

**Town & Country Planning
Tomorrow Series Paper 17**

**new estimates of housing
requirements in england,
2012 to 2037**

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key headlines

- 1** The Department for Communities and Local Government's (DCLG's) latest, 2012-based household projections suggest that England needs an extra 222,000 homes a year over the period 2011-31. That is 9% fewer than the 244,000 a year suggested by the 2008-based projections – the last full set of projections produced, which reflected conditions before the economic downturn.
- 2** The projections envisage that there will be household groups that will have an increased chance of setting up their own home compared with 2011 – but also groups that will do worse than in 2011. The 'winners' are largely single people in their 30s, 40s and 50s, although they will see their housing conditions improve more slowly than suggested by the 2008-based projections. The 'losers' are younger households – especially couples in their 20s and 30s, who will see their housing conditions deteriorate even further. There will, however, be more 'winners' than 'losers' by a ratio of more than 3:1, so overall household formation rates are projected to increase.
- 3** Why do the 2012-based projections suggest that 22,000 fewer homes are needed than the pre-recession projections of 2008? There are two main reasons:
 - First, 20% of the difference between the 2008-based projections and the latest projections arises because there are expected to be more couples – and so fewer households for a given population. These changes are not likely to be reversed – in part because older men are living longer.
 - Second, there have been much longer-term trends in declining household formation (mostly among younger households), starting in the early 1990s, which were not fully reflected in the 2008 projections. These were perhaps exacerbated by the credit crunch and the recession, but there are more fundamental housing market and other reasons for these trends (such as higher education related debt) that are unlikely to reverse as the economy moves out of recession.
- 4** 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.
- 5** However, household numbers depend not just on the rate of household formation but also on the population base. In using the projections it would also be appropriate to consider adjustments:
 - reflecting the possibility that net international migration may be higher than assumed in the projections;
 - replacing the Office for National Statistics' projections of flows within the UK based on the period 2007-12 with projections based on a trend period that is less affected by the economic downturn; and,
 - for local estimates, taking account of particular local factors that may not have been picked up in the projections.
- 6** The 'if recent trends continue' caveat is important. Comparing the 2012-based projections with the DCLG housebuilding statistics for the four years 2011/12 to 2014/15 suggests that over that period only 54% of the homes identified as required by these projections were built in England as a whole. In London the proportion was only 34%. The failure to build the homes needed to house the projected growth in households means that household formation rates are likely to be lower than envisaged in the projections. To address the shortfall that has occurred since 2011 by 2020, England would need to build an average of 312,000 homes a year over the next five years. This is more than 50% higher than the Government's 'target' of a million new homes, which itself is seen by most commentators as unobtainable.

- 7** The 2012-based projections suggest major differences in population and household growth – and therefore housing requirements – between regions. At the extremes, the number of households in the North East is expected to increase by 11% between 2011 and 2031, while the number of households in London is projected to increase by 33% – three times as much.
- 8** The London figure may be exaggerated because of the way in which the 2012-based population projections estimated flows within the UK and because people have found it difficult to move since the recession. On the other hand, population, including net international migration, has been much higher than expected since 2011.
- 9** Based on the 2012-based projections, 25% of the new homes that England needs between 2011 and 2031 will need to be in London, and 55% in London and the East and South East regions. These numbers are extremely unlikely to be achieved – resulting in additional pressures in neighbouring regions and lower actual household formation rates.
- 10** Most envisaged policy changes – particularly with respect to student debt, welfare and housing benefit – can be expected to put downward pressure on household formation. This would reduce the demand for homes compared with an estimate based on demographic changes. However, it would also mean that housing standards would rise less rapidly and would indeed fall for some household groups.

Introduction

This paper is a sequel to Alan Holmans' Town & Country Planning Tomorrow Series paper *New Estimates of Housing Demand and Need in England, 2011 to 2031*,¹ which was the last of his papers for the TCPA commenting on the Department for Communities and Local Government's (DCLG's) household projections.² Alan sadly died in March this year.

The 2011-based interim projections, which Alan Holmans' last paper analysed, were compiled relatively quickly following the 2011 Census and before all the data necessary for a full update of the previous full set of projections – the 2008-based projections³ – were available. The 2011-based interim figures have now been replaced by DCLG's 2012-based household projections.⁴ This paper reviews these new projections. They are a full, 25-year set covering the period 2012-37. They make fuller use of data from the 2011 Census, although in some important respects they continue to rely on earlier data. However, they are not yet complete: although the Housing Statistical Release on the projections was published at the end of February 2015, at the time of writing an important part of a full set of projections, the Stage 2 results, has yet to be released. They will provide a breakdown of the projections by type of household. Without that breakdown it is not possible to update some elements of Alan Homans' analysis, including his estimate of the need for affordable housing.

Alan Holmans noted in *New Estimates of Housing Demand and Need in England, 2011 to 2031* that the 2011 Census had shown that the number of households in England had risen much less since 2001 than earlier projections had suggested. As he put it, the central question for the future was whether what happened in the period 2001-11 was a structural break from a 40-year trend, or whether household formation was forced downwards by economic and housing market pressures that are likely to ease with time. That remains a key issue. If one takes the latter view, it would be appropriate to make some allowance for a return towards earlier

trends in using the projections. The 2012-based projections provide further insights into this.

Section 2 of this paper compares and contrasts the 2008-, 2011- and 2012-based household projections. It notes that while the 2011- and 2012-based projections suggest similar increases in the number of households in England, the 2012-based projections imply that household formation rates will rise faster than was earlier envisaged. Both, however, assume household formation rates that generally start from lower levels than envisaged in the 2008-based projections and rise less quickly. The differences vary from one age group to another and between couples, single people and those who have previously been married. The changing proportions of couples and those who are either single or have previously been married is a factor in the lower number of additional households projected in the latest figures.

Section 3 presents a regional analysis of the projections. Section 4 considers some uncertainties associated with the projections and discusses whether the changes that occurred between 2001 and 2011 represent a structural break with past trends or are the result of shorter-term pressures that are likely to ease with time. This is highly relevant to the role that the projections play in the preparation of Local Plans under the National Planning Policy Framework.⁵

2

Changing household formation patterns: a structural break or a temporary deviation from past trends?

The 2008-, 2011- and 2012-based projections compared

The 2012-based projections envisage that the number of households in England will rise from 22.1 million in 2011 to 27.5 million in 2037, an increase of 5.4 million households, or 25%. This means that there would be one additional household for every four in 2011. Table 1 compares the headline results from the last

1 A. Holmans: *New Estimates of Housing Demand and Need in England, 2011 to 2031*. Town & Country Planning Tomorrow Series Paper 16. TCPA, Sept. 2013 (also published within *Town & Country Planning*, 2013, Vol. 82, Sept.). http://www.tcpa.org.uk/data/files/HousingDemandNeed_TCPA2013.pdf

2 *Household Interim Projections, 2011 to 2021, England*. Housing Statistical Release. Department for Communities and Local Government, Apr. 2013. <http://www.gov.uk/government/statistics/household-interim-projections-2011-to-2021-in-england>

3 *Household Projections, 2008 to 2033, England*. Housing Statistical Release. Department for Communities and Local Government, Nov. 2010. <http://www.gov.uk/government/statistics/household-projections-2008-to-2033-in-england>

4 *2012-based Household Projections: England, 2012-2037*. Housing Statistical Release. Department for Communities and Local Government, Feb. 2015. <http://www.gov.uk/government/statistics/2012-based-household-projections-in-england-2012-to-2037>

5 *National Planning Policy Framework*. Department for Communities and Local Government, Mar. 2012. http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Table 1
Comparison of recent DCLG household projections, England

	Households			
	2011	2021	2031	Change, 2011-31
	thousands			
2008-based	22,390	24,840	27,120	4,730
2011-based	22,100	24,310	26,330*	4,220
2012-based	22,100	24,290	26,410	4,300

* The 2011-based figure for 2031 is Alan Holmans' extrapolation of DCLG's projections (see A. Holmans: *New Estimates of Housing Demand and Need in England, 2011 to 2031*. Town & Country Planning Tomorrow Series Paper 16. TCPA, Sept. 2013. http://www.tcpa.org.uk/data/files/HousingDemandNeed_TCPA2013.pdf)

Source: Department for Communities and Local Government

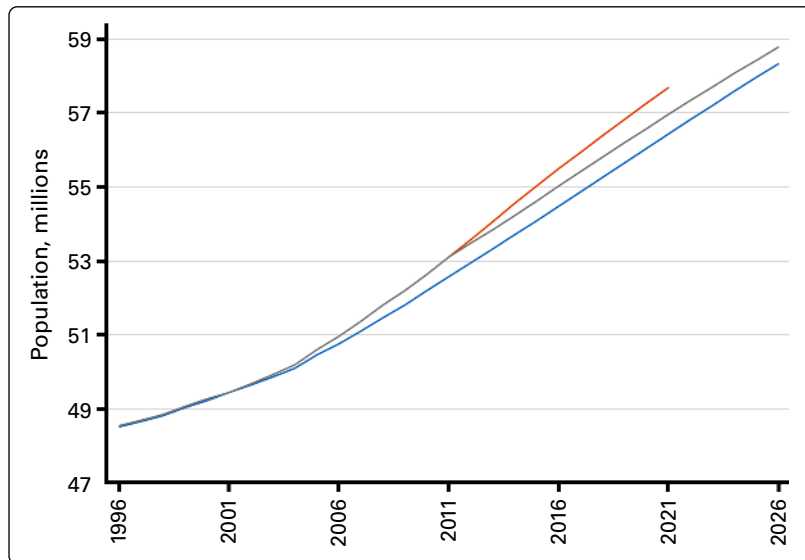


Fig. 1 Comparison of the 2008-, 2011- and 2012-based population projections

— 2008-based
 — 2011-based
 — 2012-based

Source: Office for National Statistics

three DCLG projections. The 2011-based projections suggested that the number of households in England would increase by 2.21 million between 2011 and 2021. The new projections put the increase over the same period at 2.19 million. The difference is less than 1%: for practical purposes, the two projections are suggesting the same increase.

The 2008-based projections envisaged an increase of 2.45 million households between 2011 and 2021. That is 12% higher than the 2012-based projections – a significant difference.

If 3% of the additional homes built are assumed to be empty or used as second homes, the 2008-based projections implied a need for an average of 244,000 additional homes a year between 2011 and 2031. In comparison, the 2011-based projections (as extrapolated by Alan Holmans) suggested a need for 218,000 homes a year and the 2012-based projections a need for 222,000 homes a year over the same period (very similar to the 2011-based analysis).

Household projections of this type are produced by multiplying population projections by a projection of household formation rates. (Household formation rates measure the tendency of people to form separate households. A household formation rate of 1 means that everyone in a population is a head of household (or a 'household representative person'). This implies that 100 people would form 100 households. A household formation rate of 0.5 means that 100 people would form 50 households.)

A broad picture of the differences between the three projections can be gained by comparing the projections they use for the total population and the aggregate household formation rates – the aggregate household formation rate being the number of households divided by the population living in households. Figs 1 and 2 show these comparisons.

In Fig. 1, the lines for the 2011- and 2012-based population projections (in red and grey) are above

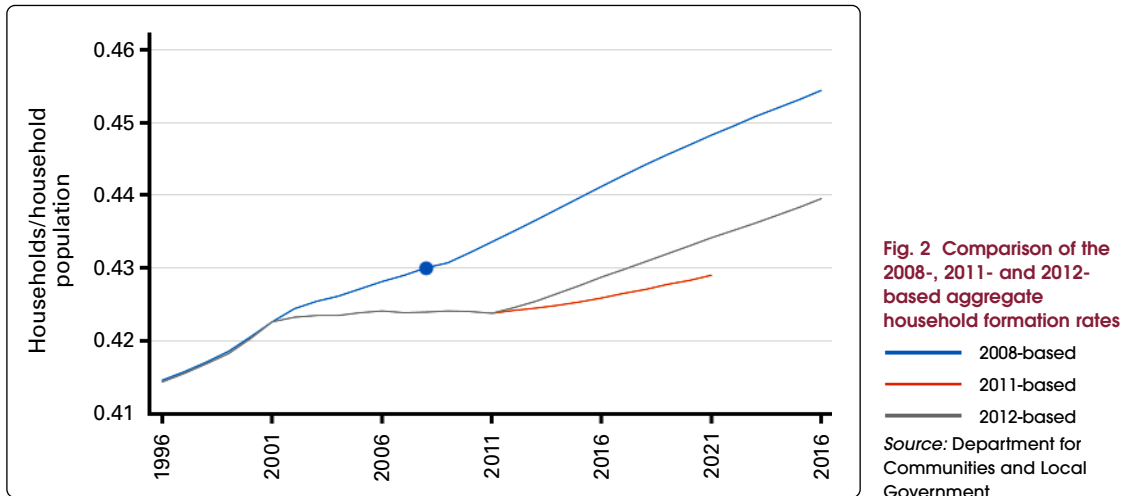


Fig. 2 Comparison of the 2008-, 2011- and 2012-based aggregate household formation rates

— 2008-based
— 2011-based
— 2012-based

Source: Department for Communities and Local Government

the line for the 2008-based projection (in blue) in 2011, reflecting the fact that the 2011 Census found more people than was envisaged in the 2008-based Office for National Statistics (ONS) projection. The 2011-based projection envisages faster population growth than either the 2008- or the 2012-based projections, which have broadly similar population increases.

In Fig. 2 the blue line for the 2008-based projection is above the other two and rises faster. The grey line for the 2012-based projection between 2001 and 2011 reflects the current DCLG view of the actual household formation rates between the two Censuses – that the aggregate rate was virtually flat during this period. The dot on the blue line represents the household formation rate that was assumed as the starting point for the 2008-based projections in 2008 – higher than is now believed to be the actual aggregate household formation rate at that time.

As Fig. 2 indicates, the 2012-based projection envisages that the aggregate household formation rate will grow faster than in the 2011-based projection. The 2012-based projection suggests a similar increase in households to the 2011-based projection only because its faster increase in household formation rates is offset by a slower population increase. The two projections are therefore not as alike as they first appear.

The differences between the population and household formation rate projections that underpin the 2011- and 2012-based projections are the result of a range of factors, including the use of trend data from earlier projections in the 2011-based projections because of a lack of available updates. The 2012-based projections are thus much more strongly grounded in the latest available data.

What follows therefore concentrates on the findings from the 2012-based projections and how these compare with the higher 2008-based projections.

Delving more deeply into the differences between the 2008- and 2012-based projections

While the aggregate household formation rates shown in Fig. 2 are useful in clarifying the broad differences between the 2008- and 2012-based projections, they hide a more complex picture. To understand the changes that have caused the differences between the projections it is necessary to differentiate between different segments of the population. DCLG produces its household projections by dividing the ONS population projections into 75 age, sex and 'relationship status' groups, the relationship groups being 'couples', 'singles' and those 'previously married'. It is not necessary here to look in detail at all 75 groups, but it is helpful in particular to see how the changes that occurred between 2001 and 2011 have affected the number of couples that have formed and the household formation rates of different age groups.

Proportions of the population who are in couples, single or previously married

The reason why DCLG differentiates between couples, single people and those who have previously been married in preparing its household projections is that the proportions of a population in these three groups can significantly affect the number of households that are formed by a given number of people. Single people and those who were previously married generally have a lower tendency to form separate households than is the case for

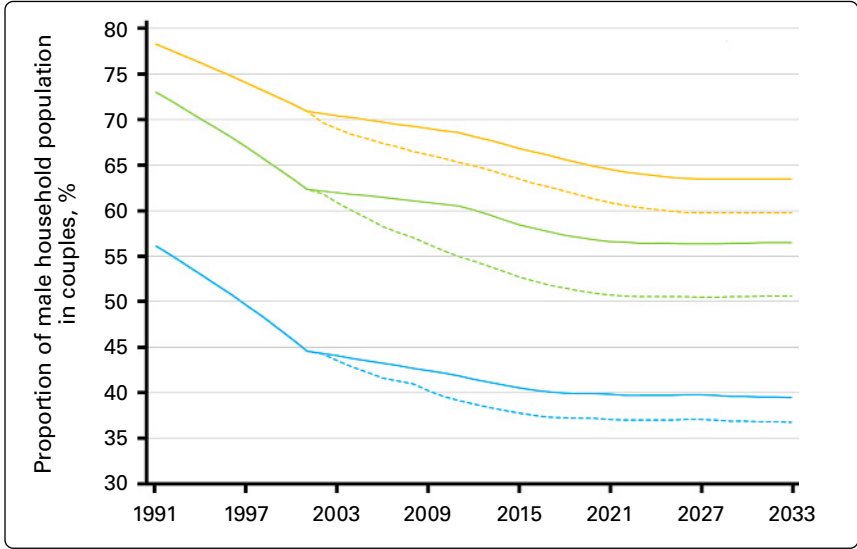


Fig. 3 Proportion of the male household population living in couples, age groups 25-39

- 25-29, 2008-based
- 25-29, 2012-based
- 30-34, 2008-based
- 30-34, 2012-based
- 35-39, 2008-based
- 35-39, 2012-based

Source: Analysis of Department for Communities and Local Government projections

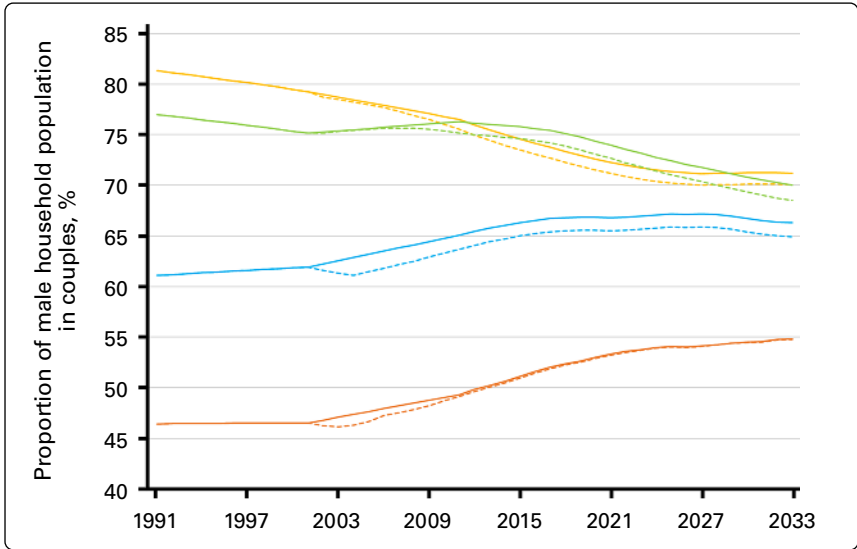


Fig. 4 Proportion of the male household population living in couples, selected over-60 age groups

- 60-64, 2008-based
- 60-64, 2012-based
- 70-74, 2008-based
- 70-74, 2012-based
- 80-84, 2008-based
- 80-84, 2012-based
- 85+, 2008-based
- 85+, 2012-based

Source: Analysis of Department for Communities and Local Government projections

couples:⁶ single people and those who were previously married are more likely to live in someone else's household – perhaps with a parent or in a shared house or flat in which someone else is designated as the household representative person. This means that if you replace 100 people living in 50 couples (50 households) with 100 single people you would normally get significantly fewer than 100 households, and in some cases, particularly among younger people, it is possible that there would be fewer than 50 households formed. Even so, it is generally the case, particularly among older people, that the higher the proportion of a population that is living as couples, the smaller the number of households formed.

Figs 3 and 4 compare the proportion of the population assumed to be in couples in the 2008- and 2012-based projections, the dotted lines indicating the 2008-based projections.

In the age groups shown, the 2012-based projections envisage higher proportions of the population living in couples. Note that, as far as the younger age groups shown in Fig. 3 are concerned, the proportion of the population living in couples has been falling since at least 1991, but the 2012-based projections assume that the proportion will fall less quickly than had been assumed in the 2008-based projections. This means that the latest projections envisage more couples.

⁶ Strictly speaking, the male in a couple generally has a higher household representative rate than males or females of the same age who are either single or previously married. For historical consistency reasons, the male in a couple is defined to be the household representative person (previously the head of the household)

Table 2**Impact of changes to the proportions of the population who are in couples, singles or previously married**

Households	Number of households in 2031	Change from 2008-based projection
	thousands	
2008-based projection re-based with the 2012-based population	27,199	–
As above but with 2012-based relationship shares	27,040	-159
2012-based projection	26,407	-792

Source: Analysis based on Department for Communities and Local Government projections

The contribution that these changes make to the difference between the 2008- and 2012-based projections can be calculated by producing a projection that changes the relationship status splits in the 2008-based projections while leaving the 2008-based household formation rates unchanged.

To make a fair comparison it is first necessary to re-base the 2008-based projections so that they use the (higher) 2012-based population projections. Then the 2012-based relationship shares are applied. Finally, the household formation rates can be replaced with the 2012-based rates to produce the full 2012-based projections. The results are as follows.

As Table 2 shows, inserting the 2012-based relationship shares into the re-based 2008-based projections for 2031 reduces the projected number of households by 159,000. The difference between the (re-based) 2008-based projections and the 2012-based projections for 2031 is 792,000 households – 159,000 is 20% of 792,000; thus 20% of the difference between the two projections is attributable to the different relationship shares assumed. The other 80% is the result of changes in household representative rates (HRRs).

Both projections draw on the ONS's 2008-based marital status population projections.⁷ For the 2012-based figures those projections have been re-based to make them consistent with the 2011 Census. However, they have not been updated, and we understand that the ONS has no plans to do so. This is a potentially significant issue for future projections, given that the assumptions made about relationship shares have such a substantial impact on the household projections.

Changing household formation rates

As Fig. 2 shows, household formation rates in 2011 were, in aggregate, lower than envisaged in the 2008-based projections. The aggregate position, however, conceals a more complex story when different age, sex and relationship groups are examined.

For most groups the 2011 Census found fewer households than would have been expected from the 2008-based projections. Table 3 shows the extent to which the lower household formation rates in 2011 (compared with the 2008-based projections) was responsible for these changes. As can be seen:

- Most of the groups that formed noticeably fewer households were aged under 50. The biggest shortfalls were for couples aged 25-34 and single males aged 20-24. However, all but two of the single male groups aged under 80 formed fewer households than the 2008-based projections would have suggested.
- There were some groups that formed more households than expected. These included all groups aged over 80 and single women over 50. There were more households formed by couples aged over 40 than the 2008-based household formations rate projections would have suggested, but the actual household formation rates for these groups were only slightly higher than envisaged in the 2008-based projections: the number of additional households was only as large as it was because there are large numbers of couples in these age groups.

These statistics imply that in 2011 significantly fewer couples aged under 40 had their own, separate households than would have been the case had the trends envisaged in the 2008-based

⁷ *Marital Status Population Projections, 2008-based*. Statistical Bulletin. Office for National Statistics, Jun. 2010. <http://www.ons.gov.uk/ons/rel/npp/marital-status-population-projections-for-england--wales/2008-based-marital-status-projections/marital-status-projections--2008-based-press-release.pdf>

Table 3

Impact of changes in household representative rates on the number of households in 2011

	Couples	Single males	Single females	Previously married males	Previously married females
15-19	-3,000	-6,700	-4,700	0	-100
20-24	-13,300	-39,000	1,700	-300	-1,400
25-29	-59,300	-7,500	-17,700	-2,000	-7,800
30-34	-45,300	-6,700	-29,700	-4,900	-15,000
35-39	-17,300	-10,400	-7,600	-9,100	-19,800
40-44	7,600	-12,700	300	-14,200	-23,800
45-49	4,000	1,900	-200	-14,100	-21,100
50-54	3,100	-2,300	3,800	600	-1,800
55-59	1,300	-2,800	2,200	-2,100	-5,800
60-64	1,200	1,300	3,500	-2,000	-4,800
65-69	400	-1,600	300	2,600	1,900
70-74	0	-2,100	600	1,200	1,300
75-79	0	-1,200	700	400	-1,100
80-84	100	1,500	2,300	5,600	13,600
85+	0	1,400	700	1,000	1,100



Source: Analysis based on Department for Communities and Local Government projections

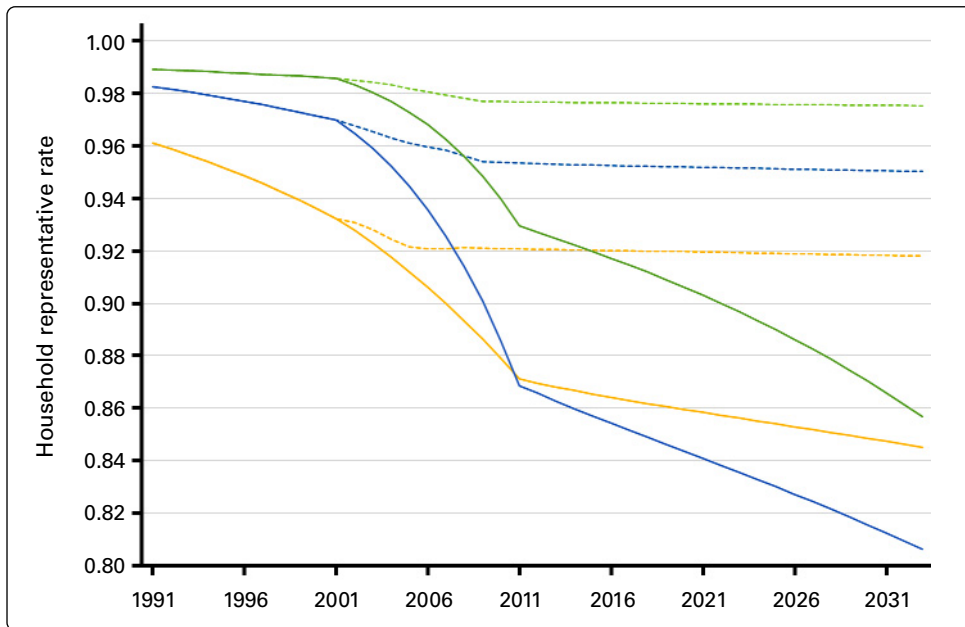


Fig. 5 Comparison of household representative rates for young couples

- - - 20-24, 2008-based
- 20-24, 2012-based
- - - 25-29, 2008-based
- 25-29, 2012-based
- - - 30-34, 2008-based
- 30-34, 2012-based

Source: Department for Communities and Local Government

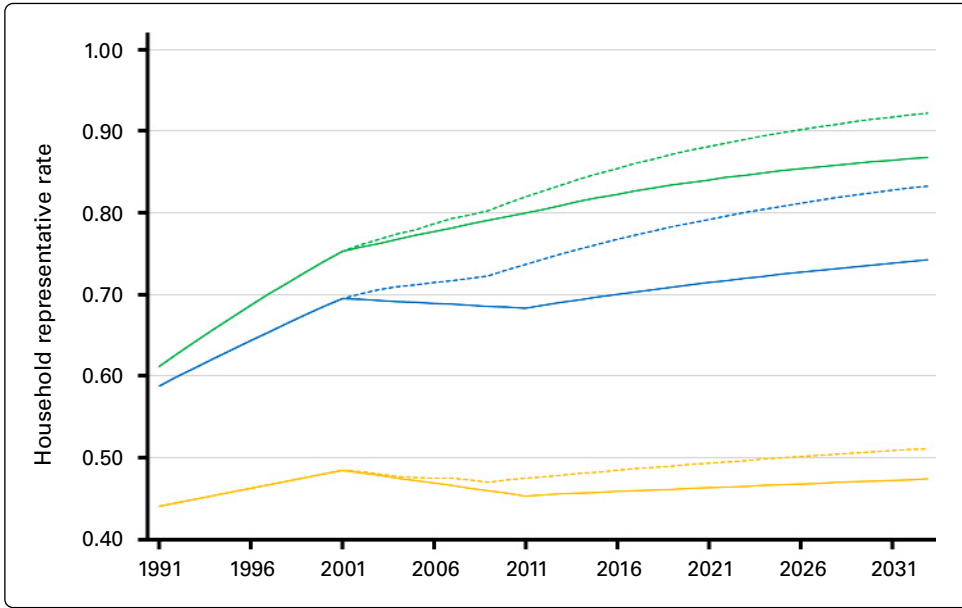


Fig. 6 Comparison of household representative rates for young single females

- 25-29, 2008-based
- 25-29, 2012-based
- 30-34, 2008-based
- 30-34, 2012-based
- 35-39, 2008-based
- 35-39, 2012-based

Source: Department for Communities and Local Government

projections materialised. Also, substantially more single and previously married people aged under 50 were living in someone else’s household rather than living in a home of their own.

A more detailed picture of what has happened and is projected to happen to couples aged 20-34 is shown in Fig. 5.

For these groups household formation rates have been falling since at least 1991. In 1991 very high proportions of couples in these groups formed their own household. For example, in the case of the 20-24 year old couples all but 4% lived separately; by 2011 13% of couples aged 20-24 were living in someone else’s household. Thus the economic crisis at the end of the 1980s, not that of 2008, was the start of the downward trend in household formation among younger people – and the trend was not reversed as the economy improved later in the 1990s and 2000s.

Indeed, rather the opposite occurred – the rate of decline in the HRRs of the 25-29 and 30-34 year old age groups increased markedly between 2001 and 2011 to the point where the household formation rate of the 25-29 year old age group appears to have fallen to the same level as the 20-24 year old age group in 2011. One reason was undoubtedly worsening housing affordability, but labour market

changes, as well as increasing higher education debt, were also likely to have been important.

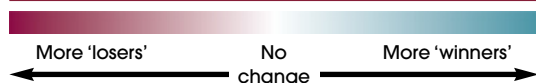
The 2008-based projections envisaged a very slight further fall in household formation rates, but the 2012-based projections envisage much more sizeable declines. There are some anomalies in the estimates (notably that the HRR of 25-29 year old couples is projected to be lower than that for those aged 20-24), but the general picture is clear.

For most other groups the 2012-based projections envisage slower increases in household formation rates rather than continuing falls. Fig. 6 compares the 2008- and 2012-based projections for single females between the ages of 25 and 39. After falls in the HRRs of those aged 25-29 and 30-34 between 2001 and 2011, the projections suggests that household formation rates will resume an upwards trajectory, albeit at a much slower rate than either before 2001 or in the 2008-based projections.

If we regard groups with rising HRRs (i.e. those having an increasing probability of forming separate households) as ‘winners’ and those with falling HRRs as ‘losers’, there are more ‘winners’ than ‘losers’ by 2031 in the 2012-based projections. Compared with a scenario in which household formation rates remain unchanged at their 2011 levels, the 2012-based projections suggest that

Table 4
'Winners' and 'losers' in 2031 compared with a 'no change in 2011 HRRs' scenario

	Couples	Single males	Single females	Previously married males	Previously married females
15-19	-297	748	6,071	76	-21
20-24	-6,135	4,764	18,863	-152	-338
25-29	-39,794	9,909	14,403	-921	-1,182
30-34	-67,739	28,712	29,353	-2,431	-4,412
35-39	-21,347	36,248	29,743	-1,427	-4,814
40-44	113	34,629	33,029	-1,252	-3,723
45-49	194	24,823	32,569	-629	-1,088
50-54	17	9,463	22,591	1,633	3,676
55-59	18	7,574	18,730	1,702	4,303
60-64	16	4,518	13,660	2,097	3,917
65-69	27	1,745	8,251	3,508	9,555
70-74	-50	753	4,761	3,739	8,906
75-79	-283	358	2,066	3,151	8,425
80-84	-14	171	1,142	3,322	10,478
85+	15	283	415	7,470	21,035



Source: Analysis based on Department for Communities and Local Government projections

there would be an additional 340,000 households in 2031. An additional 498,000 households in 'winner' groups compared with the 'no change in HRR' scenario is offset by 158,000 fewer households in the 'loser' groups. The 'winners' therefore outnumber the 'losers' by more than 3:1.

Table 4 shows how this net increase plays out in terms of the numbers of households in each 'winner' and 'loser' group in 2031 in the 2012-based projection compared with the 'no change in 2011 HRRs' scenario. As can be seen, the 2012-based projections suggest increasing household formation rates among singles and falling rates for couples under 40. The group which is most adversely affected is made up of couples aged between 25 and 34. This projected fall in the proportion of younger couples able to set up a household of their own over a 20-year period is perhaps the most worrying aspect of the projections as these are people at the key life stage when families are formed.

Another way of looking at the 2012-based projections is to say that they suggest that, if past trends continue, market forces are likely to allocate more housing to single people, particularly those over 30, at the expense of younger couples.

3 Regional differences

Just as aggregate household formation rates can hide significant differences between age, sex and relationship groups, so national figures can conceal significant regional differences. Fig. 7 and Table 5 break the 2012-based national projections down by region.

The projected increase in the number of households across regions ranges from 11% in the North East to 33% in London – three times higher and, in absolute terms, almost ten times greater. However, the London figure may be exaggerated, as the 2012-based population projections probably underestimated the likely outflows from London to the rest of the UK because ONS uses five-year trend periods to estimate moves between local authority areas within the UK. The trend period used for the 2012-based population projections is 2007-12. That period neatly encompasses the economic downturn, during which net flows out of London to the rest of the UK were substantially lower than during the preceding five-year period. It follows that the net inflows to other regions, particularly the East and the South East, may have been underestimated.

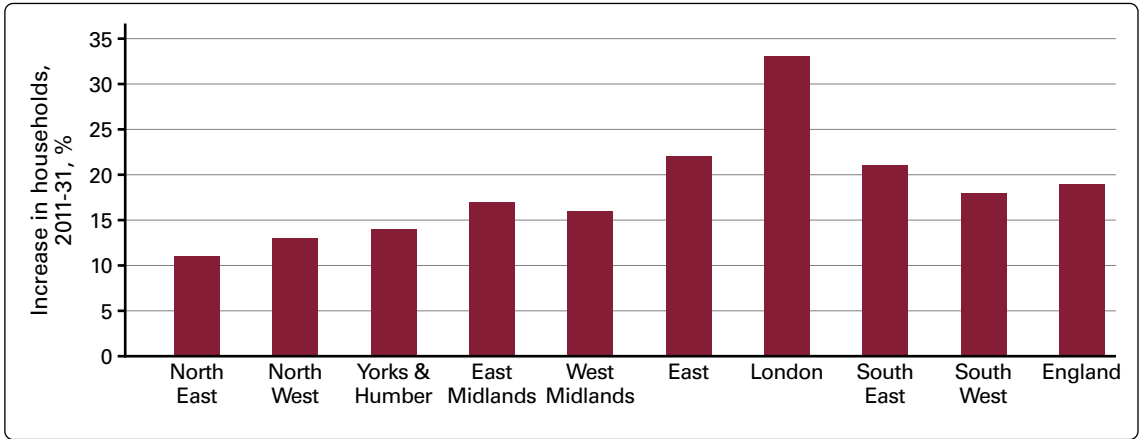


Fig. 7 2012-based projections – projected increase in households, 2011-31, by region

Source: Department for Communities and Local Government 2012-based projections

Table 5
2012-based projections – changes in household numbers, 2011-31, by region

	2011	2031	Change	% change
	thousands			
North East	1,100	1,300	120	11
North West	3,000	3,400	390	13
Yorkshire and Humber	2,200	2,500	320	14
East Midlands	1,900	2,200	320	17
West Midlands	2,300	2,700	370	16
East	2,400	3,000	530	22
London	3,300	4,400	1,090	33
South East	3,600	4,300	750	21
South West	2,300	2,700	410	18
England	22,100	26,400	4,300	19

Source: Analysis of Department for Communities and Local Government projections. Apparent discrepancies due to rounding

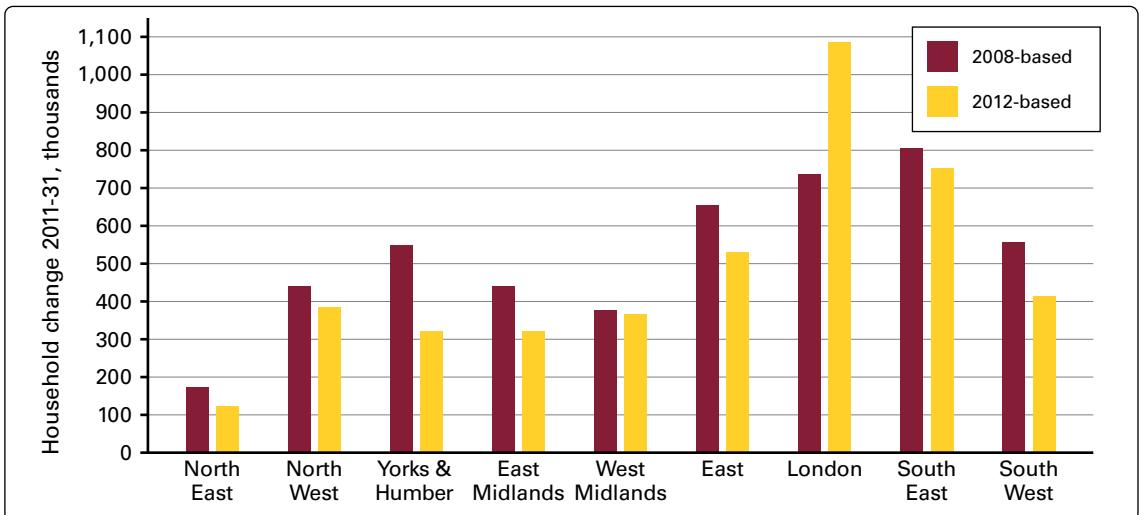


Fig. 8 Comparison of projected household increases, 2008-based and 2012-based projections

Source: Department for Communities and Local Government projections

Fig. 8 compares the 2008-based regional projections with the 2012-based set. In all regions except London the 2012-based projections suggest a smaller increase in households. The changes indicated in Fig. 8 are, of course, affected by the differing sizes of the population in the regions, as well as the presumed over-estimation of the increase in London's population by the 2012-based population projections.

A better picture is provided by looking at the aggregate HRRs for the regions. Figs 9-12 compare the aggregate HRRs for the two northernmost regions with London and the South East. The charts have been drawn to the same scale to facilitate comparison.

The HRRs of the two northernmost regions in 2011 did not depart significantly from the 2008-based projections, while the 2012-based projections envisage slightly lower household formation rates in future. London and the South East are markedly different. In both, the aggregate HRR fell between 2001 and 2011, and in both it is envisaged that the trajectory will have turned sharply upwards after 2011.

It is, however, questionable how realistic these projections are, particularly in London, where the aggregate household formation rate has fallen since 1991, apart from a brief increase during the period 1998-2001.

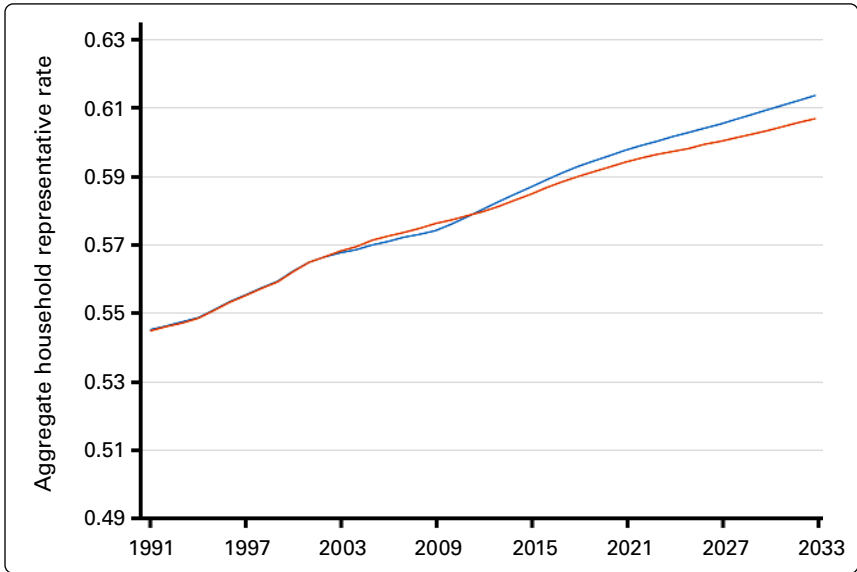


Fig. 9 Comparison of aggregate household representative rates for the North East, 2008-based and 2012-based projections
 — 2008-based
 — 2012-based
 Source: Analysis of Department for Communities and Local Government projections

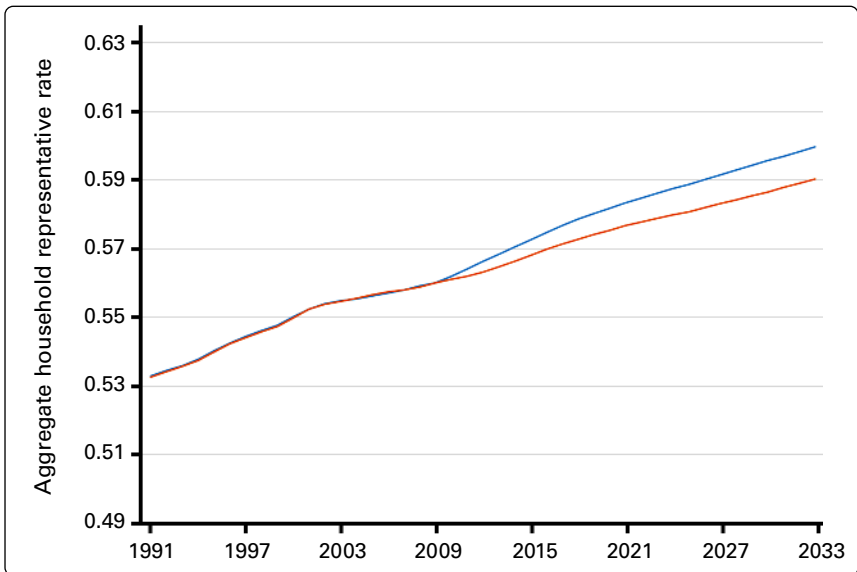


Fig. 10 Comparison of aggregate household representative rates for the North West, 2008-based and 2012-based projections
 — 2008-based
 — 2012-based
 Source: Analysis of Department for Communities and Local Government projections

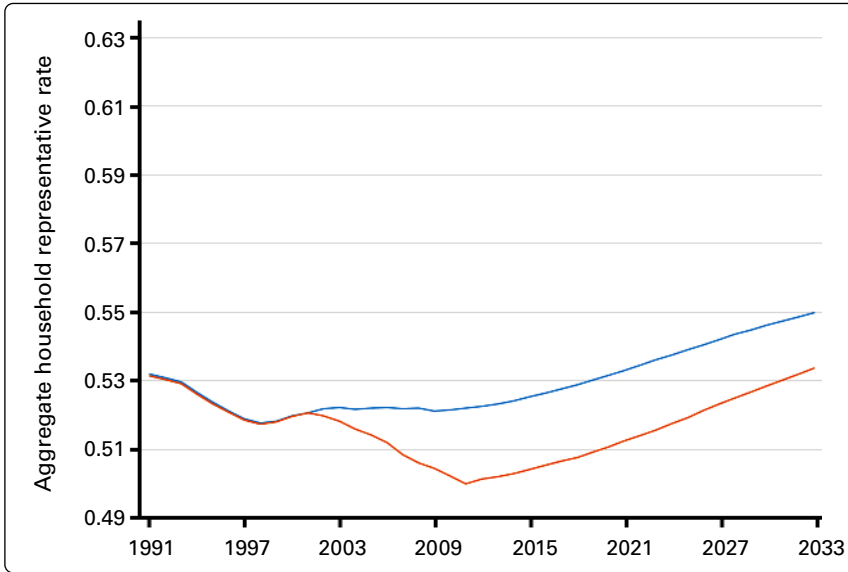


Fig. 11 Comparison of aggregate household representative rates for London, 2008-based and 2012-based projections

— 2008-based
— 2012-based

Source: Analysis of Department for Communities and Local Government projections

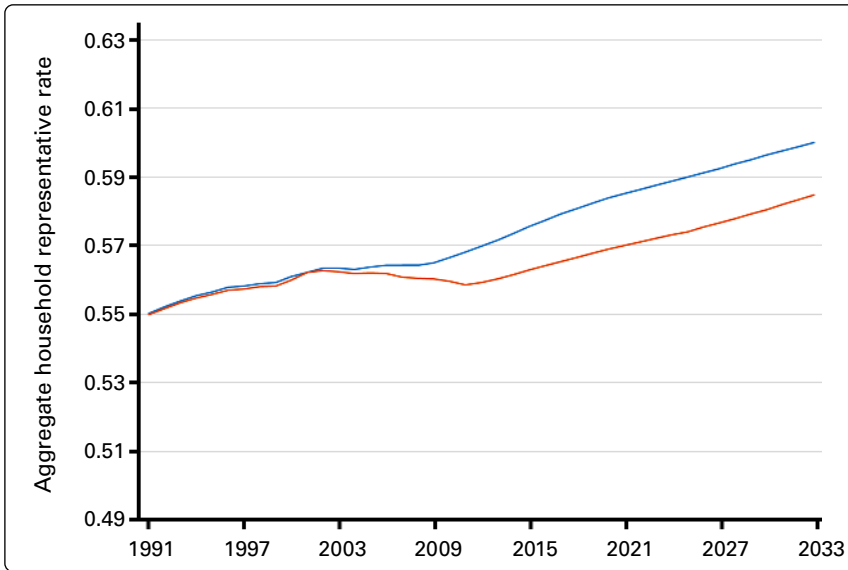


Fig. 12 Comparison of aggregate household representative rates for the South East, 2008-based and 2012-based projections

— 2008-based
— 2012-based

Source: Analysis of Department for Communities and Local Government projections

Table 6 Housing needs, 2011-31

Homes needed per annum, 2011-31	
North East	6,000
North West	20,000
Yorkshire and Humber	17,000
East Midlands	17,000
West Midlands	19,000
East	27,000
London	56,000
South East	39,000
South West	21,000
England	222,000

Source: Analysis based on Department for Communities and Local Government projections

Table 6 converts the 2012-based projected increase in households into a number of homes needed, assuming that 3% of additional properties are empty or used as second homes at any one time. It shows that that 25% of the homes needed are in London, and that 55% are needed in London and the East and South East regions. These proportions are very similar to those estimated in the last set of projections.

These levels are, of course, unlikely to be realised, with knock-on effects not just on the number of households able to form but also on house prices and rents.

4

Using the new projections

This section considers the extent to which the 2012-based projections are likely to reflect actual future household formation patterns.

It is important to remember that all projections are simply extensions of past trends – including trends in incomes and house prices, which impact on household formation. But the past trends used in these projections vary between different variables, sometimes going back decades, while at the other extreme they only take account of five-year trends used for estimating flows within the UK.

It is also important to note that, as DCLG makes clear in its Statistical Release,⁸ the projections do not attempt to predict the impact of future government policies, changing economic circumstances, or other factors that might influence household growth. They show the household numbers that would result if the assumptions based on previous demographic trends were to be realised in practice.

The most important issue for the future is whether what happened between 2001 and 2011 was a structural break from a 40-year trend or whether household formation was forced downwards by macro-economic and housing market pressures that are likely to ease with time, with the implication

that more households will be able to form than is suggested by the projections.

International migration

There has been much interest recently in international migration, and particularly in the latest estimates⁹ which suggest that the net inflow to the UK in the year to March 2015 was 330,000. It is therefore unsurprising that some have queried whether the 2012-based projections underestimate likely household growth, based as they are on an assumed long-term net migration rate to the UK of 165,000 per annum from 2018/19. Fig. 13 compares recent net migration into the UK with the ONS 2012-based national projections. The 2012-based household projections are based on the ONS's principal projection.

While the last two years' high net inflows are not necessarily a reliable indication of the medium-/long-term net flow, the size of the difference from the ONS's principal projection is such that there is a clear case for conducting a sensitivity analysis to explore the implications of higher levels of net migration. However, it should be borne in mind that international migrants tend to be younger than the existing population and so are likely to have lower average household formation rates. Moreover, there is evidence that new migrants have lower household formation rates than existing residents of the same age. Both factors suggest that the impact of larger net inflows than was projected on the number of households that

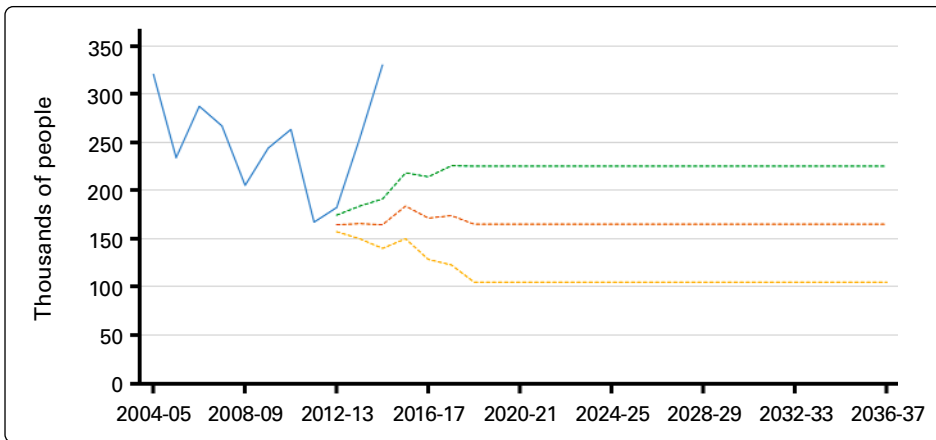


Fig. 13 Net international migration into the UK

— Historic — Principal — High migration — Low migration

Source: 2012 national population projections, Office for National Statistics

8 2012-based Household Projections: England, 2012-2037. Housing Statistical Release. Department for Communities and Local Government, Feb. 2015. <http://www.gov.uk/government/statistics/2012-based-household-projections-in-england-2012-to-2037>

9 See Migration Statistics Quarterly Report, August 2015. Statistical Release. Office for National Statistics, Aug. 2015. <http://www.ons.gov.uk/ons/rel/migration1/migration-statistics-quarterly-report/august-2015/stb-msqr-august-2015.html>

will form (and hence on the number of additional homes needed) would be significantly less than for an equivalent increase in the existing population.

Population flows within the UK

As already noted above, another area of uncertainty in the population projections is the assumptions made about flows within the UK. The ONS's practice of projecting flows within the UK based on average rates for the five years to the projection base date has the advantage of picking up any changes in flow patterns relatively quickly. However, this is at the expense of the projected flow rates being significantly affected by fluctuation in flows such as those that occurred during the recent economic downturn.

This has been taken into account by the Greater London Authority (GLA) in its recent 'Further Alterations to the London Plan'. The Inspector examining those alterations has accepted the GLA's population projections, which envisage a larger net outflow from the London area than suggested by the ONS's 2012-based projections. The net effect is that the updated London Plan assumes that London's population will grow at a slower rate than the ONS suggests.

The tendency to form and dissolve couples

As discussed above, the proportion of the population that lives in couples affects the number of households formed, accounting for some 20% of the difference between the 2008- and 2012-based projections. This shows that the household projections are sensitive to the assumptions made about how many people live as couples or are single or previously married. It is therefore of concern that the ONS has no plans to update what are already fairly dated marital status projections.

Are the changes in household formation rates a temporary deviation from past trends or an indication of a new long-term trend?

There is no doubt that between 2001 and 2011 there was a departure from the previous experience – and that departure has been larger in London and the wider South East than in other parts of the country. What is less clear is what has caused the changes. In an article in *Town & Country Planning* in December 2014¹⁰ Professor Simpson argues that the 'causes of reduced household formation are varied, began before the recession, and mostly are

likely to continue with or without recession.' He refers to:

- 'a sustained increase among young people not leaving home' which began at the turn of the century and accelerated after 2008;
- 'the introduction of student fees from 1998';
- 'the increase in precarious employment, including the rapid growth of part-time work';
- the 'long-term increase in the number of childless women, ... which increased the number of smaller households, [and which] stopped and has fallen since 2000'; and
- the 'increasingly older formation of couples or families, which had increased the number of single-person households in the 1980s and 1990s, [and] has levelled out since 2001'.

Professor Simpson concludes that, while it is possible that some of these factors may be reversed, the first three, 'appear at the moment as fixed circumstances of the policy and economic environment'.

It might be added that:

- The falling household formation rates of couples (see above) have been observed since at least 1991.
- The differences in household numbers arising from more people living in couples than envisaged in the 2008-based projections are unlikely to reverse. Had the Census found fewer couples than projected, it might have been reasonable to query whether economic conditions had delayed couple formation, but, as the reverse is the case, it seems unlikely that economic factors are a major driver of this change.
- The 2012-based projections envisage reasonably sharp changes in the trajectories of the household formation rates for some groups and areas (see Fig. 11, which shows the aggregate HHR for London rising reasonably quickly after 2011, notwithstanding that it has fallen fairly steadily since at least 1991; Fig. 5 suggests that the trajectories of the HRRs of younger couples will change direction fairly abruptly after 2011). It is questionable how plausible these changes are, which may suggest that household numbers will turn out to be lower than projected.
- There are a number of factors (such as increasing levels of student debt and welfare reform) affecting the capacity of younger households to form separate households. These have not been fully reflected in the 2011 Census or the 2012-based household projections and are likely to serve to reduce household formation rates further.

10 L. Simpson: 'Whither household projections?'. *Town & Country Planning*, 2014, Vol. 83, Dec., 541-4

Table 7
Homes built and needed, by region

	Built 2011-15 per year	Needed 2011-15 per year	Percentage of homes needed that were built	Needed per year 2015-20 to catch up on the backlog
North East	5,000	6,000	85	8,000
North West	11,000	20,000	53	29,000
Yorkshire and Humber	9,000	16,000	57	23,000
East Midlands	11,000	16,000	65	22,000
West Midlands	10,000	18,000	53	27,000
East	15,000	26,000	57	38,000
London	19,000	55,000	34	87,000
South East	20,000	37,000	56	53,000
South West	16,000	21,000	77	26,000
England	116,000	216,000	54	312,000

Source: Analysis based on Department for Communities and Local Government's 2012-based projections and DCLG Live Table 253 'Housebuilding: permanent dwellings started and completed, by tenure and district, 2014-15'. Apparent discrepancies due to rounding

Professor Simpson's conclusion is that 'we are not in a position to expect further increases in household formation rates of the same kind [as suggested in the 2008-based projections]. ... The future in the UK is likely to be a continuation of precarious household formation. It will probably be lower than once projected and carry more uncertainty...'

We would endorse that conclusion, which implies that the 2008-based projections were too high. We would suggest that the 2012-based household formation *rate* projections form a reasonable basis for purposes such as planning for housing. 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.

However, household *numbers* depend not just on the rate of household formation but also on the population base. When using the projections it is therefore important to monitor that population and in particular to take account of:

- the possibility that net international migration may be higher than assumed;
- improved estimates of population flows within the UK based on a trend period that is less affected by the economic downturn; and
- at the local level, local factors which may not be effectively picked up in the ONS projections.

It should also be noted that the projections assume that future housing supply constraints match past trends. The implied dwelling requirement is an

indication of the number of homes that are needed to allow future households to form. If that number of homes is not built, the projected number of households will not be able to form, and house prices and rents will rise to ration what is available.

We have no reliable basis on which to forecast either the number of homes that will be built or what will happen to the affordability of homes. However, what might be termed the 'practical arithmetic of household formation and the housing market' is relevant here:

- The 2012-based household projections suggest that there will be nearly 2 million more households in 2020 than there were in 2011. If that proves to be the case, there will need to be more than 2 million additional homes for them to live in (allowing for vacant and second homes).
- As only 460,000 homes were built over the period 2011/12-2014/15, that leaves 1.56 million homes to be built over the five years to 2020 if we are to catch up with the number of homes indicated by the projections. That implies an average of 312,000 homes a year over the next five years.
- The implausibility of this becomes clearer if it is considered where those homes are needed. Table 7 sets out, region by region, the number of homes built per year and the numbers needed over the period 2011-15, as well as the numbers needed over the next five years to catch up with the number of homes indicated by the projections by 2020.
- Table 7 shows that, while the North East built 85% of the homes it needed over the period

2011-15, London only managed a third of its requirement.¹¹ London needs to more than quadruple the number of homes it has built over the last four years. All but two regions need to more than double their output.

- In view of these figures, it seems highly unlikely that sufficient homes will be built to enable the household formation rates envisaged in the 2012-based projections to be achieved within the next five years. For some groups at least, actual household formation rates are likely to be lower than the projections imply. Past trends would suggest that younger couples, single people and those previously married are likely to be most affected. Equally, basic economics would suggest that affordability of housing relative to earnings is likely to deteriorate, especially in London over the next few years.

Overall, therefore, the household formation rates in the 2012-based projections use the latest evidence. The practical reality is that the number of homes built is almost certain to result in fewer separate households than projected in the 2012-based estimates, as well as higher rents and prices – in other words, a continuation of past actualities which have resulted in worsening affordability and lower headship rates for younger households.

5 Conclusions

The 2012-based projections suggest that the number of households in England will increase from 22.1 million in 2011 to 27.5 million in 2037 – an increase of 5.4 million, or 25%. This implies that in 2037 we will need one additional home for every four that were in existence in 2011.

The 2012-based projections imply that over the period 2011-31 England will need to build an average of 222,000 additional homes a year. This is broadly the same number as suggested by the 2011-based projections, but 9% fewer than the 244,000 a year suggested by the 2008-based projections. These calculations assume that at any one time 3% of additional homes are empty or used as second homes.

The 2012-based projections suggest that more people will be living in couples than was assumed in the 2008-based projections. This is responsible for 20% of the difference between the two projections.

The remaining 80% of the difference between the two projections comes from differences in the household formation rate projections. The 2011 Census suggested that most groups aged under 50 had lower household formation rates in 2011 than was suggested by the 2008-based projections. The lower household formation rates for couples aged between 25 and 34 and single men aged between 20 and 24 had the biggest impact on the number of households in 2011 but affected almost all younger households to some degree.

The differences for couples aged under 35 are perhaps of greatest concern. For these groups household formation rates have been falling since 1991, implying that more and more couples have been living in someone else's household. Moreover, the 2012-based projections suggest that the household formation rates of these groups will continue to fall, although at a slower rate than between 2001 and 2011 – a big problem for people at a key life stage. For most other groups the new projections suggest some increase in household formation, but at a slower rate than envisaged in the 2008-based projections.

It would be wrong to suggest that the picture painted by the 2012-based projections is of itself a

¹¹ These figures come from DCLG Live Table 253: 'Housebuilding: permanent dwellings started and completed, by tenure and district, 2014-15' (<https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>), which gives figures for homes completed in the years in question. It does not, however, include conversions or net empty homes brought back into use. It is not known whether these factors are significant in the years in question

negative one. There are more groups that benefit from increasing household formation rates than groups that are expected to see their household formation rates fall. Compared with a scenario in which there was no change in household formation rates from their 2011 level, the additional households formed by groups with rising household formation rates outweigh the loss of households in groups with falling rates by a ratio of more than 3:1. So, overall, household formation rates are projected to increase, although older households secure a disproportionate share of the additional housing at the expense of younger households, some of whom will see their chances of setting up a separate household fall throughout the next quarter of a century.

The 2012-based projections suggest enormous differences in household formation and additional housing requirements across regions. At one extreme the number of households in the North East is expected to increase by 11% between 2011 and 2031, while the number of households in London increases by 33% – three times as much. Based on the 2012-based projections, 25% of the new homes required between 2011 and 2031 would need to be in London and 55% in London and the East and South East regions.

The projections tell us what would happen if the trends on which they are based were to materialise in practice. However, some elements, especially relating to international and internal migration, are already seen as uncertain. Higher international migration would increase population and therefore household formation. Likely changes in internal migration would be expected to lead to more pressure in the South outside London as more Londoners move out.

There are other factors, particularly with respect to policy change, that are likely to put mainly downward pressure on household formation rates, particularly among younger people. Even so, the 2012-based household formation rate projections form a reasonable basis for purposes such as planning for housing.

Finally, comparing the 2012-based projections with the DCLG housebuilding statistics for the four years 2011-12 to 2014-15 suggests that over that period only just over 50% of the homes needed in England as a whole were built. In London the proportion was a third. The failure to build the homes required to house the additional households which the projections envisage will result in household formation rates that will be lower than in the projections.

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