



# East Devon

## Demographic Scenarios

*'Policy-on' sub-scenario: update & sensitivities*

August 2015

edgeanalytics

Leeds Innovation Centre | 103 Clarendon Road | Leeds | LS2 9DF  
0113 384 6087 | [www.edgeanalytics.co.uk](http://www.edgeanalytics.co.uk)

## Acknowledgements

Demographic statistics used in this report have been derived from data from the Office for National Statistics licensed under the Open Government Licence v.3.0.

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

## Table of Contents

<b>Acknowledgements .....</b>	<b>i</b>
<b>Table of Contents .....</b>	<b>ii</b>
<b>1 Introduction .....</b>	<b>1</b>
<b>2 Data Inputs &amp; Assumptions .....</b>	<b>2</b>
<b>3 Scenario Summary.....</b>	<b>7</b>
<b>4 Summary .....</b>	<b>10</b>

# Introduction

## Requirements

- 1.1 In February 2015 Edge Analytics produced a report for East Devon District Council, providing a **Jobs-led (Policy-on)** scenario for the district of East Devon. In defining this scenario, the Council provided a jobs growth trajectory for the period 2013-2033, which showed a net increase in full-time equivalent (FTE) jobs of 549 per annum<sup>1</sup>.
- 1.2 Two alternative dwelling growth outcomes of this scenario were presented as a result of using the Department for Communities and Local Government's (DCLG) 2008-based and 2011-based headship rate assumptions.
- 1.3 The Council has requested that the **Jobs-led (Policy-on)** scenario is updated using the latest 2012-based headship rate assumptions from DCLG.
- 1.4 In addition, the jobs growth scenario has been evaluated under variant assumptions on both rates of economic activity and the balance of commuting flows.

## This Report

- 1.5 This report provides detail on the new data inputs and assumptions that have been used to generate the updated **Jobs-led (Policy-on)** growth outcomes for East Devon.
- 1.6 Details of the data inputs and assumptions related to population and corresponding components of population change used in the development of the scenario can be found in the Appendices of the January 2015 Edge Analytics report<sup>2</sup>.

---

<sup>1</sup> Edge Analytics (February 2015), East Devon -'Policy-on' Sub-scenario Output.

<sup>2</sup> Edge Analytics (January 2015), Exeter Housing Market Area: Demographic analysis & forecasts.

# 2 Data Inputs & Assumptions

## Introduction

- 2.1 This section summarises the data inputs and assumptions that have been used to generate the updated **Jobs-led (Policy-on)** growth outcomes for East Devon.

## Household Assumptions

- 2.2 Household growth in the **Jobs-led (Policy-on)** has been assessed using assumptions from the latest 2012-based DCLG household projection model. The Planning Practice Guidance (PPG) states that the DCLG household projections “should provide the starting point estimate of overall housing need” (PPG paragraph 2a-015); headship rate and communal population assumptions have therefore been sourced from this.
- 2.3 The PPG also states that “alternative assumptions in relation to the underlying demographic projections and household formation rates” of the local area should also be considered (PPG Paragraph 2a-017). Therefore, for comparison, the **Jobs-led (Policy-on)** scenario has also been run using the earlier 2008-based and 2011-based headship rate assumptions.
- 2.4 In the following section, detail is provided on the latest 2012-based DCLG household projection model.

## 2012-based Household Projection Model

- 2.5 In February/March 2015, the 2012-based household projections were released by DCLG<sup>3</sup>. Underpinned by the Office for National Statistics (ONS) 2012-based Sub-National Population

---

<sup>3</sup> 2012-based household projections in England, 2012 to 2037. DCLG 27<sup>th</sup> February 2015.  
<https://www.gov.uk/government/statistics/2012-based-household-projections-in-england-2012-to-2037>

Projections (SNPP), these new statistics provide a household growth projection and household formation assumptions for each local authority area for the 2012–2037 period.

2.6 The methodological basis of the 2012-based household projections is consistent with that employed in the previous 2008-based and 2011-based interim household projections<sup>4</sup>. In each, household projections have been derived through the application of projected household representative rates (also referred to as headship rates) to a projection of the private household population, disaggregated by age, sex and relationship status.

2.7 Whilst methodologically similar to previous releases, the 2012-based household projections provide an important update on the 2011-based interim household projections with the inclusion of the following new information:

- 2012-based SNPP by sex and age that extend to 2037 (rather than to 2021 as was the case in the 2011-based interim projections).
- Household population by sex, age and relationship-status consistent with the 2011 Census (rather than estimates for 2011, which were derived from 2001 Census data, projections and national trends, as used in the 2011-interim projections).
- Communal population statistics by age and sex consistent with the 2011 Census (rather than the previous estimate, which were calibrated to the total communal population from the 2011 Census).
- Further information on household representatives from the 2011 Census relating to aggregate household representative rates by relationship status and age.
- Aggregate household representative rates at local authority level, controlled to the national rate, based on the total number of households divided by the total adult household population (rather than the total number of households divided by the total household population).
- Adjustments to the projections of the household representative rates in 2012 based on the Labour Force Survey (LFS).

(Source: DCLG Methodology<sup>5</sup>, page 6)

---

<sup>4</sup> 2012-based household projections: methodology, DCLG 2<sup>nd</sup> March 2015.

<https://www.gov.uk/government/statistics/2012-based-household-projections-methodology>

<sup>5</sup> Household Projections 2012-based: Methodological Report. Department for Communities and Local Government (February 2015). <https://www.gov.uk/government/statistics/2012-based-household-projections-methodology>

2.8 The household projection methodology consists of two distinct stages. Stage One produces the national and local authority projections for the total number of households by age-group and relationship-status group over the projection period. All Stage One output and assumptions have been released by DCLG.

Stage Two provides the detailed ‘household-type’ projection by age-group. Seventeen different household types are typically included in household model outputs. Stage Two assumptions and output, which provide the more detailed household-type statistics, have yet to be released. Stage Two outputs would typically be controlled to the Stage One totals, so there should be no impact on the household and dwelling forecasts presented in this analysis when the Stage Two information is published. However, further guidance will be forthcoming from DCLG on release of the Stage 2 analysis, anticipated in August 2015.

2.9 The Stage One data are used in this analysis, to provide the basis for the evaluation of the impact of the 2012-based DCLG model assumptions upon the household growth outcomes of the **Jobs-led (Policy-on)** scenarios.

## Economic Assumptions

2.10 Three key data inputs are required to run a ‘jobs-led’ scenario: economic activity rates by age and sex for each year of the forecast period; an unemployment rate to estimate that portion of the labour force that remains out of work; and a commuting ratio, which estimates the balance between the number of jobs available and the size of the resident labour force.

2.11 The economic assumptions applied to the **Jobs-led (Policy-on)** scenario include ‘core’ assumptions (as used in the February 2015 Edge Analytics report) and ‘sensitivity’ alternatives which apply variant on economic activity rates and commuting parameters.

### *Core Economic Assumptions*

2.12 In the ‘core’ **Jobs-led (Policy-on)** scenario presented in the February 2015 report and replicated here, the following assumptions have been used:

- **Unemployment Rate:** incrementally reducing from 4.8% to 2.8% by 2020 (kept fixed throughout the remainder of the forecast period).
- **Commuting Ratio:** fixed at the 2011 Census ratio of 1.11.
- **Economic Activity Rates:** 2011 Census Economic Activity Rates with adjustments made to the 60–64 and 65–69 age groups to account for changes to the State Pension Age (SPA).

### *Sensitivity Economic Assumptions*

2.13 To investigate the impact of varying economic assumptions, a number of sensitivities have been applied to the **Jobs-led (Policy-on)** scenario, as follows:

- **CR1:** the Commuting Ratio is incrementally *increased* from the 2011 Census value of 1.11 to the 2001 Census value of 1.16 by 2021, an increase of 5%. After 2021, the Commuting Ratio is fixed.
- **CR2:** the Commuting Ratio is incrementally *decreased* from the 2011 Census value of 1.11 in 2011 to 1.06 by 2021. This is a -5% decrease, i.e. continuing the inter-Census trend. After 2021, the Commuting Ratio is fixed.
- **CR3:** the Commuting Ratio is incrementally *decreased* by 10%, from the 2011 Census value of 1.11 in 2011 to 1.00 by 2021. After 2021, the Commuting Ratio is fixed.
- **EA1:** the overall Economic Activity Rates for males and females aged 16-74 are maintained at their 2011 Census level. This option does not modify individual age-group rates but simply maintains an overall rate for the aggregate male/female population total.
- **EA2:** the age-specific Economic Activity Rates are increased from 2011 to 2031 in line with the forecast ‘employment rate’ changes detailed in the Office for Budget Responsibility’s (OBR) most recent analysis of the UK’s labour market<sup>6</sup>. The age-specific rates implied by the OBR analysis are significantly higher than the, relatively prudent, changes implied by the Edge Analytics core economic assumptions.

---

<sup>6</sup> <http://cdn.budgetresponsibility.org.uk/41298-OBR-accessible.pdf>



Table 1: EA2, economic activity rate changes

Sex	Change (2011-31)
Male (60-64)	17%
Male (65-69)	39%
Male (70-74)	20%
Female (60-64)	71%
Female (65-69)	93%
Female (70-74)	83%

# 3 Scenario Summary

- 3.1 The updated outcomes of the East Devon’s **Jobs-led (Policy-on)** scenario are presented below, with the sensitivity scenarios benchmarked against the ‘core’ scenario which uses the core economic assumptions.
- 3.2 Scenario results are provided in the form of a chart and accompanying tables of statistics. The chart illustrates the trajectory of population change resulting from each scenario. The tables summarise the change in population and household numbers that result from each scenario from the forecast base year (mid-year 2013) to the end of the 20-year forecast period (mid-year 2033).
- 3.3 In addition, each table illustrates the average annual net migration associated with the population change, plus the expected average annual dwelling and jobs growth based on the assumptions used in each scenario.
- 3.4 Scenario results are presented in three separate tables, each relating to the application of different household headship rates:
- ‘CLG12’: Household growth using the DCLG Stage One 2012-based headship rates.
  - ‘CLG 11’: Household growth using the DCLG 2011-based headship rates (fixed from 2021 onwards).
  - ‘CLG 08’: Household growth using the DCLG 2008-based headship rates, but fixed at the 2010 values from 2010 onwards.
- 3.5 Note that under the three headship rate alternatives, population growth, net migration and the average annual increase in the number of jobs are the same. Only the household and dwelling numbers are different, reflecting the three alternative approaches to assessing household growth.

### Jobs-led Policy-on

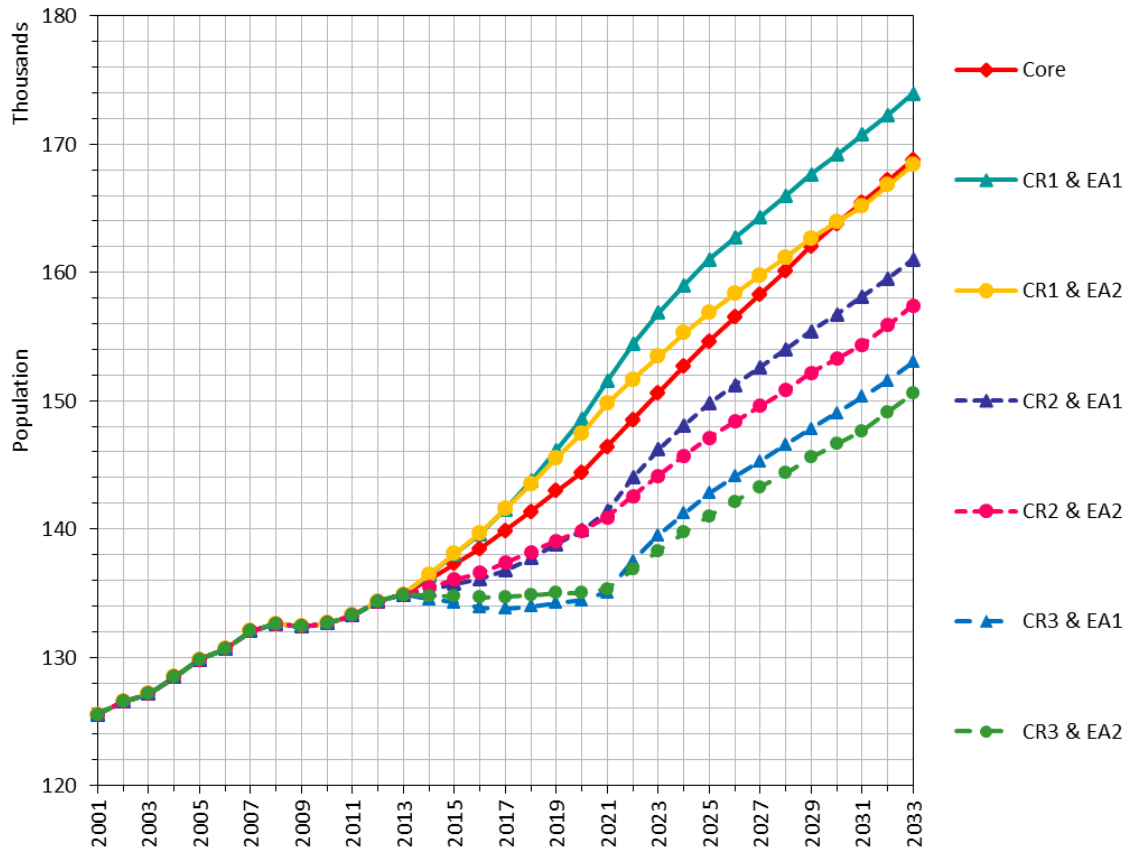


Figure 1: East Devon, Jobs-led (Policy-on) population growth

Table 2: East Devon, Jobs-led (Policy-on) scenario outcomes (CLG12)

Scenario (CLG12)	Change 2013 - 2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Core	33,857	25.1%	17,421	28.9%	2,495	943	549
CR1 & EA1	39,026	28.9%	19,119	31.7%	2,705	1,035	549
CR1 & EA2	33,488	24.8%	17,129	28.4%	2,459	927	549
CR2 & EA1	26,113	19.4%	14,704	24.4%	2,156	796	549
CR2 & EA2	22,512	16.7%	13,356	22.2%	1,992	723	549
CR3 & EA1	18,100	13.4%	11,916	19.8%	1,811	645	549
CR3 & EA2	15,677	11.6%	10,972	18.2%	1,698	594	549

**Note:**

CR1 = +5%; CR2 = -5%; CR3 = +10%

EA1 = aggregate rate maintained; EA2 = OBR adjustment to 60-74 age groups

Table 3: East Devon, Jobs-led (Policy-on) scenario outcomes (CLG11)

Scenario (CLG11)	Change 2013 - 2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Core	33,857	25.1%	16,981	28.2%	2,495	919	549
CR1 & EA1	39,026	28.9%	18,845	31.3%	2,705	1,020	549
CR1 & EA2	33,488	24.8%	16,776	27.9%	2,459	908	549
CR2 & EA1	26,113	19.4%	14,101	23.4%	2,156	763	549
CR2 & EA2	22,512	16.7%	12,730	21.1%	1,992	689	549
CR3 & EA1	18,100	13.4%	11,134	18.5%	1,811	602	549
CR3 & EA2	15,677	11.6%	10,194	16.9%	1,698	552	549

**Note:**

CR1 = +5%; CR2 = -5%; CR3 = +10%

EA1 = aggregate rate maintained; EA2 = OBR adjustment to 60-74 age groups

Table 4: East Devon, Jobs-led (Policy-on) scenario outcomes (CLG08)

Scenario (CLG08)	Change 2013 - 2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
Core	33,857	25.1%	18,123	29.7%	2,495	981	549
CR1 & EA1	39,026	28.9%	20,029	32.8%	2,705	1,084	549
CR1 & EA2	33,488	24.8%	17,894	29.3%	2,459	968	549
CR2 & EA1	26,113	19.4%	15,159	24.8%	2,156	820	549
CR2 & EA2	22,512	16.7%	13,742	22.5%	1,992	744	549
CR3 & EA1	18,100	13.4%	12,111	19.8%	1,811	655	549
CR3 & EA2	15,677	11.6%	11,137	18.2%	1,698	603	549

**Note:**

CR1 = +5%; CR2 = -5%; CR3 = +10%

EA1 = aggregate rate maintained; EA2 = OBR adjustment to 60-74 age groups

# 4 Summary

- 4.1 This report has provided an update on the **Jobs-led (Policy-on)** scenario delivered previously to East Devon District Council in February 2015.
- 4.2 In line with the PPG, household growth has been assessed using the latest headship rate assumptions from the 2012-based DCLG household projection model. Household growth ‘sensitivity’ has also been provided, using the earlier 2008-based and 2011-based headship rates. A number of sensitivity scenarios has also been produced, in which the underlying assumptions on commuting and economic activity rates have been varied.
- 4.3 The average annual dwelling growth outcomes for each of the resulting variant scenarios are summarised in the table below. The sensitivity growth outcomes are benchmarked against the ‘core’ **Jobs-led (Policy-on)** scenario. Each of the ‘CLG12’, ‘CLG11’ and ‘CLG08’ outcomes are presented.

Table 5: East Devon, Jobs-led (Policy-on) dwelling growth outcomes

Scenario	Average Annual Dwelling Requirement 2013-2033		
	CLG12	CLG11	CLG08
<b>Core</b>	943	919	981
<b>CR1 &amp; EA1</b>	1,035	1,020	1,084
<b>CR1 &amp; EA2</b>	927	908	968
<b>CR2 &amp; EA1</b>	796	763	820
<b>CR2 &amp; EA2</b>	723	689	744
<b>CR3 &amp; EA1</b>	645	602	655
<b>CR3 &amp; EA2</b>	594	552	603

**Note:**

CR1 = +5%; CR2 = -5%; CR3 = +10%

EA1 = aggregate rate maintained; EA2 = OBR adjustment to 60-74 age groups