, to assist in

[58] P Smith Research & Consulting (2009) Estimating housing need and demand in Gloucestershire: Technical report for the Gloucestershire Strategic Housing Market Assessment, (Feb 2009) Figs 6.1 & 6.3 pp 27, 29.

dynamically modelling the effects of policy decisions on the housing market. An initial report[59] looking at trends only – i.e. a "policy off" scenario - was produced in the autumn of 2011.

4.30 The results show that Cotswold's median house prices to 2031 are expected to increase by over a third in real terms and at a rate somewhat higher than that for England as a whole (just over 20%). Cotswold's median price will remain the most expensive of the districts in Gloucestershire. It is notable however that the overall house price to earnings ratio is not forecast to deteriorate over the period. Following an initial rise due to current market conditions, the proportion of local households able to afford to buy a property is forecast to stabilise after 2017 only at around 20% for Cotswold. This compares with between 40% and 45% for Gloucester, Cheltenham and Tewkesbury and 35% for Stroud. Private rent levels however are projected to be progressively less affordable in all Districts during the period until, in the case of Cotswold, they are only accessible to around 35% of the population.[60] Overall net local housing need is expected to worsen across Gloucestershire. In Cotswold the requirement is projected to rise from 480 dw p.a. 2012-16 to almost 600 p.a. after 2021. This gives a total 20 year plan figure of 10,713 affordable homes. Again assuming a 35% proportion of largely S106 funded dwellings, this would require a total build figure of 30,600 over 20 years or 1,530 p.a.

4.31 Even if this level of construction were remotely feasible, could it be hoped that such a level of supply would bring house prices and rents down? The difficulty with this data is that, at the level of an individual District, and probably a county or even a geographical housing market area in isolation, the supply of housing does not in general have a noticeable impact on prices. One of the (many) lessons of the 2007/08 "credit crunch" caused by the international banking crisis that preceded the recession was that it is the availability of loans that has by far the dominant impact on property prices. In this respect it is national policy rather than local that has the bigger effect, particularly in attractive locations (particularly in Cotswold) where any relative decline in local prices tends to be eradicated immediately by the effects of demand over a much larger geographical area. The market in new houses at any one time typically tends to be only around 10% of all available properties for sale and on the whole it is this much larger secondhand stock that dominates the options available to house buyers.

4.32 The fourth and latest study, the SHMA update by HDH Planning & Development Ltd, was made available in draft form in October 2013. This applies two housing models – the CLG housing need model and a "long term balancing housing markets model" – to the HNA's survey of 11,125 households undertaken in 2009 but reweighted to take account of more recent Census data and also using updated financial profile information.[61] For their main scenario HDH's needs assessment model suggest a housing need requirement (i.e. of "supported" housing tenures) of 574 dw p.a. of which 76% would be "affordable rent" and full social rented and the remainder shared ownership.[62] based on existing "objectively assessed need" assessment[63] for 5,971 dwellings over 18 years (2013-

[59] Gloucestershire Housing Evidence Review (2011) Gloucestershire Housing Affordability Model: Introduction& baseline results summary report

[60] Ibid pp 25-28

[61] HDH (2013) Local Authorities of Gloucestershire: Strategic Housing Market Assessment Update, HDH Planning & Development Ltd Final draft Oct 2013.

[62] Ibid, Table 7.16, p85; percentage split taken from housing balance model Fig 8.4 p110. The tenure distribution suggests that 72.5% of new dwellings would be market housing.

[63] For Cotswold this includes the findings of the Feb 2013 edition of the present study so, although the HDH main scenario total is a little lower than the Feb 2013 report's recommendation, it is admittedly recursive in nature. Based on an "objectively assessed need" assessment for 5,971 dwellings over 18 years (2013-31), i.e 332 dw p.a., the HDH housing balance model indicates a requirement for market housing at 4,329 (241 dw p.a.) and just 1,642 in socially

31), i.e 332 dw p.a., the HDH housing balance model indicates a requirement for market housing at 4,329 (241 dw p.a.) and just 1,642 in socially supported tenancies (91 dw p.a.).

4.33 We conclude that changes in the scale of future house building in Cotswold are not likely to have a great effect on the cost of market housing per se. However it is likely to affect choice and could lead to fewer market shortages of small lower cost dwellings (and hence have an indirect impact on affordability by restricting choice). In affordability terms, the issue therefore is as much a question of influencing the mix of housing provided as of the total scale of development. To help with this, the results of the HDH housing balance model provide a valuable indication of the required size mix of dwellings to be provided. Access to affordable housing is a different matter. Advice from the Planning Inspectorate has pointed out the importance of viability testing of affordable housing targets as evidence of deliverability and that the often very high total need figures provided by SHMAs on their own are not sufficient.[64] Following Government funding cuts for social housing of 65% since 2010, and the recent success of a number of developers in appealing against S106 affordable housing obligations on existing schemes, the deliverability of more than a very modest proportion of affordable housing numbers proposed in Local Plans is open to question.

Economic change and the impact of recession

4.34 The picture regarding economic growth capacity unfortunately is not as encouraging, at least in the short to medium term. The national impact of the economic recession and subsequent depression[65] has been noted above. The recession has had a severe effect on unemployment levels as shown in Table 6 and Figs 11 and 12. Unemployment doubled from a January to December average of 1,000 (2.4%) in 2004 to 2,000 (4.6%) in 2009, before falling back a little to 1,600 (3.9%) averaged over 2010 (Table 6).

Table 6 Cotswold: Average unemployment

Date	Cotswold No.	Cotswold (%)	South West (%)	Great Britain (%)
Jan 04-Dec 04	1,000	2.4	3.4	4.8
Jan 05-Dec 05	1,000	2.2	3.4	4.9
Jan 06-Dec 06	1,100	2.5	3.8	5.4
Jan 07-Dec 07	1,100	2.5	4	5.2
Jan 08-Dec 08	1,300	2.9	4.2	5.7
Jan 09-Dec 09	2,000	4.6	6.2	7.7
Jan 10-Dec 10	1,600	3.9	6	7.7
Jan 11-Dec 11	1,700	3.9	6.1	8
Jan 12-Dec 12	1,700	4.4	6	7.9
Oct 12-Sep 13*	1,700	4.0	6.0	7.7

Source: ONS Annual Population Survey * Note: Jan 13-Dec 13 data not available on NOMIS at time of writing

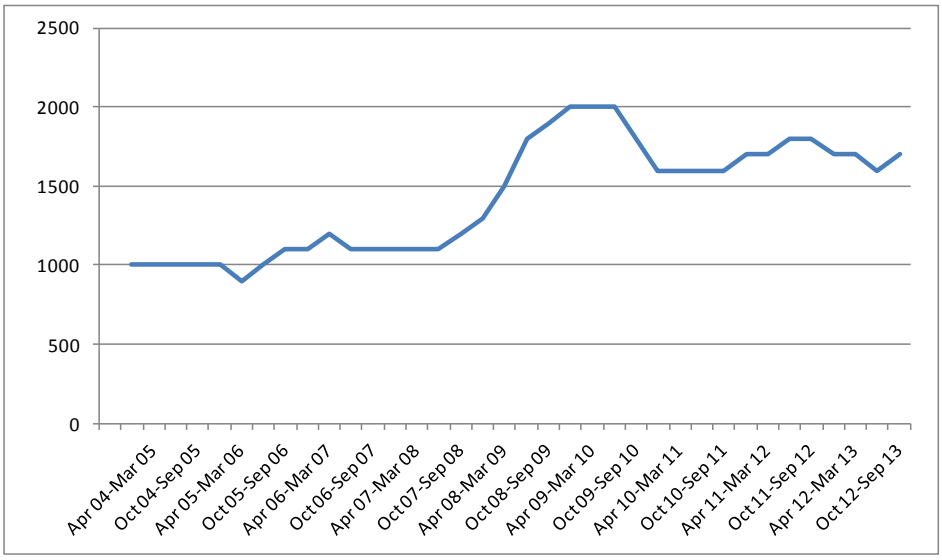
supported tenancies (91 dw p.a.). The answer is to take every measure possible to deliver a higher percentage of all housing as affordable such as the Proposed Changes RSS figure of 35%.

[64] PINS (2010) Applying lessons learnt in England to the production of Local Development Plans, para 13-14.

[65] Defined as a prolonged period in which output, though past the trough of the main recession, fails to regain its pre recession level.

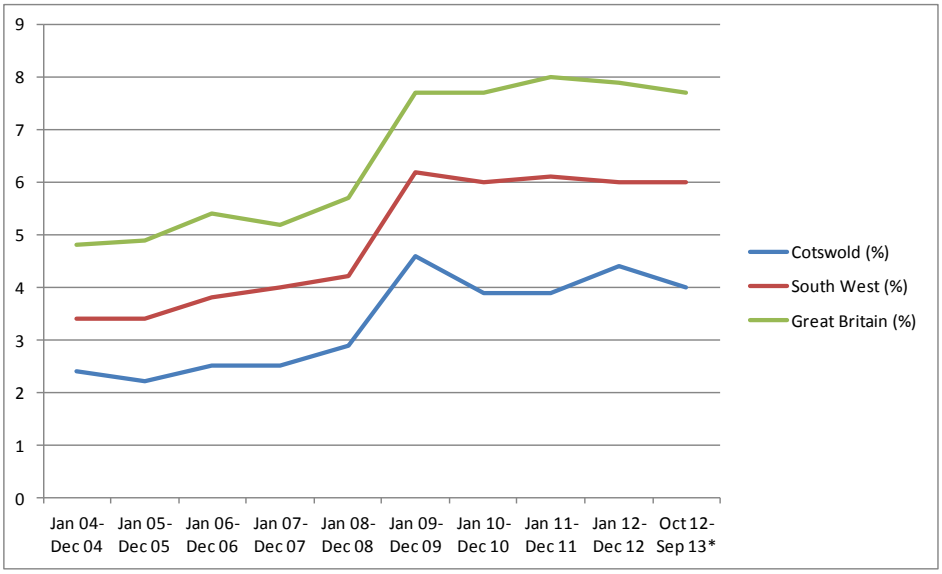
4.35 More recently there has been a slight rise again (Fig 11) to reach 1,800 (4.2%) in 2012. Nevertheless, unemployment rates in Cotswold remain significantly better than the SW regional and, especially, the national (GB) level (Fig 12) and appear to have been improving more rapidly than the broader trend.

Fig 11 Cotswold: Total unemployment [66]



Source: ONS Annual Population Survey
Note: numbers and % are for those aged 16 and over. % is a proportion of economically active

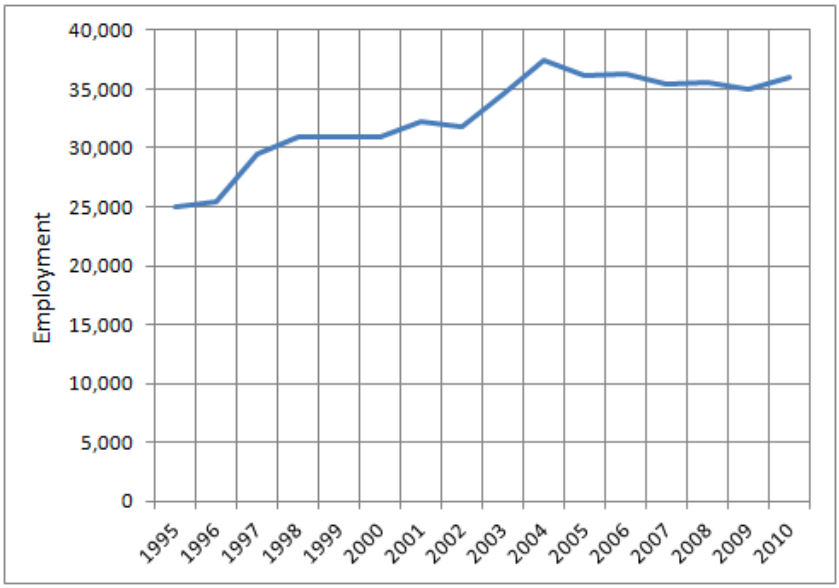
Fig 12 Cotswold: Comparative average unemployment rates (%)



Source: ONS Annual Population Survey * Note: Jan 12-Dec 12 data not available on NOMIS at time of writing

[66] ILO definition: Unemployed people are defined as jobless, have been actively seeking work in the past four weeks and are available to start work in the next two weeks; or they are out of work, have found a job, and are waiting to start it in the next two weeks. http://www.statistics.gov.uk/hub/labour-market/people-not-in-work/unemployment
This definition is used by the UK Government alongside the older, narrower definition of unemployment based on unemployment benefit claimants. It measures the number of people claiming unemployment-related benefits. Since October 1996 this has been the number of people claiming Jobseeker's Allowance. It does not include people claiming other benefits or just otherwise seeking work. http://www.statistics.gov.uk/hub/labour-market/people-not-in-work/claimant-count/index.html

Fig 13 Cotswold: Employment change (employees) 1995-2010



Source: ONS annual business inquiry employee analysis

Table 7 Cotswold: Employment 1995-2010 by full time & part time

	All employees			Part-time employee jobs as % of total		
	Full time	Part time	Total	Cotswold	South West	Great Britain
1995	16,868	8,157	25,025	32.6%	31.0%	28.6%
1996	16,775	8,707	25,482	34.2%	32.8%	29.6%
1997	19,823	9,602	29,425	32.6%	31.4%	28.9%
1998	19,000	12,000	31,000	38.7%	34.9%	30.0%
1999	19,100	11,900	31,000	38.4%	33.8%	30.2%
2000	19,200	11,800	31,000	38.1%	34.9%	30.5%
2001	20,300	11,900	32,200	37.0%	34.7%	30.7%
2002	20,800	11,000	31,800	34.6%	36.0%	31.6%
2003	21,700	12,900	34,600	37.3%	36.6%	31.9%
2004	23,200	14,200	37,400	38.0%	36.2%	32.1%
2005	22,200	13,900	36,100	38.5%	35.9%	32.0%
2006	23,000	13,300	36,300	36.6%	35.3%	31.1%
2007	22,400	13,000	35,400	36.7%	34.6%	31.0%
2008	22,300	13,300	35,600	37.4%	35.3%	31.2%
2009	21,400	13,600	35,000	38.9%	36.1%	32.1%
2010	22,300	13,700	36,000	38.1%	35.8%	32.3%

Source: ONS annual business inquiry employee analysis

4.36 Although unemployment has risen since the beginning of the recession, the number of employee jobs in Cotswold appears to have held up well in the meantime, stabilising at around 36,000 between 2006 and 2010, the latest year for which statistics are available at the time of writing (Fig 13, Table 7). However, in net terms, this means that there has been no growth in

employment recorded since 37,400 was reached in 2004.[67] This contrasts with the period of relatively rapid growth in employment in the District during the 1990s as the local economy recovered from the recession at the beginning of that decade.

4.37 It is possible that the rise in unemployment and poorer economic prospects generally since 2008 have had less noticeable impact of the number of local jobs due to one or more of the following: a shift towards more part time working or more people commuting out of the District/ fewer people commuting in to work, an increase in self employment, a rise in the population creating more local service jobs (although this also means a likely rise in in the number of economically active putting more pressure on jobs). The general issue of commuting flows will be looked at below but, currently, there is no hard evidence yet available from the 2011 Census[68] to support the supposition of increases in outward commuting.

4.38 The self employment figures actually appear to have reached a peak of around 10,000, i.e. before the recession, and have since fluctuated between 6,300 (2010) and 8,200 people (2011).[69] Cotswold has a relatively high proportion of its workforce in self employment[70] anyway but it is worth noting that between the 2001 and 2011 Censuses, the number rose by 1,345 to 9,667, an increase of 17.4%. This is substantial but not sufficient to absorb the rise in unemployment since 2008.

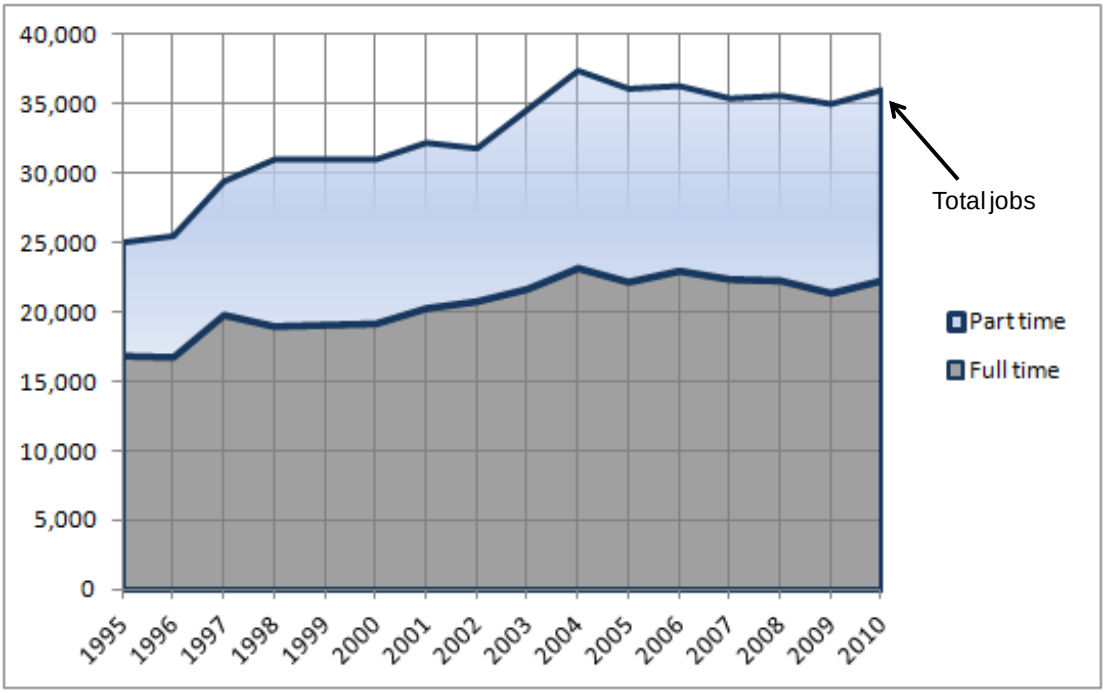
4.39 Cotswold's population rose by 2,800 between 2001 and 2011. At the same time the total economically active population increased from 40,431 to 43,206, and rise of 2,775 (6.9%) therefore this has added to the potential pressure on jobs in the area and other things being equal, we would have expected a more substantial increase in unemployment and/or jobs in the District.

4.40 Between 2001 and 2011, the number of local residents employed part time rose by 1,383, an increase from 18.1% to 20.1% of the total economically active. The number of part time jobs locally at 38.1% of all jobs in 2010 is a little higher than for both the south west region and Great Britain (Table 7). Although the number grew considerably during the 1990s and early 2000s, they have remained fairly static at around 13,500 in total since reaching an apparent peak in 2004 (Fig 14).

4.41 While the proportion of part time jobs has increased slightly, analysis of overall trends in growth (Fig 15) shows that the rate of general growth in both full and part time employment available locally are virtually identical over the period from 1995 onwards. The impact of recession seems not to have greatly increased the incidence of part time work in Cotswold at least. Also, given that some people will hold more than one part time job (nationally this is less than 5% of all jobs), this will not necessarily have increased the total number of opportunities for people in work.[71]

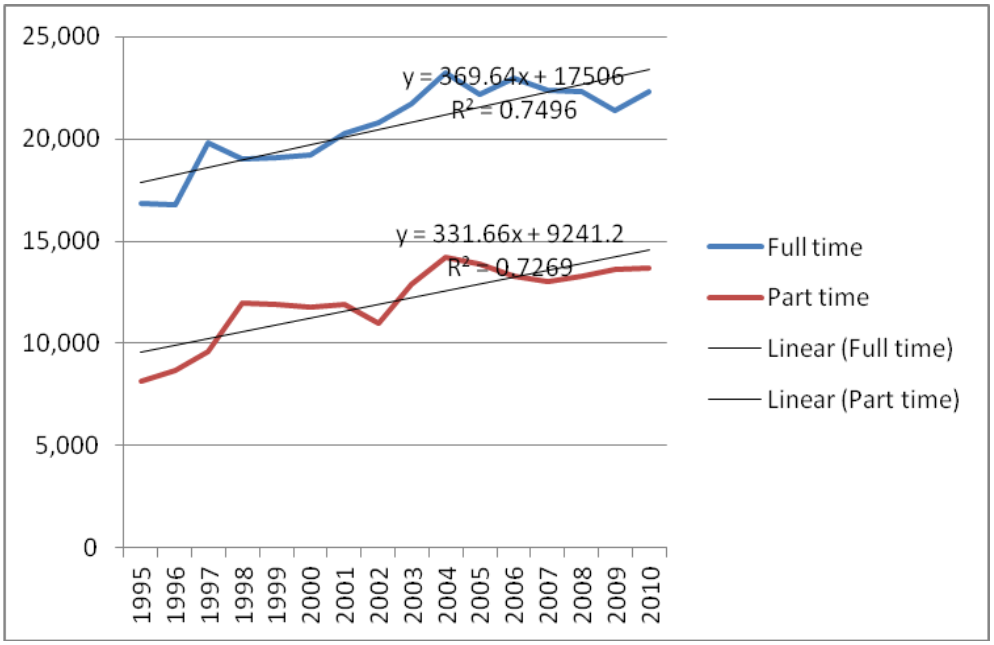
[67] Measured by the ABI (annual Business Inquiry) up to 2008, and from then on by the BRES (Business Register Employment Survey) with an overlap year in 2008. It should be noted that differences in the way in which the official figures are compiled over time means that small variations between totals for different years may not be significant.
[68] Likely to be available later in 2012 or into 2014.
[69] ONS Annual Population Survey. Part of this effect may be due to sampling error in the survey of course.
[70] In 2011, 13.5% of those economically active were self employed in Cotswold compared with 11.1% for SW region and 9.2% for GB (NOMIS, ONS Annual Population Survey).
[71] Against this of course a small proportion of full time jobs are shared by more than one person.

Fig 14 Cotswold: Employment 1995-2010 by full time & part time



Source: ONS annual business inquiry / BRES employee analysis

Fig 15 Cotswold: Trends in employee jobs growth, full & part-time



Source: ONS annual business inquiry / BRES employee analysis

4.42 Table 8 and Fig 16 show that Cotswold has high, if slightly declining levels of economic activity for both males and females in the population compared with the south west and Great Britain. This has helped considerably to reduce the rate of growth in numbers of locally economically active and taken some pressure off both the labour market and the numbers unemployed. It also would provide some further degree of cushioning for the labour market when the economy starts showing signs of more vigorous recovery.

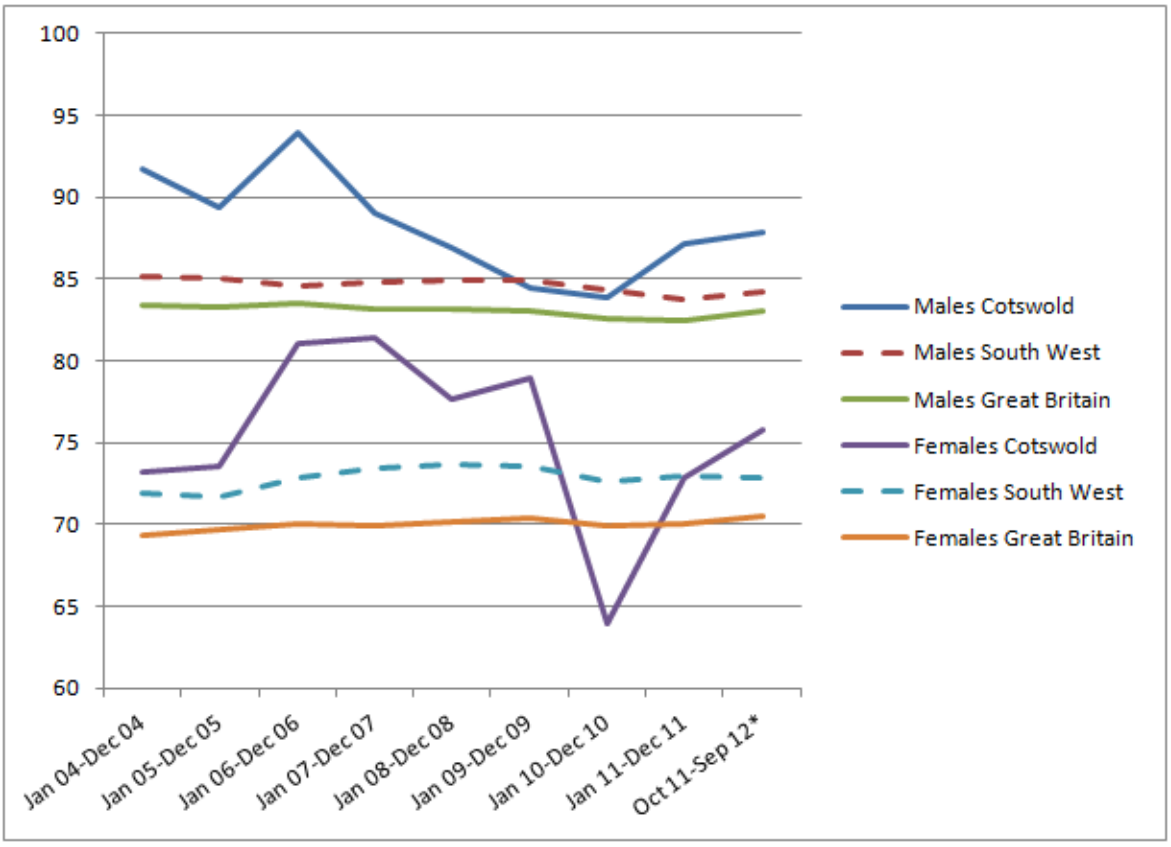
Table 8 Cotswold: Economically active totals and % of population aged 16/64

Date	Males				Females			
	Cotswold total	Cotswold (%)	South West (%)	Great Britain (%)	Cotswold total	Cotswold (%)	South West (%)	Great Britain (%)
Jan 04-Dec 04	23,800	91.7	85.1	83.4	18,800	73.2	71.9	69.3
Jan 05-Dec 05	23,600	89.4	85.0	83.3	20,000	73.6	71.7	69.7
Jan 06-Dec 06	24,200	94.0	84.6	83.5	21,300	81.0	72.9	70.0
Jan 07-Dec 07	23,800	89.0	84.8	83.2	22,100	81.4	73.4	69.9
Jan 08-Dec 08	23,700	86.9	84.9	83.2	20,800	77.6	73.7	70.2
Jan 09-Dec 09	22,900	84.4	84.9	83.1	20,800	79.0	73.5	70.4
Jan 10-Dec 10	23,000	83.9	84.3	82.6	17,200	63.9	72.6	69.9
Jan 11-Dec 11	23,400	87.2	83.8	82.5	18,900	72.9	73.0	70.1
Oct 11-Sep 12*	22,200	87.9	84.2	83.0	20,000	75.8	72.8	70.5

Source: ONS Annual Population Survey

* Note: Jan 12-Dec 12 data not available on NOMIS at time of writing

Fig 16 Cotswold: Economically active totals and % of population aged 16/64



Source: ONS annual population survey Numbers are for those aged 16 and over, % are for those of aged 16-64

* Note: Jan 12-Dec 12 data not available on NOMIS at time of writing

Commuting and self containment of the labour market

4.43 It was noted above that the 2011 Census figures for workers commuting to and from Cotswold were not available at the time of writing and not expected until April-June 2014. However a number of observations can be made on the basis of existing information, particularly that from 2001.

4.44 Work by ONS looking at commuting patterns from the 2008 Household Survey found that Cotswold is characterised by a comparatively high degree of self-containment in terms of the balance of people living and working within the District, those commuting out to other places and those coming into the area daily to work. Two measures were used:

i) a place of residence defined measure of self-containment: do the working residents in a particular area also work in that area or?
ii) a workplace measure: do the people who work in a particular area also live there?

4.45 It was found that the degree of self-containment was 71% on the residence based measure and 70% on the workplace measure. Both of these figures are quite high, especially compared with other fairly rural district within relatively easy access of large employment centres. It also compares with equivalent figures of 71% and, only, 54% respectively for Cheltenham, 66% and 53% for Gloucester and 67% and 73% for Stroud.

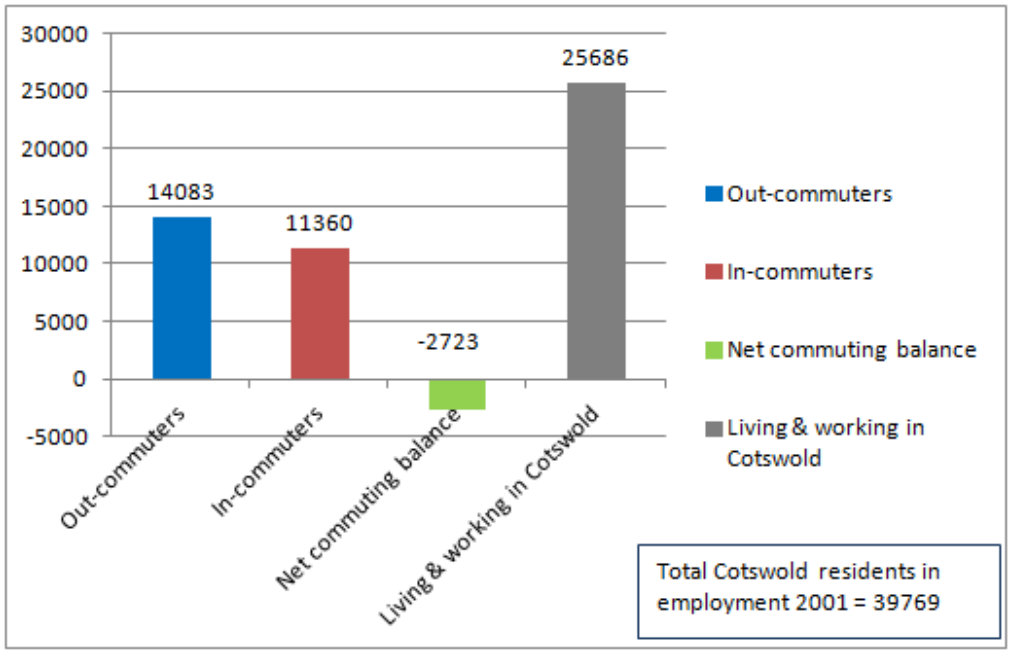
4.46 This picture of a reasonably self-contained labour market is supported by a further measure, the ratio of total employment in the District to the total population aged 16-64. This ratio, the "jobs density" is slightly higher than the Gloucestershire average at 0.86 (Table 9).

Table 9 Cotswold labour market balance: comparative jobs densities

	mid-2010	2010	
	Population	Labour demand	
		Jobs	
	16-64 (000s)	Total (000s)	Jobs Density 16-64 (ratio)
UNITED KINGDOM	**40,349**	**31,093**	**0.77**
SOUTH WEST	**3,313**	**2,706**	**0.82**
Gloucestershire	373	315	0.84
Cheltenham	75	71	0.95
Cotswold	**51**	**43**	**0.86**
Forest of Dean	52	28	0.55
Gloucester	77	72	0.94
Stroud	69	57	0.83
Tewkesbury	51	43	0.85

Source: ONS Business Register Employment Survey

Fig 17 Cotswold: Broad commuting flows 2001



Source: 2001 Census/NOMIS

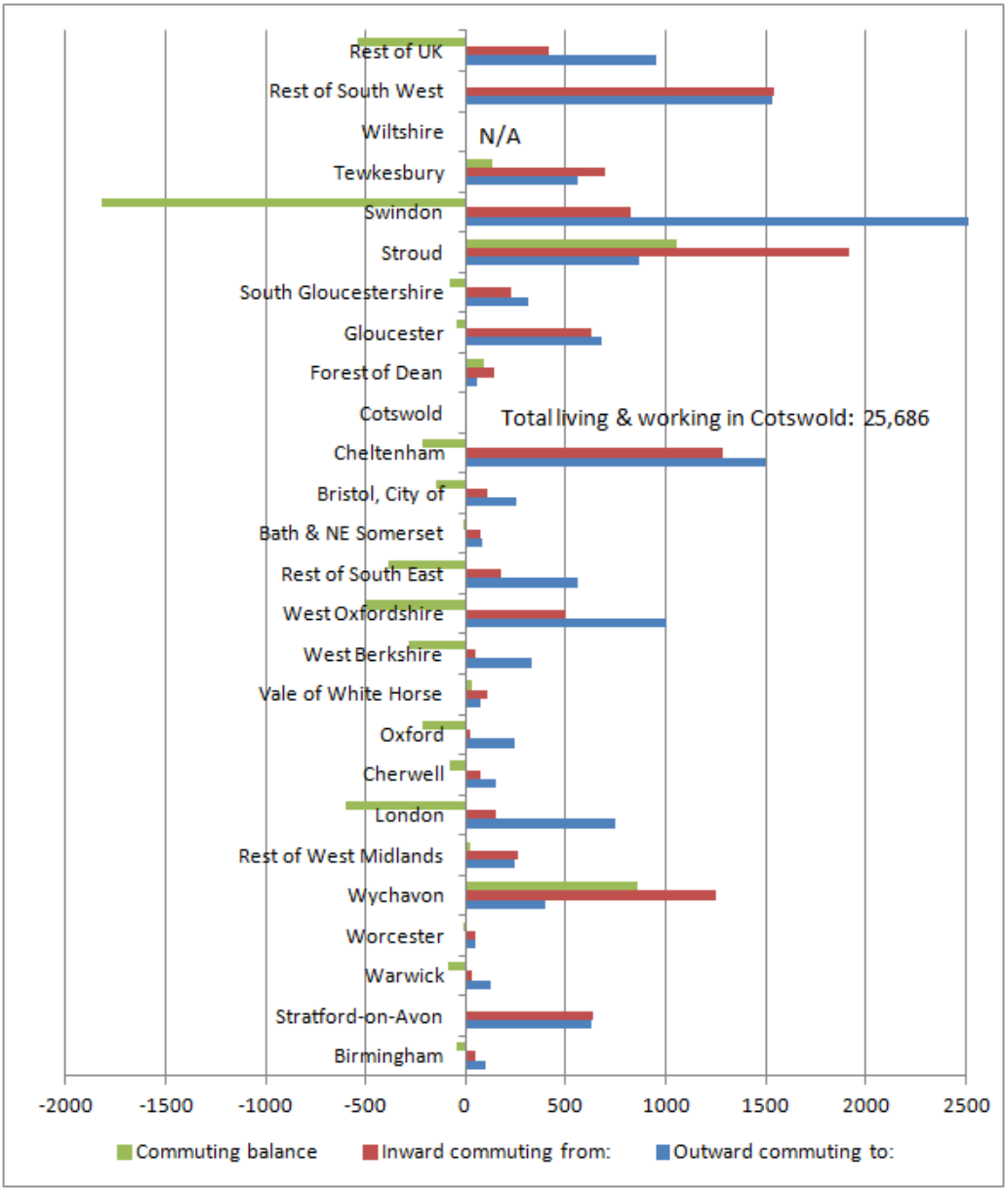
Table 10 Cotswold District commuter flows 2001

	Outward commuting to:	Inward commuting from:	Commuting balance
Birmingham	99	*49*	-50
Stratford-on-Avon	627	*633*	6
Warwick	123	*31*	-92
Worcester	51	*46*	-5
Wychavon	398	*1,252*	854
Rest of West Midlands	240	*264*	24
London	748	*148*	-600
Cherwell	147	*70*	-77
Oxford	244	*24*	-220
Vale of White Horse	77	*111*	34
West Berkshire	332	*47*	-285
West Oxfordshire	1001	*504*	-497
Rest of South East	559	*172*	-387
Bath & NE Somerset	82	*70*	-12
Bristol, City of	255	*106*	-149
Cheltenham	1499	*1,282*	-217
Cotswold			
Forest of Dean	53	*142*	89
Gloucester	679	*631*	-48
South Gloucestershire	309	*231*	-78
Stroud	866	*1,919*	1053
Swindon	2647	*826*	-1821
Tewkesbury	559	*695*	136
Wiltshire	0		0
Rest of South West	1533	1,541	8
Rest of UK	955	418	-537
Totals	**14,083**	**11,360**	**-2723**

Source: 2001 Census/NOMIS Note: 2001Wiltshire data missing from NOMIS dataset

4.47 As far as commuting flows per se are concerned, this picture of a fair degree of self containment is well reflected in the 2001 Census travel to work data. This shows that 64.6% of Cotswolds economically active residents in employment lived and worked within the District (Fig 17). The remaining third of residents (14,083) exceeded those commuting to give a small negative commuting balance of 2,723. Given the relative lack of large employers in the District, this shows a sustainable pattern of commuting flows which needs to be borne in mind when expanding the housing stock.

Fig 18 Cotswold District commuter flows 2001



Source: 2001 Census/NOMIS
Note: 2001Wiltshire data missing from NOMIS dataset

4.48 Table 10 and Fig 18 show the major commuting origins and destinations that characterised Cotswold in 2001. There is little reason to think that the results of the 2011 Census will be radically different apart, perhaps from an increase in some of the gross flows involved. As might be expected, major negative flow balances occur in relation to Swindon in particular, but also West Oxfordshire and to London. The largest positive flow balances (i.e. net inward commuting) are with

Stroud District and Wytchavon. As would be expected, there are large commuting flows to and from Cheltenham and to and from Gloucester. However, the net commuting balances involved are very small at -217 in the case of Cheltenham and only -48 with Gloucester.

4.49 Again the picture is of a spatially well balanced labour market and this needs to be borne in mind when considering future levels of housing – too little could lead to more inward commuting amongst other things, whereas too generous an allocation could stimulate a more substantial, less sustainable "dormitory" function for the District.

Future change: economic forecasts and employment projections:
Economic growth

4.50 This section of the report moves from the current state of the local economy and looks ahead at forecasts of future economic performance and at associated likely changes in employment. It then looks at projected changes in local labour supply to see whether, without significant increases in recent rates of house building, ageing of the population structure over time is likely to place a constraint on economic growth or will encourage unsustainable inward commuting.

4.51 Recent local forecast growth assumptions by Cambridge Econometrics Ltd[72] for their LEFM model[73] are shown in Fig 19 and Table 11. The historic data in Fig 18 back to 1981 shows that Cotswold has generally outperformed the UK economy in most years since the early 1990s, although there were signs of an apparent slow-down locally after 2005/6.[74] Since the onset of the actual recession in 2008 however the margin by which Cotswold has outperformed the UK as a whole has re-established itself. The LEFM forecast data suggests that both nationally and locally economic growth will recover fully after 2016 (i.e. broadly in line with the official OBR figures shown in Fig 4), with UK growth settling down at around 2.3% p.a. after an initial short "bounce back" effect period of higher growth. Cotswold is forecast to follow a similar pattern but at the rather higher rate of 2.7% from 2021 onwards.

4.52 Figs 20 and 21 show the differences in general GVA growth trends for Cotswold in the forecasts between the pre-recession period and that since.

Table 11 Cambridge Econometrics LEFM Annual average GVA growth forecast: Cotswold & UK

GVA % p.a.

	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012	2012 - 2013	2013 - 2014	2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025
Cotswold	-1.8	-1.2	-1.5	3.9	3.4	-1.5	1.6	1.5	1.7	1.7	2.4	2.6	3.2	2.9	2.9	2.7	2.7	2.6	2.8
UK	4.0	-0.9	-4.5	2.0	1.3	-0.5	1.1	1.6	1.5	1.5	2.1	2.3	2.7	2.6	2.4	2.3	2.3	2.2	2.3

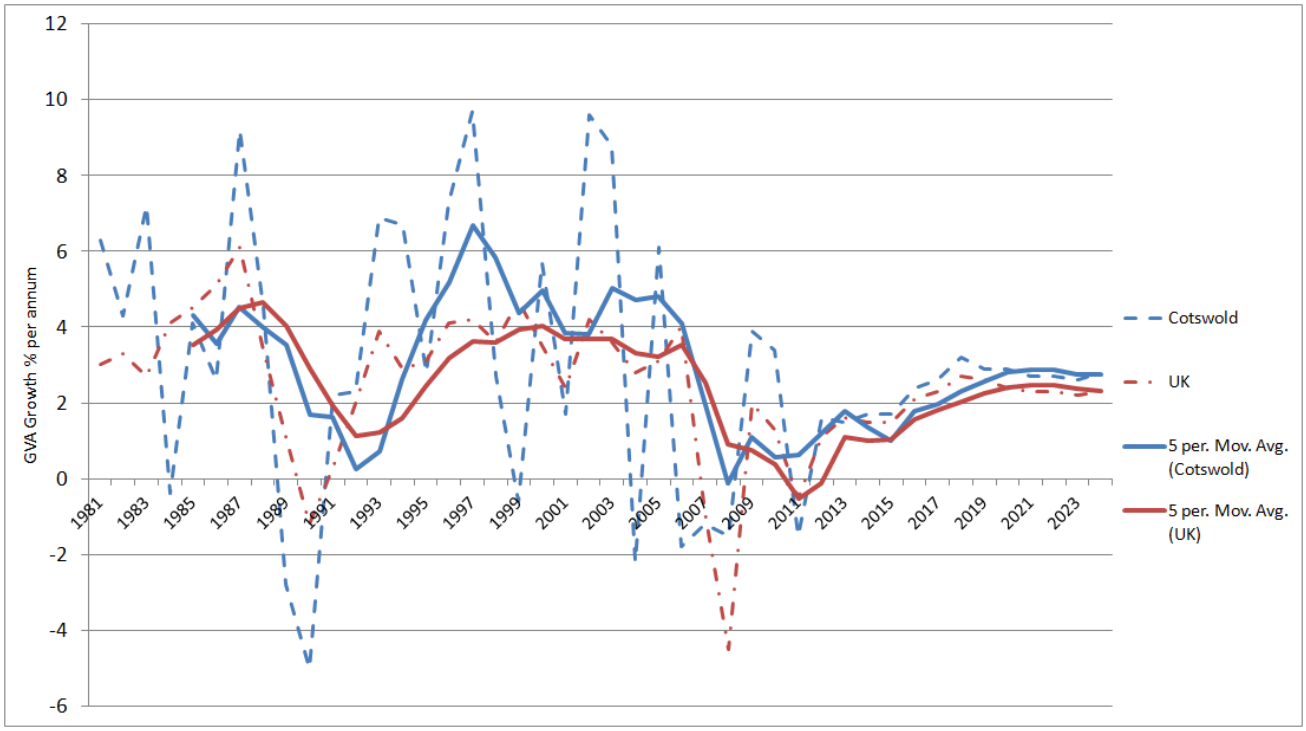
Source: LEFM Forecast round 122 (July 2012)

[72] LEFM output data (July 2012 forecasts, Feb 2013 update) provided courtesy of Gloucestershire County Council and Gloucestershire LEP.

[73] Local Economy Forecasting Model. See: http://www.camecon.com/AnalysisTraining/suite_economic_models/LEFM/LEFMOverview.aspx

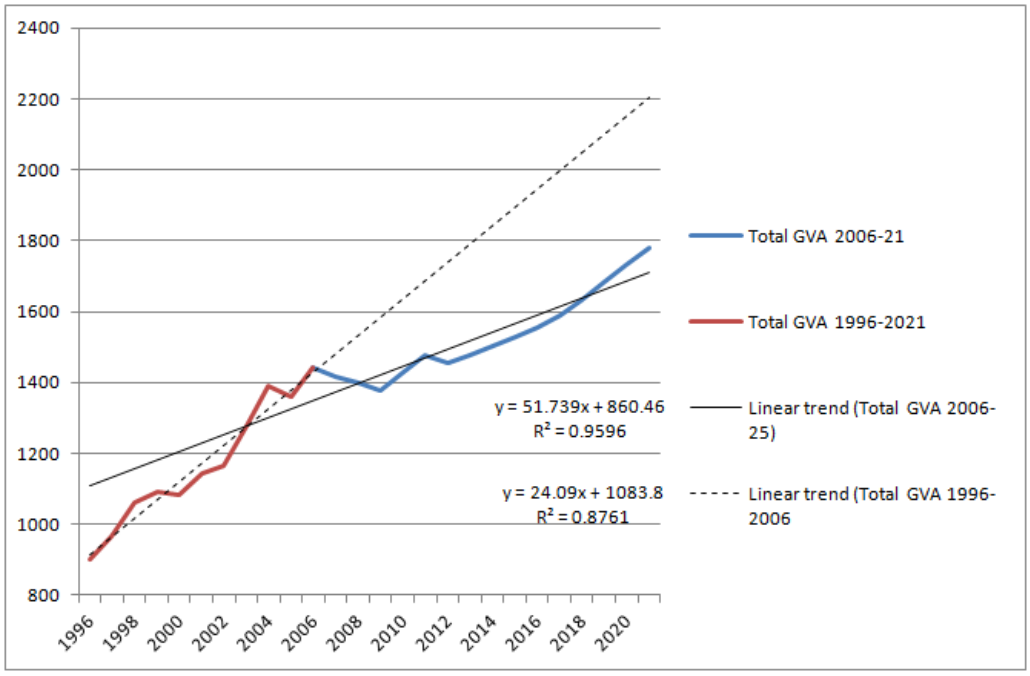
[74] ONS local economic output data is necessarily based on small sample sizes and therefore year to year changes need to be treated with caution. A better guide is the 5 year moving average data shown in Fig 18.

Fig 19 Cambridge Econometrics LEFM Annual & 5-year moving average GVA growth: Cotswold & UK



Source: LEFM Forecast round 122 (July 2012)

Fig 20 Cotswold: Gross Value Added Forecast to 2025
A) Trend analysis 1996-2006; 2006-25

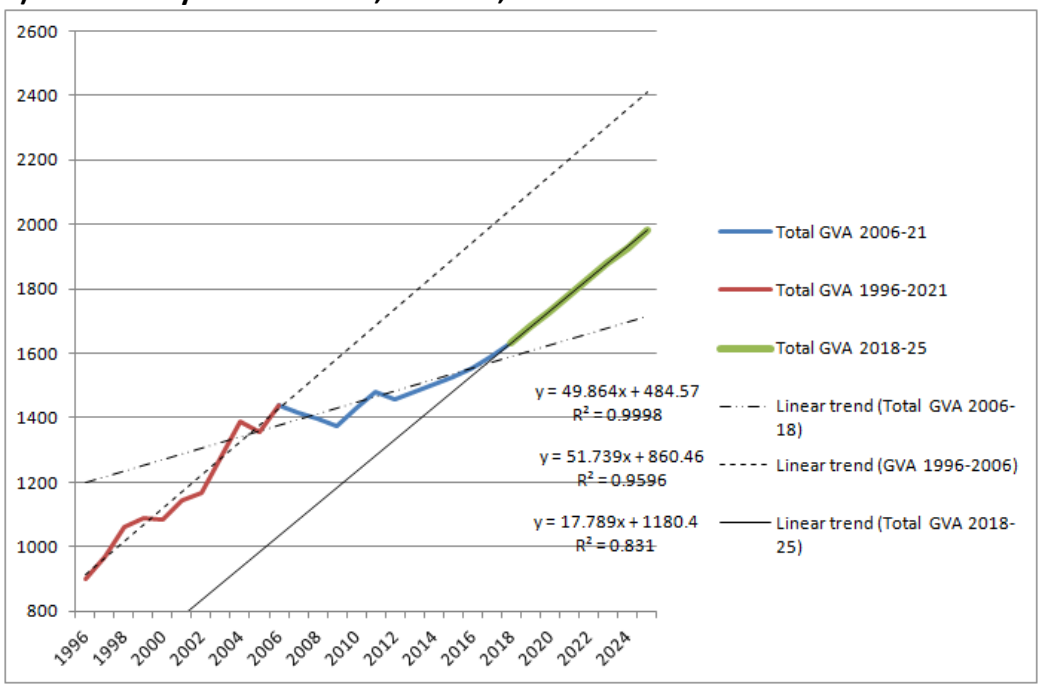


Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

4.53 In figure 20, a linear trend line fitted to the whole post 2006 period up to 2025 is compared with the trend for 1996-2006. This shows that the slope of the overall trend post 2006 rises at only half the rate of the pre 2006 trend. However, once the trend for the recession/ depression dominated 2006-2018 period is removed (Fig 21), it can be seen that the slope of the post 2018 forecast trend for Cotswold actually is very similar to that of the pre 2006 period. This is

encouraging news for the district and reflects a local economic structure projected to be slightly more likely to exhibit higher future growth than the national average.

Fig 21 Cotswold: Gross Value Added Forecast to 2025
B) Trend analysis 1996-2006; 2006-18; 2018-25



Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

4.54 How realistic are these assumptions, particularly for the UK as it is national economic growth that has the most critical influence on rates of local change? In particular, why is the longer term forecast of 2.3% GVA growth p.a. set lower than that of the pre-recession growth trend for the UK of around 2.7%? After all, a better performing national economy might reasonably be expected to further benefit growth rates in Cotswold.

4.55 The answer lies in the rather more difficult economic conditions expected to prevail in the world economy over the medium to longer term, and certainly during the remainder of both this and the next decade. In addition, many economists are of the opinion that the UK's longer term productive capacity is likely to be damaged by the effects of prolonged recession. [75] The UK faces factors such as continuing growth problems across many of the Eurozone countries and, until recently, subdued growth in the USA, the UK's two largest export markets, together with the rise of competition from the so-called BRICS[76] countries and other developing economies. This has greatly increased international competition both for markets for traded goods and services and for access to raw material resources.

4.56 To provide some further perspective, the Cambridge Econometrics LEFM forecasts are in line with key elements of earlier forecasts by Oxford Economics Ltd in 2010. These were jointly commissioned by the former SWRDA and SW Councils at county and unitary authority level across

[75] For example see NIESR "Prospects for the UK economy" 4 May 2012 http://www.niesr.ac.uk/pdf/030512_163008.pdf ; also John Irons (2009) "Economic scarring: The long-term impacts of the recession", Economic Policy Institute, 30/09/09 http://www.epi.org/publication/bp243/

[76] Brazil, Russia, India, China and South Africa.

the south west statistical region.[77] The national economic growth assumptions behind these scenarios are shown in Table 12. The scenarios have since been used for a number of core strategies to date that have proceeded as far as examination, notably South Gloucestershire, North Somerset and Bath and NE Somerset. The key point is that, at the time, the view of most of those opposing the LDP proposals was that these scenarios were far too pessimistic.

4.57 The latest forecasts by Cambridge Econometrics and by the OBR (Tables 11 and 4) in fact show that the 2010 scenarios have erred on the optimistic side to date. Up to 2020, the actual UK performance to date plus the Cambridge forecast shows growth (averaging 1.7% p.a. 2011-2020) only fractionally above the Oxford "Low Growth" scenario (1.5% p.a. average). Post 2021 the Cambridge growth rate (2.3% p.a.) is similar to the Oxford "Central Forecast" rate of 2.1%.

Table 12 Comparative national growth assumptions: Oxford Economics forecast scenarios for the UK economy June 2010

Economic Growth Scenarios for the UK – key assumptions

(GVA growth % per annum)

Projection Scenario	1997-2006	2007 & 2009	2010	2011-20	2021-26	2007-26 annual average
Central	2.7	-2.3	1.0	2.3	2.1	1.5
High Growth	2.7	-2.3	1.0	2.7	2.7	1.9
Low Growth	2.7	-2.3	1.0	1.5	1.3	0.9
Pre recession trend	2.7	2.7	2.7	2.7	2.7	2.7

Source: Oxford Economic s 2010

Future employment change

4.58 These forecasts of economic output have obvious significance for future employment growth and potential pressures on the local housing market. Critically this context it is worth remembering that growth of around 1.5 – 2.0% GVA pa is normally required just to hold employment numbers steady. This is due to the effects of constant productivity rises in the wider economy due in particular to global competition. The typical components of economic growth and the role played by productivity improvement are shown in Table 13 ("trend output per hour worked"). Of an average annual growth in economic output between 1986 and 1997 of 2.5%, no less than 2% was accounted for by productivity improvement. Between 1997 and 2006 this had risen to 2.3% out of total annual growth of 2.9%. Obviously the impact of this will vary according to local economic structure but the fact remains that a relatively brisk rate of economic output growth is required to support even modest increases in employment.

[77] Oxford Economics South West Growth Scenarios: Final Report June 2010

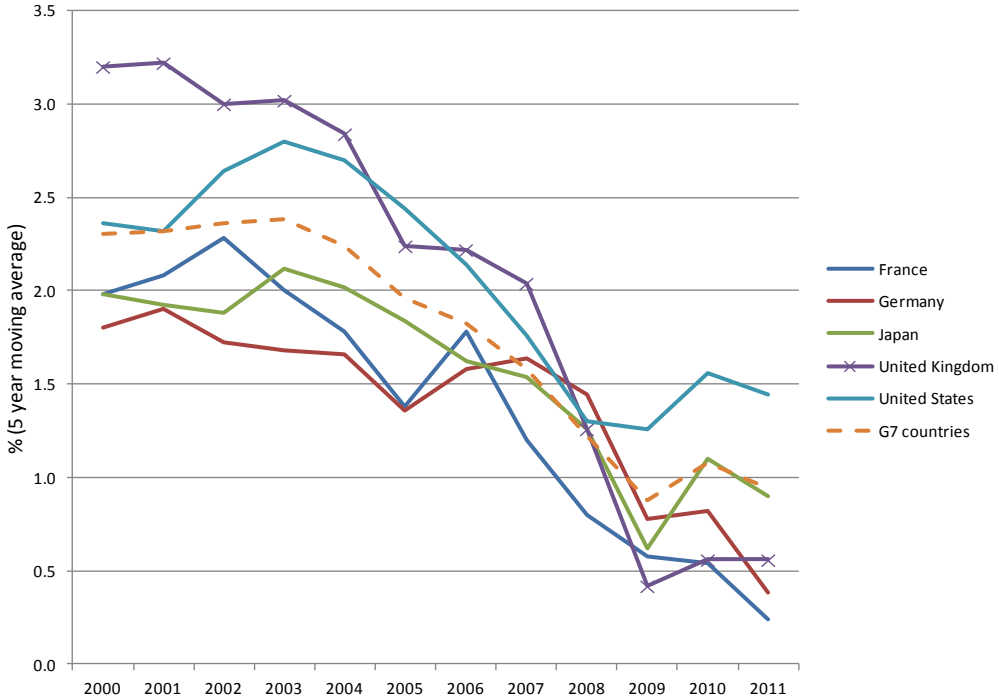
Table 13 Historical contributions to UK potential output growth (% per annum)

	1986 Q2 – 1997 H1	1997 H1 – 2006 H2	Change
Trend output per hour worked	**2.0**	**2.3**	**+0.3**
Trend in average hours worked	-0.2	-0.4	-0.2
Trend employment rate	0.4	0.4	0
Population growth	0.2	0.6	+0.4
Total Potential Output	**2.5**	**2.9**	**+0.4**

Source: Oxford Economics, 2010

4.59 Against this, the seemingly relentless improvements in productivity seen in the past have been slowing gradually in most developed countries as the "law" of diminishing returns takes effect. This was apparent even before the recession (see Fig 19). The economy of the future may have less scope to improve productivity as the shift towards service employment continues. To take a rather prosaic example, it is difficult for a hairdresser to deal with more than a certain number of clients in the course of an hour.[78] This decline is certainly not an exclusively UK phenomenon and is apparent across the economies of the former G7 countries (Fig 22).[79]

Fig 22 Labour productivity: average annual growth rate (%)



Source: OECD

[78] Though even here there could be some scope for a haircutting robot perhaps. In a recent paper, Carl B. Frey and Michael A. Osborne estimate that around 47% of current jobs in the USA are at high risk of being replaced by computerisation over the next two decades. Surprisingly a substantial share of service occupations appear increasingly susceptible to automation. This is evidenced by recent growth in the market for service robots and the gradually diminishing comparative advantage of human labour in tasks involving mobility and dexterity (C.B. Frey and M.A. Osborne "The future of employment: how susceptible are jobs to computerisation?" Oxford Martin School, Programme on the Impacts of Future Technology, University of Oxford, September 17, 2013)

[79] The former G7 comprised France, West Germany, Italy, Japan, United Kingdom, Canada and United States,

4. 60 The latest LEFM figures for Cotswold shows an increase of 5,600 jobs[80] up to 2025, the final projection year for the forecast. (Table 14 and Fig 23). The data shows an average projected growth of 400 jobs p.a. for 2011-25, compared with just under 500 p.a. for 1981-2011 and 870 p.a. for the years of relatively rapid growth in the period 1996-2006. Between 2006 and 2011, the LEFM data shows that there was no net increase in jobs.

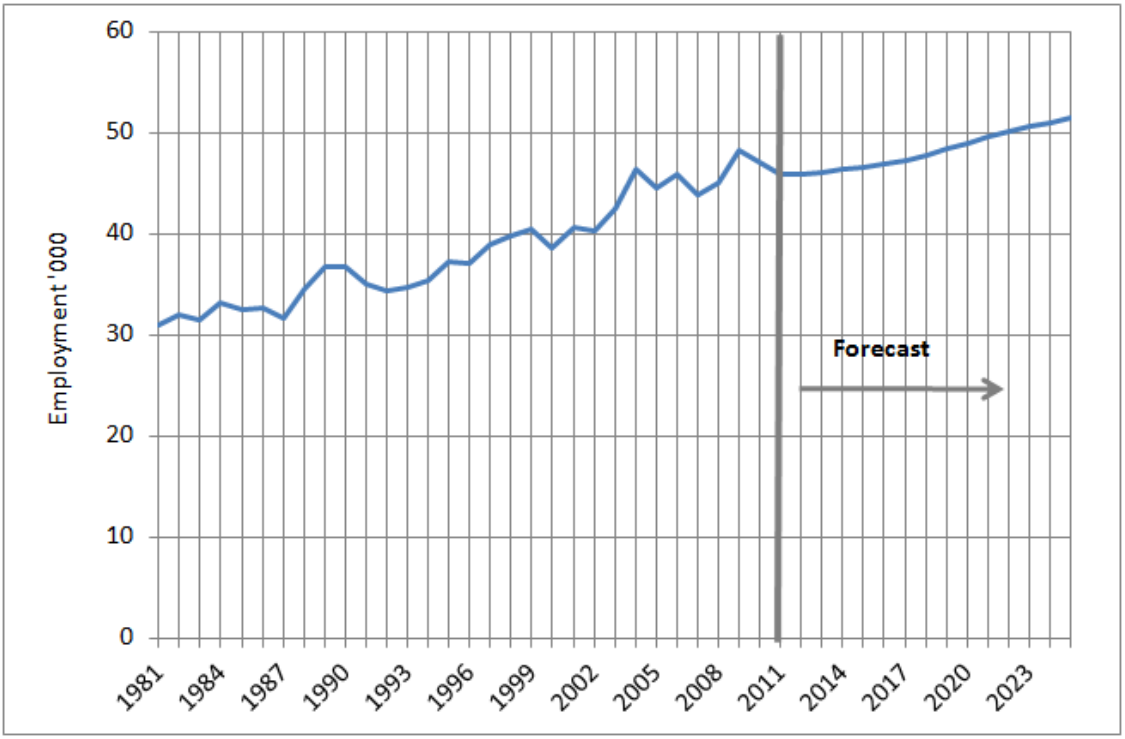
Table 14 Cotswold: Total employment – LEFM Forecast to 2025

	1981	1986	1991	1996	2001	2006	2011	2016	2021	2025
Employment '000	31.0	32.6	35.0	37.1	40.6	45.8	45.8	46.9	49.6	51.4

Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

*

Fig 23 Cotswold: Total employment – Long term trend & forecast to 2025

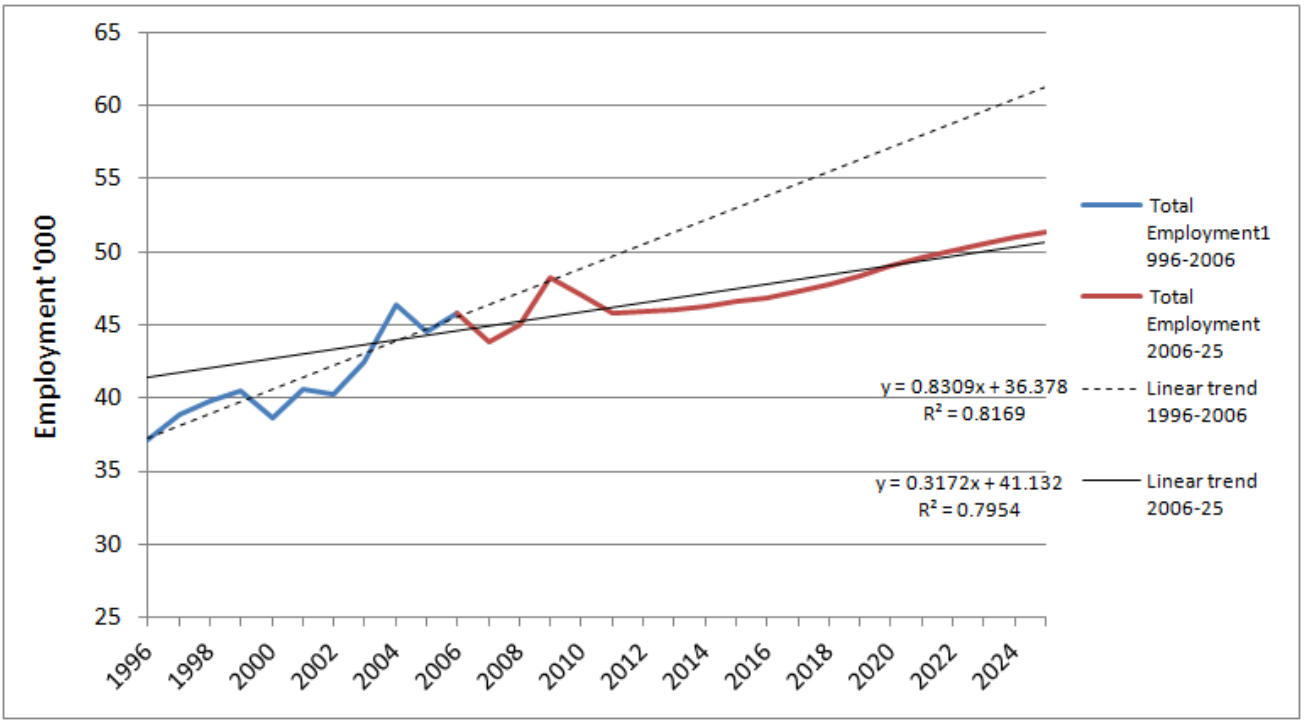


Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

4.61 The overall reduction in growth rates for the period after 2006, which includes the severest part of the recession, compared with the period immediately beforehand can be seen in the dramatic differences in slope between the statistical trend line for the two time periods (Fig 24).

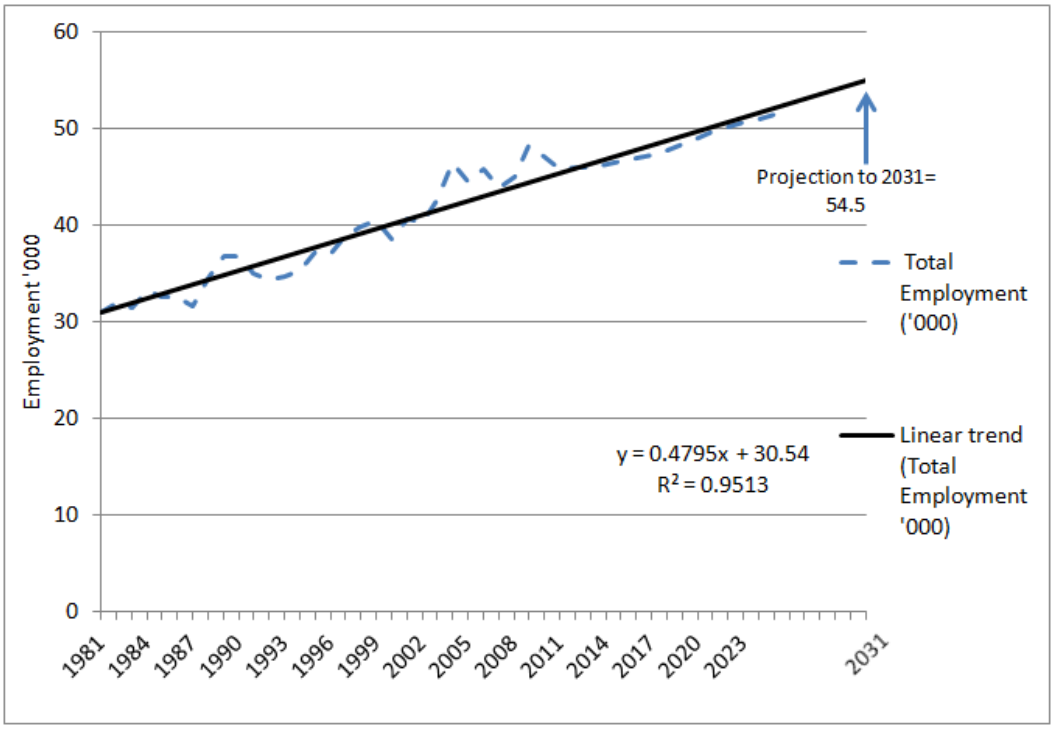
[80] The LEFM figures include self employment.

Fig 24 Cotswold: Total employment forecast - trends 1996-2006, 2006-2025



Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

Fig 25 Cotswold: Long term employment growth trend actual and LEFM based projected growth trend 1981-2031



Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

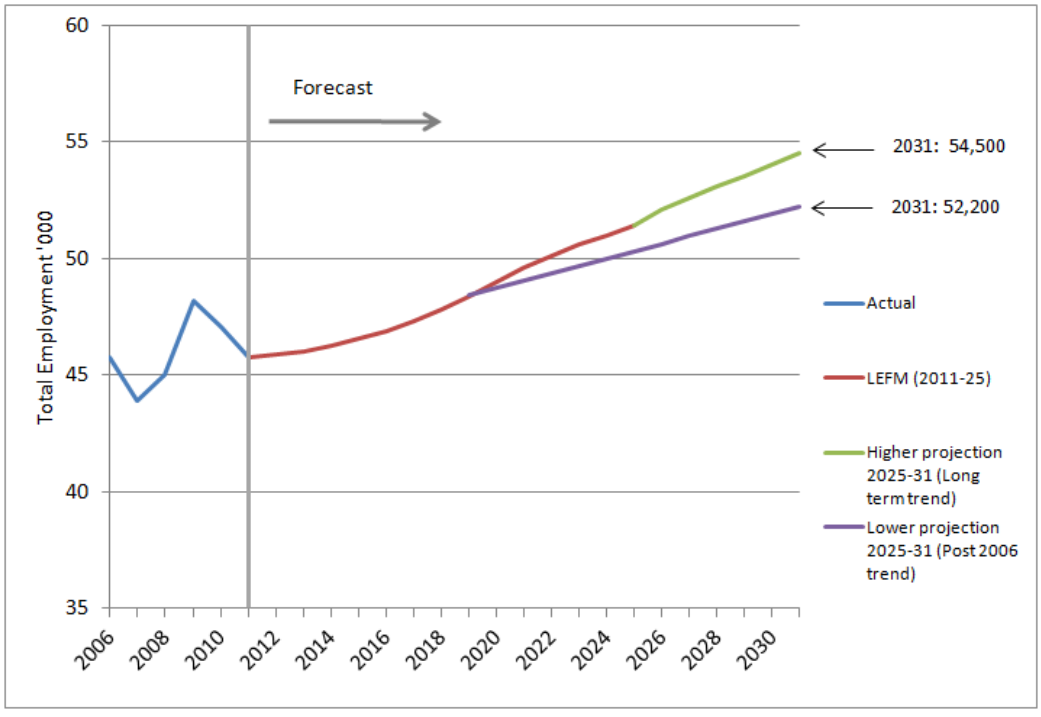
4.62 However, taking a longer view back to 1981 shows that the post 2011 projection is very much in line with the long term trend in Cotswold job growth, the higher rates of growth earlier in the 2000s and the subsequent period of low growth until 2016 (forecast) simply being statistical outliers in what is a remarkably consistent long term growth picture. Fig 25 demonstrates this by fitting a simple linear trend line to the period 1981 to 2011 and then to the end of the 2025 forecast. The

mathematical details of the trend are shown in Fig 25, and the trend is then continued from 2025, the end of the LEFM forecast, to 2031. This provides a projected 2031 jobs total of 54,500 and a total growth of 8,700 over the twenty years 2011-31, an average net rate of increase 2011-31 of 435 jobs p.a.

4.63 How realistic is this projection? It has been argued in para 4.54 above that there is a high risk that future productive capacity in the UK economy will be limited to levels somewhat below those seen at the end of the 1990s and into the early 2000s. The reasons for this are partly due to lasting damage to productive capacity per se, to the increase in international competition given the rise of the so-called BRICS and other developing economies, and partly to the increase in commodity prices that this competition is already bringing. In addition, the comparison with the immediate pre-2006 period is in any case distorted by the artificial expansion of the economy caused by ballooning levels of private debt. Projecting Cotswold's job growth beyond 2025 assumes the continuation of an average local GVA growth rate of 2.7% p.a. linked to a UK average of 2.3%.

4.64 Past experience, even discounting the likelihood of a recession of the severity of 2008-12,[81] shows that recessions tend to happen with monotonous regularity every 7 to 9 years or so.[82] It is therefore optimistic, to say the least, to assume that there will not be at least one period of reduced or negative job growth during the 2020s. The projection of 54,500 jobs in 2031 (a gain of 8,700 from 2011) should therefore realistically be regarded as a high figure. To obtain a lower end of the range of likely growth figures, the post 2006 growth trend shown in Fig 24 was therefore taken, diverging from the LEFM main projection from 2018 onwards in order to simulate the effects of a further period of recession before 2031. This produces the lower projection of 52,200 jobs for 2031 shown in Fig 26, a growth 2011-31 of 6,400. ***The range of job growth for Cotswold 2011-2031 is therefore projected as 6,400 to 8,700.***

Fig 26 Cotswold: Alternative employment projections to 2031



[81] Though improbable, given the factors levels of international debt plus the increasing effects of climate change

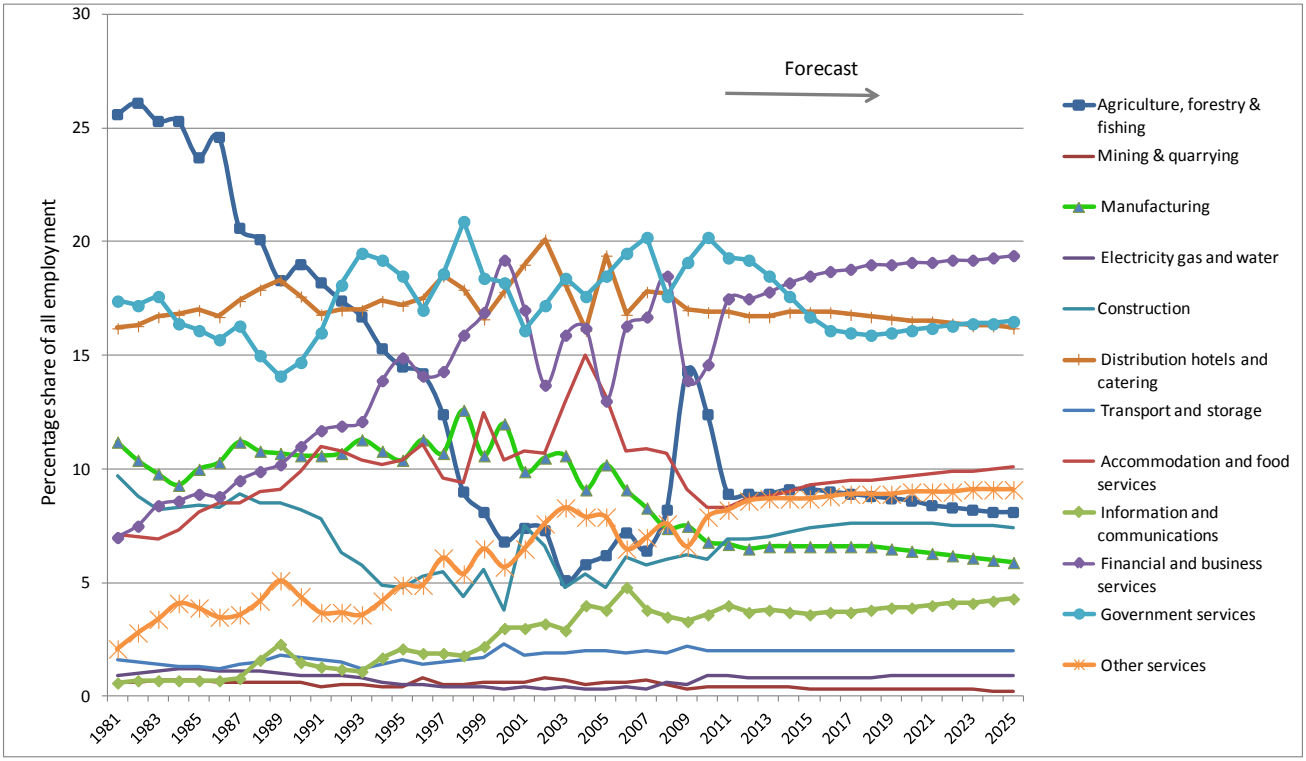
[82] For a discussion see for example Paul Ormerod and and Amy Heineike (2008) Global Recessions As A Cascade Phenomenon With Interacting Agents Volterra Ltd.

Table 15 Cotswold: Employment trends and forecast by industrial sector, 1981-2026

Levels('000)	1981	1986	1991	1996	2001	2006	2011	2016	2021	2025	Change 2011-25	Change as % of total
Agriculture, forestry & fishing	7.9	8.0	6.4	5.3	3.0	3.3	4.1	4.2	4.2	4.1	0.0	0%
Mining & quarrying	0.2	0.2	0.1	0.3	0.2	0.3	0.2	0.2	0.1	0.1	-0.1	-2%
Manufacturing	3.5	3.4	3.7	4.2	4.0	4.2	3.1	3.1	3.1	3.0	-0.1	-2%
Electricity gas and water	0.3	0.4	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.5	0.1	2%
Construction	3.0	2.7	2.7	2.0	3.1	2.8	3.1	3.5	3.8	3.8	0.7	13%
Distribution hotels and catering	5.0	5.4	5.9	6.5	7.7	7.7	7.7	7.9	8.2	8.3	0.6	11%
Transport and storage	0.5	0.4	0.5	0.5	0.8	0.9	0.9	0.9	1.0	1.0	0.1	2%
Accommodation and food services	2.2	2.8	3.9	4.1	4.4	4.9	3.8	4.4	4.9	5.2	1.4	25%
Information and communications	0.2	0.2	0.5	0.7	1.2	2.2	1.8	1.7	2.0	2.2	0.4	7%
Financial and business services	2.2	2.9	4.1	5.2	6.9	7.5	8.0	8.8	9.5	10.0	2.0	36%
Government services	5.4	5.1	5.6	6.3	6.6	8.9	8.8	7.6	8.0	8.5	-0.3	-5%
Other services	0.6	1.1	1.3	1.8	2.6	3.0	3.8	4.1	4.5	4.7	0.9	16%
Total	**31.0**	**32.6**	**35.0**	**37.1**	**40.6**	**45.8**	**45.8**	**46.9**	**49.6**	**51.4**	**5.6**	**100%**

Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

Fig 27 Cotswold: Forecast Sectoral Employment Shares (%) to 2025



Source: Cambridge Econometrics LEFM Forecast round 122 (July 2012)

4.65 Which employment sectors are expected to produce this growth? Table 15 shows the LEFM forecast to 2025 broken down into broad groups. Fig 27 shows how the percentage share of total employment for each sector has changed since 1981 and projected to 2025. Financial and business services are forecast to provide more than a third of total job growth (36%), with accommodation & food services, and other services accounting for 25% and 16% respectively. Remaining sectors showing significant growth are construction (13%) and distribution, hotels and catering (11%). The value of output by manufacturing in real terms is projected to increase by almost 50% over the period to 2025 but employment is forecast to continue to decline. This is due to the impact of

further improvements in productivity discussed above (para 4.53). It is also important to note that more than half of the increase in forecast employment is in the traditionally low wage sectors of accommodation & food services, other services and distribution, hotels and catering. This needs to be taken into account when considering future housing implications (ref para 4.28 above).

Review and appraisal: demand and supply issues affecting the housing allocation

4.66 To sum up, this part of the report has found that:

4.66.1 The Interim 2011 based sub national population projections appear to better reflect emerging trends of the post 2008 recession period, even taking account of the potential problems flagged up by the CCHPR. Although they show lower rates of growth than the earlier, pre-recession trend based 2008 based SNPP due to lower future migration assumptions, these are still significantly higher than the actual migration levels during the pre-recession period. It does not appear that future growth in the district, either of households and of population, is being unnecessarily restricted in the case of Cotswold through the use of the later figures.

4.66.2 However, relatively speaking, the ONS 2008 based SNPP in the case of Cotswold still provides a more stable basis for estimating housing requirements than the GCC trend and employment based projections. The 2008 based household projections, though they are known to have raised issues elsewhere about the appropriateness of the rates of growth shown, are likely to provide a set of projected future housing requirements for Cotswold that line up well with past monitoring data and fit other criteria such as forecast employment growth levels (see below).

4.66.3 A decision in 2013 by the Secretary of State has led to concerns regarding the 5 year land supply. Previously it was thought that, while the land supply situation is tight, it was sufficient for the likely range of additional housing numbers given the potential for bringing longer term potential sites forward,. However, a reversion to the Proposed changes RSS building rates has placed pressures on the forward supply situation and, by leading to Cotswold now being judged as an under-performing authority, has led to the imposition of an additional 20% buffer on the required supply.

4.66.4 The annual proposed interim construction rate of 300 dw in the Council's options report consultation is close to the requirement in the Structure Plan Second Review (Policy H2) and that of the 2006 revision of the Local Plan between 1991 and 2011. It is also broadly in line with levels actually experienced in Cotswold since the mid 1990s but towards the upper end of the range. In the current economic context this might still seem challenging but the indications are that the levels are achievable despite the continuing impact of recession. These figures are, however, substantially below the 345 dw p.a. figure in the Proposed Changes RSS.

4.58.5 For a range of reasons it was felt that the scale of the proposed building programme would have little impact on house prices. Cotswold is exposed to much wider market influences and, in any case, new housing is only a relatively small part of the total housing market which is dominated by secondhand properties. A bigger issue however is that a major reduction in construction would reduce housing opportunities at the cheaper end of the

market. Improving access to market housing is not all about increasing absolute numbers built.

4.58.6 The local economy has had its share of setbacks since the beginning of the recession but, relative to other areas appears to show signs of more rapid recovery. Unemployment, though still high relative to past experience, has been falling. Employment on evidence available so far is holding reasonably steady, though not increasing. The numbers of self employed (so far at least) have held steady although Cotswold already has an above average share of self employment. There are also high if declining male and female economic activity rates, while the number and proportion of jobs that are part time have increased slightly.

4.58.7 The most recent Cambridge Econometrics (CE) LEFM model employment projections carried out for Gloucestershire County Council show slow growth until 2016, in line with current HM Treasury analysis of independent forecasts. After that employment growth is projected to accelerate to the extent that, while growth trends will be significantly lower than for the years immediately preceding the onset of recession, the growth of the District post 2018 in the LEFM projection will be back broadly in line with the long term trend of growth since 1981.

4.66.8 A number of factors were identified which could derail this forecast. A major consideration is the major role that productivity improvements make towards annual economic growth, job growth being almost a residual factor that needs headline GVA increases, depending on a number of local factors, of around 1.5% or 2.0% pa before employment can increase. Growth below these rates can mean job losses even though there is still some positive GVA change.

4.66.9 Contrary to this, the long term improvement in productivity has been slowing as diminishing returns set in. Many service jobs in the so-called post industrial economy cannot easily become more productive.[83] Also, it is by no means clear that there will be much potential for a post recession/ depression "bounce back" in the economy that the CE 2012 jobs forecast shows in order to get back to the track of pre-recession trends by 2026 or so. Prolonged recessions damage capacity, particularly human capital, as people drop out of the labour market, lose previous skills by doing more mundane work and so on.

4.66.10 In support of the LEFM projection, however, the 5,600 increase in jobs projected to 2025 is not large in historic terms and is consistent with the longer term historic trend. However, continuing this trend unbroken all the way to 2031 would result in a figure of 8,700 jobs growth. As it is instead likely that the historically typical 7-9 year cycle of recession will recur in the decade leading up to 2031, a lower projection, based on more recent trends 2006-25 was used to simulate this effect. This produced a lower forecast scenario of 6,400 jobs by 2031.

4.66.11 What if job growth lower than forecast occurs? Cotswold is quite well placed in relation to a number of large employment centres, particularly Cheltenham, Gloucester, S Gloucestershire, Bristol, Swindon and Oxford. The scale of these employment markets, even in an era of low national growth, makes it likely that any shortfall in Cotswold's

[83] Although see footnote 73.

growth would be readily absorbed but at the expense of increased commuting and a poorer overall level of sustainability.

4.66.13 For a fairly small area in employment and population terms, Cotswold appears to be reasonably self contained on both residential and workplace related measures and with well balanced commuting flows. The position was assessed on the basis of 2001 Census and 2008 ONS Household Survey data however and will need to be re-examined on the eventual release of the 2011 travel to work flows data.

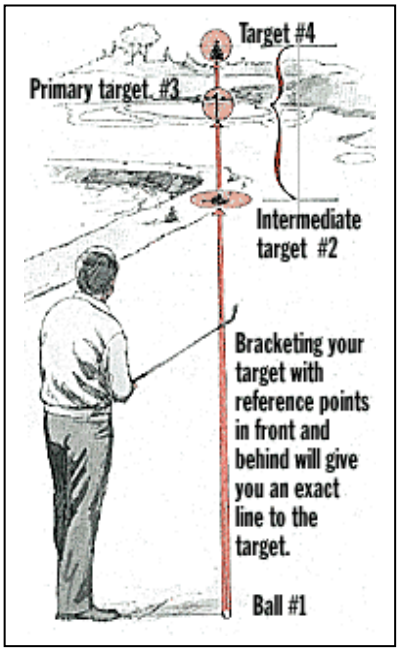
4.66.14 Financial and business services are forecast to provide more than a third of total future job growth in the District (36%), with accommodation & food services, and other services accounting for 25% and 16% respectively. Remaining sectors showing significant growth are construction and distribution, hotels and catering. Accordingly, more than half of the increase in forecast employment is in the traditionally low wage sectors, which in itself has future housing implications.

4.66.14 The value of output by manufacturing in real terms is projected to increase by almost 50% over the period to 2025 alone, making a crucial contribution to the local economy. Manufacturing employment however is forecast to continue to decline due to the impact of further improvements in productivity.

4.59 The following section of the report looks at how different elements of the demographic and economic evidence can be used to provide alternative estimates of the future housing requirement. These are compared and a final recommendation is then made.

5. Producing alternative projections of Cotswold's future housing requirement

Fig 28 Bracketing a target



5.1 Given the range of evidence discussed above, it is clear that there are a range of factors – demographic/ housing stock based and economic based – which can lead to a view of Cotswold's future housing requirement. In developing these themes it is important to bear in mind that there is no single "right" answer to this; instead we develop a number of lines of evidence to narrow down the range of solutions in order to arrive at a reasonable figure or range of figures for housing provision. The process of "bracketing the target" is analogous to the process of range-finding in golf or artillery, or getting the right exposure in photography (Fig 28). Essentially this is a triangulation method that looks at the different lines of evidence suggested by migration driven population growth trend demand-side factors and economic growth driven supply- side factors. The different lines of evidence are compared and areas of overlap between the different projection models used are identified, taking into account the messages provided by indicators of economic activity, housing production capacity and affordability.

5.2 This is a powerful methodology. It uses a variety of potential scenarios based on contrasting sets of supply- and demand-side data and attempts to neutralise some of the intrinsic bias that can result from approaching the problem from a single direction. The NPPF emphasises the need for

Local Plans to *"use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area"* except in cases where "adverse impacts of doing so would significantly and demonstrably outweigh the benefits".[84] For example, the Cambridge Centre for Housing and Planning Research (CCHPR) observes, in the case of accommodating migration demand that:

"If a local authority cannot show where those internal migrants it does not plan to provide homes for will live, the likelihood is that at the end of the housing 'chain' there will be those who would be forced to share, live as concealed households or be prevented from forming a household. The benefits of providing housing for such people ought to be taken into account when weighing the adverse impacts of providing the amount of housing the objective assessment has indicated.
"Not providing for projected internal migration flows may also give rise to broader impacts on other authorities, increasing the housing pressure they face."[85]

5.3 Returning to Fig 5, we can see that the critical issues in the housing requirement lie in the relationships between locally and externally generated demand for housing through migration and the formation of (net) new households (what is referred to in para 3.14 as "demand side" factors and "supply side" factors, particularly the labour requirements of a changing local economy. The following section uses these contrasting elements, and the preceding evidence, to arrive at a housing requirement based on an objective assessment of needs.

1) Housing requirements from economic growth based projections

5.4 Given a projected range of jobs growth in Cotswold of between 6,400 and 8,700 by 2031, how many additional members of the local resident workforce would be required in order to keep commuting levels out of and into the District in the same degree of balance as in 2001?[86] (Fig 17).

Table 16 Calculation of additional economically active local residents required 2011-31

Work & the impact of commuting (2001 data)		
a) Total living & working in Cotswold		= 25,686
b) Total commuting out of Cotswold to work		= 14,083
c) Total commuting into Cotswold to work		= 11,360
d) Total economically active (in work) (a)+(b)		= 39,769
e) Out commuters as % of economically active in work (b)/(d)%	= 35.41%	
f) Total local jobs (a)+(c)		= 37,046
g) In-commuters as % of jobs (c)/(f)%	= 30.66%	
Higher employment projection:		
A) i) Increase in Cotswold total jobs (including self employed)		= **8,700**
ii) In-commuters 2001 as percentage of jobs	= 30.66%	= 2,668
iii) Jobs available to local residents (i)-(ii)	= 69.34%	= 6,032
iv) Percentage of local residents in employment out-commuting	= 35.41%	
v) Total new econ. active residents in work required (iii)/(1-(iv)/100)	=(iii) x 0.6459	= **9,339**
vi) Total new econ. active residents in work less allowance for 5% "double jobbing"	=(v)-5.0%	= **8,872**
vii) Additional economically active including 3% unemployed (vi)/(1-0.03)		= **9,146**

[84] NPPF paras 47 and 14..
[85] Neil McDonald (Ed) (2013) Choice of Assumptions in Forecasting Housing Requirements: Methodological Notes Cambridge Centre for Housing and Planning Research March 2013.

[86] I.e. pending release of the 2011 data later in 2014.

Lower employment projection		
B) i) Increase in Cotswold total jobs (including self employed)		= **6,400**
ii) In-commuters 2001 as percentage of jobs	= 30.66%	= 1,962
iii) Jobs available to local residents (i)-(ii)	= 69.34%	= 4,438
iv) Percentage of local residents in employment out-commuting	= 35.41%	
v) Total new econ. active residents in work required (iii)/(1-(iv)/100)	=(iii) x 0.6459	= **6,871**
vi) Total new econ. active residents in work less allowance for 5% "double jobbing"	=(v)-5.0%	= **6,527**
vii) Additional economically active including 3% unemployed (v)/(1-0.03)		= **6,729**

Note: 2001 total residents in work = 39,769 (Fig 17); 2011 total residents in work = 40,303

5.3 The calculation is shown in Table 16 below, giving a range of additional jobs available to local people, of between 4,438 and 6,032 in 2031 once inward commuting is allowed for (30.66% of all jobs in 2001). Taking account of the 35.41% of economically active residents in work who travel to employment outside the District, we then arrive at a range of between 6,871 and 9,339 additional economically active residents. Allowing for a (conservative) estimate of 5% of workers holding more than one job in 2031 ("double jobbing")[87] together with unemployment at an average of 3%, this results in a total requirement of between **6,729** and **9,146** economically active residents.

Labour supply and local economic capacity

5.4 The final issue to consider is the relationship between economic prosperity and employment growth on the one hand and the supply of housing, and of labour force growth, on the other. In March 2011, the Minister of State for Decentralisation issued a statement indicating the urgent need "to ensure the planning system does everything possible to support economic growth and sustainable development, helping to re-build Britain's economy."[88] Sustainable development, including appropriate levels of house building, is seen by the Government as making an essential contribution to this task. This sentiment has been incorporated into the NPPF which states that "Local planning authorities should ..... work closely with the business community to understand their changing needs and identify and address barriers to investment, including a lack of housing, infrastructure or viability."[89]

5.5 It is important to note, however, that apart from the latter reference to the views of business, the link between housing and employment growth is implied by association in the text of the NPPF rather than overtly stated. There is a reason for this and that is that extensive research carried out in the wake of the Barker Review of housing supply[90] showed that there is no real evidence of a direct causal link between local housing shortfalls and restricted economic performance. The study carried out by DTZ for the Dept of Trade and Industry in 2006 indicated that, although there is evidence that worsening housing affordability had had some effect on economic capacity,[91] overall the relationship between economic growth and housing at the local level is not at all clear. DTZ's conclusions are set out in more detail below in Appendix 1. In addition to the DTZ findings, of course, there is also the obvious point that more successful local economies tend to be

[87] "Double jobbing" becomes more common as the number of part-time jobs and also self employment increases. Table 7 shows the increase in part-time employment in Cotswold in recent years.

[88] Department for Communities and Local Government. "Planning for Growth" 23rd March 2011. ISBN: 978-1-4098-2929-4

[89] NPPF para 160.

[90] Kate Barker (2004) Delivering stability: securing our future housing needs HM Treasury.

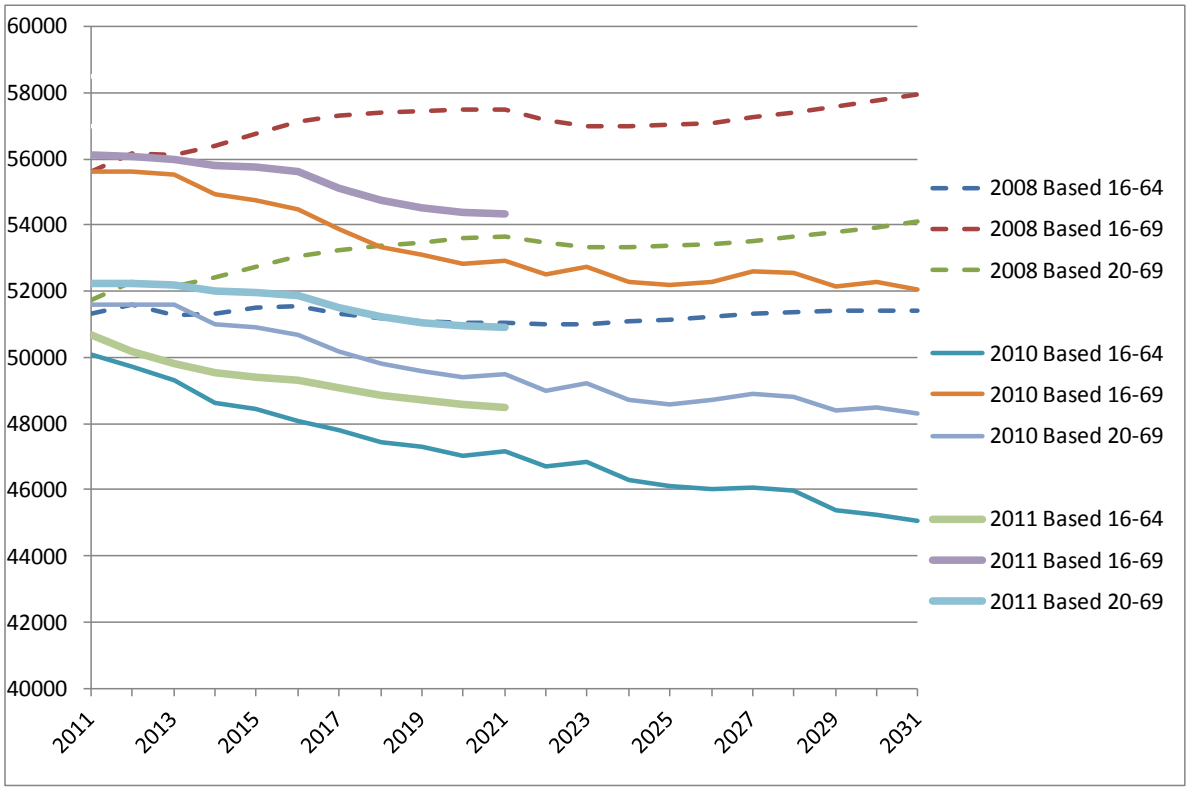
[91] DTZ (2006) Housing, Economic Development and Productivity: Literature Review (Report to the Dept of Trade and Industry), p (v) para 30

characterised by greater pressures in the local housing market simply because they are successful, whereas in less successful economies areas the reverse frequently applies.[92]

5.6 A major consideration, however, is the need to take full account of the three central elements of sustainable development: economic, social and environmental.[93] This implies the need for an appropriate degree of balance between these elements and, in the current context, to ensure that the growth of employment and of housing for both the workforce and for the broad needs of the local population in general, while bearing in mind the requirements of Cotswold's exceptional environmental quality.

5.7 One of the well known issues with labour force change is how the ageing population structures typical of most local authority areas are affected by population ageing. Table 17 and Fig 28 show how the size of the working age population under different definitions is projected forward by the three main ONS SNPP projections for Cotswold.

Fig 30 Cotswold: Working age population projections ONS 2008, 2010 and Interim 2011 Based



Source: ONS Sub national Population Projections

5.8 Fig 30 and Table 17 set out three alternative definitions of Cotswold's working age population. The first is the conventional definition of local people aged 16 to 64. The remaining two definitions use 69 age the high end of the range in order to reflect Government policies to bring State Pensionable Age at 67 forward to 2027 for both men and women, [94] the removal of set retirement

[92] For example In the wider South West this is illustrated by the contrast between Exeter and Plymouth.
[93] NPPF pp2-3.
[94] In November 2011, following a number of announcements bringing forward the date at which State Pensionable Age (SPA) would be 66, the Chancellor announced that from 2027 it would be raised to 67 and eventually to 68 for both men and women. Having moved the SPA back and date on more than one occasion there is a distinct possibility that further changes could be made by the end date of the Local Plan.

ages as part of moves to end age discrimination in the workplace, and the increasing tendency for people to work longer to compensate for deteriorating private pension and annuity values. The two additional definitions of working age population used here are 16-69 and 20-69, the latter reflecting a scenario where there is a higher proportion of people under age 20 in full time education or training. Of the three definitions it is maintained here that 16-69 will probably be the most realistic by 2031. The most sensible comparisons should therefore probably be between the economically active population defined on ages 16-64 in 2011 and 16-69, or possibly 20-69, in 2031.

5.9 This does not take into account any future increases in economic activity rates for both males and females which Table 8 shows have been somewhat higher in the recent past than currently and which therefore may increase again if economic conditions are favourable. At 2011 levels, a 5% increase in economic activity rates would result in 3,000 additional workers becoming available in Cotswold.[95]

5.10 While the 2008 based ONS SNPP projection shows increases under all three definitions of working age population (the highest being 2,326 2011-31 for the 20-69 group), the 2010 based figures show varying levels of decline, the highest being 5,040 for 16-29 year olds, now an arguably outmoded workforce category owing to the high rates of participation in full time education and training amongst its younger members (Table 17). The interim 2011 based set also shows declines to 2021 but these are less than the 2010 SNPP for each of the three groups. More realistically, given the realities of higher future pension age and increasing economic activity for those aged 65 and over by 2031, the 2008 based SNPP shows a 2031 20-69 population which is 2,788 larger than the 2011 16-64 group and a 6,658 difference for the 16-69 group in 2031. Differences for the 2010 based SNPP are -1,800 and +1,960 respectively.

Table 17 Cotswold: Working age projections ONS 2008, 2010 and Interim 2011 Based (post 2021 estimates to interim 2011 based SNPP shaded grey)

										Change 2031 compared with 16-64 group in 2011	
	2011	2016	2021	2026	2031	Change 2011-21	Change %	Change 2011-31	Change %	Change 2011-31	Change %
2008 Based 16-64	51,309	51,568	51,032	51,220	51,398	**-277**	-0.54%	**89**	0.17%	**89**	0.17%
2008 Based 16-69	55,641	57,126	57,509	57,087	57,967	**1868**	3.36%	**2326**	4.18%	**6658**	12.98%
2008 Based 20-69	51,725	53,064	53,671	53,447	54,097	**1946**	3.76%	**2372**	4.59%	**2788**	5.43%
2010 Based 16-64	50,100	48,060	47,140	46,000	45,060	**-2960**	-5.91%	**-5040**	-10.06%	**-5040**	-10.06%
2010 Based 16-69	55,600	54,460	52,940	52,300	52,060	**-2660**	-4.78%	**-3540**	-6.37%	**1960**	3.91%
2010 Based 20-69	51,600	50,700	49,500	48,700	48,300	**-2100**	-4.07%	**-3300**	-6.40%	**-1800**	-3.59%
2011 Based 16-64	50,690	49,294	48,501	47,329	46,361	**-2189**	-4.32%	**-4329**	-8.54%	**-4329**	-8.54%
2011 Based 16-69	56,129	55,619	54,321	53,664	53,418	**-1808**	-3.22%	**-2711**	-4.83%	**2728**	5.38%
2011 Based 20-69	52,226	51,877	50,918	50,095	49,683	**-1308**	-2.51%	**-2543**	-4.87%	**-1007**	-1.99%

Note: shaded area produced via further projection of interim 2011 based SNPP beyond 2021 (see text).
Source: ONS Sub national Population Projections

5.11 Table 17 also includes a set of estimates for the Interim 2011 based SNPP projected forward from 2021 to 2031.[96] These figures show a smaller decline in the number of people in the three definitions of working age to 2031 compared with the 2011 based projection. Comparison between the 2031 20-69 and 16-69 groups and the size of the 2011 16-64 group returns changes of -1007 and +2728 respectively.

[95] Source: Census 2011 Key Statistics Tables ks601ew to ks603ew - economic activity by sex.
[96] These are based on preserving the ratios between the 2010 based and 2011 based projections for 2026 and 2031.

5.12 It was shown in Table 16 that the employment projections showed a requirement for between 6,729 and 9,146 economically active additional residents by 2031. Taking the Interim 2011 based projection comparison between the 2031 16-69 population and that of the 2011 16-64 population of 2,728, this leaves a theoretical shortfall in the projected workforce of between 4,001 and 6,418. Reducing the current level of unemployment (Table 6) from 4.2% (1,800 people) to a more normal but, for Cotswold, still relatively high 3.0% (1,300) would release 500 people back into work, reducing the shortfall to between 3,501 and 5,918. These shortfalls could be reduced to zero by a respective rise in economic activity rates of between 6% and 10%.

5.13 Taking the 2012 figures in Table 8 above we get a combined male plus female working age activity rate of 82.2%. Raising this by a further 5% on the evidence in that table would certainly be possible, particularly as female rates are tending to become more like male rates over time. A 10% increase on the other hand would be far more difficult, if not impossible, to accommodate and, on this somewhat narrowly focussed analysis, might imply an increase of in-commuting to the District. The notional shortfall involved in employment growth at the higher rate over the quite achievable lower rate would be 3,501 minus 5,918 which equals 2,417.

5.14 So, how realistic is it to adopt this kind of "accountancy based" approach to the problem? The reality of local population turnover is that net migration changes conceal much larger gross flows of people moving into and out of the area. Between mid 2010 and mid 2011, for example, Cotswold's net migration was a gain of 700 people, the residual from an outflow of 4,600 and an inflow of 5,300 (Table 18). The majority of the moves took place in the working age groups with a small net loss of 16-20s and gains in the other broad age groups.

Table 18 Migration: Moves into and out of Cotswold during year ending June 2011

Moves to and from: England & Wales	Inflow					
Age	**0-15**	**16-24**	**25-44**	**45-64**	**65+**	**All ages**
	900	1,200	1,700	1,000	500	5,300
	Outflow					
Age	**0-15**	**16-24**	**25-44**	**45-64**	**65+**	**All ages**
	600	1,400	1,400	800	400	4,600
	Net flow					
Age	**0-15**	**16-24**	**25-44**	**45-64**	**65+**	**All ages**
	300	-200	300	200	100	700

Source: ONS NHSCR Table 2b

5.15 Most (approximately 90%) of housing turnover is in the existing secondhand housing stock and only around 10% typically are new houses. The actual process of residential migration to an area occurs as a queuing process, with people waiting varying lengths of time before their search for a house results in a successful acquisition and subsequent move. Higher numbers of available jobs will tend to attract more economically active people to search for housing in the area following getting a job or in the hope of getting one. This will then tend to weight the migration flow more towards the economically active in percentage terms over a period of time and away from non

economically active such as the retired. The notional shortfall of workers in para 5.12 will then to a large degree correct itself.

Jobs into houses: an employment growth based estimate of future housing requirements

5.16 Putting aside for the moment the issue as to the realism of the estimates of any shortfall, what do the requirements for between 6,729 and 9,146 additional economically active, shown in Table 16, mean in terms of new housing requirements for the period 2011-2031? The calculation is shown in Table 19 which converts additional locally economically active people required by projected employment growth into households and then into dwellings via a vacancy rate. This gives a range of between **4,971** and **6,757** additional dwellings by 2031. Rounding, we get **5,000-6,800**.

Table 19 Cotswold: Calculating an employment growth based projection of housing requirements

Households & economically active:		
(a) Total households 2011 Census (ONS Table ks105ew)		= 36,236
(b) Total households with one or more economically active member		= 30,516
(c) Households with econ. active member(s) as % of all households (b)/(a) %	= 84.21%	
(d) Total economically active 2011 Census (ONS Table ks603ew)		= 43,206
(e) Average No. of econ. active per econ. active household[97] (d)/(b)	= 1.4158	
(d) Allowance for vacant dwellings*	= 4.6%	
Higher job growth projection:		
(i) Projected local economically active (including 3% unemployment)		= 9,146
(ii) Total additional econ. active households generated (i)/(e)		= 6,460
(iii) Total dwellings required with allowance for vacant dwellings (ii)+(d)%		= **6,757**
Lower job growth projection:		
(i) Projected local economically active (including 3% unemployment)		= 6,729
(ii) Total additional econ. active households generated (i)/(e)		= 4,753
(iii) Total dwellings required with allowance for vacant dwellings (ii)+(d)%		= **4,971**

*Note: for discussion on vacancy rate see para 5.21

2) Housing requirements from population and household projections

5.17 This section looks at the derivation of housing totals from the demographic and household projection evidence. Table 1 compared the results of recent ONS sub national population projections: the 2008 based set based entirely on pre recession trends in migration, the 2010 based SNPP and the interim 2011 SNPP which terminate in 2021. Of these, only the 2008 based has had a companion set of household projections from DCLG (Table 20) and the replacement 2011 based set is now expected during the spring of 2013.

5.18 The 2010 based SNPP showed a much lower (by 8,400) population of the District (Table 1) in 2031 due to reduced post recession trends in migration as well as a base population estimate for

[97] Note that while this ratio is set at 2011 levels, the number of people in economically active households who are active may increase during the lifetime of the Plan owing to post recession recovery, higher numbers of adult children in households, higher numbers in lower paid part-time work encouraging additional people in the household to work and multiple job-holding ("double jobbing"), and older people staying in work or seeking work longer. Using the 2011 ratio is therefore likely to result in a slight bias towards over-estimation of the resulting housing requirement.

2011 some 1,800 people lower derived from more up to date 2011 Census information. The Interim 2011 SNPP uses further migration related data emerging from the Census supplemented from the NHSCR.[98] Once the 2011 base population correction is allowed for, this shows a somewhat higher growth rate than the 2010 SNPP, at least until 2021, which is approximately midway between the 2008 and 2010 projections.

5.19 Although the 2008 based population figures now appear to be much too high, particularly as they get nearer to 2031, the projections of household representative rates (HRR)[99] which they use are robust enough to use with later data, particularly as, in any case, most of the projected decline in household size over the next twenty years is due to a combination of population growth and ageing rather than on increases in individual propensity of any given age or gender to form separate households. A set of age and sex specific HRRs were therefore calculated from the raw data provided by the 2008 household projections and applied to the 2010 and 2011 based SNPPs to provide an updated set of household projections. The HRRs calculated are given in Appendix 2 and the results are given in Table 21.

Table 20 DCLG 2008 based household projection summary

Cotswold	2006	2011	2021	2026	2031
Average h/hold size	2.26	2.23	2.13	2.10	2.07
2008 based SNPP h/hold population	81,433	83,419	88,358	91,381	94,169
Total h/holds 2008 based	35,956	37,480	41,566	43,701	45,704
Additional h/holds since 2006	-	**1,524**	**5,610**	**7,745**	**9,748**

Source: DCLG

Table 21a 2010 based estimated household projection summary

	2006	2011	2021	2026	2031
Average h/hold size	2.26	2.23	2.13	2.10	2.07
Estd. 2010 based SNPP h/hold population	81,433	81,649	84,800	86,200	87,800
Total h/holds 2010 based	35,956	36,653	39,812	41,048	42,415
Additional h/holds since 2006	-	**697**	**3,856**	**5,092**	**6,459**

[98] NHSCR is the National Health Service Central Register. This tracks the movements of NHS patients between local authorities based on GP patient registrations.

[99] Formerly known as household headship rates – the probability that an individual of a given age and gender will be the "head" of a household or the "household representative".

5.20 Comparing Tables 20 and 21a,21b, the difference in the two household increase figures is striking. The 2008 projection suggests 9,748 additional households 2006-31 whereas the 2010 based figures are very significantly down to 6,459 – 7,566.

Table 21b 2010/Interim 2011 based estimated household projection summary

	2006	2011	2021	2026	2031
Average h/hold size	2.26	2.25	2.15	2.12	2.09
Estd. 2010 based SNPP h/hold population	81,433	81,649	85,209	87,519	89,988
Total h/holds 2010 based	35,956	36,653	40,003	41,714	43,522
Additional h/holds since 2006	**-**	**697**	**4,047**	**5,758**	**7,566**

Table 22 Interim 2011 based sub national household projections summary (mid-year unrounded data)

	2011	2021
Average h/hold size	2.24	2.19
2011 based h/hold population	81,617	85,209
Total h/holds 2011 based	36,368	38,952
Additional h/holds since 2011	-	2,584

Source: DCLG

5.21 A further projection was then made to produce household projections to 2031 using the Interim 2011 SNPP but incrementing from 2021 in step with the 2010 based figures. This was based on two alternatives: a higher projection that used the 2011 based annual average increase in excess of the 2010 set through to 2031, and a lower set that kept the difference between the two projections in 2021 at a constant. To arrive at a final dwelling increase figure, two alternative housing stock vacancy plus second homes rates were applied: the first is a rate of 4.6% from ONS neighbourhood Statistics based on council tax data. This compares with a 2001 Census vacancy rate of 3.3%. The second is the very high rate of 9.3% from the 2011 Census, a figure that appears to be inflated by a high number of second homes including the Cotswold Waterpark which was built during the inter-censal period.[100] Both figures are used in the calculations that are set out in Tables 22 and 23 but, as it appears to be an aberration, it is recommended that the 4.6% vacancy figure is used. It would be unreasonable to plan on the basis of a 9.3% stock vacancy rate as this would imply a major building programme aimed specifically at second homes. Unless designed specially as second homes, are located in holiday/ leisure resort areas or are in major commuter destinations

[100] It is important to note that any completions at the Waterpark are not counted towards Cotswold District's dwelling stock, but they <u>are</u> included in the Census as providing "household spaces".

such as London, newly developed housing does not tend to attract a particularly high proportion of second home owners. The Cotswold Water park purpose-built solution to this issue is the better approach as this market is then addressed largely outside of the main housing stock and only incidental sales of new general market houses as second homes are included in the projections.

5.22 The results shown in Tables 23a and 23b suggest a range of dwelling requirements from 6,317 to 7,417 at the high 9.3% vacancy rate and 6,045 to 7,098 at the lower vacancy rate. Equivalent figures for the 2010 based projections are shown in Appendix 2 together with a table giving results from the 2008 based pre-recession household projections. The 2010 based set suggests much lower housing requirements than the 2011 based projection (only 5,060 dw by 2031), as to be expected give the lower population base. However, as the 2010 projection base is already out-dated (though not so severely as the 2008 pre-recession based set), it is recommended that the most realistic range is that derived from the 2011 based projection with a 4.6% vacancy rate.

Table 23a

ONS Interim 2011 based household projection

Total housing requirement derived from applying alternative vacancy rates to interim 2011 based household projections

Projection A - upper range

	Additional housing required				
	2006-2011*	**2006-2026**	**2011 - 2021**	**2011 - 2026**	**2011 - 2031**
Household increase (2010 based)	697	5,696	3,308	4,999	6,786
4.6% stock vacancy rate	729	5,958	3,460	5,229	7,098
9.3 % stock vacancy rate (Census 2011)	762	6,226	3,616	5,464	7,417

* Source 2010 based hhold projections

Table 23b

ONS Interim 2011 based household projection

Total housing requirement derived from applying alternative vacancy rates to interim 2011 based household projections

Projection B - Lower range

	Additional housing required				
	2006-2011*	**2006-2026**	**2011 - 2021**	**2011 - 2026**	**2011 - 2031**
Household increase (2010 based)	697	5,200	3,308	4,503	5,779
4.6% stock vacancy rate	729	5,439	3,460	4,710	6,045
9.3 % stock vacancy rate (Census 2011)	762	5,684	3,616	4,922	6,317

* Source 2010 based hhold projections

5.23 It clear that the Interim 2011based projection of housing requirements (with a vacancy rate of 4.6%) at the time of writing represents the most up to date picture of housing requirements to 2031. This gives a population household evidence based requirement range of from **6,045** to **7,098** dwellings from 2011-31.

6. Conclusions and recommendations

6.1 The problem of identifying a future dwelling requirement against Cotswold's objectively assessed needs for housing has been approached from two main directions:

- Demand / trend growth based factors based on demographic trends and projections;
- Supply/ capacity based factors based on economic and physical land capacity/ construction capacity.

6.2 Taking the latter first, it was found that although the five year land supply was somewhat constrained, there was potential within the SHLAA land supply figures to identify more sites that could be brought forward for use in the nearer term. However, the ability of the building industry to deliver housing numbers on a sustained basis over a twenty year period at levels very much in excess of the Local Plan (2006)/ Gloucestershire Structure Plan figure of 307.5 dwellings p.a. on both recent and historic evidence is more questionable. Even the proposed Changes RSS, which represents the high water mark of pre-recession maximum growth planning based on average national GVA growth of 3.1% p.a.,[101] proposed no more than 6,900 dw 2006-26 (345 p.a.) Current Cambridge Econometrics forecasts, which are broadly in line with the latest forecasts from the OBR, are discussed in the report. These suggest that UK growth 2011-25 will average out at only 1.9% p.a. reaching an average at the end of that period of 2.3% p.a. Also, for a number of reasons including the impact of future recession, occurring as part of the "natural" economic cycle, is likely to make this a fairly optimistic projection.

6.3 As a result of this last point, a lower growth alternative employment projection was produced which diverged from the Cambridge Econometrics' LEFM forecast from 2018 onwards to provide a 2011-31 job growth of 6,400. Trending on the LEFM figure beyond 2025, at a rate consistent with that for the 2020-25 period, then provided the high end of the job growth range at 6,400. Allowing for the effects of retaining the District's reasonably sustainable 2001 commuting balance (in the absence of 2011 data), the impact of unemployment and "double jobbing", this resulted in a range of additional local economically active required by 2031 of between 6,700 and 9,100. Allowances were then made for the average number of economically active per household to arrive at a "job-led" requirement of between 4,971 and 6,757 additional dwellings by 2031. Rounding these we get a dwelling requirement of **5,000 – 6,800**.

6.4 Analysis of projected working age population change as shown by the 2008, 2010 and Interim 2011 based ONS projections showed varying levels of capacity to meet the labour supply requirements for these levels of economic growth. The 2011 based projections are considered here to be the most realistic and up to date and these were found to be broadly capable of accommodating the projected job growth, particularly bearing in mind the impact of rising pension age, the current relatively high levels of unemployment and capacity for increases in economic activity rates. Nevertheless, for the high end of the job creation range, these additional sources of

[101] This is equivalent to the 3.2% p.a. growth assumption for the South West used in the RSS Proposed Changes document (RSS para 4.0.5).

capacity did not appear to be wholly sufficient. This does not necessarily imply an increase in the proportion of out-commuting in the future as the mechanics of the migration, likened to a queuing process at the local level, was seen to be capable of adapting to increased employment demand within the range suggested by virtue of a higher number of job seekers taking up opportunities in the area.

6.4 Finally the report looked at the implications of demand led/ trend growth population change for housing. The 2008 based figures were very high in historic terms and were discounted on the grounds that they reflected pre-recession levels of economic growth and high migration. The 2010 based projections provided a low set of figures that at least responded to the early signs of trends developing post 2008, but an extended version of the Interim 2011 projections is more securely based both in emerging trends post 2008 but also in terms of the results of the 2011 Census. This gives a population, household formation and migration driven requirement 2011-31 of from 6,045 to 7,098 dwellings. Rounding these figures we get a demographic change based requirement of **6,000 – 7,100**.

6.5 To support the Local Plan objectives, and the requirements of the NPPF to support economic growth through sustainable development, **it is recommended that** the upper part of the above ranges be used, but not exceeded bearing in mind the risks and costs that come with an excess of unimplemented allocations. This would suggest that the objectively assessed need based requirement is in the range **6,800-7,100** dwellings. Any existing supply shortfall will be addressed through the Council's five year supply calculation.

6.6 It is also recommended that this requirement should be re-examined when the definitive 2011 based household projections are released, probably in late 2014.

6.7 A summary of the alternative housing proposals and employment projections discussed in this report and analysis of the risks attached to each of them is set out in Appendix 4.

Keith Woodhead **March 2014**

Appendix 1

The relationship between house building and local economic growth

DTZ (2006) Housing, Economic Development and Productivity: Literature Review (Report to the Dept of Trade and Industry), one of the pieces of work commissioned in the wake of the Barker Review of Housing Supply (2004), found that:

- Regarding impact of housing shortages on labour supply and mobility:

"Frequently, areas of high unemployment are within travelling distance of areas with high levels of vacancies (for example in London). It is clearly desirable to remove housing related barriers to labour mobility but they are just one of a number of factors that lead to mis-matches between labour demand and supply."

- As for productivity related issues:

***"Skills:** There is limited evidence that the housing market is constraining the mobility of higher level skills in the economy – at least in the private sector. In the public sector, skill shortages linked to high housing costs are more prevalent.*

***"Investment:** The evidence is mixed on whether there is a relationship between the housing market and capital investment by businesses. One hypothesis is that if businesses are facing rising labour costs due to the high cost of housing, they will have less capital to invest in the business. There is some evidence to support this hypothesis. A business survey in South East England found 13% of companies affected by high housing costs, were deferring or cancelling investment in their company due to rising costs or a lack of competitiveness.*

However, the same survey found that 25% of companies that had experienced difficulty in recruiting and retaining staff due to high housing costs, had increased investment in capital in order to reduce their demand for labour. There is even evidence that this can take place in people-intensive industries where it is commonly thought to be difficult to substitute capital for labour. For example, an employer in the hotel sector reduced the need for kitchen staff through investment in a large steam oven which could heat pre-prepared meals for a large quantity of people. This shows how a tight housing market can be a spur for investment and innovation in some situations.

There is concern that the pressure to release land for housing may make it more difficult for businesses to invest in new premises when they need to expand or change working practices. This could undermine productivity. However, there is no evidence that PPG3 or general housing pressures are constraining employment land allocations." ...."There is an issue about the protection of existing employment sites...."

.

***"Enterprise:** Banks are the main source of finance for start-up businesses and they are reluctant to sanction unsecured lending. Thus, the family home (which is usually the most valuable asset people own in the UK) could have an important influence on new firm foundation in this country. This may be one of the reasons why business start-up rates are highest in Southern England where high house prices have given people the opportunity to build up most equity in their homes. However, this will not be the only reason why business start-up rates are high in Southern England."*

"Innovation: *There is no hard evidence of a link between housing and innovation except to the extent that businesses may be encouraged to find new ways of doing things that reduce their need for staff, in a tight housing and labour market.*

"Impact of Housing On Business Competitiveness
There is evidence that high housing costs are creating problems for a small (but still significant) proportion of private sector businesses: 12% of businesses are experiencing labour shortages / recruitment difficulties due to high housing costs in South East England. The main difficulty is recruiting workers at the lower end of the pay scale.

"There is no evidence of a rapid change in business sentiment towards being located in parts of the country with high housing costs."

(DTZ 2006 op cit., paras 9-20)

Appendix 2 Cotswold 2008 based Household Representative Rates (HRRs) part 1

Cotswold HRR 2008-based	2001	HRR 2008-based 2002	HRR 2008-based 2003	HRR 2008-based 2004	HRR 2008-based 2005	HRR 2008-based 2006	HRR 2008-based 2007	HRR 2008-based 2008	HRR 2008-based 2009	HRR 2008-based 2010	HRR 2008-based 2011	HRR 2008-based 2012	HRR 2008-based 2013	HRR 2008-based 2014	HRR 2008-based 2015
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0222	0.0208	0.0213	0.0219	0.0221	0.0224	0.0224	0.0225	0.0235	0.0245	0.0242	0.0246	0.0242	0.0244	0.0250
	0.2667	0.2671	0.2649	0.2613	0.2581	0.2558	0.2534	0.2512	0.2509	0.2492	0.2478	0.2474	0.2467	0.2464	0.2467
	0.6476	0.6446	0.6369	0.6293	0.6225	0.6158	0.6108	0.6061	0.5974	0.5924	0.5891	0.5867	0.5843	0.5815	0.5791
	0.8580	0.8562	0.8518	0.8476	0.8441	0.8402	0.8368	0.8346	0.8305	0.8279	0.8254	0.8240	0.8220	0.8195	0.8174
	0.9045	0.9006	0.8973	0.8944	0.8919	0.8894	0.8875	0.8838	0.8817	0.8801	0.8797	0.8790	0.8775	0.8765	0.8741
	0.9274	0.9264	0.9249	0.9245	0.9235	0.9236	0.9225	0.9226	0.9235	0.9246	0.9256	0.9271	0.9284	0.9285	0.9289
	0.9520	0.9500	0.9482	0.9468	0.9464	0.9462	0.9471	0.9482	0.9485	0.9483	0.9479	0.9483	0.9484	0.9483	0.9490
	0.9472	0.9465	0.9452	0.9450	0.9438	0.9419	0.9398	0.9374	0.9350	0.9336	0.9323	0.9310	0.9297	0.9289	0.9280
	0.9737	0.9738	0.9741	0.9737	0.9724	0.9719	0.9712	0.9708	0.9699	0.9694	0.9688	0.9687	0.9680	0.9680	0.9672
	0.9819	0.9815	0.9819	0.9813	0.9815	0.9811	0.9816	0.9813	0.9809	0.9806	0.9805	0.9803	0.9796	0.9794	0.9795
	0.9824	0.9835	0.9836	0.9841	0.9847	0.9846	0.9856	0.9852	0.9852	0.9858	0.9859	0.9863	0.9861	0.9855	0.9861
	0.9861	0.9869	0.9876	0.9879	0.9878	0.9881	0.9885	0.9869	0.9869	0.9871	0.9870	0.9875	0.9873	0.9865	0.9871
	0.9854	0.9837	0.9851	0.9848	0.9846	0.9833	0.9831	0.9848	0.9854	0.9857	0.9855	0.9854	0.9855	0.9855	0.9852
	0.9716	0.9707	0.9691	0.9666	0.9664	0.9679	0.9670	0.9678	0.9684	0.9685	0.9685	0.9679	0.9697	0.9685	0.9688
	0.9594	0.9593	0.9609	0.9646	0.9638	0.9654	0.9653	0.9662	0.9692	0.9693	0.9709	0.9709	0.9728	0.9737	0.9739
	0.6770	0.6759	0.6760	0.6759	0.6769	0.6784	0.6791	0.6804	0.6819	0.6839	0.6859	0.6882	0.6907	0.6936	0.6963
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0148	0.0139	0.0138	0.0135	0.0130	0.0130	0.0125	0.0129	0.0126	0.0127	0.0126	0.0130	0.0131	0.0132	0.0133
	0.0913	0.0897	0.0884	0.0861	0.0858	0.0864	0.0871	0.0884	0.0897	0.0900	0.0902	0.0906	0.0911	0.0909	0.0920
	0.1575	0.1586	0.1610	0.1633	0.1654	0.1680	0.1690	0.1680	0.1695	0.1722	0.1752	0.1783	0.1806	0.1829	0.1846
	0.1660	0.1718	0.1761	0.1786	0.1803	0.1822	0.1838	0.1851	0.1874	0.1896	0.1917	0.1940	0.1946	0.1972	0.1991
	0.1501	0.1571	0.1621	0.1659	0.1694	0.1726	0.1752	0.1780	0.1774	0.1795	0.1812	0.1834	0.1851	0.1869	0.1890
	0.1721	0.1789	0.1850	0.1914	0.1966	0.2016	0.2053	0.2092	0.2107	0.2121	0.2134	0.2149	0.2161	0.2180	0.2191
	0.1629	0.1682	0.1725	0.1771	0.1819	0.1869	0.1919	0.1961	0.1999	0.2025	0.2043	0.2053	0.2059	0.2059	0.2055
	0.1652	0.1713	0.1772	0.1840	0.1895	0.1944	0.1991	0.2032	0.2071	0.2122	0.2172	0.2222	0.2262	0.2303	0.2338
	0.1955	0.1999	0.2035	0.2075	0.2111	0.2148	0.2199	0.2245	0.2290	0.2328	0.2367	0.2408	0.2444	0.2481	0.2517
	0.2281	0.2303	0.2295	0.2291	0.2295	0.2312	0.2317	0.2327	0.2344	0.2372	0.2404	0.2439	0.2469	0.2497	0.2518
	0.3027	0.3005	0.2973	0.2945	0.2926	0.2906	0.2886	0.2859	0.2833	0.2814	0.2803	0.2784	0.2777	0.2785	0.2802
	0.4156	0.4137	0.4098	0.4054	0.3993	0.3914	0.3845	0.3783	0.3740	0.3703	0.3668	0.3637	0.3590	0.3551	0.3518
	0.5566	0.5536	0.5492	0.5444	0.5379	0.5299	0.5219	0.5148	0.5084	0.5003	0.4917	0.4841	0.4771	0.4714	0.4665
	0.6674	0.6631	0.6590	0.6557	0.6506	0.6475	0.6446	0.6411	0.6366	0.6304	0.6222	0.6141	0.6074	0.5995	0.5909
	0.7990	0.7959	0.7971	0.7925	0.7849	0.7778	0.7746	0.7719	0.7691	0.7652	0.7607	0.7560	0.7510	0.7443	0.7384
	0.2081	0.2104	0.2121	0.2138	0.2148	0.2157	0.2161	0.2183	0.2195	0.2209	0.2223	0.2238	0.2256	0.2275	0.2294
	0.4366	**0.4377**	**0.4383**	**0.4394**	**0.4403**	**0.4415**	**0.4422**	**0.4442**	**0.4456**	**0.4475**	**0.4493**	**0.4513**	**0.4535**	**0.4560**	**0.4584**

Appendix 2 Cotswold 2008 based Household Representative Rates (HRRs) part 2

HRR 2008-based 2016	HRR 2008-based 2017	HRR 2008-based 2018	HRR 2008-based 2019	HRR 2008-based 2020	HRR 2008-based 2021	HRR 2008-based 2022	HRR 2008-based 2023	HRR 2008-based 2024	HRR 2008-based 2025	HRR 2008-based 2026	HRR 2008-based 2027	HRR 2008-based 2028	HRR 2008-based 2029	HRR 2008-based 2030	HRR 2008-based 2031	HRR 2008-based 2032	HRR 2008-based 2033
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0252	0.0250	0.0250	0.0253	0.0250	0.0248	0.0248	0.0255	0.0253	0.0256	0.0258	0.0259	0.0261	0.0258	0.0259	0.0264	0.0263	0.0266
0.2462	0.2451	0.2452	0.2456	0.2459	0.2462	0.2465	0.2458	0.2445	0.2444	0.2438	0.2435	0.2435	0.2434	0.2441	0.2449	0.2456	0.2455
0.5767	0.5759	0.5759	0.5761	0.5765	0.5766	0.5766	0.5769	0.5774	0.5783	0.5796	0.5805	0.5807	0.5806	0.5802	0.5814	0.5816	0.5816
0.8163	0.8147	0.8140	0.8138	0.8133	0.8123	0.8137	0.8129	0.8133	0.8146	0.8147	0.8156	0.8176	0.8185	0.8199	0.8216	0.8237	0.8243
0.8730	0.8713	0.8706	0.8686	0.8683	0.8677	0.8668	0.8669	0.8678	0.8671	0.8685	0.8697	0.8714	0.8730	0.8751	0.8765	0.8784	0.8805
0.9295	0.9299	0.9307	0.9309	0.9305	0.9305	0.9308	0.9310	0.9308	0.9312	0.9320	0.9321	0.9332	0.9335	0.9342	0.9353	0.9365	0.9376
0.9489	0.9490	0.9490	0.9491	0.9481	0.9480	0.9482	0.9476	0.9476	0.9468	0.9469	0.9463	0.9456	0.9453	0.9455	0.9458	0.9453	0.9451
0.9277	0.9270	0.9266	0.9264	0.9266	0.9261	0.9255	0.9254	0.9248	0.9238	0.9229	0.9226	0.9215	0.9206	0.9194	0.9191	0.9183	0.9174
0.9671	0.9666	0.9661	0.9658	0.9660	0.9655	0.9654	0.9655	0.9657	0.9655	0.9657	0.9653	0.9652	0.9652	0.9648	0.9643	0.9642	0.9641
0.9792	0.9790	0.9788	0.9784	0.9779	0.9782	0.9782	0.9776	0.9779	0.9774	0.9776	0.9775	0.9776	0.9775	0.9774	0.9775	0.9774	0.9776
0.9856	0.9854	0.9856	0.9859	0.9853	0.9854	0.9860	0.9856	0.9855	0.9857	0.9854	0.9862	0.9858	0.9859	0.9859	0.9859	0.9862	0.9862
0.9867	0.9870	0.9871	0.9872	0.9870	0.9865	0.9868	0.9863	0.9864	0.9864	0.9863	0.9857	0.9857	0.9860	0.9855	0.9850	0.9854	0.9854
0.9852	0.9863	0.9856	0.9856	0.9854	0.9854	0.9854	0.9848	0.9849	0.9851	0.9845	0.9841	0.9835	0.9832	0.9833	0.9824	0.9826	0.9822
0.9683	0.9690	0.9694	0.9689	0.9690	0.9685	0.9686	0.9678	0.9680	0.9680	0.9665	0.9666	0.9661	0.9651	0.9631	0.9626	0.9607	0.9596
0.9752	0.9764	0.9773	0.9769	0.9774	0.9785	0.9791	0.9792	0.9793	0.9796	0.9807	0.9803	0.9802	0.9808	0.9805	0.9814	0.9814	0.9817
0.6987	0.7010	0.7034	0.7058	0.7079	0.7096	0.7111	0.7126	0.7141	0.7154	0.7165	0.7176	0.7187	0.7199	0.7209	0.7218	0.7227	0.7235
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0134	0.0134	0.0137	0.0131	0.0137	0.0137	0.0137	0.0139	0.0137	0.0140	0.0144	0.0144	0.0146	0.0142	0.0143	0.0143	0.0151	0.0150
0.0923	0.0925	0.0931	0.0940	0.0939	0.0942	0.0954	0.0961	0.0962	0.0965	0.0976	0.0982	0.0987	0.0990	0.0996	0.1006	0.1006	0.1006
0.1859	0.1875	0.1883	0.1898	0.1901	0.1917	0.1921	0.1932	0.1935	0.1941	0.1948	0.1958	0.1967	0.1977	0.1989	0.2004	0.2010	0.2027
0.2012	0.2037	0.2059	0.2076	0.2095	0.2108	0.2116	0.2123	0.2130	0.2138	0.2141	0.2147	0.2155	0.2158	0.2159	0.2164	0.2170	0.2177
0.1909	0.1927	0.1948	0.1974	0.1995	0.2024	0.2044	0.2071	0.2097	0.2116	0.2133	0.2148	0.2160	0.2168	0.2179	0.2185	0.2195	0.2200
0.2199	0.2206	0.2210	0.2218	0.2227	0.2242	0.2257	0.2269	0.2283	0.2293	0.2304	0.2319	0.2335	0.2347	0.2358	0.2365	0.2372	0.2379
0.2051	0.2049	0.2045	0.2046	0.2045	0.2037	0.2029	0.2026	0.2025	0.2025	0.2027	0.2033	0.2032	0.2036	0.2041	0.2041	0.2050	0.2053
0.2367	0.2385	0.2402	0.2409	0.2418	0.2428	0.2439	0.2448	0.2459	0.2471	0.2473	0.2482	0.2486	0.2496	0.2504	0.2520	0.2535	0.2546
0.2558	0.2597	0.2627	0.2660	0.2683	0.2701	0.2710	0.2718	0.2718	0.2725	0.2729	0.2738	0.2750	0.2761	0.2771	0.2778	0.2783	0.2786
0.2543	0.2569	0.2589	0.2608	0.2630	0.2648	0.2668	0.2681	0.2689	0.2692	0.2688	0.2679	0.2665	0.2650	0.2636	0.2618	0.2605	0.2592
0.2824	0.2842	0.2860	0.2878	0.2897	0.2917	0.2937	0.2952	0.2972	0.2994	0.3014	0.3035	0.3055	0.3069	0.3076	0.3085	0.3080	0.3072
0.3504	0.3471	0.3460	0.3465	0.3485	0.3504	0.3523	0.3541	0.3564	0.3581	0.3609	0.3635	0.3659	0.3688	0.3723	0.3755	0.3791	0.3831
0.4617	0.4571	0.4508	0.4456	0.4416	0.4391	0.4343	0.4328	0.4328	0.4339	0.4362	0.4369	0.4380	0.4397	0.4407	0.4423	0.4444	0.4463
0.5832	0.5765	0.5696	0.5635	0.5588	0.5535	0.5485	0.5428	0.5375	0.5335	0.5311	0.5266	0.5246	0.5249	0.5253	0.5263	0.5265	0.5262
0.7311	0.7251	0.7176	0.7110	0.7042	0.6965	0.6900	0.6829	0.6769	0.6713	0.6665	0.6618	0.6563	0.6514	0.6472	0.6427	0.6374	0.6345
0.2310	0.2327	0.2345	0.2364	0.2382	0.2399	0.2416	0.2434	0.2451	0.2468	0.2485	0.2504	0.2522	0.2540	0.2558	0.2573	0.2589	0.2603
0.4605	**0.4625**	**0.4647**	**0.4668**	**0.4687**	**0.4704**	**0.4720**	**0.4737**	**0.4753**	**0.4768**	**0.4782**	**0.4797**	**0.4812**	**0.4827**	**0.4841**	**0.4853**	**0.4866**	**0.4878**

Appendix 3 Cotswold: Calculated housing requirements based on DCLG 2008 household projections and ONS 2010 based sub national population projections

Total housing requirement derived from applying alternative vacancy rates to the 2008 based households

	Additional housing required			
	2006 - 2011	**2006 - 2026**	**2011 - 2026**	**2011 - 2031**
Household increase (2010 based)	1,524	7,745	6,221	8,224
4.6% stock vacancy rate	1,594	8,101	6,507	8,602
9.3 % stock vacancy rate (Census 2011)	1,666	8,465	6,800	8,989

Total housing requirement derived from applying alternative vacancy rates to the 2010 based projection

	Additional housing required			
	2006 - 2011	**2006 - 2026**	**2011 - 2026**	**2011 - 2031**
Household increase (2010 based)	697	4,256	3,560	4,838
4.6% stock vacancy rate	729	4,452	3,724	5,060
9.3 % stock vacancy rate (Census 2011)	762	4,652	3,891	5,288

Appendix 4: Summary and risk analysis of alternative projected dwelling requirements

(Key projections shaded grey)

Projection	Basis of projection	Total at at 2031	Risks	Risk type & direction
A	Core Strategy 2nd issues & Options paper	6,150 dwellings	• Medium risk that final DCLG hhold projections will be higher	Medium ⇧
B	Higher job growth projection	8,700 jobs 6,800 dwellings	• Economic performance might be lower than CE projection • Possible slight increase in commuting (inward)	Low/ medium ⇩
C	Lower job growth projection	6,400 jobs 5,000 dwellings	• Eventual DCLG 2011 hhold figures could be higher • Economic performance might be higher than this lower projection	Medium ⇧
D	2008 based DCLG household projection	8,600 dwellings	• Eventual DCLG 2011 hhold figures very likely to be lower by large margin • Could risk over provision of housing • Possible adverse affect on outward commuting balance - housing projection higher than economic requirement	High ⇩
E	2010 based SNPP projection	5,100 dwellings	• Eventual DCLG 2011 hhold figures could be higher • Could risk under provision of housing • Possible adverse affect on commuting balance if housing projection lower than economic requirement	Medium/ high ⇧
F	2011 based SNPP extended to 2031 Scenario A - higher trend	7,100 dwellings	• Eventual DCLG 2011 hhold figures could be lower	Low/ medium ⇩
G	2011 based SNPP extended to 2031 Scenario B - lower trend	6,000 dwellings	• Eventual DCLG 2011 hhold figures likely to be higher	Medium ⇧

Key:

higher risk ⇨ lower risk

Appendix 5 Cotswold District results from CCHPR (2014) "Understanding the DCLG Protections" Toolkit

Understanding the latest DCLG household projections

Introduction

This tool is designed to enable you to:

- find out how the household projections for any given English local authority have changed between the Department for Communities and Local Government's 2008-based projections and the 2011-based interim projections released in April 2013.

- explore three key factors which are particularly important to understanding the latest projections and how they should be used. The factors are changing household formation trends; increased international migration; and, how the flows between authorities have been estimated. The role they play is discussed more fully in the RTPI research report, 'Planning for housing in England: Understanding recent changes in household formation rates and their implications for planning for housing in England' (see http://www.rtpi.org.uk/spire).

It should be emphasised that the purpose of the tool is to enable you to identify the issues that may warrant more detailed investigation rather than to provide a definitive view on how the latest projections should be used for any particular authority.

How to use the tool

The first step is to select the authority you are interested in from the drop down list that appears when you click on the yellow box below.

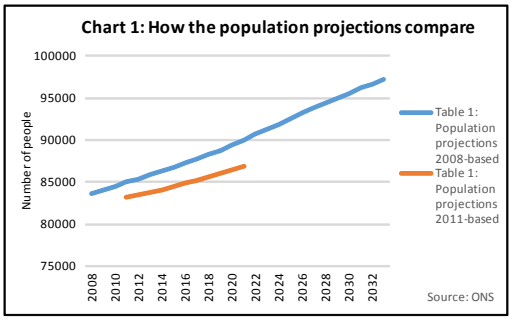
Select a local authority	Cotswold

All charts and tables are then automatically adjusted to give the data relevant to the authority chosen. The data shown in the charts appears in tables to the right of the charts.

How the new and old projections compare

The tables and charts below give the basic data from the 2008 and 2011-based population and household projections. Typically the 2011-based projections show faster population growth from a higher starting point and the 2011-based household projections show slower household growth from a lower starting point. However, there is considerable variation from authority to authority.

	Average annual growth 2011-21		2011 growth as % increase on 2008	
	Population	Households	Population	Households
2008-based projection	500	409	-26%	-37%
2011-based projection	370	258		



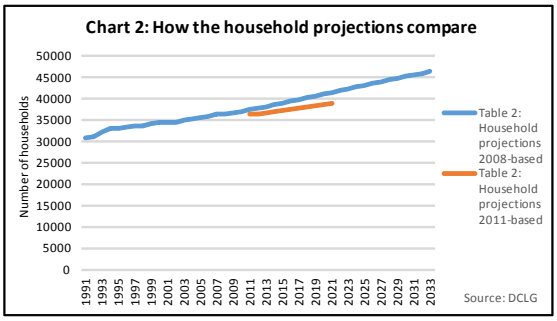


Table 1: Population projections	2011	2016	2021	2026	2031
2008-based	85000	87300	90000	93200	96200
2011-based	83200	84900	86900		

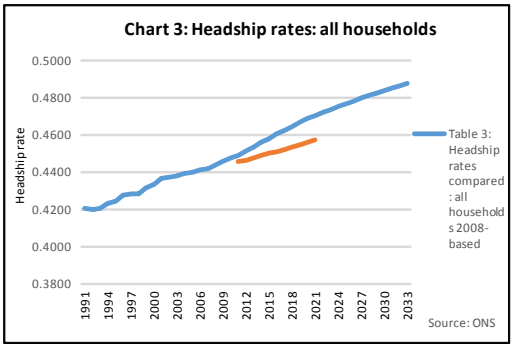
Table 2: Household projections	1991	1996	2001	2006	2011	2016	2021	2026	2031
2008-based	30852	33350	34456	35955	37480	39443	41566	43701	45704
2011-based					36369	37572	38952		

The differences between the 2008-based and 2011-based projections reflect early results from the 2011 census, although in some important areas trends from earlier projections have had to be used because the data to update them was not available.

Changing household formation patterns

Perhaps the most surprising difference is the difference between the population and household projections where, for many authorities, the 2001-based projections suggest faster population growth but either slower household growth or household growth that has increased by much less than the population growth. This is due to significant changes in household formation patterns compared with what was anticipated in the earlier projections.

Charts 3 and 4 illustrate how household formation patterns have changed for the selected authority. Chart 3 shows the overall headship rate i.e. the number of households divided by the number of people living in households - a measure of the tendency to form households. For most authorities the tendency to form households was lower in 2011 than the 2008-projections had suggested and is projected to grow slower than in the latest projections. Chart 4 shows the headships rates for 25-34 year olds, the age group that has been most affected by the changing household formation patterns revealed by the 2011 census. For the vast majority of authorities the latest projections not only suggest that the tendency of this age group to form households was lower than previously expected in 2011 but that it will also fall over the period to 2021.



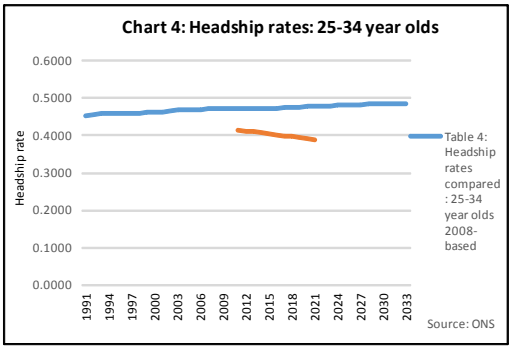


Table 3: Headship rates compared: all households									
	1991	1996	2001	2006	2011	2016	2021	2026	2031
2008-based	0.420	0.428	0.437	0.442	0.449	0.461	0.470	0.478	0.485
2011-based					0.446	0.451	0.457		

Table 4: Headship rates compared: 25-34 year olds									
	1991	1996	2001	2006	2011	2016	2021	2026	2031
2008-based	0.454	0.460	0.464	0.470	0.473	0.473	0.478	0.482	0.484
2011-based					0.415	0.402	0.390		

A key question facing those using the new projections is whether these trends in household formation rates are likely to continue. The RTPI research report, 'Planning for housing in England: Understanding recent changes in household formation rates and their implications for planning for housing in England' (http://www.rtpi.org.uk/spire) discusses two reasons for this change:

- increased international migration, which tends to increase average household size as recent migrants tend to live in larger households that the rest of the population.
- a range of changes to how people have been living, including more adult children saying on with parents or sharing homes rather than living on their own.

International migration

The international migration factor is more likely to have affected authorities with relatively large inflows of migrants. The table below give the average annual international migration flow into the chosen authority as a proportion of the total population in that period. The England average is about 1% so figures significantly above this might be thought large. In those cases it is likely to be worth exploring how international migration flows have changed over the last 20-30 years and the impact this may have had on the projections.

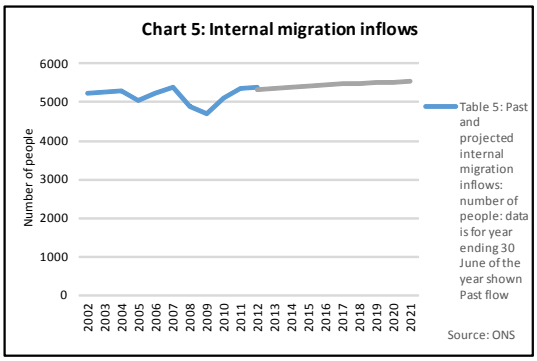
Average annual international migration 2001-11 as percentage of total population	0.67%

Making a judgement household formation rates

Ultimately a judgement needs to be made as to whether it would be prudent to plan on the basis of the projected changes in headships rates, which for most authorities envisage that the tendency of 25-34 year olds to form households will fall. If they do not fall as envisaged the result could be an under provision of housing. To inform this judgement it may be useful to estimate the consequences of assuming either that there is no further fall in headship rates or that headship rates move at least partially back towards the previous long term trend. This can give an indication of the range of outcomes that might occur.

Projected flows between local authorities

The latest DCLG projections are based as far as was possible on the 2011 census results and as such provide the best available starting point for considering how household numbers and types might change in the future. However, in some areas it was necessary to use trend data from previous projections as the data needed to up date those trends was not available from the 2011 census. This may have caused population changes to be either over or under-estimated in some areas. The most significant area for household growth is the projections of population flows between local authorities. For many authorities these flows are a major factor in population growth and small errors in the projected flows can have significant implications for the projected population growth. The following chart enable you to compare the projected flows in the 2008 and 2011-based projections with each other and the past flows. Where there are significant disparities these should be investigated.



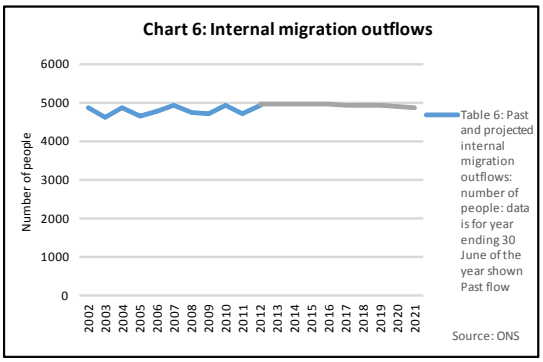
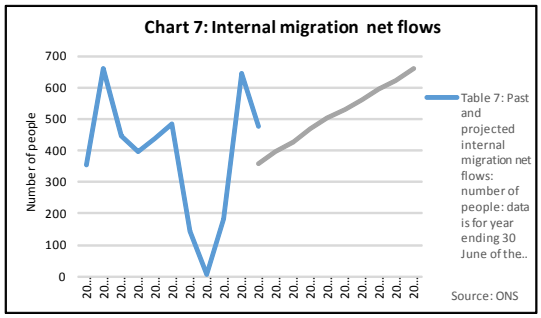


Table 5: Past and projected internal migration inflows

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Past flow	5230	5279	5307	5058	5224	5405	4880	4706	5117	5369	5395									
2011-based											5318	5346	5383	5418	5454	5477	5497	5515	5527	5541

Table 6: Past and projected internal migration outflows

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Past flow	4874	4618	4859	4660	4787	4921	4734	4698	4934	4725	4918									
2011-based											4958	4950	4956	4948	4948	4945	4935	4920	4903	4882



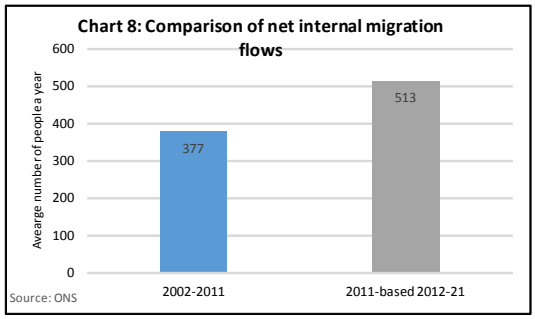


Table 7: Past and projected internal migration net flows

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Past flow	356	661	448	398	437	484	146	8	183	644	477									
2011-based											360	396	427	471	506	532	561	595	624	659

Table 8: Average annual internal migration flows compared

	In	Out	Net
2002-2011	5158	4781	377
2011-based 2012-21	5448	4935	513

Author

This tool was prepared by Neil McDonald, a Visiting Fellow at the Cambridge Centre for Housing and Planning Research and previously Chief Executive of the National Housing and Planning Advice Unit

Disclaimer

These spreadsheets seek to enable users to access ONS and DCLG data and projections easily and effectively. Every effort has been made to ensure that the ONS and DCLG data and projections are accurately reflected. Nevertheless it is possible for errors to creep into a complex spreadsheet such as this or for the spreadsheet to be inadvertently corrupted by the user. It is therefore recommended that users should check with the source data and the qualifications and caveats made by ONS and DCLG on their websites before placing reliance on the information contained in these spreadsheets. No liability can be accepted for errors.

APPENDIX 6

Author's biographical details:

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Career Profile

Dr Woodhead is a widely experienced local government manager and Chartered Town Planner in the fields of strategic planning policy, and social and economic research. He has a long established record of successful innovation in plan development and delivery, technical research, corporate service delivery and problem solving in local government and multi-organisational/ multi sectoral partnerships.

Career Summary

Current and most recent role: Keith Woodhead is an independent planning consultant specialising in strategic planning policy and research matters, demographic and economic research, strategic planning for housing, town centres and rural development. The practice was founded in 2010. Recent work includes reports on strategic housing policy and supporting research evidence for a number of local authorities mainly in the South West, including South Gloucestershire Council, Bath and North East Somerset Council, North Somerset Council, and Wiltshire and Cornwall Councils under the planning reforms introduced by the UK Coalition Government. In the case of the three West of England authorities the work included representing the Council at the Core Strategy public examinations. Recent work has also been carried out for Stroud, West Oxfordshire and Cotswold District Councils to identify and to test an appropriate growth level for the emerging Local Plan.

Other recent projects include work for the Planning Advisory Service on guidance for councils on the Duty to Co-operate requirement in the NPPF. Dr Woodhead is a Visiting Lecturer in Planning at Plymouth University, teaching aspects of planning theory and forecasting methodology on the Planning MSc course and until 2013 he was acting as RTPI representative on the South West Housing Initiative.

Between 2008 and 2010 he was Senior Policy Manager responsible for evidence base and related preparation for the then projected Single Regional Strategy at South West Councils and for managing the transition from the Strategic Leaders' Board duty as Regional Planning Body (RPB) in the light of legislation in 2009. He left SW Councils on the closure of the RPB on 31 March 2010.

Areas of expertise: include Planning policy development, spatial statistical analysis and research, demographic and economic analysis, modelling and forecasting, housing development planning and research, household surveys, tourism surveys and research and retail planning and analysis.

Dr Woodhead joined South West Councils' predecessor organisation, the SW Regional Assembly, in late 2002 as Head of Planning to help lead development of the region's new Regional Spatial

Strategy and its newly assumed role as Regional Planning Body. Other work ranged from managing development of the Annual Monitoring Reports for RPG10, and the RPB's role as a statutory planning consultee. The RSS Examination in Public in 2007 was his eighth EiP, building on earlier experience of Structure Plan examinations and local planning inquiries. Later work included joint working with the SWRDA to develop aspects of the evidence base for the new Single Strategy for the region.

Previous experience and achievements: Following a PhD in Geography (University of Hull) for a study of migration decision making and retirement migration, Dr Woodhead worked on general housing policy and housing mix in new settlements and on the management of demographic change for Peterborough New Town Development Corporation (1972-74). Later he worked on policy for Cambridgeshire Structure Plan, corporate demographic demand forecasting and economic policy for Cambridgeshire County Council (1974-80) before moving to manage the Dorset Structure Plan Research and Intelligence unit in Bournemouth and in client side management of a large departmental IT network. (1980-97). In a subsequent move to Dorchester as Group Manager for Research and Information for Dorset County Council (1997-2002), he managed a large team working on strategic planning policy development and monitoring, corporate (and wider partnership) research and intelligence and GIS services.

In 1990 Dr Woodhead was awarded a joint Diploma in Town and Country Planning (Distance Learning) by Bristol and Leeds Polytechnics (now respectively University of the West of England and Leeds Metropolitan University). He became a Corporate Member of the Royal Town Planning Institute in 1991.

Achievements during this time included successful development and delivery of policy and evidence for four successive Structure Plan alterations, developing corporate research services to the county council, the then eight District Councils of Dorset, and a number of external partners including the Dorset and New Forest Tourism Partnership, the Dorset Crime and Disorder Reduction Partnership, Dorset Fire and Rescue, Emergency Planning and Police, Dorset LSC, and, earlier, Dorset Training Consortium, and Dorset Training and Enterprise Council. Other activities included successfully bidding for and then managing delivery of two successful Single Regeneration Budget (SRB2) funded projects (one relating to urban social and economic regeneration and the other to tourism business skills development) and a related European Social Fund financed multi partner tourism business development project.

[Ends]