Kirklees

Demographic Analysis & Forecasts

Evaluating the impact of the 2012-based DCLG household projections

An Addendum to the September 2014 report

March 2015

For the attention of:

Kirklees Council

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1. Introduction

Context

1.1   In September 2014, Edge Analytics produced a range of demographic forecasts for Kirklees Council using POPGROUP technology.

1.2   Ten 'core' scenarios were presented, including:

- The 2012-based sub-national population projection (SNPP) from the Office for National Statistics (ONS);

- Alternative trend scenarios based upon five-year and ten-year migration histories;

- Jobs-led scenarios, based upon an employment forecast from the Yorkshire and Humber Regional Economic Model (REM);

- Jobs-led scenarios, based upon employment forecasts specified by Kirklees Council.

1.3   Additional scenarios were included to examine the sensitivity of the jobs-led growth outcomes to variations in the key assumptions on unemployment and economic activity.

1.4   The household-growth implications of each scenario were assessed using assumptions from both the 2008-based and 2011-based interim household projection models from the Department for Communities and Local Government (DCLG). Scenario outcomes were presented under an 'Option A' alternative, in which the 2011-based interim household headship rates were applied, and an 'Option B' alternative, in which the 2008-based household headship rates were applied.

1.5   In February/March 2015, the 2012-based household projections were released by DCLG[1]. Underpinned by the 2012-based SNPP, these new statistics provide a household growth projection and household formation assumptions for each local authority area for the 2012–2037 period.

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[1] 2012-based household projections in England, 2012 to 2037. DCLG 27th February 2015. https://www.gov.uk/government/statistics/2012-based-household-projections-in-england-2012-to-2037

1.6 Planning Practice Guidance (PPG)[2] states that the most recent official household projections should "provide the starting point estimate of overall housing need" (PPG 2a-015-20140306) and that "the most recent demographic evidence, including the latest Office of National Statistics population estimates" should be considered (PPG 2a-017-20140306).

1.7 This addendum report updates the Edge Analytics September 2014 analysis, evaluating the impact of the 2012-based household projection model assumptions for Kirklees upon the household growth outcomes of each of the previous 'core' scenarios and their associated sensitivities.
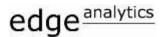
2012-based Household Projections

1.8 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[3]. 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.

1.9 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).

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[2] http://planningguidance.planningportal.gov.uk/blog/guidance/
[3] 2012-based household projections: methodology, DCLG 2nd March 2015.
https://www.gov.uk/government/statistics/2012-based-household-projections-methodology

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- 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 to 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[4], page 6)

1.10   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 has been released by DCLG.

1.11   Stage Two provides the detailed 'household-type' projection by age-group, controlled to the previous Stage One totals. Seventeen different household types are typically included in household model outputs (see Appendix B of the main September 2014 report). Stage Two assumptions and output, which provide the more detailed household-type statistics, have yet to be released by DCLG.

1.12   The Stage One data are used here to provide the basis for the evaluation of the impact of the 2012-based DCLG model assumptions upon the household growth outcomes of each of the previous 'core' scenarios and their associated sensitivities.

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

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2. Scenario Definition

'Core' Scenarios

2.1   Ten 'core' scenarios were presented in the September 2014 report (Table 1).

Table 1: 'Core' scenario definition

Type	Name	Description
Official projections	**SNPP-2012**	This scenario mirrors the 2012-based SNPP from the ONS. This is the official benchmark scenario.
	SNPP-2010	This scenario mirrors the 2010-based SNPP from the ONS. The population is re-scaled to the 2012 mid-year population estimate (MYE) to ensure consistency with the SNPP-2012 scenario, with the 2010-based growth trajectory continued thereafter.
Alternative trend scenarios	**Natural Change**	In- and out- migration flows are set to zero.
	PG-5yr	Internal and international migration assumptions are based on the last five years of historical evidence (2008/09 to 2012/13).
	PG-10yr	Internal and international migration assumptions are based on the last 10 years of historical evidence (2003/04 to 2012/13).
Jobs-led scenarios	**Jobs-led REM**	In the 'Jobs-led REM' scenario, population growth is determined by the annual change in the number of full time equivalent (FTE) jobs, as defined in the Yorkshire and Humber REM.
	Jobs-led A - Trend Employment Rate	In the alternative jobs-led scenarios, population growth is linked to annual jobs growth of: (A) 576; (B) 1,015; (C) 1,229; (D) 1,536.
	Jobs-led B - 75% Employment Rate	Economic activity rates from the 2011 Census are applied, with uplifts applied in the 60–69 age groups to account for changes to state pension age.
	Jobs-led C - REM + Kirklees Economic Strategy	The unemployment rate is incrementally reduced from 8.1% to 4.5% (2013—2020).
	Jobs-led D - 80% Employment Rate	A fixed 2011 commuting ratio of 1.15 is applied.

Note: Refer to Appendix B of the September 2014 report for further information on the scenario data inputs and assumptions.

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'Sensitivity' Scenarios

2.2 Additional scenarios were included in the September 2014 report, to examine the sensitivity of the jobs-led growth outcomes to variations in the assumptions made on unemployment and economic activity (Table 2).

Table 2: 'Sensitivity' scenario definition

Type	Name	Description
Jobs-led sensitivity scenarios	**Jobs-led REM - SENS1**	Population growth is linked to the same annual jobs growth trajectory as the equivalent core jobs-led scenarios.
	Jobs-led A - Trend Employment Rate - SENS1	The economic activity rate for the labour force (aged 16–74) is maintained at its base-year level (68%).
	Jobs-led B - 75% Employment Rate - SENS1	
	Jobs-led C - REM + Kirklees Economic Strategy - SENS1	The unemployment rate is incrementally reduced from 8.1% to 4.0% (2013—2020).
	Jobs-led D - 80% Employment Rate - SENS1	Commuting ratio assumptions are consistent with the core scenarios.

Note: Refer to Appendix B of the September 2014 report for further information on the scenario data inputs and assumptions

Household & Dwelling Growth

2.3 In the September 2014 analysis, the household and dwelling growth outcomes of each scenario were presented as an '**Option A**' and '**Option B**' alternative:

- In **Option A**, the 2011-based interim household headship rates were applied, trended after 2021;

- In **Option B**, the 2008-based household headship rates were applied, rescaled to the 2011 DCLG household total, with the trend continued thereafter.

2.4 In this addendum, the household and dwelling growth outcomes of each scenario are presented as **THREE** alternative outcomes:

- **HH-12**: the 2012-based household headship rates are applied;

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- **HH-11**: the 2011-based interim household headship rates are applied (i.e. as in Option A);

- **HH-08**: the 2008-based household headship rates are applied (i.e. as in Option B).

2.5 In all scenarios, for each of the HH-12, HH-11 and HH-08 alternatives, a dwelling vacancy rate of 4.2% is assumed, providing the basis for the calculation of dwelling numbers from household growth totals (see Appendix B of the main September 2014 report for further detail).

2.6 For the HH-12 scenarios, updated 'communal population' statistics (i.e. the population not living in households) have been used. The communal population total is similar to that used in the HH-11 and HH-08 scenarios, but its age and sex profile is consistent with 2011 Census output.

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3. Scenario Results

Core Scenario Outcomes

3.1 The 'core' scenario growth outcomes associated with the three alternative household assumptions are presented below for the period 2013—2031 (Table 3, Table 4, Table 5) and for the period 2013—2036 (Table 6, Table 7, Table 8).

3.2 The HH-11 and HH-08 outcomes in Table 4 and Table 5 and Table 7 and Table 8 are <u>identical</u> to those presented in the Option A and Option B outcomes in the original September 2014 analysis.

3.3 In the HH-12 summary (Table 3), only the household and dwelling outcomes are different (highlighted in red), reflecting the impact of the different household growth assumptions from the DCLG 2012-based household projection model.

3.4 The general pattern resulting from the HH-12 outcomes is for a *higher* rate of projected household and dwelling growth compared to the HH-11 scenarios, but a *lower* rate of household and dwelling growth compared to the HH-08 scenarios.

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Table 3: Kirklees **HH-12** core scenario outcomes (2013–2031)

Rank	Scenario	Change 2013 - 2031				Average per year		
		Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
1	Jobs-led D - 80% Employment Rate (HH-12)	78,929	18.4%	37,790	21.4%	1,995	2,191	1,536
2	Jobs-led C - REM + Kirklees Economic Strategy (HH-12)	66,348	15.5%	33,102	18.8%	1,409	1,919	1,229
3	PG-10yr (HH-12)	58,203	13.6%	34,402	19.5%	1,043	1,995	1,070
4	Jobs-led B - 75% Employment Rate (HH-12)	57,576	13.4%	29,830	16.9%	1,000	1,730	1,015
5	Jobs-led REM (HH-12)	54,460	12.7%	28,667	16.3%	855	1,662	939
6	PG-5yr (HH-12)	53,996	12.6%	32,484	18.4%	890	1,883	934
7	SNPP-2010 (HH-12)	48,462	11.3%	26,100	14.8%	406	1,513	889
8	SNPP-2012 (HH-12)	47,617	11.1%	26,215	14.9%	427	1,520	742
9	Jobs-led A - Trend Employment Rate (HH-12)	39,573	9.2%	23,105	13.1%	160	1,340	576
10	Natural Change (HH-12)	34,051	8.0%	23,679	13.4%	0	1,373	360

Table 4: Kirklees **HH-11** core scenario outcomes (2013–2031)

Rank	Scenario	Change 2013 - 2031				Average per year		
		Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
1	Jobs-led D - 80% Employment Rate (HH-11)	78,929	18.4%	32,827	18.6%	1,995	1,903	1,536
2	Jobs-led C - REM + Kirklees Economic Strategy (HH-11)	66,348	15.5%	28,243	16.0%	1,409	1,638	1,229
3	PG-10yr (HH-11)	58,203	13.6%	28,619	16.2%	1,043	1,659	1,070
4	Jobs-led B - 75% Employment Rate (HH-11)	57,576	13.4%	25,044	14.2%	1,000	1,452	1,015
5	Jobs-led REM (HH-11)	54,460	12.7%	23,908	13.6%	855	1,386	939
6	PG-5yr (HH-11)	53,996	12.6%	27,036	15.3%	890	1,568	934
7	SNPP-2010 (HH-11)	48,462	11.3%	21,936	12.5%	406	1,272	889
8	SNPP-2012 (HH-11)	47,617	11.1%	21,835	12.4%	427	1,266	742
9	Jobs-led A - Trend Employment Rate (HH-11)	39,573	9.2%	18,474	10.5%	160	1,071	576
10	Natural Change (HH-11)	34,051	8.0%	19,051	10.8%	0	1,105	360

Note: This table replicates Table 5 from the September 2014 analysis (i.e. equivalent to the 'Option A' outcomes)

Table 5: Kirklees **HH-08** core scenario outcomes (2013–2031)

Rank	Scenario	Change 2013 - 2031				Average per year		
		Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
1	Jobs-led D - 80% Employment Rate (HH-08)	78,929	18.4%	40,329	22.8%	1,995	2,338	1,536
2	Jobs-led C - REM + Kirklees Economic Strategy (HH-08)	66,348	15.5%	35,525	20.1%	1,409	2,060	1,229
3	PG-10yr (HH-08)	58,203	13.6%	35,321	20.0%	1,043	2,048	1,070
4	Jobs-led B - 75% Employment Rate (HH-08)	57,576	13.4%	32,173	18.2%	1,000	1,866	1,015
5	Jobs-led REM (HH-08)	54,460	12.7%	30,983	17.6%	855	1,796	939
6	PG-5yr (HH-08)	53,996	12.6%	33,603	19.0%	890	1,948	934
7	SNPP-2010 (HH-08)	48,462	11.3%	28,413	16.1%	406	1,647	889
8	SNPP-2012 (HH-08)	47,617	11.1%	28,572	16.2%	427	1,657	742
9	Jobs-led A - Trend Employment Rate (HH-08)	39,573	9.2%	25,289	14.3%	160	1,466	576
10	Natural Change (HH-08)	34,051	8.0%	25,478	14.4%	0	1,477	360

Note: This table replicates Table 6 from the September 2014 analysis (i.e. equivalent to the 'Option B' outcomes)

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Table 6: Kirklees **HH-12** core scenario outcomes (2013–2036)

Rank	Scenario	Change 2013 - 2036				Average per year		
		Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
1	Jobs-led D - 80% Employment Rate (HH-12)	103,949	24.3%	49,506	28.1%	2,110	2,246	1,536
2	Jobs-led C - REM + Kirklees Economic Strategy (HH-12)	87,682	20.5%	43,352	24.6%	1,538	1,967	1,229
3	Jobs-led B - 75% Employment Rate (HH-12)	76,337	17.8%	39,054	22.1%	1,137	1,772	1,015
4	Jobs-led REM (HH-12)	72,307	16.9%	37,526	21.3%	995	1,703	939
5	PG-10yr (HH-12)	69,969	16.3%	42,014	23.8%	969	1,907	943
6	PG-5yr (HH-12)	64,761	15.1%	39,703	22.5%	833	1,802	809
7	SNPP-2010 (HH-12)	58,552	13.7%	32,516	18.5%	358	1,475	849
8	SNPP-2012 (HH-12)	58,184	13.6%	32,412	18.4%	402	1,471	661
9	Jobs-led A - Trend Employment Rate (HH-12)	53,049	12.4%	30,217	17.1%	315	1,371	576
10	Natural Change (HH-12)	40,210	9.4%	28,558	16.2%	0	1,296	247

Table 7: Kirklees **HH-11** core scenario outcomes (2013–2036)

Rank	Scenario	Change 2013 - 2036				Average per year		
		Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
1	Jobs-led D - 80% Employment Rate (HH-11)	103,949	24.3%	43,741	24.8%	2,110	1,985	1,536
2	Jobs-led C - REM + Kirklees Economic Strategy (HH-11)	87,682	20.5%	37,670	21.4%	1,538	1,709	1,229
3	Jobs-led B - 75% Employment Rate (HH-11)	76,337	17.8%	33,434	19.0%	1,137	1,517	1,015
4	Jobs-led REM (HH-11)	72,307	16.9%	31,929	18.1%	995	1,449	939
5	PG-10yr (HH-11)	69,969	16.3%	35,078	19.9%	969	1,592	943
6	PG-5yr (HH-11)	64,761	15.1%	33,093	18.8%	833	1,502	809
7	SNPP-2010 (HH-11)	58,552	13.7%	27,470	15.6%	358	1,247	849
8	SNPP-2012 (HH-11)	58,184	13.6%	27,215	15.5%	402	1,235	661
9	Jobs-led A - Trend Employment Rate (HH-11)	53,049	12.4%	24,732	14.0%	315	1,122	576
10	Natural Change (HH-11)	40,210	9.4%	22,861	13.0%	0	1,037	247

Note: This table replicates Table 13 from the September 2014 analysis (i.e. equivalent to the 'Option A' outcomes)

Table 8: Kirklees **HH-08** core scenario outcomes (2013–2036)

Rank	Scenario	Change 2013 - 2036				Average per year		
		Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings	Jobs
1	Jobs-led D - 80% Employment Rate (HH-08)	103,949	24.3%	52,226	29.6%	2,110	2,370	1,536
2	Jobs-led C - REM + Kirklees Economic Strategy (HH-08)	87,682	20.5%	45,912	26.0%	1,538	2,083	1,229
3	Jobs-led B - 75% Employment Rate (HH-08)	76,337	17.8%	41,505	23.5%	1,137	1,883	1,015
4	Jobs-led REM (HH-08)	72,307	16.9%	39,939	22.6%	995	1,812	939
5	PG-10yr (HH-08)	69,969	16.3%	42,597	24.1%	969	1,933	943
6	PG-5yr (HH-08)	64,761	15.1%	40,516	23.0%	833	1,839	809
7	SNPP-2010 (HH-08)	58,552	13.7%	34,703	19.7%	358	1,575	849
8	SNPP-2012 (HH-08)	58,184	13.6%	34,794	19.7%	402	1,579	661
9	Jobs-led A - Trend Employment Rate (HH-08)	53,049	12.4%	32,450	18.4%	315	1,473	576
10	Natural Change (HH-08)	40,210	9.4%	30,274	17.1%	0	1,374	247

Note: This table replicates Table 14 from the September 2014 analysis (i.e. equivalent to the 'Option B' outcomes)

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Dwelling Growth Summary

3.6 In the original September 2014 analysis, the HH-11 (i.e. Option A) and HH-08 (i.e. Option B) dwelling growth outcomes were presented, together with an average of the two for the period 2013—2031 and for the period 2013—2036 (see Table 8 and Table 15 in the September 2014 report). The HH-12 dwelling-growth outcomes are presented here alongside these outcomes (Table 9, Table 10).

3.7 The dwelling growth outcomes for each of the ten 'core' and the five 'sensitivity' scenarios are presented, illustrating the scale of growth suggested by the HH-12 scenarios relative to the HH-11 and HH-08 alternatives.

3.8 In all scenarios, the HH-12 dwelling growth outcomes fall within the range suggested by the HH-08 and HH-11 scenarios. In all scenarios, the HH-12 outcomes are higher than the previous HH-11/HH-08 average.

Table 9: Kirklees core and sensitivity dwelling growth outcomes (2013—2031)

Rank	Scenario	Average annual dwelling requirement (2013–2031)			
		HH-11	HH-08	Average	HH-12
1	Jobs-led D - 80% Employment Rate	1,903	2,338	2,121	2,191
2	PG-10yr	1,659	2,048	1,854	1,995
3	Jobs-led C - REM + Kirklees Economic Strategy	1,638	2,060	1,849	1,919
4	Jobs-led D - 80% Employment Rate - SENS1	1,629	2,049	1,839	1,909
5	PG-5yr	1,568	1,948	1,758	1,883
6	Jobs-led B - 75% Employment Rate	1,452	1,866	1,659	1,730
7	Jobs-led REM	1,386	1,796	1,591	1,662
8	Jobs-led C - REM + Kirklees Economic Strategy - SENS1	1,367	1,775	1,571	1,641
9	SNPP-2012	1,266	1,657	1,461	1,520
10	SNPP-2010	1,272	1,647	1,460	1,513
11	Jobs-led B - 75% Employment Rate - SENS1	1,184	1,583	1,384	1,454
12	Jobs-led REM - SENS1	1,119	1,515	1,317	1,387
13	Natural Change	1,105	1,477	1,291	1,373
14	Jobs-led A - Trend Employment Rate	1,071	1,466	1,269	1,340
15	Jobs-led A - Trend Employment Rate - SENS1	808	1,190	999	1,069

Note: Sensitivities on the 'core' scenarios are shaded grey.

Table 10: Kirklees core and sensitivity dwelling growth outcomes (2013—2036)

Rank	Scenario	Average annual dwelling requirement (2013–2036)			
		HH-11	HH-08	Average	HH-12
1	Jobs-led D - 80% Employment Rate	1,985	2,370	2,177	2,246
2	Jobs-led D - 80% Employment Rate - SENS1	1,750	2,127	1,938	2,011
3	Jobs-led C - REM + Kirklees Economic Strategy	1,709	2,083	1,896	1,967
4	PG-10yr	1,592	1,933	1,762	1,907
5	Jobs-led B - 75% Employment Rate	1,517	1,883	1,700	1,772
6	PG-5yr	1,502	1,839	1,670	1,802
7	Jobs-led C - REM + Kirklees Economic Strategy - SENS1	1,479	1,845	1,662	1,736
8	Jobs-led REM	1,449	1,812	1,631	1,703
9	Jobs-led B - 75% Employment Rate - SENS1	1,290	1,648	1,469	1,544
10	SNPP-2010	1,247	1,575	1,411	1,475
11	SNPP-2012	1,235	1,579	1,407	1,471
12	Jobs-led REM - SENS1	1,222	1,578	1,400	1,475
13	Jobs-led A - Trend Employment Rate	1,122	1,473	1,297	1,371
14	Natural Change	1,037	1,374	1,206	1,296
15	Jobs-led A - Trend Employment Rate - SENS1	901	1,244	1,072	1,149

Note: Sensitivities on the 'core' scenarios are shaded grey.

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4. Summary

4.1   The DCLG 2012-based household projections replace the previous 2008-based and 2011-based interim household projections, providing new assumptions on future rates of household formation, incorporating more detail from the 2011 Census.

4.2   The 2012-based household projections, in conjunction with the 2012-based SNPP, provide a new 'benchmark' for local housing requirements evidence. In line with the PPG, these projections should form the 'starting point' for the assessment of future housing requirements. However, the PPG also states that:

> *"Wherever possible, local needs assessments should be informed by the latest available information. The National Planning Policy Framework is clear that Local Plans should be kept up-to-date. A meaningful change in the housing situation should be considered in this context, but this does not automatically mean that housing assessments are rendered outdated every time new projections are issued."*

> (PPG Paragraph 2a-016-20150227)

4.3   This short addendum report updates the Edge Analytics September 2014 analysis, evaluating the impact of the 2012-based household projection model assumptions upon the growth outcomes of each of the previous 'core' scenarios (including the benchmark SNPP-2012) and their associated sensitivities.

4.4   The general pattern resulting from the HH-12 outcomes is for a *higher* rate of projected household and dwelling growth compared to the HH-11 scenarios, but a *lower* rate of household and dwelling growth compared to the HH-08 scenarios.

4.5   This latest DCLG 2012-based household projection data has provided national and local authority projections and assumptions for the total number of households by age-group and relationship-status group (i.e. Stage One). DCLG intends to release additional data (Stage Two) which enables disaggregation of these projections by each of seventeen household types, although a date for the future release of this information has not been set. Whilst this new data will provide further

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detail to the household outputs, it is not expected that they will change the household growth assumptions implied by the Stage One, which will continue to provide the controlling totals for each local authority district.

4.6   It is recommended that the scenario outcomes are reconsidered when the Stage Two data is released by DCLG, providing additional detail on the profile of growth by household-type implied by the 2012-based household projection assumptions.

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