Nottingham Outer Demographic Update Paper

May 2017

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Contents

LIST OF TABLES

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DATE	ORIGINATORS	APPROVED
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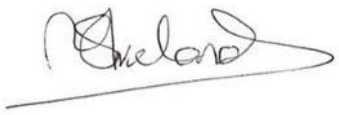

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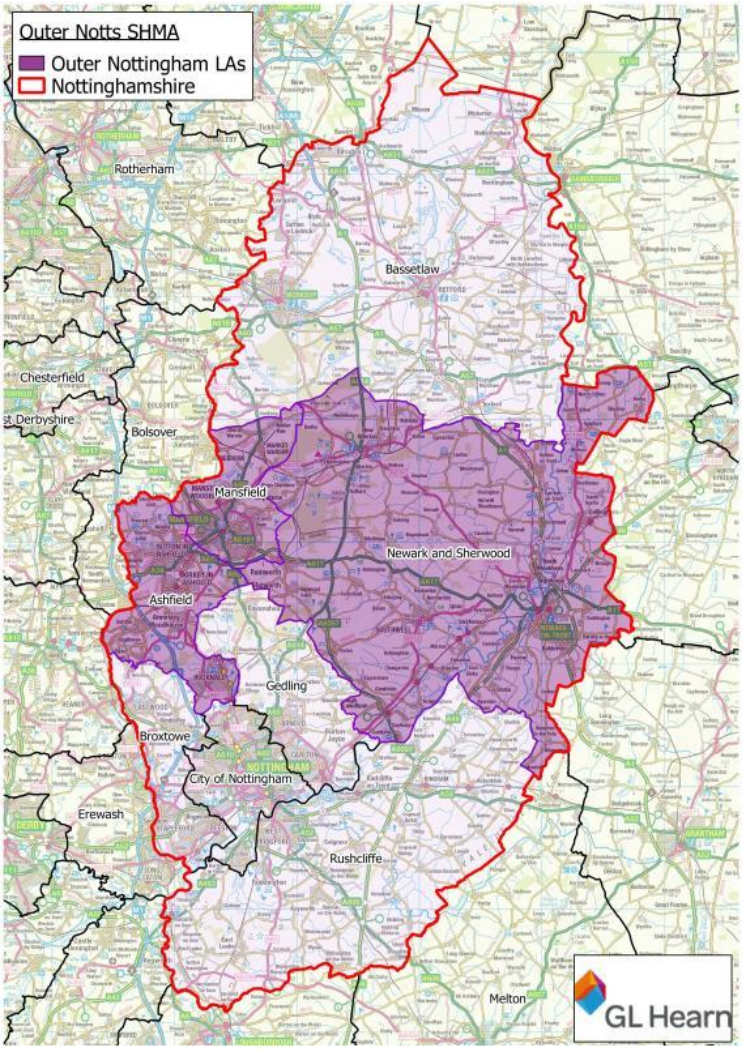
1 INTRODUCTION

Context and Purpose

1.1 GL Hearn has been commissioned to prepare an update paper to the Strategic Housing Market Assessment (SHMA) for the Nottingham Outer Housing Market Area (HMA) looking specifically at demographic need. GL Hearn leads a consultancy team which includes Justin Gardner Consulting (JGC) and Chris Broughton Associates (CBA).

1.2 The update paper should be read in conjunction with the SHMA, which was originally published in October 2015 has been commissioned by Ashfield District Council, Mansfield District Council and Newark and Sherwood District Council. The location of these Districts is outlined in Figure 1 below.

Figure 1: Commissioning Authorities within Nottinghamshire



Source: GL Hearn based on OS data, 2014

1.3 The preparation of a demographic update paper has been commissioned to respond to the requirements of the NPPF and PPG to provide a fit-for-purpose evidence base to inform and support planning and housing policies. The core driver of the update is the release of datasets including population and household projections and the most recent mid-year population estimates.

1.4 This report seeks to respond to any question relating to whether the SHMA is now out of date because of the release of 2014 based data.

1.5 As well as using more up to date information our approach has also been amended to reflect best practice. This takes into account recent appeal decisions which have caused a slight change in approach to migration trends; it is now considered more appropriate to consider 10 year migration trends. This is set out in more detail at the appropriate point in this review.

1.6 The purpose of the update paper is to test whether there has been a material change in the local demographics which would warrant a full review of the overall OAN. This report does not provide a full OAN update as we have not reviewed economic growth, market signals or affordable housing need. Although it should be noted that in the SHMA no uplift to the OAN was made on the basis of economic need.

1.7 Through our update paper we provide an analysis of past demographic trends, consider overall population growth, review the components of change and the likely impact on the age structure. We also review the household formation rate set out in the 2014-based household forecasts and 2015 Mid-Year Estimates and whether these require adjustment.

Conclusions of SHMA (October 2015)

1.8 A review of migration and commuting patterns as well as house price analysis allowed us to conclude that Ashfield, Mansfield and Newark and Sherwood comprised a single housing market area (Nottingham Outer HMA). This was both a practical solution but also one based on the balance of evidence presented at the time.

1.9 The PPG emphasises the use of official population and household projections as a “starting point” for assessing housing need, as these are based on nationally-consistent assumptions and methodology. It is this starting point which is being reviewed in this update paper.

1.10 In the Nottingham Outer SHMA the latest official household projections were the 2012-based Household Projections published by Government in February 2015. These were based on the first official population projections taking full account of the results of the 2011 Census and what this tells us about recent population trends. For the Nottingham Outer HMA these projections estimate a housing need of 1,074 dwellings per annum across the HMA (2013-33).

1.11 We did however note that short-term trends reflected a post-recession period where housing delivery was reduced across the HMA which subsequently reduced migration patterns against longer term trends. We therefore developed alternative population projections using a 12-year migration trend and included a UPC adjustment.

1.12 The alternative projections showed a population growth (and hence housing need) which was above those set out in the official 2012-based projections, but at a level which sat comfortably with past trends (when considering both short- and long-term trends). GL Hearn considered that these projections (when taken together, i.e. recognising that there may be a link between long-term migration and UPC) provided a robust basis for considering future housing provision.

1.13 The alternative projection suggested a housing need of 1,271 dwellings across the HMA, with figures of 469 in Ashfield, 356 in Mansfield and 446 in Newark & Sherwood. The annual percentage increase based on these figures is 0.9%, 0.8% and 0.9% respectively.

1.14 There was however some concern around a degree of suppression in household formation rates for people aged 25-34 within these projections which was seen both historically and being projected forward. We therefore adjusted these rates on the basis of market signals.

1.15 The SHMA also sought to model the relationship between jobs and homes. The modelling indicated that to support the forecast growth in employment a housing need of 1,126 dwellings across the HMA, with figures of 409 in Ashfield, 328 in Mansfield and 389 in Newark & Sherwood.

1.16 Across the HMA (and for each local authority), the level of housing provision necessary to support economic growth is lower than the baseline demographic trend-based projections. There was therefore no need to increase housing supply above the demographic projections and that these would support the planned economic growth in the HMA.

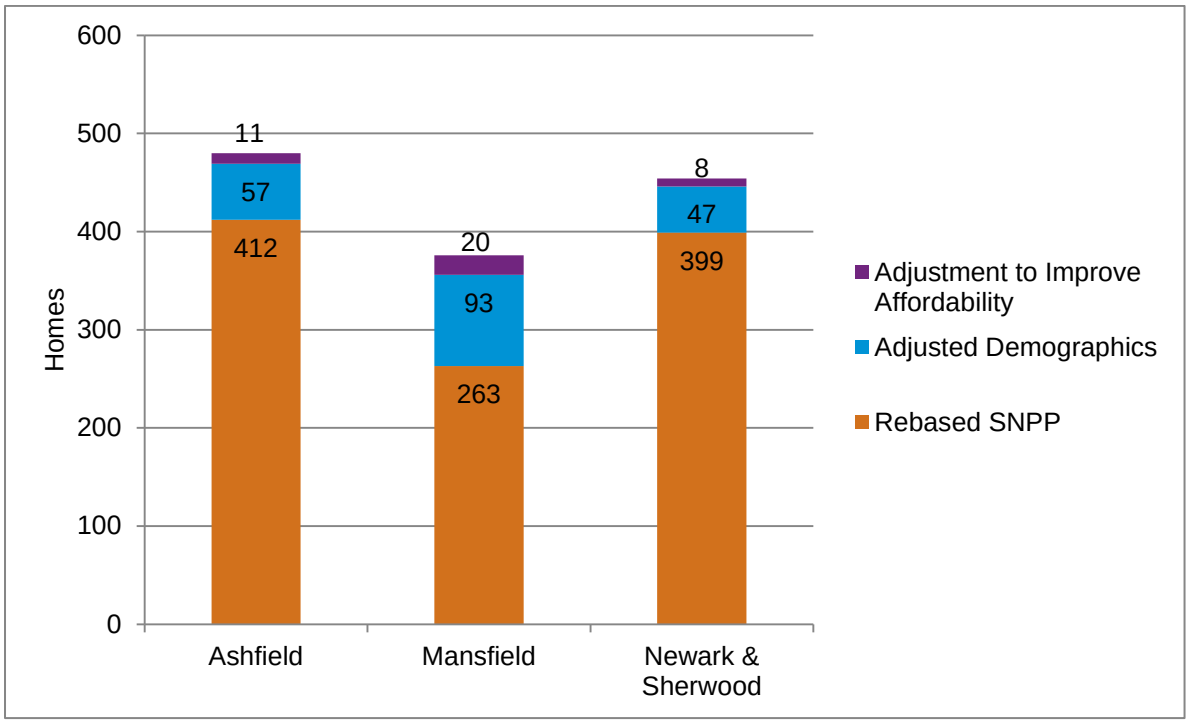
1.17 In looking at affordable housing need the SHMA identified a need for 405 affordable homes per annum. However, it should be recognised part of the identified need for affordable housing is from existing households who need alternative size or tenure of accommodation but would release their current home for another household by moving. There are also other ways of delivering new affordable housing besides through new-build development on market-led housing development schemes. Net additional needs arising would be solely from concealed and homeless households.

1.18 The report also considered market signals which indicated that affordability pressures are not that significant in comparison to the wider region and country. There was however some merit in considering an adjustment to overall housing needs to ease market signals pressures. GL Hearn used the demographic analysis to assess the degree to which household formation levels have been constrained for younger age groups, and considered the implication of returning the

household formation rates of the 25-34 age group back to 2001 levels. The analysis indicated that, all other things being equal, an uplift of around 39 homes per annum across the study area would support an improvement in affordability (and provide additional affordable housing) and household formation rates amongst younger households.

1.19 Taking account of these adjusted household formation rates for younger households and adjustment for UPC and longer term trends, the October 2015 SHMA concluded on the overall need for housing over the 2013-33 period of 1,310 homes per annum (Ashfield 480, Mansfield 376 and 454 in Newark and Sherwood). The derivation of the conclusions on housing need is shown below, in Figure 2.

Figure 2: Conclusions on Full Objectively-Assessed Housing Need, 2013-33



1.20 As there was no uplift to the OAN on the basis of economic need this Update report assumes the same.

2 DEMOGRAPHIC NEED

Introduction

2.1 In this section consideration is given to demographic evidence of housing need and trend-based projections. Such projections are critical to the SHMA process and this is emphasised in the NPPF (para 158) which states that local planning authorities should prepare a SHMA to identify the scale of housing which *'meets household and population projection, taking account of migration and demographic change'*.

2.2 The importance of such projections can also be seen in the PPG which states [2a-015] that *'household projections published by [CLG] should provide the starting point estimate of overall housing need'*. The CLG projections are directly linked to ONS subnational population projections (SNPP). Further emphasis is put on the CLG projections in 2a-017 where it is noted that *'the household projections… are statistically robust and are based on nationally consistent assumptions'*.

2.3 The PPG also sets out that should an adjustment be made as a result of market signals constraint or affordable housing need that it should be applied to the starting point i.e. the official projections.

2.4 However, the PPG also identifies [2a-014] that *'establishing future need for housing is not an exact science. No single approach will provide a definitive answer'* and in 2a-017 notes that *'plan makers may consider sensitivity testing, specific to their local circumstances'* – this is particularly related to evidence of particular events which may have impacted on migration or the profile of the local population. Furthermore, the PPG notes [2a-016] that *'where possible, local needs assessments should be informed by the latest available data'* – this is relevant in this area due to new population estimates having been published since the release of the last SNPP.

2.5 While not official guidance, the PAS technical advice note provides some additional detail about sensitivity testing and in particular advises (para 6.24) that using a longer (10- to 15-year) past trend analysis should provide a more robust projection than the SNPP (which uses data from the previous 5-6 years). The PAS technical advice note also highlights the issue of Unattributable Population Change (UPC) – UPC is an adjustment made by ONS for discrepancies between Census data and annual monitoring. PAS states (para 6.35) that *'plan makers may take a view that the UPC, or part of it, should be included in the base period as past migration'*.

2.6 On the basis of the wording in both the PPG and the PAS technical advice note a number of observations can be made which are relevant to the assessment of trend-based demographic projections:

- CLG household projections (which link to ONS population projections) are robust and should be used as the 'start point' for assessing housing need;
- These projections can be sensitivity tested where there is evidence of changes over time (e.g. short-term changes to migration patterns) or where UPC may be related to recorded migration levels; and
- Up-to-date information should be used where possible and this will include later releases of ONS mid-year population estimates (MYE).

2.7 It is considered in looking at sensitivities to demographic projections that the suggested level of need can go down as well as up. This is on the basis of a 'common sense' approach whereby any increase in internal in-migration in one area will come with a commensurate increase in internal out-migration from other locations. It is also recognised that levels of population growth for individual local authorities (nationally) will need to sum to the total level of growth projected nationally (through ONS national population projections).

2.8 In considering whether projections can be increased or decreased from ONS figures some general trends should also be understood. In particular, it has been evident since about 2008 (the start of recession) that population growth has been relatively strong in many urban areas – this looks to be driven by a reduced trend of out-migration from urban locations (which is likely to be linked to factors such as mortgage finance constraints). This has meant that more rural or sub-urban locations have typically seen lower levels of population growth than previously. These trends have not been observed universally but can give an insight into whether or not it is reasonable to move away from official projections.

2.9 In understanding what a reasonable projection is a number of factors can be considered. In particular, this would include overlaying past and projected population growth (to see if there is a correlation) and also to compare past and projected levels of migration – this needs to recognise that migration may well be expected to change over time as the age structure of the population changes.

2.10 Overall, it is clear that developing the most reasonable and realistic projections for housing need is far from straightforward and will involve a degree of professional judgement. The need for judgment can clearly be seen in a recent High Court case in Kings Lynn (CO/914/2015) where it is noted that *'this is a statistical exercise involving a range of relevant data for which there is no one set methodology, but which will involve elements of judgment about trends and the interpretation and application of the empirical material available'*.

Demographic Profile of Nottingham Outer

2.11 The analysis below looks at the population profile in the Nottingham Outer HMA, including past levels of population change, the components of this change (e.g. births, deaths and migration) and

the age structure. Where relevant, comparisons are made with other areas (the East Midlands region and England). The analysis uses 2015 as a base date, due to this being the date for which the most recent information was available at the time of writing (from ONS mid-year population estimates). The previous 2015 SHMA used the 2012-based household projections alongside the 2013 based mid-year estimates.

Overall population levels and changes

2.12 The population of the Nottingham Outer HMA in 2015 was estimated to be 348,700 an increase of 32,800 people since 2001 – a 10.4% increase over the 14-year period. This level of population growth is above that seen across Nottinghamshire (7.6%) but below the level of growth seen regionally (11.6%) and nationally (10.8%). The data also shows slightly stronger growth in Newark & Sherwood (11.5%) and a lower level of growth in Mansfield (8.7%).

Table 1: **Population Growth (2001-15)**

Area	Population 2001	Population 2015	Change in Population	% change
Ashfield	111,477	123,574	12,097	10.9%
Mansfield	98,065	106,556	8,491	8.7%
Newark & Sherwood	106,351	118,569	12,218	11.5%
Nottingham Outer	315,893	348,699	32,806	10.4%
Nottinghamshire	748,809	805,848	57,039	7.6%
East Midlands	4,189,622	4,677,038	487,416	11.6%
England	49,449,746	54,786,327	5,336,581	10.8%

Source: ONS (mid-year population estimates)

Components of past population change

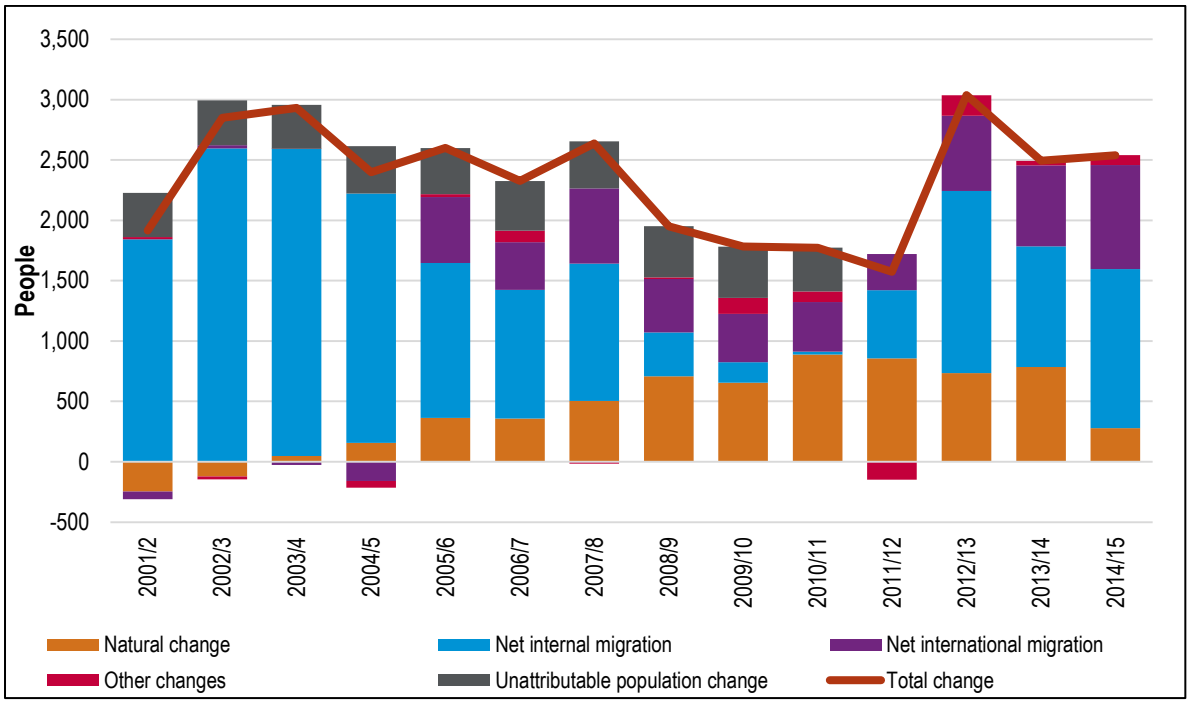
2.13 The figure and table below consider the drivers of population change in the Nottingham Outer HMA from 2001 to 2015 (2001 being the base date from which detailed figures are available). Population change is largely driven by natural change (births minus deaths) and migration although within ONS data there is also a small other changes category (mainly related to armed forces and prison populations) and an unattributable population change (UPC). UPC is a retrospective adjustment made by ONS to mid-year population estimates where Census data has suggested that population growth had either been over- or under-estimated in the inter-Census years. Because UPC links back to Census data a figure is only provided for 2001 to 2011.

2.14 The figure shows that net migration has been the key driver of population change – particularly internal migration (i.e. from other parts of the country) in the early part of the 2001-15 period, with international migration being stronger since about 2005. Migration was particularly strong in 2001-8

and over the past three years (2012-15). Between 2008 and 2012, the HMA saw more modest population growth than was observed in other parts of the trend period studied.

2.15 Overall, the number of births has typically exceeded the number of deaths by around 430 per annum over the period from 2001. When looking at migration, the data shows an average level of net migration of about 1,610 people per annum on average (with about 1,250 of this being internal migration). This compares to an annual average of around 950 people in the five year period feeding into the 2012-based projections used in the last SHMA. Other changes are quite small and the data also shows a small (but significant) level of UPC – this is particularly notable in Mansfield (see Appendix 1 for local authority components of change data).

Figure 3: Components of population change, mid-2001 to mid-2015 – Nottingham Outer



Source: ONS

Table 2: **Components of population change, mid-2001 to mid-2015 – Nottingham Outer**

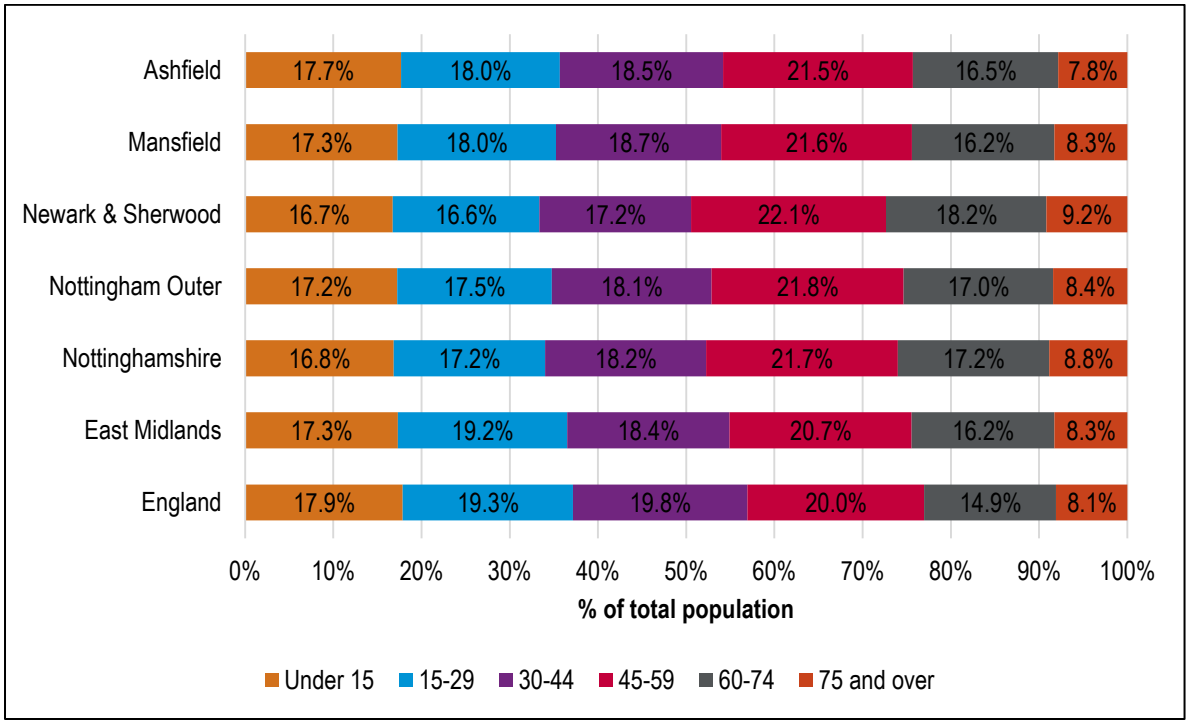
Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	-247	1,843	-63	19	364	1,916
2002/3	-122	2,596	26	-24	372	2,848
2003/4	48	2,545	-27	1	363	2,930
2004/5	155	2,068	-158	-58	392	2,399
2005/6	362	1,284	548	23	382	2,599
2006/7	357	1,067	394	96	412	2,326
2007/8	503	1,139	622	-15	389	2,638
2008/9	709	363	442	13	424	1,951
2009/10	654	170	402	131	425	1,782
2010/11	888	24	410	88	363	1,773
2011/12	857	565	300	-148	0	1,574
2012/13	734	1,508	624	171	0	3,037
2013/14	786	998	671	38	0	2,493
2014/15	279	1,318	861	82	0	2,540

Source: ONS

Age Profile and Past Changes

2.16 The profile of the population of the HMA is broadly similar to that seen across Nottinghamshire and to a lesser extent the region. Compared with data for England, the data suggests a relatively old population with more people aged 60 and over. As shown in the figure below, some 25% of the population is aged 60 and over, compared with 23% for the whole of England. For individual local authority areas there are some small differences. The key one is the relatively old population of Newark & Sherwood where 27% of the population is aged 60 and over – both Ashfield and Mansfield show an equivalent proportion of 24%.

Figure 4: Population Age Profile (2015)



Source: ONS 2015 mid-year population estimates

2.17 The table below shows how the age structure of the population has changed over the 2001 to 2015 period. The data shows the most significant growth to have been in the 60-74 age group, with this group also showing the highest proportionate increase. Increases have also been seen in the 15-29 and 45-59 age groups (both increasing by around 16-20%). The population aged 75 and over has increased by around 5,000 people; a 20% increase. The analysis also indicates a decline in the population aged 30-44 and virtually no change in the number of children (population aged under 15).

Table 3: **Change in Age Structure (2001-2015) – Nottingham Outer**

Age group	2001	2015	Change	% change
Under 15	59,804	60,069	265	0.4%
15-29	52,716	61,109	8,393	15.9%
30-44	71,424	63,184	-8,240	-11.5%
45-59	63,343	75,851	12,508	19.7%
60-74	44,180	59,108	14,928	33.8%
75 and over	24,426	29,378	4,952	20.3%
Total	315,893	348,699	32,806	10.4%

Source: ONS mid-year population estimates

Demographic Evidence of Housing Need – Start Point

2.18 The PPG [2a-015] states that *'household projections published by the Department for Communities and Local* Government *should provide the starting point estimate of overall housing need. The household projections are produced by applying projected household representative rates to the population projections published by the Office for National Statistics. Projected household representative rates are based on trends observed in Census and Labour Force Survey data'.*

2.19 The most up-to-date projections are the 2014-based CLG household projections published in July 2016. These projections were underpinned by ONS (2014-based) sub-national population projections (SNPP) – published in May 2016. The table below sets out the level of household growth expected by the CLG household projections in the 2013-33 period. Data is also provided for the East Midlands and England for comparative purposes.

2.20 Across the whole HMA, the CLG household projections show household growth of about 22,600 – this is a 15.3% increase; about the same as the equivalent figure for Nottinghamshire but below the projection for the East Midlands (17%) and England (20%). Growth is projected to be highest in Ashfield (17.5%) and more modest in Mansfield (11.3%).

Table 4: **Household change 2013 to 2033 (2014-based CLG household projections)**

Area	Households 2013	Households 2033	Change in households	% change
Ashfield	51,962	61,067	9,105	17.5%
Mansfield	45,583	50,721	5,138	11.3%
Newark & Sherwood	49,724	58,081	8,357	16.8%
Nottingham Outer	147,269	169,869	22,600	15.3%
Nottinghamshire	339,979	391,563	51,584	15.2%
East Midlands	1,927,346	2,263,344	335,998	17.4%
England	22,507,551	26,897,561	4,390,010	19.5%

Source: CLG household projections

2.21 The information from the 2014-based CLG household projections can be compared with equivalent information from the previous release (2012-based figures) – this is shown in the table below. Over the 2013-33 period the 2014-based projections show a growth in households that is over 2,000 higher than in the previous version – this is a 10% increase. This increase is concentrated in Ashfield and Newark & Sherwood.

Table 5: **Difference Between Projections – household change 2013 to 2033**

Area	2012-based CLG projections	2014-based CLG projections	Difference	% difference from 2012-based
Ashfield	8,014	9,105	1,091	13.6%
Mansfield	5,005	5,138	133	2.7%
Newark & Sherwood	7,540	8,357	817	10.8%
Nottingham Outer	20,559	22,600	2,041	9.9%

Source: CLG household projections (note SHMA Table 16 includes 2013 MYE)

2.22 Whilst the 2014-based data is the latest 'official' population projection and therefore forms the start point for analysis in line with the PPG, it is worth testing the assumptions underpinning the projection to see if it broadly reasonable in the local context – this involves considering both the population projections (the SNPP from ONS) and also the way CLG have converted this data into households.

2.23 The analysis below initially considers the validity of the population projections and their consistency with past trends, before moving on to consider past trend data in more detail, and also data released since the population projections were published (in particular, ONS has subsequently published new mid-year population estimates for 2015).

2014-based Subnational Population Projections (SNPP)

2.24 Feeding into the 2014-based household projections are the latest SNPP were published by ONS on the 29th May 2014. They replaced the 2012-based projectionist is not yet known when the next set of official projections will be published. Subnational population projections provide estimates of the future population of local authorities, assuming a continuation of recent local trends in fertility, mortality and migration which are constrained to the assumptions made for the 2014-based national population projections. The new SNPP are largely based on trends in the 2009-14 period (2008-14 for international migration trends).

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

Overall Population Growth

2.26 The table below shows projected population growth from 2013 to 2033 in each of the three local authorities and a range of comparator areas. The data shows that the population of Nottingham Outer is projected to grow by around 37,600 people; this is a 10.9% increase – broadly the same as projected across the County (11.3%) but below the figure for the region (13.1%) and England (14.2%). Population growth is expected to be strongest in Ashfield (13.3%) and quite modest in Mansfield (6.7%).

Table 6: **Projected population growth (2013-2033) – 2014-based SNPP**

Area	Population 2013	Population 2033	Change in population	% change
Ashfield	121,553	137,704	16,151	13.3%
Mansfield	105,296	112,370	7,074	6.7%
Newark & Sherwood	116,817	131,176	14,359	12.3%
Nottingham Outer	343,666	381,250	37,584	10.9%
Nottinghamshire	796,216	886,136	89,920	11.3%
East Midlands	4,598,431	5,200,700	602,269	13.1%
England	53,865,817	61,490,636	7,624,819	14.2%

Source: ONS

2.27 The information from the 2014-based CLG household projections can be compared with equivalent information from the previous release (2012-based figures) – this is shown in the table below. Over the 2013-33 period the 2014-based projections show a growth in households that is over 5,000 higher than in the previous version – this is a 15.5% increase. This increase is concentrated in Ashfield (18.4%) and Newark & Sherwood (14.3%).

Table 7: **Difference Between Projections - Population change 2013 to 2033**

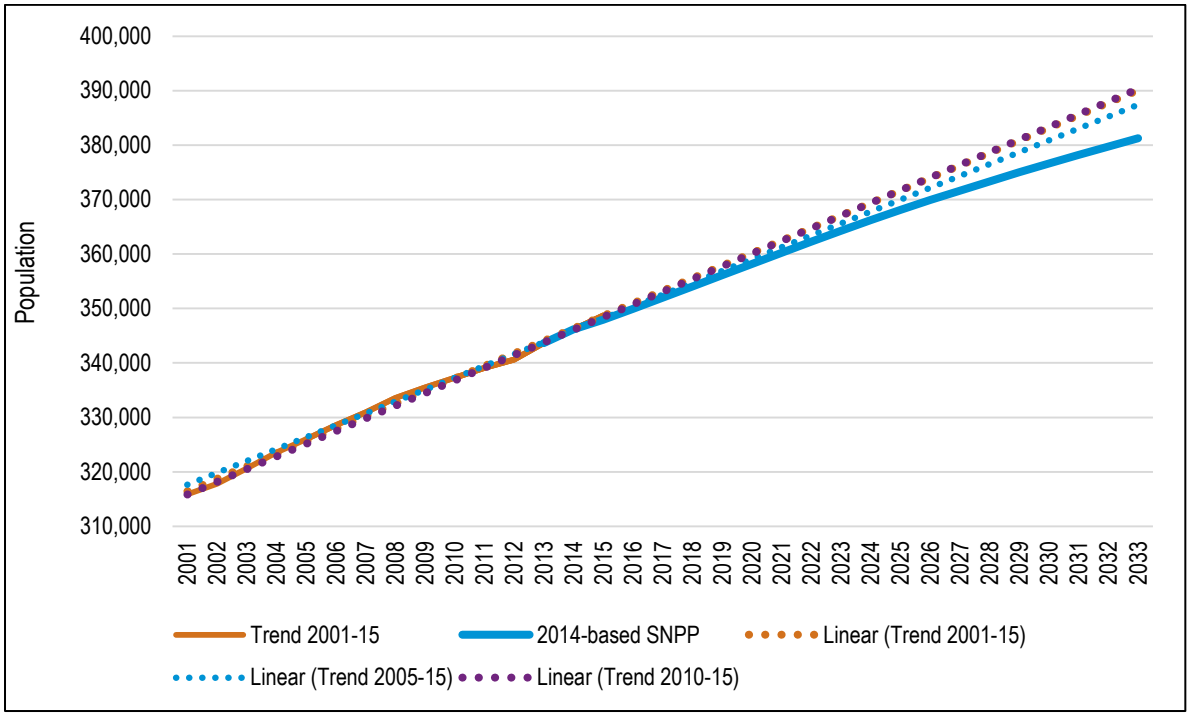
Area	2012-based SNPP	2014-based SNPP	Difference	% difference from 2012-based
Ashfield	13,641	16,151	2,510	18.4%
Mansfield	6,352	7,074	722	11.4%
Newark & Sherwood	12,559	14,359	1,800	14.3%
Nottingham Outer	32,551	37,584	5,033	15.5%

Source: ONS

2.28 Figure 5 shows past and projected population growth in the period 2001 to 2033. The data also plots a linear trend line for the last five years for which data is available (2010-15) and also longer-term periods from 2005 to 2015 (a 10-year trend) and 2001-15 (14-years) – this being the longest period for which reasonable data about the components of population change (e.g. migration) is

available. The data shows that the population is projected to grow at a rate which is slightly below past trends; regardless of the period being studied.

Figure 5: Past and projected population growth – 2014-based SNPP – Nottingham Outer



Source: ONS

Alternative Demographic Scenarios

2.29 As noted above, the level of population growth in the SNPP looks to be fairly low in comparison with previous levels (albeit the difference is not substantial and is partly driven by reducing population growth in the further future – a consistent trend with that projected nationally). On this basis it would be reasonable to consider alternative (sensitivity) scenarios – such an approach is set out in para 2a-017 of the PPG which states *'plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections…'.*

2.30 The sensitivity scenarios take account of longer-term migration trends and also data from the ONS 2015 mid-year population estimates (MYE). It would also be possible to look at the implications of the 'unattributable' component of population change; however, as this is fairly negligible across the HMA, it is not considered necessary to additionally look at this factor. The analysis below therefore considers five potential sensitivities to the figures. These can be described as:

- Implications 2015 mid-year population data – 2014-based SNPP (+MYE)
- Implications of 10-year migration trends – 10-year migration

- Implications of 12-year migration trends – 12-year migration
- Implications of Unattributable Population Change (UPC) and 10-year migration trends – 10-year migration (+UPC)
- Implications of Unattributable Population Change (UPC) and 12-year migration trends – 12-year migration (+UPC)

2.31 Additionally, it would be possible to also develop a projection using 14-year trends (i.e. back to 2001 which would be in line with the start of the base period used in the SHMA). However, over time, a 10-year projection has more consistently been used in analysis of this nature and so rather than extend the base period the analysis stays consistent with the SHMA in looking at the past 12-years. The 12-year trend used at the time of the last SHMA was also appropriate given that this was the longest period with which there was available data.

2014-based SNPP (+MYE)

2.32 This projection takes assumptions from the 2014-based SNPP, but overwrites the population projection figures for 2015 by those in the ONS MYE (by age and sex). Moving forward from 2015, this sensitivity uses the same birth and death rates as contained in the 2014-based SNPP and the actual projected migration figures (by age and sex). Due to age structure differences in the MYE compared to the projection, this does mean that population growth from 2015 onwards does not exactly match that in the projections as published.

10-year migration and 12-year migration

2.33 These projection use information about migration levels in the 10- and 12-year period to 2015 (i.e. 2005-15 and 2003-15) and therefore includes the most up-to-date MYE figures (for 2015). The projection does not just look at the migration figures and roll these forward but recognises that migration can be variable over time as the age structure changes. With international migration, this projection also takes account of the fact that ONS are projecting international net migration to decrease in the longer-term.

2.34 To overcome the issue of variable migration, the methodology employed looks at the share of migration in each local authority compared to the share in the period feeding into the 2014-based SNPP (which is 2009-14 for internal migration and 2008-14 for international migration). Where the share of migration is higher in the 10/12-year period, the projection applies an upward adjustment to migration, and vice versa.

2.35 This report has looked at a 12-year trend to be consistent with the earlier SHMA (which considered trends in the 2001-13 period). A 10-year trend is also considered as this has become a standard sensitivity projection when undertaking analysis such as this.

10-year migration (+UPC) and 12-year migration (+UPC)

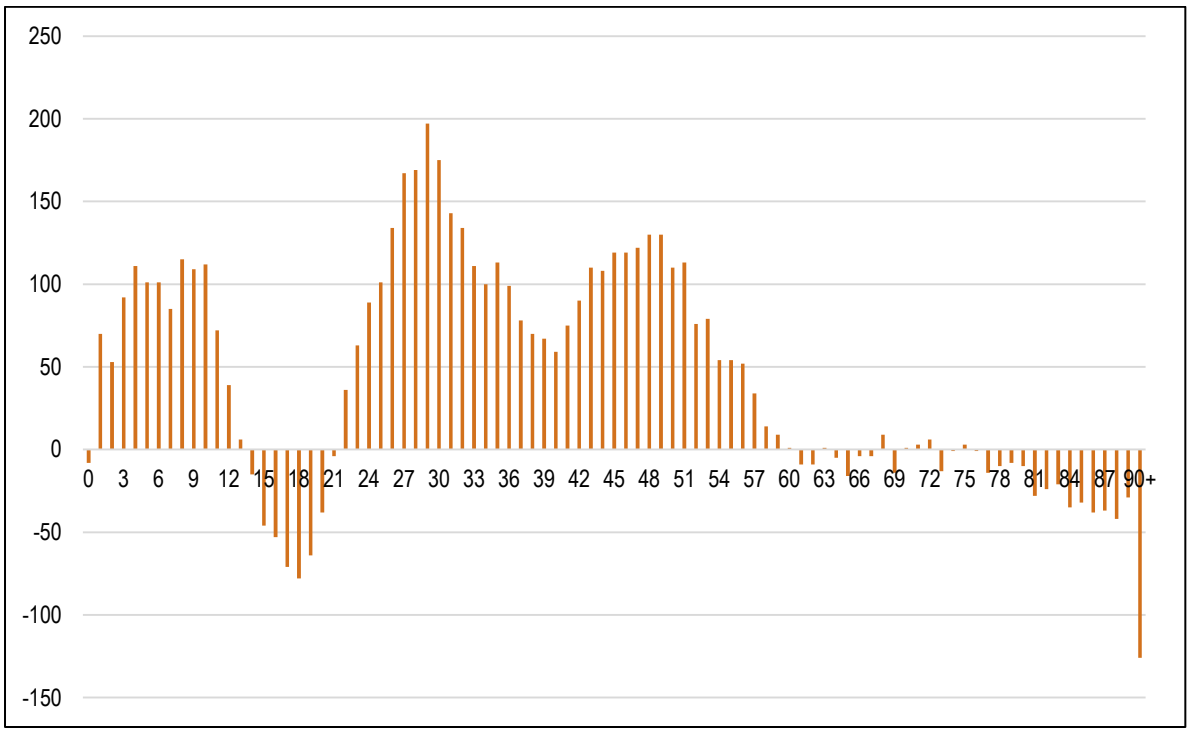
2.36 As noted earlier there is a small (but not insignificant) level of Unattributable Population Change (UPC) in the ONS data for 2001-11 in Nottingham Outer (most notably in Mansfield). In this instance UPC is positive, this suggests that the components of change feeding into the SNPP may under-estimate migration and population growth.

2.37 Whilst making an adjustment for UPC could be an alternative scenario, it is not considered, on its own, to be a robust alternative to the SNPP. The main reasons for this are that it is unclear if UPC is related to migration and more importantly, due to changes in the methods used by ONS to measure migration it is most probable that any errors are focused on earlier periods (notably 2001-6) and therefore a UPC adjustment for more recent data would not be appropriate. On this basis, whilst it is not considered that UPC should be included on its own as a projection to take forward into the modelling of objectively assessed need it is considered that there is merit in looking at UPC when also considering longer-term trends.

2.38 Hence, this sensitivity projection takes the outputs from the long-term (10/12-year) migration scenario and makes a further additional adjustment for UPC. For the purposes of analysis, it has been assumed that UPC is a one-off adjustment and takes account of the age/sex structure as shown by ONS. For information, the age structure of UPC is shown in the figure below (this is the total for the 2001-11 period).

2.39 The analysis shows that some of the UPC is contained in younger age groups (0-12); in housing need terms this means that UPC might have a fairly limited impact, this is due to household representative rates (discussed later in this section) in these age groups being lower than for older age cohorts. The positive level of UPC will however have an upward impact on household growth when modelled (across the HMA).

Figure 6: Total Unattributable Population Change by age (2001-11) – Nottingham Outer



Source: ONS

2.40 The SHMA also considered UPC within its projections, although the method used in this report is not directly comparable. In the SHMA, UPC was treated as a flow of people (i.e. a migration adjustment) and did not take account of the age structure. It is not now considered appropriate to treat UPC as a flow, as it is by its nature a one-off adjustment; hence in this report the UPC projections are also treated as a one-off adjustment.

2.41 We note that this is a significant change in approach from the previous SHMA however as we move further away from the effected period (pre-2006) UPC becomes more of an irrelevance. Whereas the previous SHMA analysis included five effected years in its analysis this SHMA only includes a single year.

Outputs from different demographic projections

2.42 Having developed a range of scenarios, it is worth briefly considering which are the most appropriate to use when taking the data forward into estimates of housing need. The 2014-based SNPP is the only projection directly linked to official projections and should therefore be given some credence. In addition, the projection is identified in the PPG as the start point for the analysis of housing need.

2.43 The projection linked to 10-year migration trends should also be given some weight. As the analysis of housing need has developed over time, it has become common practice to consider 10-year

trends as well as the most recent official projections largely because it reflects the period between census when data is at its most reliable. Drawing trends from a longer period also goes some way to minimise the impact of one-off events that may affect migration.

2.44 Given that in the Nottingham Outer HMA, migration was stronger in this 10-year period than the period feeding into the SNPP it is considered that this projection is a useful scenario to use when looking at housing need. The 12-year trend projection covers a slightly longer period and is consistent with projections developed in the SHMA so again can be considered relevant.

2.45 However it has become an industry standard to sensitivity test the SNPP through consideration of migration trends over the past 10-years (currently 2005-15). This standard is recognised by consultants undertaking OAN assessments on behalf of both public and private sector clients (including GL Hearn). A range of evidence can be seen over the last year or so where 10-year trends have been deemed the appropriate approach, this includes:

2.46 Opinion Research Services (Stevenage (July 2016)) – '10-year trend migration scenarios are more likely to capture both highs and lows and are not as dependent on trends that may be unlikely to be repeated. Therefore, we favour using 10-year migration trends as the basis for our analysis'. Although it should be noted that the ten year trend developed by ORS was not the latest data but rather the intercensal period.

2.47 Peter Brett Associates (Braintree, Chelmsford, Colchester, Tendring (November 2016)) – 'in arriving at a demographic starting point we considered two alternative projections: the official projections, whose period is 2009- 14, and PBA Trends 05-15, which as its name indicates is based on 2005-15' (i.e. a 10-year period).

2.48 Barton Willmore (evidence to Local Plan in North West Leicestershire (December 2016)) – 'longer term trends, typically drawn from a 10-year period which incorporates a period of economic recession and buoyancy, may provide a more robust guide of likely migration patterns in the future'.

2.49 Lichfields/NLP – a range of reports for both public and private sector clients where migration trends over the past 10-years are used as a sensitivity to the SNPP (examples include Burnley (May 2016) and Wirral (May 2016).

2.50 Additionally, the LPEG proposals in March 2016 also suggest the use of 10-year trends as an alternative to the SNPP (although it should be noted that as yet the LPEG proposals have not been taken forward into any formal guidance).

2.51 It is also questionable as to what weight could or should be given to projections that include UPC adjustments. ONS do not use UPC in their own projections and there is uncertainty as to whether or

not UPC is linked to the recording of migration (or other factors, such as potentially issues with the 2001 Census). ONS also note that UPC may now be quite historic, given improvements to the recording of migration since about 2006. Hence, there is a case to minimise the consideration given to UPC when developing these projections.

2.52 The use of UPC has also been criticised in a number of recent inspections such as Eastliegh, Arun and Aylesbury. These were largely justified on the basis that ONS do not include it in their projections. Furthermore in Arun[1] the inspectors added

> *"ONS considers that migration errors would have had a bigger impact in the early 2000s because of improved methods of investigating this factor over time."*

2.53 With UPC, the view of the 'industry' is less clear cut with both ORS and PBA typically considering whether or not adjustments for UPC are appropriate. PBA do however recognise that this is a contentious issue, stating (in the Dover SHMA of February 2017) that 'a number of objectors to various plans strongly support excluding UPC from the assessments on the grounds that the ONS choose to exclude UPC from the official projections. However, contrary to this view, PBA still choose to test the impact of UPC before drawing our conclusions'

2.54 Barton Willmore have been clear for some years that they do not see that any adjustments for UPC are appropriate and for example state in North West Leicestershire that 'BW do not agree with the inclusion of UPC within the alternative migration trends'.

2.55 NLP appear to be less committal on a view with regards to UPC, although the majority of reports do exclude any adjustment for UPC (this includes reports for both Wirral and Canterbury). In commenting on the Uttlesford Local Plan in October 2014, NLP do however clearly state that 'it is not considered that the scenarios including unattributable population change are a robust basis against which to consider housing needs'.

2.56 It is also worth noting that the LPEG suggestion is also to exclude UPC from any calculations, stating 'it will not be open for plan makers or other interested parties to reject use of the official population and household projections, for example because of perceived concerns over… the implications of unattributable population change (UPC)'.

2.57 In terms of inspector's report and appeal decisions, it would be fair to say that there are some which accept adjustments for UPC and other which do not. Two to highlight (where a UPC adjustment has been rejected include an appeal in Shropshire (APP/L3245/W/15/3133616 – January 2017) and the Local Plan in Arun (February 2016) where it was concluded that there was not 'a case to partly-discount UPC'; this inspector in this case also cited decisions with regard to UPC in Aylesbury Vale

[1] Arun Local Plan Examination Library IDED18 OAN Conclusions 2/2/2016

and Eastleigh. All of the cases noted in this paragraph included analysis undertaken by GL Hearn and hence provides some nervousness about continuing to support an approach where adjustments are made for UPC.

2.58 In Nottingham Outer UPC is still a notable component of population change in the 2001 to 2011 period (particularly in Mansfield) and arguably should not be completely ignored particularly when examining a 12-year trend. We considered it prudent to still review this component of population change and have done so in the same way as the 2015 SHMA (i.e. attributed half of the identified UPC to migration within the SNPP).

2.59 The SHMA suggested that the OAN was best represented by a projection which looked at 12-year migration trends with a further adjustment to take account of Unattributable Population Change (UPC) – this identified a need for 1,271 dwellings per annum (excluding any additional adjustments, such as for market signals).

2.60 For consistency re-running a similar projection in the update (note that the methodology is not precisely like for like) would suggest a need for 1,402 dwellings per annum – some 10% higher. However, for the reasons set out above it is questionable if this scenario remains the best basis for validating the OAN.

2.61 Table 8 provides the range of analysis previously shown in the SHMA, albeit updated. However, the focus of our sensitivity analysis are those based on ten year trends (2005-15) without UPC adjustments.

2.62 As set out above any adjustment for UPC are deemed surplus given the use of the shorter period is likely to reflect a period where the quality of migration data is better; ONS having implemented the 'Migration Statistics Improvement Programme (MSIP)' which saw improvements to the collection of migration data, and with figures being adjusted back to 2006.

2.63 Across the HMA, the SNPP shows population growth (2013-33) of 10.9% - this figure increases slightly to 11.2% when more recent population and migration data is included in the modelling (i.e. to include 2015 MYE data). **When looking at preferred 10-year trends the projected population growth increases (to 12.5%)** and increases further (to 13.5%) when trends back to 2003 are considered. When including UPC within the projections, a slightly higher level of population growth is generated (13.6% and 14.6% respectively).

Table 8: **Projected population growth (2013-2033) – alternative scenarios – Nottingham Outer**

	Population 2013	Population 2033	Change in population	% change
2014-based SNPP	343,666	381,250	37,584	10.9%
2014-based SNPP (+MYE)	343,666	382,012	38,346	11.2%
10-year migration	343,666	386,512	42,846	12.5%
12-year migration	343,666	389,922	46,256	13.5%
10-year migration (+UPC)	343,666	390,398	46,732	13.6%
12-year migration (+UPC)	343,666	393,808	50,142	14.6%

Source: Demographic projections

2.64 Tables 9 to 11 show the same range of scenarios for each of the local authorities. In all areas, looking at longer-term migration trends (whether 10- or 12-years) sees an increase in projected population growth when compared with the 2014-based SNPP – this is particularly notable in Mansfield. When including UPC, the figures for Mansfield (and to a lesser extent Ashfield) also go up, although there is a small reduction in projected growth in Newark & Sherwood.

Table 9: **Projected population growth (2013-2033) – alternative scenarios – Ashfield**

	Population 2013	Population 2033	Change in population	% change
2014-based SNPP	121,553	137,704	16,151	13.3%
2014-based SNPP (+MYE)	121,553	138,012	16,459	13.5%
10-year migration	121,553	137,932	16,379	13.5%
12-year migration	121,553	139,334	17,781	14.6%
10-year migration (+UPC)	121,553	138,742	17,189	14.1%
12-year migration (+UPC)	121,553	140,144	18,591	15.3%

Source: Demographic projections

Table 10: **Projected population growth (2013-2033) – alternative scenarios – Mansfield**

	Population 2013	Population 2033	Change in population	% change
2014-based SNPP	105,296	112,370	7,074	6.7%
2014-based SNPP (+MYE)	105,296	112,826	7,530	7.2%
10-year migration	105,296	116,266	10,970	10.4%
12-year migration	105,296	116,525	11,229	10.7%
10-year migration (+UPC)	105,296	119,476	14,180	13.5%
12-year migration (+UPC)	105,296	119,735	14,439	13.7%

Source: Demographic projections

Table 11: **Projected population growth (2013-2033) – alternative scenarios – Newark & Sherwood**

	Population 2013	Population 2033	Change in population	% change
2014-based SNPP	116,817	131,176	14,359	12.3%
2014-based SNPP (+MYE)	116,817	131,174	14,357	12.3%
10-year migration	116,817	132,315	15,498	13.3%
12-year migration	116,817	134,063	17,246	14.8%
10-year migration (+UPC)	116,817	132,181	15,364	13.2%
12-year migration (+UPC)	116,817	133,929	17,112	14.6%

Source: Demographic projections

2.65 **Given more recent data and evolving general practice in the field of undertaking OAN assessments, the greatest weight should be given to a 10-year based projection.** In Nottingham Outer, such a projection shows a 12.5% growth in population. Within the previous SHMA the 12-year migration trend figure with UPC adjustment to the SNPP was the focus of the OAN. That projection showed an identical population growth of 12.5%.

2.66 Hence, whilst the SHMA analysis has been overtaken by more recent data, it is the case that a robust and generally accepted methodology would tend to support the SHMA figures as being of the right order of magnitude (the figures for individual local authorities are also not much different).

Age Structure Changes

2.67 Analysis has previously shown changes in the age structure when using the 2014-based SNPP and below a similar analysis has been carried out with the preferred 10-year migration trend projection and for consistency with the previous SHMA the 12-year migration trend projection (+ UPC) – this is shown as it is the highest of the projections developed and is used to show how the age structure differs with different assumptions about migration.

2.68 As with the SNPP, there is projected to be a notable ageing of the population; however, it is also noteworthy that the higher population growth in this scenario is concentrated in younger age groups – this reflects the fact that younger people (particularly of working-age) are more migrant than the older population.

Table 12: **Population change 2013 to 2033 by fifteen-year age bands (10-year migration trends) – Nottingham Outer**

Age group	Population 2013	Population 2033	Change in population	% change from 2013
Under 15	59,212	65,253	6,041	10.2%
15-29	60,970	62,448	1,478	2.4%
30-44	64,421	67,849	3,428	5.3%
45-59	73,542	65,717	-7,825	-10.6%
60-74	57,400	74,897	17,497	30.5%
75+	28,121	50,348	22,227	79.0%
Total	343,666	386,512	42,846	12.5%

Source: ONS and demographic projections

Table 13: **Population change 2013 to 2033 by fifteen-year age bands (12-year migration trends (+UPC)) – Nottingham Outer**

Age group	Population 2013	Population 2033	Change in population	% change from 2013
Under 15	59,212	67,159	7,947	13.4%
15-29	60,970	63,756	2,786	4.6%
30-44	64,421	70,138	5,717	8.9%
45-59	73,542	67,422	-6,120	-8.3%
60-74	57,400	75,238	17,838	31.1%
75+	28,121	50,095	21,974	78.1%
Total	343,666	393,808	50,142	14.6%

Source: ONS and demographic projections

2.69 The tables below compare the population change by age in each of the 2014-based SNPP and the projections linked to 10-year migration trends and 12-year migration (+UPC). This shows that some 62-68% of the difference between the projections can be attributed to the 15-59 age groups (from which the majority of the working population will come) – there is also projected to be a 23-25% increase in the number of children and only a 7-15% uplift in people aged 60 and over.

Table 14: **Population change 2013 to 2033 by fifteen-year age bands (comparing 2014-based SNPP and 10-year migration trends) – Nottingham Outer**

Age group	2014-based SNPP	10-year migration	Difference	% of difference
Under 15	4,845	6,041	1,197	22.7%
15-29	299	1,478	1,179	22.4%
30-44	2,222	3,428	1,206	22.9%
45-59	-8,696	-7,825	871	16.6%
60-74	16,935	17,497	562	10.7%
75+	21,979	22,227	248	4.7%
Total	37,584	42,846	5,262	100.0%

Source: ONS and demographic projections

Table 15: **Population change 2013 to 2033 by fifteen-year age bands (comparing 2014-based SNPP and 12-year migration trends (+UPC)) – Nottingham Outer**

Age group	2014-based SNPP	12-year migration (+UPC)	Difference	% of difference
Under 15	4,845	7,947	3,102	24.7%
15-29	299	2,786	2,486	19.8%
30-44	2,222	5,717	3,495	27.8%
45-59	-8,696	-6,120	2,576	20.5%
60-74	16,935	17,838	903	7.2%
75+	21,979	21,974	-5	0.0%
Total	37,584	50,142	12,558	100.0%

Source: ONS and demographic projections

Household Growth (Household Formation (Headship) Rates

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

2.71 On the 12th June 2016, the CLG published a new set of (2014-based) household projections – the projections contain two core analyses. The Stage 1 household projections project household formation based on data from the five census including and between 1971 and 2011 Censuses with outputs for age, sex and marital status. For younger age groups greater weight was given in the CLG projections methodology to the dampened logistical trend than the simple logistics trend; the effect of which is to give greater weight to the shorter-term trends.

2.72 The Stage 2 household projections consider household types and the methodology report accompanying the projections is clear that these projections are based on just two data points – from the 2001 and 2011 Census. Overall outputs on total household growth are constrained to the totals from the Stage 1 Projections. This means that both sets of projections show the same level of overall household growth (when set against the last set of SNPP) but some of the age specific assumptions differ. Differences can however occur between the Stage 1 and 2 headship rates when modelled against different population projections (due to differences in the age structure).

2.73 Overall, it is considered that the Stage 1 projections should be favoured over the Stage 2 figures for the purposes of considering overall household growth; this is for two key reasons:

a) The Stage 1 figures are based on a long-term time series (dating back to 1971 and using 5 Census data points) whereas the Stage 2 figures only look at two data points (2001 and 2011);

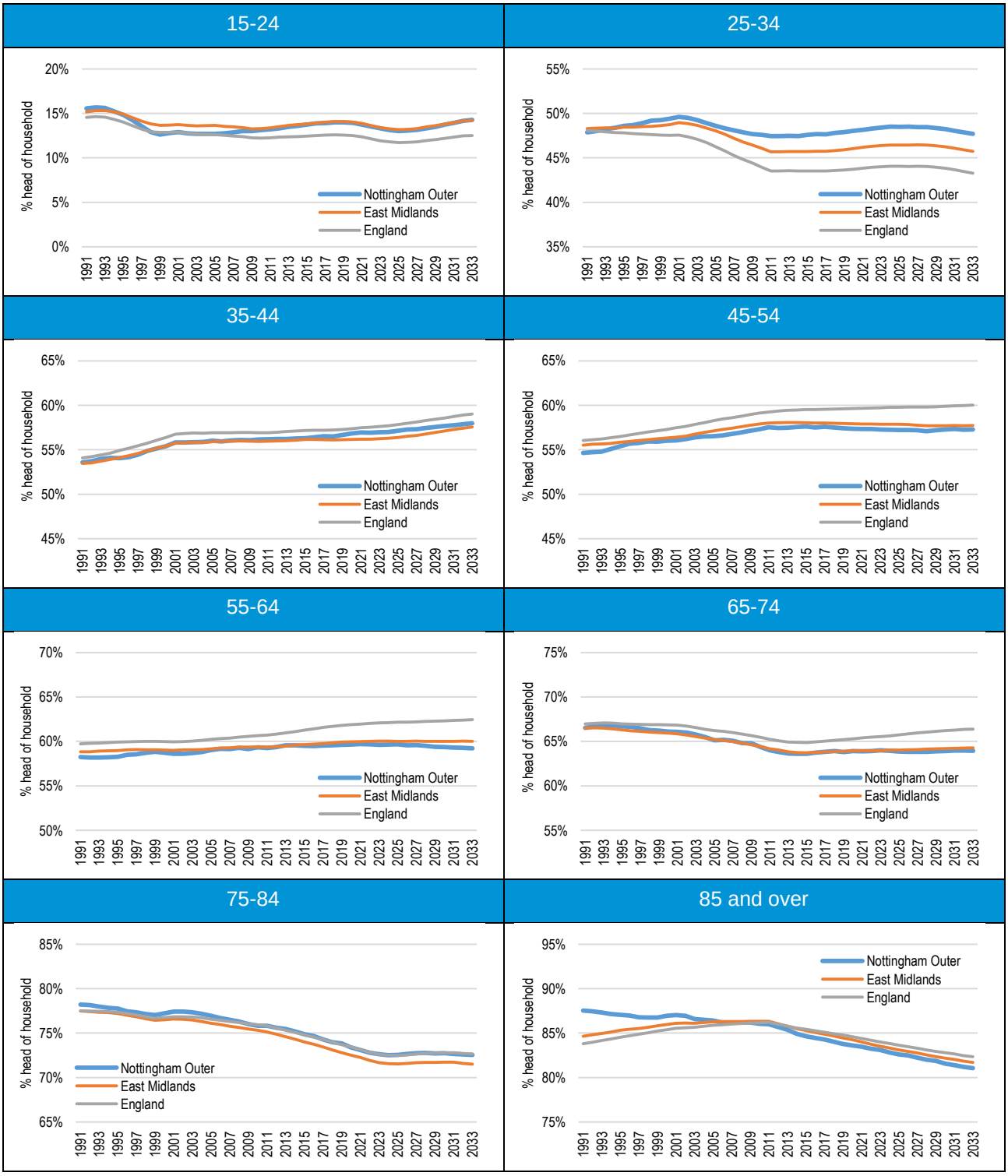
b) The Stage 2 figures are constrained back to Stage 1 values, essentially meaning that it is the Stage 1 figures that drive overall estimates of household growth in the CLG household projections themselves.

2.74 The analysis to follow therefore focuses on Stage 1 figures starting with Figure 7 which shows how household formation rate differ for different age groups. It is evident from the analysis that household formation amongst households in their late 20s and early 30s fell slightly over the 2001-11 decade. The projections are however showing that there will not be any further reduction. The 2014-based household projections also expect household formation rates amongst older age groups to fall over time. Given improving life expectancy this 'trend' looks to be reasonable (as it would be expected that more people would remain living as couples).

2.75 The figure also shows a comparison between the Nottingham Outer HMA, the East Midlands region and England. Generally, figures in Nottingham Outer are at similar levels and with similar changes to equivalent data in other areas. This comparison does not suggest there is anything within the 2014-based CLG household formation rates which is particularly unusual or concerning. Indeed, it is noteworthy that the household formation rates of the 25-34 population are higher than seen across either the region of nationally.

2.76 Appendix 1 contains the same information for local authorities – this tends to be broadly consistent with data as observed across the HMA although there is some variation by location and age group.

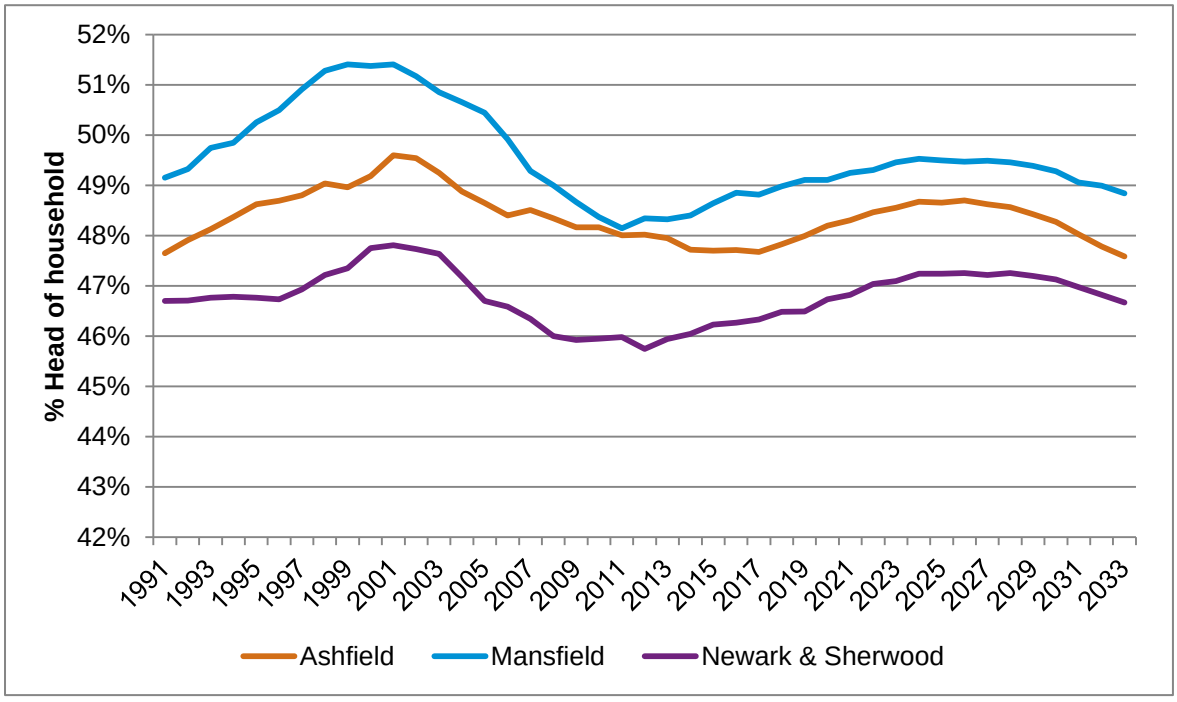
Figure 7: Projected household formation rates by age of head of household – Nottingham Outer



Source: Derived from CLG data

2.77 In particular, there appeared to be some suppression of younger household formation in Mansfield between 2001 and 2011 albeit that the 2011 levels are still higher in Mansfield than in Ashfield or Newark and Sherwood or indeed nationally or regionally.

Figure 8: Household formation rates for 25-34 year olds by local authority



Source: Derived from CLG data

2.78 Furthermore, the suppression in Mansfield (as in all areas) is expected to improve in the short term resulting on more households being able to form, this is included within the OAN. As set out below there is some justification for not responding to this reduction in HFR across the HMA or within Mansfield.

Critical Review of Headship Rates

2.79 The headship rates in the 2014-based CLG household projections should not be used uncritically. Paragraph 2a-015 of the PPG is clear that the *'household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends'*. Essentially this is suggesting, where the projections include a suppression of household formation that some sort of adjustment should be made.

2.80 It is not straightforward to determine if the projections contain any level of suppression (either in the past or projected forward) given that household formation rates can be influenced by a range of factors. One person to recognise this was the late Alan Holmans in the September 2013 Town and

Country Planning Association (TCPA) publication *'New Estimates of Housing Demand and Need in England, 2011 to 2031'* where he stated:

'The working assumption in this study is that a considerable part but not all of the 375,000 shortfall of households relative to trend was due to the state of the economy and the housing market. 200,000 is attributed to over-projection of households due to the much larger proportion of recent immigrants in the population, whose household formation rates are lower than for the population as a whole. This effect will not be reversed. The other 175,000 is attributed to the economy and the state of the housing market and is assumed to gradually reverse'.

2.81 Broadly what Mr Holmans was saying is that about half of changes to household formation are due to market factors and about half due to international migration. Whilst the international migration impact is not expected to change, any suppression as a result of the economy and housing market could improve in the future.

2.82 When looking specifically at data for the Nottingham Outer HMA, it is clear that the only age group where suppression can potentially be identified is for people aged 25-34. There is a downward trend in the headship rates of this group from 2001-11, albeit at a lesser rate than observed in other areas. Additionally, moving forward from 2011, the rate remains fairly flat. However, it is not clear if the changes in the rates are due to market factors or international migration.

2.83 The analysis below seeks to understand the impact of international migration. At a local level it is difficult to use international migration figures because of the way such migration works –it seems likely that most international migrants start in a major city (e.g. Nottingham) and then filter out into other areas (and hence are registered by ONS as an internal migrant). Over the past 10-years (2005-15), Nottingham saw 72% of all international net migration in Nottingham and Nottinghamshire (average of about 3,300 people (net) per annum), but at the same time lost an average of over 1,500 internal migrants to other parts of the country – Nottinghamshire saw net internal in-migration of over 1,700 people on average.

2.84 Hence one way at looking at international migration is to consider changes to the Black and Minority Ethnic (BME) population. BME populations tend to have different household structures (typically larger households) and so this picks up on the point made by Mr Holmans.

2.85 The table below shows changes to the BME population in each of the age groups for which headship rate data is provided above (data for the White (British/Irish) population is also provided) with equivalent local authority data to be found in Appendix 1. The analysis below shows an increase in the BME population of 7,864 people aged 15 and over in the 10-year period – a 156% increase. Some 40% (3,140 people) of this increase was in the age group 25-34. In contrast, the White (British/Irish) population aged 25-34 fell by nearly 6,300 people.

Table 16: **Changes to Black and Minority Ethnic and White (British/Irish) Population by age (2001-11) – Nottingham Outer**

	Black and Minority Ethnic			White (British/Irish)		
	Population 2001	Population 2011	Change	Population 2001	Population 2011	Change
15-24	850	2,429	1,579	33,789	38,099	4,310
25-34	1,093	4,233	3,140	41,125	34,827	-6,298
35-44	1,079	2,637	1,558	46,284	44,893	-1,391
45-54	760	1,842	1,082	42,197	48,148	5,951
55-64	491	943	452	36,296	42,325	6,029
65-74	385	433	48	27,194	32,770	5,576
75-84	344	257	-87	18,414	19,129	715
85+	51	143	92	5,553	7,237	1,684
TOTAL	5,053	12,917	7,864	250,852	267,428	16,576

Source: Census (2001 and 2011)

2.86 From this it is clear that a major part of the changes in the headship rates of the 25-34 age group is likely to be due to international migration and growth in BME communities. Given that moving forward from 2011 the projections are expecting headship rates in this age group to stabilise; there is no suggestion of any suppression being built into the projections.

2.87 Of the growth in BME population across the HMA approximately 40% of this was within Mansfield. Given that the area has only very modest market signals it is even more likely that any reduction in HFR within younger age groups in Mansfield is result of international migration and growth in BME communities.

2.88 Furthermore in looking at HFR reduction amongst the 25-34 age group it is also useful to look at the 35-44 age group (noting that, for example, people aged 25-34 in 2011 will be aged 35-44 by 2021). The 35-44 age group shows little change in headship rates in the past and continuing in the future (slightly upwards in the future). On this basis there is no significant evidence of suppression in this age group either in the past or projected forward.

2.89 This analysis therefore suggests that the extent to which household formation rates in the 25-34 age group have fallen will not continue and that all of the households who might be expected to form will do so. However some of this formation might be delayed (i.e. households who might historically been expected to form when aged 25-34 will now form when aged 35-44). Overall, the levels of household growth will over a period of time (e.g. to 2033) fully reflect the needs of the local population with no suppression being evident in the long-term.

2.90 Since Holmans' work was published there have been further articles on the topic of household formation rates. One of note is *New Estimates of Housing Requirements in England, 2012 to 2037* (Neil McDonald and Christine Whitehead – TCPA – November 2015). In this it is stated that:

'The 2012-based projections, which use the 2011 Census and up-to-date population figures, are more immediately relevant and more strongly based than earlier estimates. The latest projections can therefore be taken as a reasonable indication of what is likely to happen to household formation rates if recent trends continue. This is because, although economic growth might be expected to increase the household formation rate, there are both longer-term structural changes and other factors still in the pipeline (such as welfare reforms) that could offset any such increase'

2.91 Whilst this refers to the 2012-based projections, it is the case that the household formation rates in the 2014-based figures are almost identical. Overall, on the basis of the evidence available, it seems unlikely that the 2014-based household formation rates include any degree of continued suppression and can therefore realistically be used to assess levels of household growth when set against population projections.

2.92 There is however a need to consider the growth in concealed households in the HMA. This group would not otherwise be picked up in demographic projections and is set out as a specific market signal.

2.93 Across the HMA this group increased by around 480 households between 2001 and 2011. In response, we have added a commensurate level of housing to the OAN. This equates to an uplift need for 24 dpa (i.e. 480/20).

Housing Need (linked to 2014-based headship rates)

2.94 The tables below bring together outputs in terms of household growth and housing need using the 2014-based headship rates and the full range of population scenarios developed. To convert households into dwellings the data includes an uplift to take account of vacant homes. The uplift has been based on 2015 Council Tax records with a summary of the key statistics shown below.

2.95 As Table 17 shows the total number of dwellings across the HMA is some 2.7% higher than the number of occupied homes (which is taken as a proxy for households) and hence household growth figures are uplifted by around 2.7% to provide an estimate of housing need. It should be noted that figures have been applied on a local authority basis. It is assumed that such a level of vacant homes will allow for movement within the housing stock and includes an allowance for second homes.

2.96 This approach differs from the previous SHMA when Census data was used. Across the HMA the Census data assumed a vacancy rate of 4.4%. Therefore this update reduces the OAN on the basis of less vacant homes being supplied/required. It has recently become a standard practice to use Council Tax data in assessments such as these, and in reality it makes little difference in most areas in terms of assessed levels of housing need.

Table 17: **Vacant homes (Council Tax data)**

	Ashfield	Mansfield	Newark & Sherwood	Nottingham Outer
Dwellings	54,470	48,414	52,534	155,418
Second Homes	134	56	170	360
Other vacant homes	1,266	1,127	1,264	3,657
Total vacant	1,400	1,183	1,434	4,017
Total occupied	53,070	47,231	51,100	151,401
Vacancy allowance	2.6%	2.5%	2.8%	2.7%

Source: CLG

2.97 Based on the different population growth scenarios set out in Table 8 the application of the headship and vacancy rates result in a range of housing need from 1,160 to 1,430 dpa across the Nottingham Outer HMA.

2.98 The lower end of this range reflects the use of the 2014-based SNPP as the underlying population projection. This figure increases slightly (to 1,180) when the assumptions include MYE data for 2015.

2.99 With 10-year migration assumptions the housing need is shown to be for some 1,262 dwellings per annum and this figure increases to 1,324 when the trend base period is extended to 12-years. Inclusion of UPC within the 10- and 12-year migration projections increases the assessed need by about 8% (1,367 dpa and 1,430 dpa respectively).

Table 18: **Projected housing need – range of demographic based scenarios and 2014-based headship rates – Nottingham Outer**

	Households 2013	Households 2033	Change in households	Per annum	Dwellings (per annum)
2014-based SNPP	147,264	169,866	22,602	1,130	1,160
2014-based SNPP (+MYE)	147,264	170,257	22,993	1,150	1,180
10-year migration	147,264	171,842	24,577	1,229	1,262
12-year migration	147,264	173,059	25,795	1,290	1,324
10-year migration (+UPC)	147,264	173,900	26,636	1,332	1,367
12-year migration (+UPC)	147,264	175,117	27,853	1,393	1,430

Source: Demographic projections

2.100 It is important to acknowledge that if a full new SHMA were being undertaken now, it is most probable that a view about OAN would be based on consideration of the 10-year migration trends (excluding UPC) or the official projections (including MYE). This really is because it is these projections that have largely become the two mainly focussed on in custom and practice. **This would mean a housing need in the range of 1,180 dpa - 1,262 dpa across the HMA.** This range refers to the 2014-based SNPP (+MYE) and 10-year migration scenarios.

2.101 Tables 19-21 show the same information for individual local authorities. These show the following preferred demographic range of housing need, linked to 2014-based CLG household formation rates, in each local authority:

- Ashfield – 467-472 dwellings per annum;
- Mansfield – 264-338 dwellings per annum; and
- Newark & Sherwood – 430-452 dwellings per annum

Table 19: **Projected housing need – range of demographic based scenarios and 2014-based headship rates – Ashfield**

	Households 2013	Households 2033	Change in households	Per annum	Dwellings (per annum)
2014-based SNPP	51,963	61,064	9,102	455	467
2014-based SNPP (+MYE)	51,963	61,268	9,305	465	478
10-year migration	51,963	61,152	9,189	459	472
12-year migration	51,963	61,669	9,706	485	498
10-year migration (+UPC)	51,963	61,482	9,519	476	489
12-year migration (+UPC)	51,963	62,000	10,037	502	515

Source: Demographic projections

Table 20: **Projected housing need – range of demographic based scenarios and 2014-based headship rates – Mansfield**

	Households 2013	Households 2033	Change in households	Per annum	Dwellings (per annum)
2014-based SNPP	45,580	50,723	5,143	257	264
2014-based SNPP (+MYE)	45,580	50,871	5,291	265	271
10-year migration	45,580	52,175	6,595	330	338
12-year migration	45,580	52,234	6,654	333	341
10-year migration (+UPC)	45,580	53,599	8,019	401	411
12-year migration (+UPC)	45,580	53,658	8,078	404	414

Source: Demographic projections

Table 21: **Projected housing need – range of demographic based scenarios and 2014-based headship rates – Newark & Sherwood**

	Households 2013	Households 2033	Change in households	Per annum	Dwellings (per annum)
2014-based SNPP	49,721	58,079	8,357	418	430
2014-based SNPP (+MYE)	49,721	58,119	8,397	420	432
10-year migration	49,721	58,514	8,793	440	452
12-year migration	49,721	59,155	9,434	472	485
10-year migration (+UPC)	49,721	58,818	9,097	455	468
12-year migration (+UPC)	49,721	59,459	9,738	487	501

Source: Demographic projections

3 CONCLUSIONS

3.1 As stated from the outset of this report, this paper has been commissioned to determine if a full review of the OAN is necessary in light of the release of the 2014-based household projection data and Mid-Year Estimates. the report concludes that it is not considered necessary to undertake a full review of the OAN

3.2 The October 2015 SHMA concluded on the overall need for housing over the 2013-33 period of 1,310 homes per annum (Ashfield 480, Mansfield 376 and 454 in Newark and Sherwood).

3.3 The latest official projections outline a level of household growth that is over 2,000 higher across the plan period than in the previous version – this is a 10% increase. This increase is concentrated in Ashfield and Newark & Sherwood.

3.4 On a like for like basis (i.e. based on 12 year migration trends and UPC adjustments) the updated demographic information would result in a housing need of 1,430 dpa which is 120 dpa higher than the previous SHMA. This is an increase of around 9%.

3.5 Firstly, the SHMA used 12-year migration trends to reflect all the data available at that time (i.e. detailed components of population change back to 2001). Generally, SHMAs and assessments of OAN more recently have focussed on migration trends over the past 10-years. In the case of the update, this means looking at the 2005-15 period rather than 2001-13 in the SHMA. The advantage of this (slightly shorter) period is that it is likely to reflect a period where the quality of migration data is better; ONS having implemented the 'Migration Statistics Improvement Programme (MSIP)' which saw improvements to the collection of migration data, and with figures being adjusted back to 2006.

3.6 Secondly, it is a matter of some debate as to whether or not UPC should feature in the projections, with ONS being clear that they do not consider that any adjustments should be made to their own projections. We are fairly open about the consideration of UPC (and would note that the PAS technical advice note is also) but would highlight that any 'errors' in the data are more likely to have occurred prior to 2006 (due to the MSIP). Hence it is arguable if looking at a 10-year base period (2005-15) that the impact of UPC is likely to be fairly minimal (i.e. potentially focussed in just one year (2005/6)).

3.7 Therefore, given more recent data and general practice in the field of undertaking OAN assessments, some weight should be given to a 10-year based projection. In Nottingham Outer, such a projection shows a need for 1,262 dwellings per annum, not much different from the demographic conclusion in the previous SHMA of 1,271 dpa.

3.8 Hence, whilst the SHMA analysis has been overtaken by more recent data, it is the case that a robust and generally accepted methodology would tend to support the HMA wide SHMA figures as being of the right order of magnitude (the figures for individual local authorities are also not much different).

Table 22: **Comparison of updated need with previous SHMA**

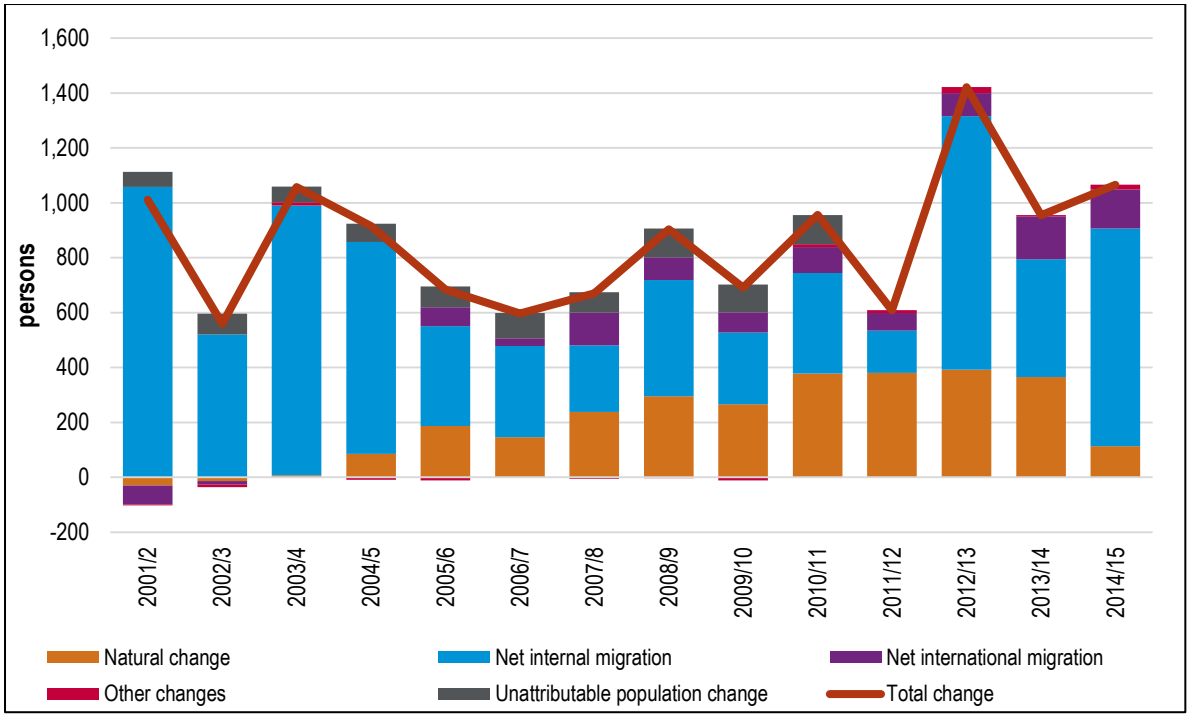
	Update Demographic Need	SHMA Demographic Need	Difference
Ashfield	472	469	+3
Mansfield	338	356	-18
Newark & Sherwood	452	446	+6
Nottingham Outer	1,262	1,271	-9

3.9 We do note that the SHMA also considered the housing need associated with economic growth as well as adjustments based on market signals and affordable housing need. These considerations resulted in some modest increases to the OAN. Assuming these increases remain valid and are applied to the demographic need above then the OAN is unlikely to have materially changed**. In conclusion therefore the latest data does not appear to render the SHMA or the OAN as out of date.**

3.10 The PPG states [2a-016] 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'. Given the discussion above, it is considered that the new data does not indicate a meaningful change and therefore figures in the SHMA continue to be valid.

APPENDIX 1: DEMOGRAPHIC PROJECTIONS – ADDITIONAL BACKGROUND DATA

Figure 9: Components of population change, mid-2001 to mid-2015 – Ashfield



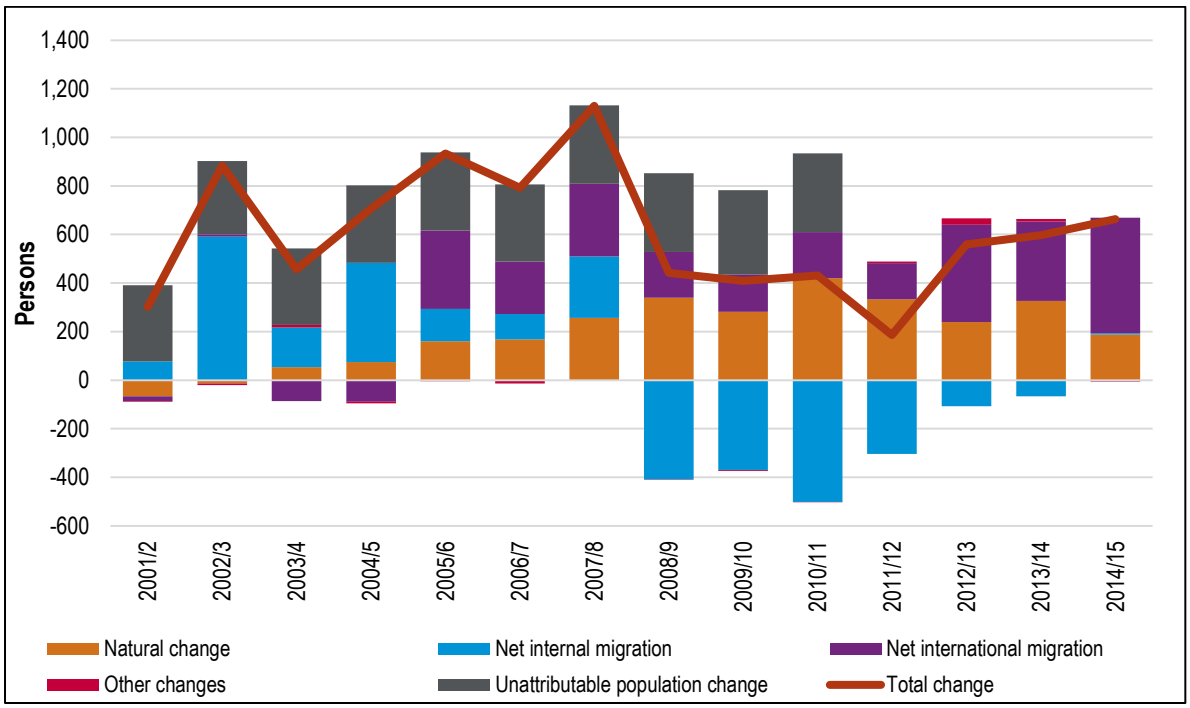
Source: ONS

Table 23: **Components of population change, mid-2001 to mid-2015 – Ashfield**

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	-30	1,058	-69	-3	55	1,011
2002/3	-14	521	-13	-9	75	560
2003/4	7	983	-2	12	57	1,057
2004/5	86	771	-1	-8	67	915
2005/6	187	364	69	-11	75	684
2006/7	146	333	28	-2	92	597
2007/8	238	243	119	-5	75	670
2008/9	295	424	82	-3	106	904
2009/10	266	262	73	-11	101	691
2010/11	378	366	95	10	107	956
2011/12	381	153	65	10	0	609
2012/13	392	924	84	22	0	1,422
2013/14	365	430	156	4	0	955
2014/15	113	794	142	17	0	1,066

Source: ONS

Figure 10: Components of population change, mid-2001 to mid-2015 – Mansfield



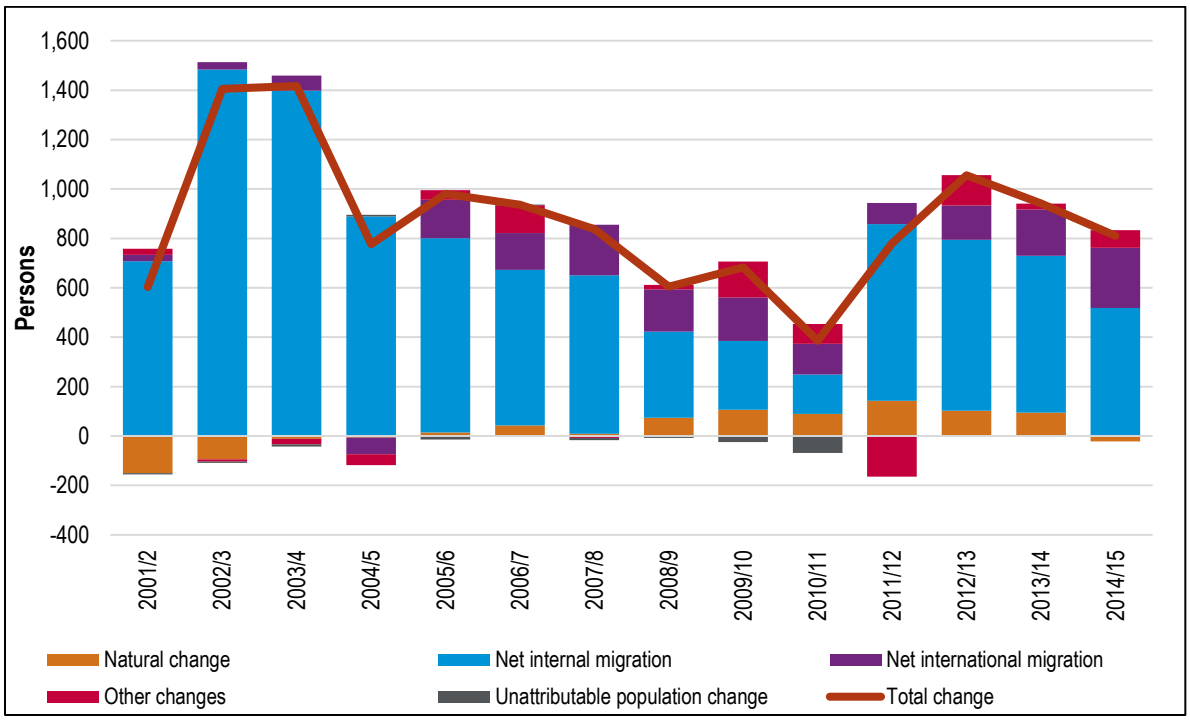
Source: ONS

Table 24: **Components of population change, mid-2001 to mid-2015 – Mansfield**

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	-67	77	-19	-3	314	302
2002/3	-13	591	9	-7	303	883
2003/4	53	164	-86	10	315	456
2004/5	75	408	-89	-6	319	707
2005/6	161	133	323	-4	321	934
2006/7	168	104	217	-14	317	792
2007/8	256	254	299	-2	323	1,130
2008/9	340	-409	188	-2	325	442
2009/10	281	-370	153	-4	349	409
2010/11	420	-501	190	-2	324	431
2011/12	333	-303	149	7	0	186
2012/13	239	-107	401	26	0	559
2013/14	326	-67	327	11	0	597
2014/15	188	5	476	-6	0	663

Source: ONS

Figure 11: Components of population change, mid-2001 to mid-2015 – Newark & Sherwood



Source: ONS

Table 25: **Components of population change, mid-2001 to mid-2015 – Newark & Sherwood**

Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	-150	708	25	25	-5	603
2002/3	-95	1,484	30	-8	-6	1,405
2003/4	-12	1,398	61	-21	-9	1,417
2004/5	-6	889	-68	-44	6	777
2005/6	14	787	156	38	-14	981
2006/7	43	630	149	112	3	937
2007/8	9	642	204	-8	-9	838
2008/9	74	348	172	18	-7	605
2009/10	107	278	176	146	-25	682
2010/11	90	159	125	80	-68	386
2011/12	143	715	86	-165	0	779
2012/13	103	691	139	123	0	1,056
2013/14	95	635	188	23	0	941
2014/15	-22	519	243	71	0	811

Source: ONS

Table 26: **Population change 2013 to 2033 by fifteen-year age bands (2014-based SNPP) – Ashfield**

Age group	Population 2013	Population 2033	Change in population	% change from 2013
Under 15	21,588	23,726	2,138	9.9%
15-29	21,874	22,823	949	4.3%
30-44	23,432	24,522	1,090	4.7%
45-59	25,553	23,328	-2,225	-8.7%
60-74	19,860	26,342	6,482	32.6%
75+	9,246	16,963	7,717	83.5%
Total	121,553	137,704	16,151	13.3%

Source: ONS

Table 27: **Population change 2013 to 2033 by fifteen-year age bands (2014-based SNPP) – Mansfield**

Age group	Population 2013	Population 2033	Change in population	% change from 2013
Under 15	17,957	18,688	731	4.1%
15-29	19,538	18,380	-1,158	-5.9%
30-44	20,042	20,455	413	2.1%
45-59	22,529	19,336	-3,193	-14.2%
60-74	16,680	21,173	4,493	26.9%
75+	8,550	14,339	5,789	67.7%
Total	105,296	112,370	7,074	6.7%

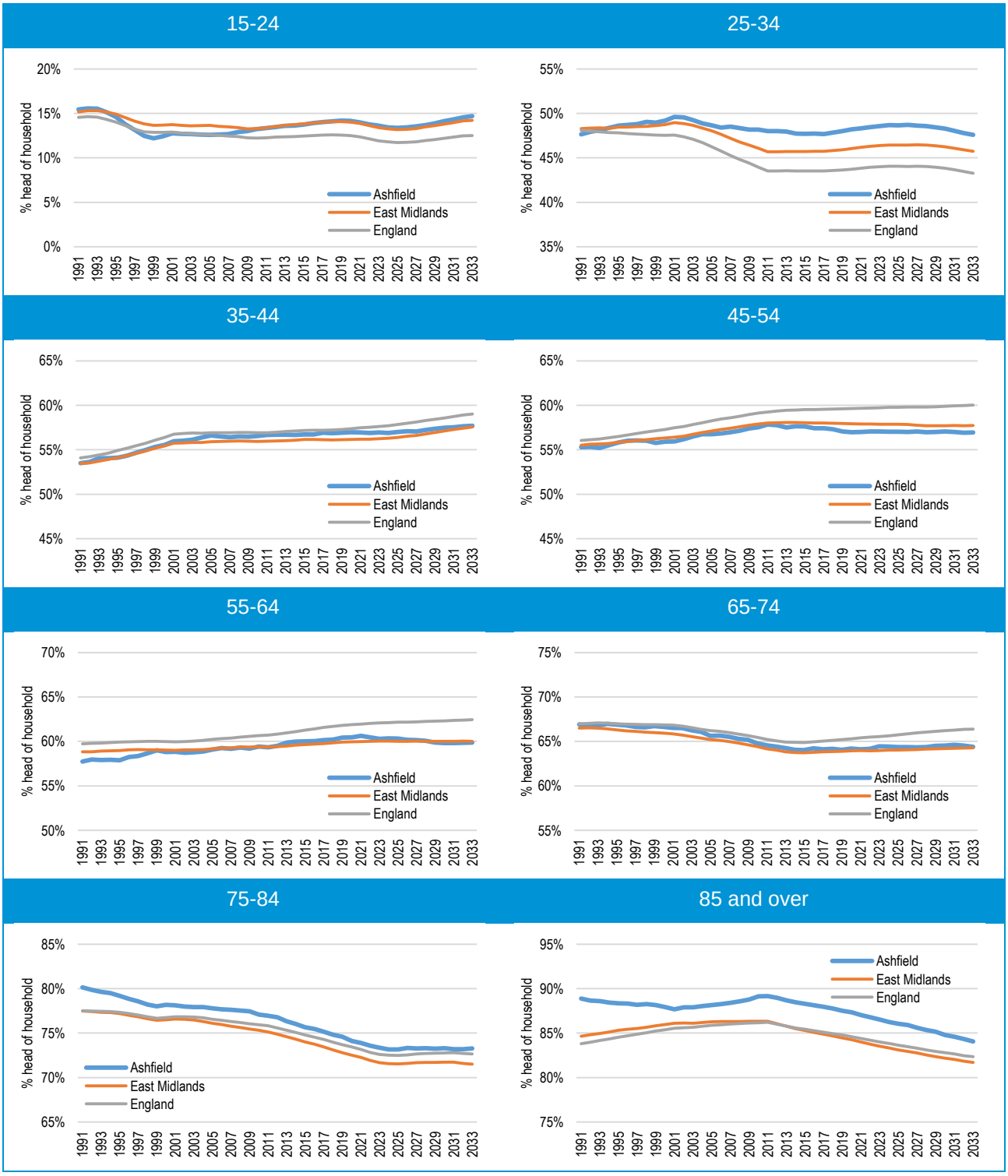
Source: ONS

Table 28: **Population change 2013 to 2033 by fifteen-year age bands (2014-based SNPP) – Newark & Sherwood**

Age group	Population 2013	Population 2033	Change in population	% change from 2013
Under 15	19,667	21,643	1,976	10.0%
15-29	19,558	20,066	508	2.6%
30-44	20,947	21,666	719	3.4%
45-59	25,460	22,182	-3,278	-12.9%
60-74	20,860	26,820	5,960	28.6%
75+	10,325	18,798	8,473	82.1%
Total	116,817	131,176	14,359	12.3%

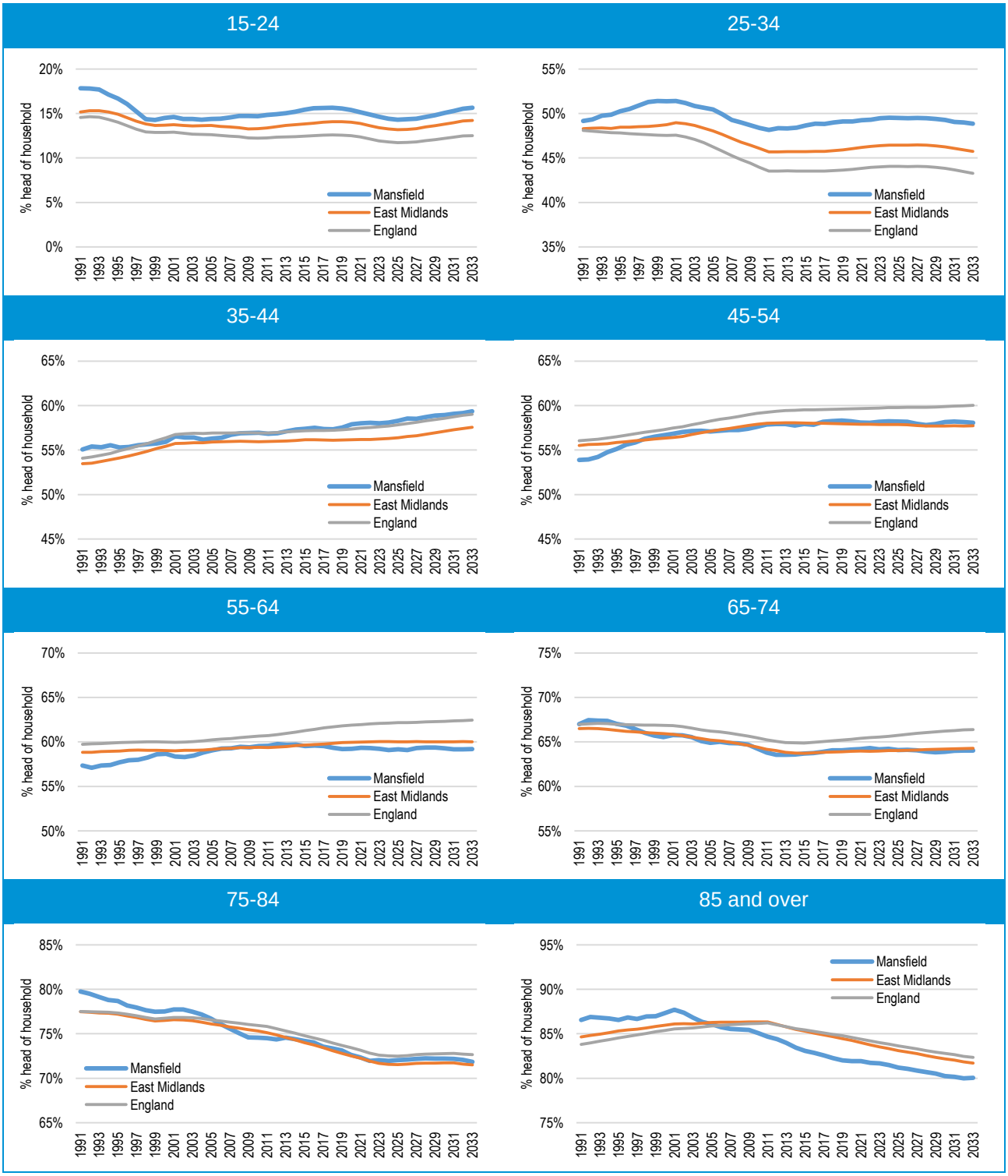
Source: ONS

Figure 12: Projected household formation rates by age of head of household – Ashfield



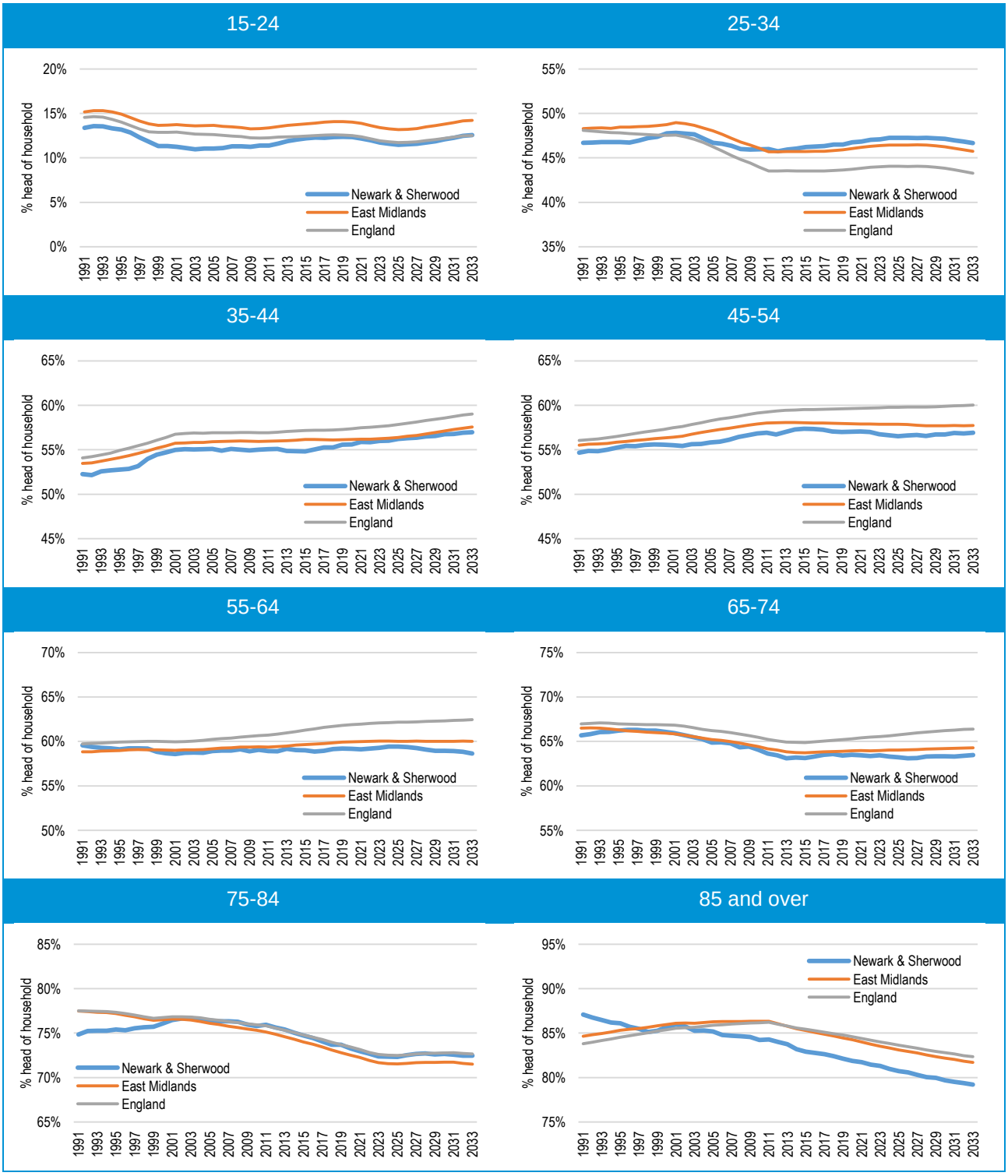
Source: Derived from CLG data

Figure 13: Projected household formation rates by age of head of household – Mansfield



Source: Derived from CLG data

Figure 14: Projected household formation rates by age of head of household – Newark & Sherwood



Source: Derived from CLG data

Table 29: **Changes to Black and Minority Ethnic and White (British/Irish) Population by age (2001-11) – Ashfield**

	Black and Minority Ethnic			White (British/Irish)		
	Population 2001	Population 2011	Change	Population 2001	Population 2011	Change
15-24	220	569	349	12,134	13,840	1,706
25-34	294	1,026	732	15,643	13,188	-2,455
35-44	274	712	438	16,403	16,531	128
45-54	182	441	259	14,639	16,943	2,304
55-64	127	241	114	12,889	14,511	1,622
65-74	88	115	27	9,075	11,462	2,387
75-84	82	56	-26	6,339	6,184	-155
85+	18	28	10	1,876	2,393	517
TOTAL	1,285	3,188	1,903	88,998	95,052	6,054

Source: Census (2001 and 2011)

Table 30: **Changes to Black and Minority Ethnic and White (British/Irish) Population by age (2001-11) – Mansfield**

	Black and Minority Ethnic			White (British/Irish)		
	Population 2001	Population 2011	Change	Population 2001	Population 2011	Change
15-24	312	959	647	11,015	12,095	1,080
25-34	370	1,728	1,358	12,619	11,362	-1,257
35-44	376	974	598	14,524	13,240	-1,284
45-54	283	685	402	12,786	14,804	2,018
55-64	174	361	187	10,760	12,590	1,830
65-74	174	146	-28	8,462	9,507	1,045
75-84	164	122	-42	5,604	5,941	337
85+	23	72	49	1,640	2,158	518
TOTAL	1,876	5,047	3,171	77,410	81,697	4,287

Source: Census (2001 and 2011)

Table 31: **Changes to Black and Minority Ethnic and White (British/Irish) Population by age (2001-11) – Newark & Sherwood**

	Black and Minority Ethnic			White (British/Irish)		
	Population 2001	Population 2011	Change	Population 2001	Population 2011	Change
15-24	318	901	583	10,640	12,164	1,524
25-34	429	1,479	1,050	12,863	10,277	-2,586
35-44	429	951	522	15,357	15,122	-235
45-54	295	716	421	14,772	16,401	1,629
55-64	190	341	151	12,647	15,224	2,577
65-74	123	172	49	9,657	11,801	2,144
75-84	98	79	-19	6,471	7,004	533
85+	10	43	33	2,037	2,686	649
TOTAL	1,892	4,682	2,790	84,444	90,679	6,235

Source: Census (2001 and 2011)